



Opportunities for the Swedish Economy

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Foreword

As the European Union prepares for a new wave of enlargement, the expansion of the Single Market will shape Europe's economic and geopolitical landscape. The Confederation of Swedish Enterprise aims to contribute actively to a successful enlargement process by introducing a strong business perspective into the enlargement discussions.

For Swedish companies, enlargement is a question of strategic positioning in a rapidly changing world. Extending the benefits of the Single Market—free movement of goods, services, capital, and people—to new member states, will create new opportunities and risks in market dynamics, supply chains and investment decisions.

Businesses across current Member States and candidate countries must be able to actively engage with one another in a well-functioning, enlarged Single Market. We have launched a project to identify and advocate business-friendly reforms, policies and actions to consider during the accession process. The project also aims to support the interests of Swedish businesses so that they are well-prepared to fully harness the opportunities in an enlarged Europe.

This report forms part of the broader project building an evidence base on how EU enlargement may impact the competitiveness of Swedish and European businesses. It explores the broader economic and sectoral impacts of EU enlargement. It highlights the importance of cross-border partnerships with candidate countries and integrated value chains to maximize the positive impacts of enlargement on innovation, productivity, and growth.

I would like to thank Eva Rytter Sunessen, Partner at Implement Consulting Group and Professor Joseph Francois who have prepared the analysis based on modelled simulations of an enlargement scenario involving Ukraine, Albania, Bosnia & Herzegovina, Georgia, Moldova, Montenegro, North Macedonia, and Serbia. The report is prepared under the responsibility of the project lead, Asees Ahuja, with expert inputs by Henrik Isakson and Alexandra Leonhard at the Confederation of Swedish Enterprise.

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Executive Summary

The EU's Single Market is a pivotal force in European economic integration, enabling the free movement of goods, services, capital, and people. By removing trade barriers and aligning regulations, it has bolstered trade, competitiveness, economic growth, and resilience. The Single Market therefore provides an important framework for integrating new members as these benefits are extended to additional economies.

The study applies advanced economic models to simulate how tariff elimination and regulatory harmonisation between the EU and the candidate countries (Albania, Bosnia & Herzegovina, Georgia, Moldova, Montenegro, North Macedonia, Serbia, and Ukraine) may impact trade, growth, production, and labour flows. The results are not a forecast, but rather an assessment of the direction and scale of potential impacts of the EU membership (holding all other variables constant).

Candidate economies with large market potential

The candidate countries combined have a GDP of about EUR 355 billion – comparable to Sweden's EUR 535 billion – but a population nearly six times larger. Enlargement would open a substantial new consumer base for EU companies and increase their competitiveness through lower import prices, higher real incomes, and access to lower-cost labour in the candidate countries.

Stronger trade ties can improve resilience and competitiveness

Direct trade flows between candidate countries, the EU and Sweden, will increase in the event of an enlargement, albeit from a low level. For Sweden, bilateral exports are expected to nearly double in goods and services. Swedish goods imports will more than double, but this may be an underestimation due to the 'Rotterdam Effect', where imports from the candidate countries declared in customs in another EU country are not recorded as Swedish imports. The underestimation in the import data means the baseline is underestimated and the potential growth in import of goods might be larger than the model suggests.

Since existing tariffs on goods are already low, gains stem mainly from reducing non-tariff barriers (NTB) through regulatory harmonisation. Increases in services trade remain below potential due to existing barriers to services trade prevalent within the Single Market today.

Some of the increase in total trade with candidate countries will replace trade with other EU and non-EU countries. Trade with China will experience the largest reduction. This indicates that the enlargement opens new opportunities for EU and Swedish businesses for nearshoring and supply chain optimisation. In this sense, it also contributes to the EUs policy objectives of improving resilience and competitiveness.

EU enlargement positively impacts growth

The trade induced effects of enlargement on GDP growth are positive. A marginal increase in GDP of 0.3 % reflects a permanent contribution to the EU's economy. Sweden's GDP increases by 0.1 %. As there are several factors that are not caught by the model, real gains can be expected to be higher.

Notably, the largest benefits in terms of GDP growth occurs in the candidate countries themselves, whose development will take off from a much lower level. GDP increases by 14 % for Ukraine and 17 % on average for the other candidate countries. With these growth rates we can expect the economies of the candidate countries to gradually converge towards that of older EU member countries.

Investment, production, and labour market gains

Current investment relations with candidate countries are asymmetrical as they predominantly consist of EU and Swedish outbound investments to the candidate countries. Economic growth and convergence in candidate countries can slowly pave the way for increased outward investments from the candidate countries to the EU, as they penetrate European markets and tap into innovation ecosystems and industrial hubs.

Increased trade integration with the candidate countries may in some cases lead to heightened competition, putting pressure on Swedish firms to innovate and adapt rapidly. Lower production will pose transitory costs on affected Swedish workers (e.g. temporary unemployment, retraining, and education), but opportunities to outsource parts of their production to the candidate countries may also make Swedish businesses more profitable and competitive.

Productive resources shift to more competitive sectors

Overall, lower trade barriers and regulatory harmonisation will enhance profitability, employment, and production capabilities in key Swedish sectors, though gains may be unevenly distributed. Sweden's goods trade with the candidate countries is expected to increase in the event of an enlargement in almost all sectors. No reductions are observed in Swedish exports to Ukraine or to the Other Candidates and only minor reductions in imports in certain sectors are expected.

EU enlargement is expected to boost Swedish goods exports in chemicals, electronics, paper products, food, beverages, and forestry, with knock-on benefits for trade-related services like business, land, and air transport. Some industrial sectors facing global competition (such as iron and steel, motor vehicles, and metal products) may experience short-term production pressures, prompting firms to innovate and adapt.

Several actions can help mitigate risks and maximise the benefits of deeper trade integration with the candidate countries:

- The EU should focus on deep market integration, regulatory convergence, and
 investment in connectivity and innovation ecosystems in the accession process to
 maximise economic engagement.
- Regulatory barriers to services trade within the Single Market need to be reduced to make this sector more competitive and to fully realise the benefits of enlargement.
- More free trade agreements (FTA) between the EU and non-EU countries will broaden access to global markets and mitigate risks in key industrial sectors, enhancing overall trade resilience.
- Facilitate trade and outsourcing to the candidate countries to offset production declines and strengthen EU competitiveness. Trade and investment facilitation can help businesses explore and enter the new candidate country markets.
- Enhance EU-wide market and supply chain integration through regulatory convergence and improved connectivity.
- Innovation amongst Swedish firms should be stimulated to improve competitiveness in an enlarged Union, including encouraging innovation partnerships, improving conditions for digital transformation, and adopting advanced technologies.
- Advanced training and education should be put in place to improve workforce adaptability during sectorial shifts and ease sector-specific transitions, which meet market demands.

Introduction to the study

The potential accession of new EU members offers both opportunities and challenges for Swedish businesses, necessitating a detailed examination of these dynamics. This introduction summarises some of the key features of the modelling that the reader should keep in mind throughout the report. A technical description of the applied models can be found in Appendix A.

Understanding the enlargement scenario

The analysis includes an enlargement scenario where Ukraine and a group of other candidate countries (Albania, Serbia, Bosnia and Herzegovina, Montenegro, North Macedonia, Georgia, and Moldova, henceforth called Other Candidates) join the EU. The enlargement scenario does not include candidate countries where negotiations have been indefinitely suspended (Turkey). The enlargement scenario involves a full elimination of all existing tariffs and a reduction in regulatory trade barriers as described in Appendix B.

Interpreting the modelling results

The economic modelling takes current global trade patterns as the starting point and simulates impacts of reducing tariffs and regulatory trade barriers between the EU and the candidate countries. EU countries that have close trade relations with the candidate countries will, all else equal, benefit more from the enlargement than countries with less engagement.

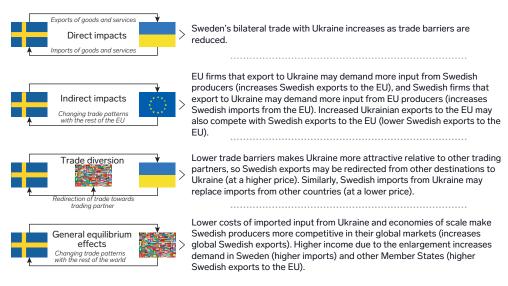
It is important to keep in mind that the results presented in the analysis reflect:

- A ceteris paribus exercise | The economic modelling is designed to isolate trade-induced impacts of the enlargement from everything else that happens in the economy. Impacts are therefore measured relative to a baseline projection of the Swedish economy that accounts for known macroeconomic developments. Any actions to amplify opportunities or mitigate risks related to the enlargement are not accounted for. Similarly, other reforms or unforeseen events (positive or negative) that may change the opportunities and risks related to the enlargement are not accounted for in the model. Thus, the model is not a forecast of what will happen but a simulation of the effects of EU membership in a world where nothing else changes.
- Rotterdam effect | The model only accounts for direct imports of goods into Sweden from candidate countries. When goods are cleared by customs in an

intermediary EU country, they are recorded as imports from that country rather than from the source of origin. This creates a statistical distortion known as the Rotterdam Effect. Hence, indirect imports from for example Ukraine may be recorded as coming from Germany. As a result, the model underestimates Sweden's import of goods from the candidate countries which, in turn, means the baseline is underestimated and the potential growth in import of goods might be larger than the model suggests.

- Long term impacts | The study captures impacts in a fully adjusted Swedish economy, when all the candidates have become full members of the EU. This implies that labour and capital have reallocated according to underlying comparative advantages across sectors and relative to the candidate countries. The transition may require labour market adjustments (as people may retrain, relocate, or enter different sectors) as well as strategic business responses (as companies invest in new technologies, expand facilities, or build infrastructure to exploit new economic conditions, maximising growth and efficiency).
- Existing production patterns | The model only accounts for impacts on intracompany trade for Swedish companies that have already established a presence in one of the candidate countries. Enlargement is likely to also stimulate new cross-border investments, in which case the model will tend to underestimate the trade-induced impacts through new establishments change production patterns.
- Multiple trade mechanisms | The economic modelling considers multiple mechanisms through which the enlargement impacts both Sweden's bilateral trade with the candidate countries (direct impacts), trade with other EU countries (indirect impacts), trade with existing partners (trade diversion), and global trade in general (general equilibrium effects). These mechanisms are explained in more detail in the figure below, using Sweden's trade with Ukraine as an example. The model is then used to simulate the trade-induced impacts on GDP, labour, production / investment, wages, and other economic indicators.

Trade-induced impacts included in the modelling — illustrated by trade with Ukraine.



Following the structure of the report

This report has been organised into five interrelated chapters that draw on various data sources and parts of the economic modelling:

- Chapter 1 | Provides an overview of Sweden's current trade (exports and imports)
 and investments relations with the candidate countries. While both goods and
 services trade are covered by the economic model, trade-induced impacts from
 higher investments due to the enlargement only appear indirectly in the modelling
 (e.g. through intra-company trade).
- Chapter 2 | Analyses sectoral impacts of the enlargement on Sweden's trade with the candidate countries (direct impacts), distinguishing between goods and services trade.
- Chapter 3 | Assesses impacts on total trade and production across sectors (considering multiple trade mechanisms) and implications for businesses and workers engaged in these sectors.
- Chapter 4 | Analyses macroeconomic impacts on GDP, global trade patterns and labour income in Sweden from the enlargement.
- Chapter 5 | Offers a perspective on some of the opportunities and threats for Swedish businesses that the trade-induced impacts of the enlargement should be expected to cause.

1. Sweden's current relations with the candidate countries

This chapter provides an overview of Sweden's current trade and investments relations with the candidate countries. Trade figures include only trade that takes place between Sweden and the candidate countries directly, whereas trade taking place through EU wholesalers or other intermediaries, or is cleared at customs in another country, will be recorded in trade figures for the transit country. Also, the trade figures include intra-company trade and other trade flows related to existing cross-border investments between Sweden and the candidate countries.

1.1 A snapshot of the economic situation in the candidate countries

The enlargement analysed in this report includes eight candidate countries with a combined GDP of EUR 355 billion and a total population of 63 million in 2023. While this aggregate GDP aligns closely with Sweden's GDP of EUR 535 billion, the candidate countries boast a population nearly six times larger than Sweden's. This enlargement promises Swedish businesses access to a substantial consumer base, albeit with comparatively lower purchasing power. All candidate countries currently fall within the World Bank's upper-middle-income classification, and their expected economic growth and convergence towards EU living standards present opportunities for Swedish firms

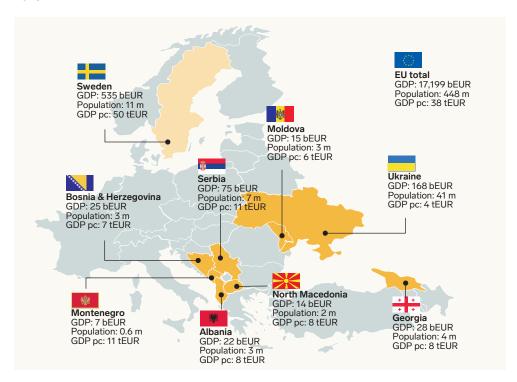


Figure 1. GDP and population size in the modelled candidate countries, Sweden, and the EU, 2023.

Source: Implement Economics based on Eurostat; naida_10_gdp & tsp00001 and The World Bank.

Note: Data are from 2023. 1) Data on Ukraine's population are from 2022 due to missing data. GDP per capita is based on non-rounded values.

The candidate countries vary in size and development levels.¹ Ukraine is the largest among the candidate countries with a GDP of EUR 168 billion and a population of 41 million. The ongoing war introduces significant risks and variability around Ukraine's economic engagement and future developments. Serbia follows as the second-largest economy with a GDP of EUR 75 billion and a population of 7 million. The remaining countries are relatively similar in economic size.

The candidate countries also vary in their economic structure and sector composition. While the industrial sector accounts for the largest share of GDP in Serbia, trade-related services (wholesale and retail trade and transport) and tourist-related industries (accommodation and food services) constitute the largest sector ('top 1') sector in Bosnia & Herzegovina, Montenegro, Albania, and North Macedonia. 'Other services' (such as business services, financial services, and IT and communications) represent the largest sector in Georgia, Moldova, and Ukraine.

¹ For more background information about the candidate countries, see Eurostat Key figures for enlargement countries

⁻ Statistics Explained - Eurostat.

Table 1. Top three sectors as a share of GDP in the candidate countries, Sweden, and the EU, share of GDP in 2024.

	Top 1 sector	Top 2 sector	Top 3 sector
EU total	Industry	Wholesale and retail trade, transport, accommodation and food service activities	Public administration, defence, education, human health and social work activities
Sweden	Public administration, defence, education, human health and social work activities	Industry	Wholesale and retail trade, transport, accommodation and food service activities
Serbia	Industry	Wholesale and retail trade, transport, accommodation and food service activities	Manufacturing
Bosnia & Herzegovina	Wholesale and retail trade, transport, accommodation and food service activities	Industry	Public administration, defence, education, human health and social work activities
Montenegro	Wholesale and retail trade, transport, accommodation and food service activities	Public administration, defence, education, human health and social work activities	Industry
Albania	Wholesale and retail trade, transport, accommodation and food service activities	Agriculture, forestry and fishing	Construction
North Macedonia	Wholesale and retail trade, transport, accommodation and food service activities	Industry	Manufacturing
Georgia	Services	Industry	Construction
Moldova	Services	Industry	Agriculture, forestry and fishing
Ukraine	Services	Industry	Agriculture, forestry and fishing

Source: Implement Economics based on Eurostat; nama_10_a10 & enpe_nama_10_a10.

Note: Data refer to 2024, for except Moldova, Georgia, and Ukraine where data are from 2023. Sectors are ranked by gross value added as a percentage of GDP.

1.2 Sweden's current exports to the candidate countries

Today, Sweden's total exports to the candidate countries amount to EUR 1.5 billion, with Ukraine representing EUR 0.8 billion and Other Candidates collectively accounting for EUR 0.7 billion. Trade with the candidate countries accounts for just 0.7 % of Sweden's total exports worldwide, and these countries currently constitute a relatively small market for Swedish exporters.

Nevertheless, Swedish exports to the candidate countries have increased over the past decade (by 136 % for Ukraine and 83 % for Other Candidates), indicating that Swedish companies are expanding business relations and improving their competitiveness in the candidate countries. In comparison, total Swedish exports to the rest of the world have increased by 54 % over the same period, indicating that the candidate countries are gaining traction in the Swedish market. If this

development continues, the enlargement will be more beneficial than the estimates reported in this study.

The Russian invasion of Ukraine shows clearly in the 2022 trade statistics, but trade rebounded quickly. Also, Swedish exports to the candidate countries were stable up until 2018, where enhanced economic growth and stability in the candidate countries increased demand for imports and made the region more attractive for nearshoring production.

It should be kept in mind that these trade flows include only exports directly from Sweden to the candidate countries, whereas exports through EU wholesalers or other intermediaries will be recorded in trade figures for the transit country (imports from Sweden and exports to the candidate countries).

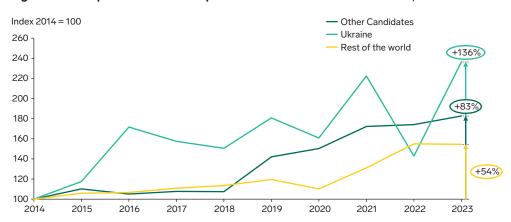


Figure 2. Development in Swedish exports to Ukraine and Other Candidates, 2014-2023.

Source: Implement Economics based on Eurostat; bop_its6_det & ds-059341.

Note: Growth rates reflect the total increase in exports from 2014 to 2023.

Sweden's goods exports to the candidate countries totalled EUR 1.2 billion in 2023, accounting for 0.7 % of Sweden's total goods exports and 0.5 % of Sweden's total exports. Ukraine emerges as a key market, receiving a substantial share of Swedish goods exports (56 % of exports to the candidate countries). Sweden's goods exports to the candidate countries are led by 'Motor vehicles and parts', potentially driven by outsourcing and optimisation of global value chains in this highly competitive sector. Significant exports also occur in 'Chemicals' and 'Petroleum, coal products', most being exported to Ukraine. Sweden also has significant exports of 'Machinery and equipment' and 'Paper products and publishing' to both Ukraine and Other Candidates.

EUR Mio. 250 Other Candidates Ukraine 200 150 100 50 **Textiles** Wearing apparel Mining Processed foods Electrical equipment Metal products Leather products Motor vehicles and parts Chemicals Petroleum and coal products Machinery and equipment Paper products and publishing Iron and steel Pharma Computers, electronics and optics Rubber and plastic products Wood products Beverages and tobacco products Non-ferrous metals Agriculture Mineral products nec. Forestry Manufactures nec. Transport equipment nec.

Figure 3. Swedish goods exports to Ukraine and Other Candidates, 2023.

Source: Implement Economics in cooperation with Professor Joseph Francois, based on 2023 UN COMTRADE Eurostat (2023 data).

Service exports are less significant, totalling EUR 0.3 billion in 2023 and representing 0.5% of Sweden's overall service exports. 'IT and communications' stand out as the primary area of engagement followed by 'Business services' and 'Food and accommodation' (tourism). Unlike goods exports, services exports are more evenly distributed between Ukraine and Other Candidates.

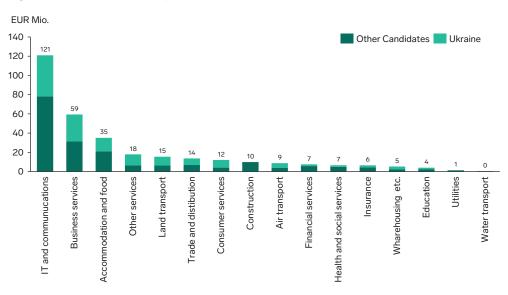


Figure 4. Swedish services exports to Ukraine and Other Candidates, 2023.

Source: Implement Economics in cooperation with Professor Joseph Francois, based on UN COMTRADE Eurostat (2023 data). Note: Trade in services are projected due to lack of official data for 2023.

1.3 Sweden's current imports from the candidate countries

With the caveat of the Rotterdam effect underreporting imports of goods from the candidate countries, Sweden runs a positive direct trade balance with the candidate countries, and total imports from the candidate countries amount to EUR 0.88 billion (smaller than exports of EUR 1.46 billion).

Imports from Other Candidates collectively account for EUR 0.73 billion, and imports from Ukraine amount to EUR 0.15 billion. These imports represent only 0.4 % of Sweden's total imports globally, signifying that these countries currently serve as a relatively small source of direct imports for Sweden. Again, Sweden's trade relations with the candidate countries have deepened over the past decade, with imports showing high growth rates that far exceed growth in imports from all other countries.

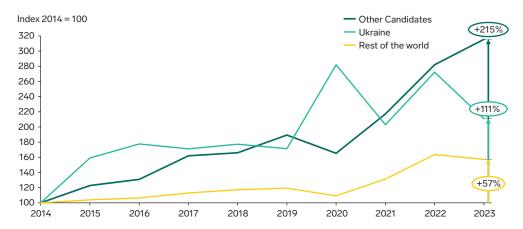


Figure 5. Development in Swedish imports from Other Candidates and Ukraine, 2014-2023.

Source: Implement Economics based on Eurostat; bop_its6_det & ds-059341.

Note: Growth rates reflect the total increase in imports from 2014 to 2023.

Imports of goods from the candidate countries totalled EUR 0.7 billion in 2023 (predominantly from the Other Candidates and only little direct imports from Ukraine), comprising 0.4 % of Sweden's total goods imports. Likewise, imports of services are less significant, totalling EUR 0.2 billion and representing 0.4 % of Sweden's overall services imports.

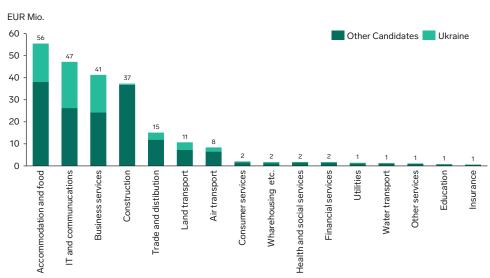
Swedish goods imports from the candidate countries are predominantly within 'Electrical equipment', with Ukraine being the largest supplier, reflecting the country's industrial capacity. Other significant goods imports include 'Mining' and 'Processed foods'. Due to the Rotterdam Effect, however, actual trade figures are likely to be larger.

EUR Mio. 300 Other Candidates Ukraine 250 200 150 100 50 Metal products Computers, electronics and optics Leather products Beverages and tobacco products Electrical equipment Processed foods Transport equipment nec. Wood products Rubber and plastic products Wearing apparel Motor vehicles and parts Iron and steel Paper products and publishing Petroleum and coal products Machinery and equipment Mineral products nec

Figure 6. Swedish goods imports from Other Candidates and Ukraine, 2023.

Source: Implement Economics in cooperation with Professor Joseph Francois, based on UN COMTRADE Eurostat (2023 data).

Imports of services from the candidate countries totalled EUR 0.21 billion in 2023 (71 % from the Other Candidates and 29 % from Ukraine). Sweden's services imports from the candidate countries are led by 'Accommodation and food' (e.g. related to intra-company fees of a company headquartered in Sweden and with an affiliate in one of the candidate countries, see section on cross-border investments below), with notable contributions from 'IT and communications' and 'Business services', primarily from Ukraine. The construction sector also shows significant imports from the Other Candidates, which in practice means construction workers and companies from those countries are operating in Sweden.



 $\label{thm:condition} \textbf{Figure 7. Swedish services imports from Other Candidates and Ukraine, 2023.}$

Source: Implement Economics in cooperation with Professor Joseph Francois, based on UN COMTRADE Eurostat (2023 data).

Note: Trade in services are projected as official source data for 2023 on a location production basis are unavailable.

1.4 Sweden's investment relations with the candidate countries

As of 2023, the Swedish FDI stock in Ukraine stood at EUR 1.2 billion, indicating modest investment presence given a more global comparison, but comparatively large within the group of Other Candidate countries. The annual FDI flow in 2023 of EUR 214 million suggests ongoing investment activities despite the war, reinforcing Sweden's engagement in and commitment to Ukraine. The figure shows a negative value of – 67 million EUR for Ukrainian FDI stock in Sweden, implying net disinvestment or financial outflows that exceed inflows (no Ukrainian FDI flows to Sweden were recorded in 2023). This trend is consistent with Ukraine's limited outward investment capacity and economic pressures due to the war, and similar trends in Ukrainian investments are observed in other EU countries.

With a total FDI stock of EUR 392 million invested across the other group of candidate countries in 2023 and outflows recorded at 38 million EUR, Sweden maintains substantial engagement, albeit lower compared to Ukraine. There is a notably absent FDI stock in Sweden from Other Candidates, suggesting minimal or no investment reciprocation. The asymmetrical investment relationships, where Sweden is the primary investor, is likely to be explained by Swedish companies' outsourcing activities motivated by lower operational costs in these countries as well as access to talent.

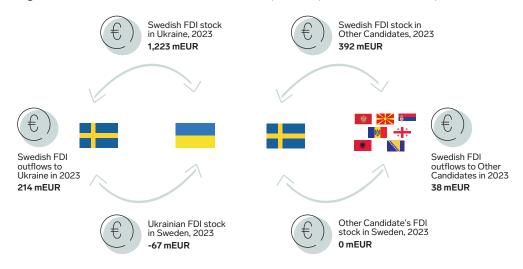


Figure 8. FDI stocks and flows between Sweden, Ukraine, and Other Candidate, 2023.

Source: Implement Economics based on OECD; BMD4.

Note: FDI flows refer to cross-border financial transactions recorded during 2023, while FDI stocks represent the value of direct investments held at the end of 2023 (accumulated FDI flows).

The model assesses the trade-induced impacts of the enlargement (including impacts on intra-company trade), whereas impacts on FDI flows between Sweden and candidate countries are not included in the model. Enlargement is likely to also stimulate cross-border investments, in which case the model will tend to underestimate the trade-induced impacts of the enlargement. This is so because increased FDI is likely to also increase Sweden's trade through multiple channels, including:

- Export of Swedish goods | The establishment of an affiliate in Ukraine will lead
 to an increase in Swedish exports to Ukraine, if the affiliate requires specific
 Swedish products, components, or machinery needed for its operations.
- Enhanced supply chain and logistics | Having an affiliate in Ukraine may allow the Swedish company to optimise its supply chain and logistics operations. This optimisation might involve importing Swedish raw materials or semi-finished goods to Ukraine for assembly or further processing before they are sold locally or exported. Improved logistics can further enhance the company's global competitiveness and enhance its exports to other markets.
- Local production for export | By setting up a local production facility in Ukraine, the Swedish company might aim to produce goods primarily for export, including back to Sweden or other European markets. This setup can stimulate exports from Ukraine in multiple directions, including to Sweden.
- Knowledge and technology transfer | The affiliate could facilitate the transfer of Swedish technology, processes, and expertise to Ukraine. This transfer can improve the quality and competitiveness of products manufactured in Ukraine, ultimately increasing their export potential to Sweden and other markets.
- Increase in Swedish imports | As the affiliate establishes local operations and gains market traction, it might also start producing goods or components that are attractive for import into Sweden or other markets. This can especially be the case if the affiliate specialises in products that benefit from Ukrainian resource availability or lower production costs.
- Job creation and economic growth | The presence of the Swedish affiliate can contribute to economic growth and job creation in Ukraine, boosting local purchasing power and consumer demand. This increase in demand can lead to a rise in imports of goods and services (including from Sweden).

2. Impacts on Sweden's trade with the candidate countries

The study applies advanced economic models to assess the impact of EU enlargement (see Appendix A) of reducing existing trade barriers (see Appendix B). This chapter analyses sectoral impacts of the enlargement on Sweden's trade with the candidate countries (direct impacts), distinguishing between goods and services trade. The model applies a 2023 baseline, where the consequences of the Russian invasion of Ukraine already appear in the GDP and trade figures. Had the modelling been done on a pre-war baseline, the expected economic gains from the enlargement would likely have been larger.

Based on current trade flows and existing trade barriers described in previous chapters, impacts on Sweden's service exports to the candidate countries are expected to be smaller than impact on goods exports for several reasons:

- More Swedish goods exports | Sweden currently exports less services to the candidate countries than goods (services account for 21 % of total Swedish exports to the candidate countries), and the enlargement will therefore benefit a smaller trade base.
- Goods face both tariffs and regulatory trade barriers | Companies exporting goods benefit from both reduction of tariffs and non-tariff measures (NTM), whereas the reduction on services is limited to NTMs. The 2023 baseline, however, incorporates both the EU's existing trade deals with Ukraine and Moldova (the DCFTAs) as well as the EU Association Agreements with the Western Balkan countries. These agreements have already lowered tariffs, and the results reflect only the elimination of remaining tariffs. Had the modelling covered also existing agreements in place, economic gains would have been larger.²
- More complete Single Market for goods | Impact on trade of NTMs in goods are larger than for services (average Ad-Valorem Equivalent (AVE) is 13 % for services and 21 % for goods³). The explanation is that the results reflect impacts of lowering NTMs to the same level as for existing members. As the Single Market for services is far less complete than for goods⁴, the enlargement will lower NTMs on goods more than for services.

² See report https://thinkeuropa.dk/files/media/document/report-gradual-integration-bringing-aspiring-members-clo-ser-to-the-eu.pdf for more information.

³ Ad-Valorem Equivalent (AVE) is a trade metric used to quantify the restrictiveness of NTMs by expressing their trade impact as the equivalent ad-valorem tariff rate. Essentially, it's the percentage of a good's price that a particular NTM, like a quota or technical regulation, adds to the total cost of a good or service, providing a standardised way to compare different types of trade barriers.

⁴ See Breaking down Europe's internal barriers must be the priority | Ti.

2.1 Impacts on Sweden's goods trade with the candidate countries

Sweden's goods trade with the candidate countries is expected to increase in the event of an enlargement in almost all sectors. No reductions are observed in Swedish exports to Ukraine or to the Other Candidates and only minor reductions in imports in certain sectors are expected.

Table 2. Impacts on Sweden's goods exports to the candidate countries, relative to 2023 baseline.

			Top 5 shares (% shares)	Top 5 impacts (% change)
	Share of Sweden's goods exports to Other Candidates (% share)	Impact on Sweden's exports to Other Candidates (% change)	Share of Sweden's goods exports to Ukraine (% share)	Impact on Sweden's exports to Ukraine (% change)
Agriculture	0.2	117	0.0	177
Forestry	0.0	190	0.0	193
Fishing	0.0	43	0.0	56
Mining	0.0	26	0.0	16
Processed foods	7.0	306	5.3	307
Beverages and tobacco products	0.4	83	0.4	48
Textiles	0.6	45	3.3	48
Wearing apparel	0.2	49	0.0	43
Leather products	0.1	51	0.0	55
Wood products	1.7	54	0.1	48
Paper products and publishing	15.0	39	6.7	35
Petroleum and coal products	0.3	33	23.7	36
Chemicals	6.7	90	27.8	94
Pharma	2.9	62	4.8	62
Rubber and plastic products	2.5	105	1.1	112
Mineral products nec.	0.2	136	0.0	214
Iron and steel	3.5	200	4.5	194
Non-ferrous metals	0.4	85	0.0	39
Metal products	2.0	214	1.4	202
Computers, electronics and optics	4.6	101	2.1	119
Electrical equipment	3.0	141	1.4	102
Machinery and equipment	15.6	97	6.7	86
Motor vehicles and parts	31.3	64	10.3	70
Transport equipment nec.	0.4	99	0.1	127
Manufactures nec.	1.5	59	0.5	80
Goods export-weighted total	100.0	97	100.0	88

Source: Implement Economics in cooperation with Professor Joseph Francois, based on the UNCTAD Trains database (2023 data) and UN COMTRADE, Eurostat.

Note: Impacts are reported as percentage changes relative to the 2023 baseline.

Sweden's goods exports to Other Candidates will almost double after the enlargement, driven mainly by increased exports of 'Machinery and equipment', 'Processed foods', 'Electrical equipment', 'Iron and steel', and 'Metal products'. Some of the other sectors with significant exports to Other Candidates show significant but below-average increases, including 'Motor vehicles and parts' and 'Paper products and publishing'.

Sweden's goods exports to Ukraine will on average increase by 88 %, mainly driven by increased exports of 'Chemicals', 'Processed foods', and 'Computer, electronics and optics'. As other sectors are catching up, some of the sectors with significant exports to Ukraine show significant but below-average increases, including 'Motor vehicles and parts', 'Petroleum and coal products', and 'Paper products and publishing'.

Sweden's goods imports from Other Candidates will on average increase by 165 % across sectors, mainly driven by increased imports of 'Electrical equipment', 'Processed foods', 'Metal products', and 'Iron and steel'. 'Mining' currently accounts for 12 % of Swedish imports from Other Candidates, and Swedish imports in the sector is expected to be lower after the enlargement (the same is the case for 'Non-ferrous metal', accounting only for 0.5 % of Swedish goods trade from Other Candidates). The explanation for lower imports in these sectors is likely to be that the enlargement will spur Swedish outsourcing and establishment of own production in the candidate countries for companies that use these intermediate goods. Such cross-border activities will show up as lower direct impacts.

Sweden's goods imports from Ukraine will on average increase by 133 % across sectors, mainly driven by increased imports of 'Transport equipment', 'Processed foods', and 'Electrical equipment'. As the other sectors are catching up, sectors with significant imports from Ukraine show significant but below-average increases, including 'Wood products' and 'Wearing apparel'.

It should be kept in mind that goods trade is likely to be underestimated due to the Rotterdam Effect. Also, the Rotterdam Effect is unlikely to be equally strong across sectors, which means that goods trade in the 2023 baseline for some sectors is likely to be highly underestimated.

Table 3. Impacts on Sweden's goods imports from the candidate countries, relative to 2023 baseline.

			Top 5 shares (% shares)	Top 5 impacts (% change)
	Share of Sweden's goods imports from Other Candidates (% share)	Impact on Sweden's imports from Other Candidates (% change)	Share of Sweden's goods imports from Ukraine (% share)	Impact on Sweden's imports from Ukraine (% change)
Agriculture	0.7	74	2.4	83
Forestry	0.0	53	0.0	44
Fishing	0.0	24	0.0	16
Mining	11.5	-31	4.0	-8
Processed foods	8.7	255	14.4	245
Beverages and tobacco products	0.5	40	0.6	42
Textiles	0.3	19	11.8	26
Wearing apparel	3.0	34	0.8	30
Leather products	1.4	59	0.2	68
Wood products	1.2	21	13.2	18
Paper products and publishing	0.6	16	1.8	30
Petroleum and coal products	0.1	23	0.0	23
Chemicals	1.3	147	0.2	156
Pharma	0.0	135	0.0	160
Rubber and plastic products	2.6	170	3.5	190
Mineral products nec.	0.2	183	4.2	182
Iron and steel	1.3	208	1.0	204
Non-ferrous metals	0.6	-14	0.8	-9
Metal products	6.1	333	3.2	327
Computers, electronics and optics	3.4	208	1.0	177
Electrical equipment	42.8	214	3.5	193
Machinery and equipment	5.9	179	2.1	165
Motor vehicles and parts	2.7	125	0.0	97
Transport equipment nec.	0.2	203	26.5	185
Manufactures nec.	5.0	23	5.0	28
Goods import-weighted total	100.0	165	100.0	133

Source: Implement Economics in cooperation with Professor Joseph Francois, based on the UNCTAD Trains database (2023 data) and UN COMTRADE, Eurostat.

Note: Impacts are reported as percentage changes relative to the 2023 baseline.

2.2 Impacts on Sweden's services trade with the candidate countries

Increased market access to the candidate countries will benefit Swedish service providers in all sectors, both in terms of increasing exports to the candidate countries and total exports. As services do not face duties in any markets, realising the business opportunities for Swedish service providers hinges on regulatory harmonisation and other reduction in NTMs related to cross-border trade in services. Key NTMs typically include:

- Regulatory restrictions | These may include complex requirements for licensing and permits, affecting services such as 'Financial services', 'Insurance', and 'Business services'.
- Standards and certification | Divergent national standards and certification requirements can affect services like 'Communications, info', where technical compatibility and compliance are crucial.
- Sector-specific regulations | Regulations tailored to specific sectors can restrict foreign participation, often seen in sectors such as 'Communications, info', and (land, water, and air) transportation services.
- Localisation requirements | Policies that require service providers to maintain a local presence or use local resources, impacting industries like 'Financial services' and 'Insurance'.
- Professional qualification recognition | Varying systems for recognising foreign qualifications can limit the ability of professionals, such as engineers working in 'Construction'.
- **Investment restrictions** | Limitations on foreign direct investment can affect sectors that rely heavily on capital investment, such as 'Warehousing'.
- Movement of natural persons | Restrictions on visas and work permits can significantly impact services reliant on temporary foreign personnel, such as 'Business services' or 'Construction'.
- Data protection and privacy regulations | Variations in data protection laws can restrict service providers in 'Communications, info', affecting data transfer and digital service provision.
- Administrative procedures | Lengthy and complicated administrative processes
 that vary across countries can inhibit service providers' ability to enter and
 operate in foreign markets effectively.

Sweden's service exports to Other Candidates will on average increase by 49 % across sectors, and exports will increase by a minimum of 20 % for all service sectors. The increase in service exports is driven mainly by exports of 'Business services' and to a lesser extent 'Land transport'. Some of the other service sectors with significant exports to Other Candidates show significant but below-average increases, including 'IT and communications' and 'Accommodation and food'.

The average increase in Sweden's service exports to Ukraine will be slightly less, driven mainly by increased exports of 'Business services' and to a lesser extent

'Land transport' and 'Air transport'. Some of the other service sectors with significant exports to Ukraine show significant but below-average increases, including 'IT and communications' and 'Accommodation and food'.

Overall, Sweden's composition of services trade with the candidate countries is quite similar, and sectoral impacts are equally similar. Impacts on services trade are largely driven by:

- Increased goods trade that drive up demand for trade-related services, such as transportation
- Higher wage income in the candidate countries that enhance economic activity in their local markets and increase demand for a large range of services that are already exported from Sweden

Table 4. Impacts on Sweden's services exports to the candidate countries, relative to 2023 baseline.

			Top 5 shares (% shares)	Top 5 impacts (% change)
	Share of Sweden's service exports to Other Candidates (% share)	Impact on Sweden's exports to Other Candidates (% change)	Share of Sweden's service exports to Ukraine (% share)	Impact on Sweden's exports to Ukraine (% change)
Utilities	0.7	36	0.1	29
Construction	5.2	22	0.1	13
Trade and distribution	3.6	36	5.0	26
Accommodation and food	11.1	20	10.5	13
Land transport	3.4	113	6.7	79
Water transport	0.2	24	0.1	18
Air transport	2.0	73	3.6	58
Warehousing etc.	1.1	31	2.3	30
IT and communications	41.4	29	31.5	17
Financial services	3.0	32	1.3	27
Insurance	2.4	45	1.5	37
Business services	16.6	133	20.6	105
Consumer services	2.2	28	5.8	19
Education	1.3	39	1.1	30
Health and social services	2.6	35	1.3	25
Other services	3.3	29	8.5	23
Service export-weighted total	100.0	49	100.0	42

Source: Implement Economics in cooperation with Professor Joseph Francois, based on the UNCTAD Trains database (2023 data) and UN COMTRADE, Eurostat.

Note: Impacts are reported as percentage changes relative to the 2023 baseline

Sweden's service imports from Other Candidates will on average increase by 12 % across sectors, whereas imports from Ukraine will on average increase by 25 %. These averages hide both imports across sectors that will shrink and some that will

grow, keeping in mind that Sweden's current imports of services are very small. The increase in service imports is driven mainly by imports of 'Business services' and to a lesser extent 'Land transport' and 'Air transport'. These are also the sectors where NTM reductions are expected to be the largest (see Appendix B).

Lower imports of some services after the enlargement therefore reflects mainly reallocations of capital and labour across sectors in the Other Candidate countries. Increases in exports of goods and certain services pull resources towards these sectors and away from service sectors that experience less reductions in trade barriers, such as 'Construction', 'Trade and distribution', 'IT and communications', and 'Financial services'.

Similar mechanisms are at play in Ukraine, where the average increase in Sweden's service imports is driven mainly by increased exports of 'Business services' and to a lesser extent 'Land transport' and 'Air transport'.

Table 5. Impacts on bilateral service imports from Candidates Countries, relative to 2023 baseline.

			Top 5 shares (% shares)	Top 5 impacts (% change)
	Share of Sweden's service imports from Other Candidates (% share)	Impact on Sweden's imports from Other Candidates (% change)	Share of Sweden's service imports from Ukraine (% share)	Impact on Sweden's imports from Ukraine (% change)
Utilities	0.7	-18	0.6	-14
Construction	22.8	-5	0.8	2
Trade and distribution	7.4	-6	4.8	3
Accommodation and food	23.6	-4	26.1	-2
Land transport	4.5	67	5.2	68
Water transport	0.7	6	0.2	-2
Air transport	4.0	69	2.9	66
Warehousing etc.	0.8	-6	0.7	-12
IT and communications	16.3	-9	31.4	-1
Financial services	1.0	-10	0.3	-5
Insurance	0.4	4	0.2	12
Business services	15.0	71	25.6	82
Consumer services	1.0	-13	0.5	-11
Education	0.4	-23	0.2	-25
Health and social services	1.0	-19	0.3	-17
Other services	0.6	-14	0.4	-13
Service import-weighted total	100.0	12	100.0	25

Source: Implement Economics in cooperation with Professor Joseph Francois, based on the UNCTAD Trains database (2023 data) and UN COMTRADE, Eurostat.

Note: Impacts are reported as percentage changes relative to the 2023 baseline.

3. Sectoral impacts on trade, production, and jobs in Sweden

This chapter examines the sector-level impacts of EU enlargement on Sweden's total exports and imports, alongside the corresponding effects on production patterns and the labour market in Sweden. The net effect of trade, encompassing both imports and exports, influences production and subsequently employment in each sector while keeping total employment at its natural level (determined by the size of the total labour force). Resources are reallocated to sectors with the highest returns, highlighting one of the key benefits of global trade. By understanding these relationships, we can gain insights into how shifts in trade dynamics may transform the Swedish economy at a sectoral level.

3.1 Impacts on businesses and workers in the goods sectors

While impacts on bilateral trade between Sweden and the candidate countries are large, the small bilateral trade base suggests that impacts on Sweden's total trade will be minor. Looking across sectors, the enlargement will enhance Sweden's total goods exports by 0.05 % and total imports by 0.18 %, although the latter is probably an underestimate due to the Rotterdam Effect.

The CGE model builds on the fundamental assumption that all productive resources are fully utilised. Labour and capital flow to the sectors where they earn the highest return, leaving total employment unaffected and total production slightly lower due to higher imports after the enlargement. The small negative impact on total employment in the goods sector of -0.02 % (and the positive impact on employment in the service sector) suggests that the dismantling of NTMs in the service sectors will make this sector more competitive relative to the goods sector, and resources will reallocate towards services where they earn a higher return.

Most sectors will experience an increase in total exports, with 'Forestry', 'Processed foods', 'Chemicals', and 'Agriculture' showing the largest gains. Except for 'Processed foods', these sectors will experience both an increase in employment and production. For 'Processed foods', the increase in production of 0.03 % and the reduction in employment by 0.06 % suggests that the dismantling of trade barriers

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has productivity-enhancing impacts on this sector, potentially driven by both higher exports (leading to scale economies) and higher imports (supply chain optimisation). The largest increase in employment and production is seen in 'Chemicals', followed by 'Paper products and publishing' and 'Petroleum and coal products'.

A few sectors will see lower exports, accompanied by reductions in both employment and production. While Swedish producers of 'Iron and steel', for example, will increase their exports to the candidate countries (see Section 2.1), their total exports drop by 0.84 %, suggesting that these producers face increased competition from the candidate countries in the EU market. Total Swedish imports of 'Iron and steel' products also drops, suggesting that a larger part of the supply chain moves outside Sweden.

The largest reductions in employment and production are seen in 'Electrical machinery', driven by a reduction in total exports and an increase in total imports. These results suggest that increased competition from the candidate countries will cause resources to divert away from this sector towards more competitive parts of the Swedish economy.

Table 6. Impacts on Swedish businesses and workers in the goods sectors, relative to 2023 baseline.

Top 5 impacts (% change)

				(% change)
	Sectoral impacts on total exports (%)	Sectoral impacts on total imports (%)	Sectoral impacts on employment (%)	Sectoral impacts on production (%)
Agriculture	0.8	0.2	0.1	0.1
Forestry	2.2	0.1	0.1	0.1
Fishing	0.3	0.1	0.1	0.1
Mining	0.3	0.2	0.1	0.2
Processed foods	1.7	1.2	-0.1	0.0
Beverages and tobacco products	0.3	0.1	0.1	0.2
Textiles	0.3	0.1	0.1	0.1
Wearing apparel	0.0	0.1	-0.1	-0.0
Leather products	-0.5	0.1	-0.7	-0.5
Wood products	-0.1	0.2	-0.1	-0.1
Paper products and publishing	0.3	0.1	0.2	0.2
Petroleum and coal products	0.3	0.3	0.2	0.2
Chemicals	0.9	0.2	0.7	0.7
Pharma	-0.1	0.1	-0.1	-0.1
Rubber and plastic products	0.1	0.3	-0.2	-0.2
Mineral products nec.	0.4	0.3	-0.1	-0.0
Iron and steel	-0.8	-0.1	-0.8	-0.8
Non-ferrous metals	0.1	-0.1	-0.0	0.0
Metal products	-0.2	0.9	-0.7	-0.6
Computers, electronics and optics	0.2	0.1	0.1	0.2
Electrical equipment	-0.6	0.5	-1.1	-1.0
Machinery and equipment	0.0	0.2	-0.1	-0.1
Motor vehicles and parts	-0.2	0.0	-0.3	-0.2
Transport equipment nec.	-0.2	0.2	-0.3	-0.2
Manufactures nec	02	01	0.1	0.2
Total / Weighted total	0.1	0.2	-0.0	-0.0

Source: Implement Economics in cooperation with Professor Joseph Francois, based on the UNCTAD Trains database (2023 data) and UN COMTRADE, Eurostat.

Note: Impacts are reported as percentage changes relative to the 2023 baseline

3.2 Impacts on businesses and workers in the services sectors

Looking across sectors, enlargement will enhance Sweden's total services exports by 0.10 % and total imports by 0.04 %. Total employment and production in the service sector will increase, as the enlargement leads to higher exports in all sectors. Imports in a few sectors will go down (e.g. for 'Construction', 'Warehousing etc.', 'Education', 'Health and social services', and 'Other services'). The reduction should be seen relative to the low Swedish imports into these sectors prior to enlargement as these sectors are more home market oriented and engage less in cross-border trade.

The largest impacts on total services exports are seen in 'Land transport' and 'Other services, where the largest increases in employment and production should be expected. These impacts are mainly driven by larger goods trade (increases demand for land transportation) and higher wage income (increases demand for a range of services).

Table 7. Impacts on Swedish businesses and workers in the services sectors, relative to 2023 baseline.

				Top 5 impacts (% change)
	Sectoral impacts on total export (%)	Sectoral impacts on total imports (%)	Sectoral impacts on employment (%)	Sectoral impacts on production (%)
Utilities	0.4	-0.0	0.0	0.1
Construction	0.4	-0.1	0.0	0.1
Trade and distribution	0.2	0.0	-0.0	0.0
Accommodation and food	0.2	0.1	0.0	0.1
Land transport	1.9	0.4	0.2	0.3
Water transport	0.2	0.2	0.1	0.2
Air transport	0.2	0.2	0.0	0.1
Warehousing etc.	0.4	-0.0	0.1	0.2
IT and communications	0.2	0.1	0.0	0.1
Financial services	0.1	0.1	0.0	0.1
Insurance	0.3	0.1	0.0	0.1
Business services	0.4	0.3	0.0	0.1
Consumer services	0.2	0.2	0.0	0.1
Education	0.0	-0.1	-0.0	0.0
Health and social services	0.5	-0.2	0.0	0.1
Other services	0.6	-0.1	0.0	0.1
Total / Weighted total	0.1	0.0	0.0	0.1

Source: Implement Economics in cooperation with Professor Joseph Francois, based on the UNCTAD Trains database (2023 data) and UN COMTRADE, Eurostat.

Note: Impacts are reported as percentage changes relative to the 2023 baseline

4. Macroeconomic impacts of an EU enlargement

Lower trade barriers shift production, consumption, and investment decisions, leading to a more optimal distribution of resources and thus driving overall GDP growth. This chapter analyses macroeconomic impacts on GDP, global trade patterns, and labour income in Sweden from the enlargement. The economic model of macroeconomic impacts does not consider impacts of labour mobility across borders (neither workers that work permanently nor temporarily in another country unless they are stationed in the country through their employer in the EU, e.g. to deliver construction services). Macroeconomic impacts should therefore be expected to be larger for countries than see a net inflow of workers that expand their work force.

4.1 Impacts on Sweden's global trade patterns

The trade-induced impacts of the enlargement should be considered for both Sweden's trade with the candidate countries as well as with other regional trading partners (the EU and the UK) and groups of global trading partners (North America, Other OECD, China, Other Asia, and all other countries in the world). While lower trade barriers will increase Sweden's trade with Ukraine and Other Candidates, Sweden's trade with the rest of the EU experiences minor reductions. Imports from the EU will decrease by 0.3 % and exports by 0.2 %, reflecting the redistribution of trade within the enlarged EU.

Similarly, Sweden's trade with most other global trading partners will decrease. Trade with China will experience the largest change, suggesting that the candidate countries are in direct competition with China and act as an alternative location for offshoring and value chain optimisation. Access to cheaper imports closer to the home market will improve the cost competitiveness of Swedish companies and enhance Sweden's exports to the US. Interestingly, a recent survey by the Confederation of Swedish Enterprise showed that almost half of all Swedish businesses in China, or companies importing from China, plan to reduce their presence there and instead focus more on Europe.

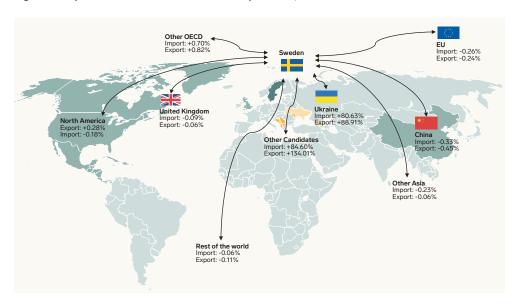


Figure 9. Impacts on Swedish bilateral trade patterns, relative to 2023 baseline.

Source: Implement Economics in cooperation with Professor Joseph Francois, based on the UNCTAD Trains database (2023 data) and UN COMTRADE, Eurostat.

Note: Impacts are reported as percentage changes relative to the 2023 baseline. Other OECD includes all non-EU members of the OECD.

North America includes the US, Canada, and Mexico. Other Asia includes all Asian countries except China.

4.2 Impacts on GDP in Sweden and selected economies

Lowering trade barriers can significantly impact GDP, facilitate more efficient allocation of resources, and increase economic activity through multiple channels:

- Higher economic activity I The boost in exports enhances production, while
 cheaper imports provide consumers and firms with access to a wider variety
 of goods and services at lower prices, thus boosting overall consumption and
 investment.
- Enhanced productivity | By exposing domestic industries to international competition, lower trade barriers can spur innovation and efficiency. Firms may adopt new technologies or improve management practices to remain competitive, increasing productivity and potentially lowering costs, which contributes to GDP growth.
- Resource allocation efficiency | Trade liberalisation helps countries to specialise in the production of goods and services in which they have a comparative advantage. This specialisation enhances overall efficiency and productivity, as resources are allocated more effectively across industries, thereby increasing GDP.
- Increased foreign investment | Lower trade barriers can make a country more attractive to foreign investors, leading to increased foreign direct investment (FDI). This influx of investment can create new jobs, increase capital availability, and lead to technological transfers, all of which contribute to GDP growth.

- Economies of scale | As firms expand their market reach internationally, they may achieve economies of scale that reduces average costs and increases profitability. These larger and more efficient production processes can increase output, contributing positively to GDP.
- Spillover effects | The increase in economic activity from trade can have positive spillover effects across the economy. As industries expand, they create demand for ancillary services (logistics, marketing, etc.), further stimulating growth.

An EU enlargement is set to significantly lift candidate countries' economies, with Ukraine's GDP rising by 13.7 % and Other Candidates experiencing a GDP increase of 17.1 %, alongside substantial export and import growth. Enlargement will provide a boost to the EU economy, with GDP increasing permanently by 0.3 % (amounting for EUR 49 billion) and exports and imports rising by approximately 0.8 % each. This indicates that overall, the EU will see economic integration and growth through the enlargement.

Sweden is projected to only see modest benefits, with GDP increasing by 0.1%, driven by an increase in total exports and imports. These gains for Sweden are below the EU average due to limited direct trade with the candidate countries. The candidate countries account for about 3.7% of the EU's goods exports and 2.4% of its goods imports, compared to Sweden's much smaller shares of 0.7% and 0.4%, respectively. GDP impacts for Sweden should be expected to be closer to EU averages had it been possible to account for the Rotterdam Effect.

Larger economies like North America and China show minimal changes, with negative GDP adjustments of around 1 % for both. This highlights how enlargement will divert trade towards the trading partners who experience lower trade barriers relative to other trading partners. Consequently, the trade-induced impacts of the enlargement will both make (new and old) EU members more prosperous and less dependent on trade with third countries. These findings suggest that the enlargement can also be expected to contribute to policy objectives of improving resilience, strategic autonomy, and competitiveness.

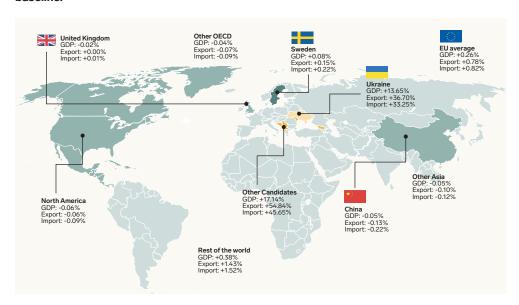


Figure 10. Macroeconomic impacts on GDP in selected global economies, relative to 2023 baseline.

Source: Implement Economics in cooperation with Professor Joseph Francois, based on the UNCTAD Trains database (2023 data) and UN COMTRADE, Eurostat.

Note: Impacts are reported as percentage changes relative to the 2023 baseline.

4.3 Impacts on labour income in Sweden

The macroeconomic gains from the enlargement create benefits for Swedish workers and enhance their labour income through multiple channels:

- Increased demand for labour | Greater market access and increased exports lead to higher production levels in competitive sectors, driving up demand for labour and potentially increasing wages.
- **Productivity improvements** I Exposure to international markets incentivises firms to innovate and become more efficient. Higher productivity makes labour more valuable, leading to higher wages.
- Access to cheaper inputs | Reduced trade barriers lower costs for imported inputs, boosting competitiveness and profitability for firms, which can translate to higher wages and better employment conditions.
- Scale economies | As firms access new and larger markets, they can benefit from
 economies of scale, potentially increasing output and employment, leading to
 higher labour incomes as firms expand.

Swedish workers may experience lower prices of imported goods and services, as well as increases in productivity, improving real labour income. All categories of Swedish workers experience slight increases in real labour income. 'Clerical workers' see the highest growth in labour income, driven by higher daily operations of businesses and organisations (e.g. office management and administrative support). Both 'Technicians and associated professionals', as well as 'Service and shop workers', enjoy similar

positive impacts. 'Machinery operators and agricultural labour' have the smallest gains (increase in real labour income), indicating comparatively lesser benefits from the changes.

Overall, the results reflect gradual improvements in real labour income across all worker categories in Sweden, suggesting positive socio-economic trade-induced impacts from the EU enlargement.

Table 8. Changes in real labour income for Swedish workers, relative to 2023 baseline.

	Long-run impact on real labour income (%)
Officials and managers	0.07
Technicians and associated professionals	0.08
Service and shop workers	0.08
Clerical workers	0.10
Machinery operators and agricultural labour	0.06

Source: Implement Economics in cooperation with Professor Joseph Francois, based on the UNCTAD Trains database (2023 data) and UN

Note: Impacts are reported as percentage changes relative to the 2023 baseline.

While lowering trade barriers can lead to significant economic gains and higher labour income, these benefits can be unevenly distributed and accompanied by transitory costs that may require policy interventions to support workers through transitions and adjustments:

- Sectoral labour shifts I As trade barriers are lowered, some industries expand
 while others contract, necessitating labour migration between sectors. This
 can result in temporary unemployment or wage suppression for workers transitioning between jobs or acquiring new skills.
- Short-term unemployment I Workers in industries that become less competitive due to increased competition from the candidate countries may face job losses or reduced hours, impacting their income until they find new employment.
- Adjustment costs | Workers may need to invest in retraining or relocation to
 adapt to new job opportunities, imposing financial and time costs. Policy support
 may be required to alleviate these burdens.
- Wage pressure in non-competitive companies | In sectors facing increased foreign competition, there might be downward pressure on wages as firms strive to remain viable, potentially impacting labour income negatively for those employed in less competitive companies.
- Inequality concerns | While all groups of workers benefit from enlargement, gains are unevenly distributed, benefiting high-skilled or mobile workers (such as 'Clerical workers') more than low-skilled or less mobile workers (such as 'Machinery and agricultural workers'), which can lead to income inequality and associated social costs.

5. Summarising opportunities and threats for Sweden

This chapter offers a perspective on some of the opportunities and threats for Swedish businesses that the trade-induced impacts of the enlargement can be expected to cause. Focus is on Swedish exports to the candidate countries, while keeping sight of impacts on total Swedish exports and production across industries.

The modelling assumes that the size of the labour force is unchanged and, consequently, there is a built-in mechanism in the model that growth in the most competitive part of the economy will take place at the expense of less competitive sectors (growth through labour market reallocation from less to more competitive sectors). If the enlargement spurs migration of workers into Sweden, bottlenecks in the Swedish labour market will be less strict, and production is likely to expand in more sectors.

5.1 Opportunities for Swedish goods producers

Table 9 provides a comprehensive view of how the reduction in tariffs and NTMs in the enlargement scenario creates distinct opportunities for Swedish businesses in various sectors. The analysis also clearly highlights that the large potential for Swedish businesses lies in the reduction of NTMs, suggesting that regulatory harmonisation should be a key priority in the enlargement process.

Improved market access will foster export growth and enhance production capabilities in sectors related to food, beverages, and primary products:

- Processed foods | This sector, confronted with high NTMs, stands to benefit
 immensely from regulatory harmonisation. As trade barriers are reduced,
 Swedish exports to the candidate countries are projected to increase, reflecting
 substantial opportunities for growth in both total exports and production.
- Beverages and tobacco products | The elimination/harmonisation of NTMs, which previously posed substantial barriers, will increase in both exports to both the candidate countries and total exports, enhancing also production.
- Agriculture | With reductions in NTMs equivalent to 25 % tariffs in addition to the elimination of tariffs, Swedish agricultural exports are positioned to gain significant market access. This encourages growth and export diversification.

• Forestry I The sector is expected to see growth in total exports, benefiting from lower regulatory barriers, which enhance competitiveness and provide new opportunities for Swedish exporters to penetrate markets in the candidate countries.

For some of Sweden's industrial sectors facing intense global competition, the reduction in NTMs relative to third country exporters will offer significant opportunities in sectors such as:

- Chemicals | The reduction in NTMs (equivalent to a tariff of close to 21 %) is expected to yield a significant increase in exports to the candidate countries. The regulatory harmonisation will make Swedish chemical products more competitive and attractive, with positive impacts of both total exports and production.
- Computers, electronics and optics | The sector benefits from significant NTMs reductions, leading to a doubling of exports to both Ukraine and Other Candidates. This positions Swedish businesses well to compete in technology-driven markets, and total exports are expected to increase.
- Paper products and publishing | Exports is expected to grow, which will strengthen Swedish presence in new markets and enhance total exports.

These changes promise increased competitiveness in new EU member markets, urging Swedish companies to align business strategies with the evolving market landscapes and potential trade dynamics from the Single Market.

Table 9. Opportunities for Swedish goods producers, relative to 2023 baseline.

					Top 5 red (% cha		Top 5 impacts (% change)
Sector	Tariff reductions on exports to Other Candidates (%)	Tariff reduction on exports to Ukraine (%)	NTM reduction (%)	Impact on Sweden's exports to Other Candi- dates (%)	Impact on Sweden's exports to Ukraine (%)	Impact on total exports (%)	Impact on pro- duction (%)
Agriculture	2.2	0.9	25.2	117	177	0.8	0.1
Forestry	0.0	0.0	25.2	190	193	2.2	0.1
Fishing	0.4	0.3	25.2	43	56	0.3	0.1
Mining	0.0	0.0	-0.0	26	16	0.3	0.2
Processed foods	4.1	2.4	48.4	306	307	1.7	0.0
Beverages and tobacco products	4.2	0.0	41.8	83	48	0.3	0.2
Textiles	0.1	0.0	5.7	45	48	0.2	0.1
Wearing apparel	0.1	0.0	5.7	49	43	0.0	-0.0
Paper products, publishing	0.0	0.0	5.7	39	35	0.3	0.2
Petroleum, coal products	0.0	0.0	7.9	33	36	0.3	0.2
Chemicals	0.0	0.0	20.6	90	94	0.9	0.7
Rubber and plastic products	0.1	0.0	20.6	105	112	0.1	-0.2
Mineral products nec	0.1	0.0	20.6	136	214	0.4	-0.0
Non-ferrous metals	0.0	0.0	38.5	85	39	0.1	0.0
Computers, electronics and optics	0.0	0.0	19.4	101	119	0.2	0.2
Machinery and equipment	0.0	0.0	1.6	97	86	0.0	-0.1
Manufactures nec.	0.0	0.0	5.7	59	80	0.2	0.2

Source: Implement Economics in cooperation with Professor Joseph Francois, based on the UNCTAD Trains database (2023 data) and UN COMTRADE, Eurostat.

Note: Impacts are reported as percentage changes relative to the 2023 baseline.

Opportunities for Swedish service providers 5.2

Increased market access to the candidate countries will benefit Swedish service providers in all sectors, both in terms of increasing exports to the candidate countries and total exports. As services do not face duties in any markets, realising the business opportunities for Swedish service providers hinges on regulatory harmonisation and other reduction in NTMs related to cross-border trade in services.

The NTMs in the service sector create complexities that can restrict market access and elevate operational costs for service providers, necessitating strategic navigation by firms seeking to expand cross-border service delivery.

The largest improvements in market access are seen in some of the trade-related sectors:

- Business services I This sector stands to gain significantly from the reduction of regulatory restrictions and the harmonisation of standards that previously limited access to the candidate countries. The expected growth in exports to the candidate countries reflects increased opportunities for Swedish consultancies, lawyers, and professional services firms to access these emerging markets.
- Land transport | With the harmonisation of NTMs, especially those related to sector-specific regulations and administrative procedures, land transport services are poised for a substantial increase in exports to both Other Candidates (by 113 %) and Ukraine (by 79 %). This includes logistics and goods transportation, which will benefit from streamlined cross-border trade facilitation.
- Air transport | Air transport services are set to expand because of lowered barriers and harmonisation in data protection and privacy regulations crucial for passenger and cargo services. This NTM reduction will enhance Swedish aviation and air logistics operations in an expanded EU market.

Additionally, some service providers are set to benefit from higher economic activity in the Swedish home market and increased consumer spending resulting from enhanced labour income (home and in other EU members):

- Accommodation, food I Workers in Sweden, the candidate countries, and remaining EU member countries will spend some of the increase in labour income each other countries as tourists, spending money on restaurants and accommodation. The leisure and tourism sectors will generally gain. Swedish services providers in 'Accommodation, food' will see an increase in production and total exports.
- Construction | With higher real labour incomes supporting increased investment in infrastructure and residential projects, the construction sector will experience growth, benefitting from the stimulated demand in domestic and EU markets.
- Consumer services | Retail and personal services will see increased consumption as wage improvements facilitate higher discretionary spending, enabling these sectors to capitalise on both local and regional demand.

Health, social services | Improvements in labour income contribute to increased demand for health and social services, driven by enhanced investment opportunities and consumer spending patterns.

Table 10. Opportunities for Swedish service providers, relative to 2023 baseline.

				Top 5 reduction (% change)	Top 5 impacts (% change)
Sector	NTM reduction (%)	Impact on Sweden's exports to Other Candidates (%)	Impact on Sweden's exports to Ukraine (%)	Impact on total exports (%)	Impact on production (%)
Utilities	na	36	29	0.4	0.1
Construction	na	22	13	0.4	0.1
Trade and distribution	1.4	36	26	0.2	0.0
Accommodation, food	0	20	13	0.2	0.1
Land transport	29.7	113	79	1.9	0.3
Water transport	1.7	24	18	0.2	0.2
Air transport	25.0	73	58	0.2	0.1
Warehousing etc	1.4	31	30	0.4	0.2
Communications, info	1.1	29	17	0.2	0.1
Financial services	1.5	32	27	0.1	0.1
Insurance	6.6	45	37	0.3	0.1
Business services	35.4	133	105	0.4	0.1
Consumer services	na	28	19	0.2	0.1
Education	na	39	30	0.0	0.0
Health, social services	na	35	25	0.5	0.1
Other services	na	29	23	0.6	0.1

Source: Implement Economics in cooperation with Professor Joseph Francois, based on the UNCTAD Trains database (2023 data) and UN COMTRADE, Eurostat.

Note: Impacts are reported as percentage changes relative to the 2023 baseline. For some service sectors (construction, health and social services and public services), the EU Single Market offers limited preferential access to its members, and the AVE estimates are statistically insignificant. In addition, the sector distribution does not perfectly align with the supplementary data. As a result, we have undertaken a process to match and reconcile these discrepancies.

5.3 Threats for Swedish businesses facing increased competition

Increased trade integration with the candidate countries may in some cases lead to heightened competition from local businesses and other EU members, putting pressure on Swedish firms to innovate and adapt rapidly. These industry challenges underscore the need for enhanced innovation and strategic adaptability among Swedish firms, ensuring resilience and continued competitiveness in an evolving EU market landscape.

While exports to the candidate countries will increase after the enlargement, total exports and production are therefore expected to shrink in several industries. Lower production will pose transitory costs on affected Swedish workers (see Chapter 3), but opportunities to outsource parts of their production to the candidate countries may also make Swedish businesses more profitable and competitive. This dynamic will particularly be at play in:

- Iron and steel | Despite increased exports to the candidate countries, total exports
 are anticipated to drop, coupled with production decreases. This reflects intensified
 competition from newly integrated EU members, shifting some demand away
 from Swedish producers.
- Electrical equipment | Swedish businesses in this sector face the largest reductions. Increases in imports and competitive pressures from local companies in the candidate countries are likely contributing factors.
- Motor vehicles and parts | Although exports to candidate countries will rise, total exports and production are expected to decline. The shift in exports to the candidate countries away from other trading partners suggest that both Swedish and other EU manufacturers will outsource production to the candidate countries.
- Metal products | Similar trends affect the metal products sector, where total
 exports and production are expected to decrease. Increased market competition
 from the candidate countries may contribute to these declines, necessitating
 strategic adjustments from Swedish producers.

Table 11. Threats for Swedish goods producers, relative to 2023 baseline.

Sector	Tariff reduc- tions on exports to Other Candi- dates (%)	Tariff reduction on exports to Ukraine (%)	NTM reduction (%)	Impact on Sweden's exports to Other Candi- dates (%)	Impact on Sweden's exports to Ukraine (%)	Impact on total exports (%)	Impact on pro- duction (%)
Leather products	0.1	0.0	5.7	51	55	-0.5	-0.5
Wood products	0.0	0.0	5.7	54	48	-0.1	-0.1
Pharma	0.0	0.0	20.6	62	62	-0.1	-0.1
Iron and steel	0.0	0.0	38.5	200	194	-0.8	-0.8
Metal products	0.1	0.0	38.5	214	202	-0.2	-0.6
Electrical equipment	0.1	0.0	19.4	141	102	-0.6	-1.0
Motor vehicles and parts	0.3	1.1	19.5	64	70	-0.2	-0.2
Transport equipment nec	0.0	0.0	1.6	99	127	-0.2	-0.2

Source: Implement Economics in cooperation with Professor Joseph Francois, based on the UNCTAD Trains database (2023 data) and UN COMTRADE, Eurostat.

Note: Impacts are reported as percentage changes relative to the 2023 baseline.

5.4 Policies to mitigate threats and maximise opportunities

The downward adjustment in production in challenged sectors will be minor and take time to fully materialise. In addition, several policy instruments are available to maximise the opportunities and mitigate the risks arising from increased trade integration with the candidate countries. Some instruments to drive market

development and transition are listed below, but their relevance and attractiveness in a Swedish context is not analysed in this study:

- Regulatory harmonisation and Single Market integration | The largest economic gains for Sweden stem from the reduction of non-tariff barriers (NTBs) rather than tariffs. Swedish policymakers should prioritise regulatory alignment and market integration in the accession process to unlock full trade potential. Supporting candidate countries in implementing EU standards early will facilitate smoother trade flows and enhance Swedish market access. In parallel, regulatory barriers to services trade within the Single Market needs to be reduced to make this sector more competitive and to fully realise the benefits of enlargement.
- Innovation and strategic adaptability | Swedish policymakers could prioritise initiatives that foster innovation, digital transformation, and adaptability among domestic firms. This could include stronger incentives to engage in public-private innovation partnerships, improved conditions for digital transformation, and incentives for adopting advanced technologies, helping businesses remain competitive amid heightened competition.
- Facilitate outsourcing opportunities | Encouraging outsourcing to candidate countries may help Swedish businesses offset production declines and strengthen their competitiveness. Policymakers could develop frameworks, platforms, and networks (e.g. trade shows) to facilitate cross-border collaborations, promoting foreign investments and strategic partnerships between Swedish firms and candidate country producers. Incentives for businesses to explore and enter new markets (e.g. export financing and trade missions supported by sector groups and industry councils) can generate shared knowledge and market intelligence.
- Investment in competitive skills | Policies focusing on enhancing workforce adaptability through advanced training and education can manage transitory costs in affected sectors. Similarly, encouraging joint initiatives between educational institutions and industry leaders to tailor skill development programs can help accommodate market needs.
- Trade resilience strategies | Expanding trade diversification policies, such as
 developing new free trade agreements (FTAs) and enhancing market access to
 other global markets, can give Swedish businesses the opportunity to diversify
 their client base, benefit from scale economies, and restore profitability. More
 FTAs between the EU and non-EU countries will broaden access to global
 markets and mitigate risks in key industrial sectors, enhancing overall trade
 resilience.
- Enhancing market and supply chain integration | To ensure enlargement delivers on EU goals of competitiveness and resilience, the EU should focus on deep market integration, regulatory convergence, and investment in connectivity and innovation ecosystems in the accession process. A coordinated EU approach that strengthens the Single Market and supports candidate countries' transition toward EU standards will create mutual benefits expanding market opportunities and supply chain depth for existing members like Sweden, while accelerating economic convergence and growth in candidate countries.

Appendix A Description of the applied model

In this appendix, we describe the methodological approach for this study. The methodology is based on two main steps. First, we use a gravity model to assess existing trade barriers between the EU and the candidate countries, and the importance of EU membership for increasing trade among its members. Based on econometric analysis, we estimate how an enlargement could reduce trade barriers and stimulate trade between the EU and the candidate countries. Secondly, we apply a Computational General Equilibrium (CGE) model to assess the economic impacts of enhanced trade, accounting for global trade and investment linkages.

Non-technical description of the applied methodology

The methodology is based on two main steps. Firstly, we employ a gravity model to assess existing trade barriers between the EU and the candidate countries. The gravity model estimates trade flows between countries based on their economic size, distance, and other variables (such as shared borders, common languages, regional trade agreements, and historical trading relationships). By comparing expected versus actual trade flows, the model assesses the impact of barriers such as tariffs, quotas, and regulatory divergence. Based on econometric analysis, we estimate both trade barriers between existing EU members and between the EU and the candidate countries. The gravity model is estimated at a sectoral level, and we use these estimates to assess how much an enlargement would reduce trade barriers for each sector.

Secondly, we utilise a Computational General Equilibrium (CGE) model to evaluate the economic impacts of lower trade barriers. The CGE model is a powerful tool used to assess the broader economic impacts of changes in trade policy, which captures both:

• **Direct impacts** I Impacts on direct trade between Sweden and the candidate countries, including all goods and services trade through cross-border supply of services (mode 1) and establishing a commercial presence through subsidiaries, branches, or joint ventures (mode 3).⁵ As trade barriers are reduced, Sweden's

⁵ Services trade through consumption abroad (mode 2), such as online consultations, software licensing, and financial services rendered over the internet, are not included in the GATS definition of service trade. Similarly, the presence of natural persons (mode 4), such as consultants, architects, or specialized technicians working temporarily abroad, are not included.

bilateral trade with the candidate countries increases, and similar trade enhancements will take place for other EU countries.

- Indirect impacts | Impacts on trade patterns with the rest of the EU driven by intra-EU supply chains where increased trade and production in one country spread to other countries through increased demand for intermediate goods and auxiliary services. EU firms that export to the candidate countries may demand more input from Swedish producers (increases Swedish exports to the EU), and Swedish firms that export to the candidate countries may demand more input from EU producers (increases Swedish imports from the EU). Increased exports from the candidate countries to the EU may also compete with Swedish exports to the EU (lower Swedish exports to the EU).
- Trade diversion | Lower trade barriers in one market makes it more attractive
 relative to other partners. The lower trade barriers will reduce the costs of
 selling to the candidate countries, which will create an incentive to redirect
 exports from other destinations to the candidate countries and thereby increase
 margins. Similarly, lower trade barriers will incentivise Swedish companies to
 redirect imports towards the candidate countries at a lower price than before
 the enlargement.
- General equilibrium effects | Through the above mechanisms (lower costs of imported input and economies of scale through higher exports), the enlargement will make Swedish producers more competitive and increase their global exports. Higher income due to the enlargement increases demand in Sweden (higher Swedish imports) and other EU countries (higher Swedish exports to the EU).

The size of the trade barrier reduction and the responsiveness to changes in trade costs vary across sectors, and the enlargement will change the relative competitiveness and productivity of sectors within the Swedish economy. Resources will tend to flow towards the sectors with the highest return, and employment will increase in highly productive sectors at the expense of labour in less productive sectors. The same will happen with capital and other production factors.

Application of the gravity model

The gravity model is a widely used tool in international economics for understanding bilateral trade flows. Its core idea is intuitive: larger economies tend to trade more, simply because they produce and consume more goods and services, while countries that are farther apart – geographically or institutionally – tend to trade less, as distance usually implies higher transportation and transaction costs.

Economic size is typically measured using GDP or population, while distance can include not just physical space, but also cultural, historical, and institutional differences – such as language, colonial ties, or the presence of trade agreements. These factors act as proxies for how easy or difficult it is for two countries to engage in economic exchange.

The model also accounts for fixed characteristics of each country and country pair, such as geographic proximity, shared borders, or long-standing trade relationships.

These fixed effects help isolate the influence of EU membership and enlargement from other underlying factors.⁶

By estimating the role of EU membership and candidate status in shaping trade patterns, the model provides a robust basis for assessing how future integration could affect trade flows. This is particularly useful for understanding the potential gains from an enlargement under realistic assumptions.

The CGE model

We use a CGE model to assess the broader economic impacts of enhanced trade between EU members and the candidate countries. The model provides a comprehensive framework for understanding how changes in trade policy or market access affect the broader economy – not only in directly affected sectors, but across all industries, households, and groups of workers.

At its core, the CGE model represents the economy as a system of interconnected markets. It captures how producers and consumers respond to changes in prices, income, and trade flows, while ensuring that supply and demand are balanced throughout the system. This enables the model to simulate how a shock (such as a reduction in tariffs or non-tariff barriers) ripples through wages, prices, production, consumption, and international trade.

Unlike partial models that focus only on trade volumes, the CGE model enables a general equilibrium analysis, capturing how production factors (like labour and capital) reallocate across sectors, how behaviours adjust, and how trade balances evolve over time. The impacts reported in this study are long term impacts where both labour and capital are mobile, allowing full resource reallocation and revealing the new equilibrium the economy could reach once structural changes are complete.⁷

The model builds on a detailed representation of the European and global economy, including sectoral detail and country-level trade and investment flows. It is calibrated using a Social Accounting Matrix (SAM), which provides a detailed snapshot of the economic structure in a base year (2023). Simulations compare a baseline scenario (representing a continuation of current policies) with alternative scenarios reflecting deeper trade integration. While the results are not forecasts, they provide a consistent, transparent, and policy-relevant assessment of the direction, magnitude, and transmission mechanisms of potential impacts. The box below explains how trade barriers are modelled in the study.

⁶ The applied gravity model is based on the approach developed by Egger, François, Manchin, and Nelson (2015). Non-tariff barriers, integration and the transatlantic economy. Economic Policy, 30(83), 539-584.

⁷ In the short term, physical capital is fixed, and only labour can move between sectors, reflecting limited adjustment capacity in the early years after a policy change.

Box 1. Technical description of how trade barriers have been modelled in the study.

Reducing barriers for goods

• Non-tariff measures (NTMs) are policies and regulations other than tariffs that countries use to control trade, including import quotas, licensing requirements, standards for product quality and safety, and customs procedures.

- Free trade agreements (FTAs) typically eliminate tariffs and reduce NTMs, but the NTM cost reductions depend on the depth of the FTA. Researchers have developed an indicator that assesses the depth of FTAs in place globally.
- Applying the FTA indicator in gravity models estimates trade increases based on FTA depth and phased-out tariffs, showing how trade grows when tariffs are reduced.
- The trade increases from the entry into force of an FTA are converted into their ad valorem equivalents (AVEs), which measure the reduction in tariff required to generate a similar increase in trade of a certain product.

Reducing barriers for services

- Services are covered by the General Agreement on Trade in Services (GATS). The World Bank has estimated trade restrictions in services by matching GATS bindings with FTA commitments reported to the WTO in place for bilateral trade in services.
- The applied AVEs of market access restrictions in services are therefore based on the World Bank's STRI database, which includes both restrictions on setting up foreign establishments and direct restrictions on cross- border trade (mode 1 and 3).
- the FTAs with the most liberal commitments to trade in services, although there remain room for further market access improvements. On a scale from 0 to 100, where 0 means no binding commitments have been made and 100 means full commitments have been made to bind policies linked to market access for particular sectors, EU scores lie in the range of 55.3 to 64.4

CGE model

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- The EU Single Market is one of The EU Single Market is one of the FTAs with the most liberal commitments to trade in services, although there remain room for further market access improvements. On a scale from 0 to 100, where 0 means no binding commitments have been made and 100 means full commitments have been made to bind policies linked to market access for particular sectors, EU scores lie in the range of 55.3 to 64.4.

Source: Implement Economics in cooperation with Professor Joseph Francois.

Data description

The CGE model utilises the latest trade data from the GTAP11 database, which employs 2023 as its base year. This database offers comprehensive global trade flows for goods and services at a sectoral level. By choosing 2023 as the reference year, the model mitigates the distortions caused by the COVID-19 pandemic while also capturing the ongoing economic effects of the war between Ukraine and Russia. Accounting for the war's impact is critical, as the destruction of key infrastructure - such as steel production facilities in Ukraine - is unlikely to be reversed in the short term. Additionally, it is unrealistic to assume the pre-war workforce would be readily available in case of potential reconstruction efforts.

The GTAP database itself is a global multi-regional input-output (GMRIO) database that contains detailed economic data for 141 countries or regions and 67 production sectors. It provides disaggregated information on sectoral production and consumption, trade flows, taxes and subsidies, government finances, labour by skill level, and other key production factors.

Definition of trade

In the CGE model, trade flows are based on actual material flows, focusing on the physical location of economic activity rather than changes in ownership.

This approach aligns with reported import data, which is often considered more reliable compared to export data, as Sweden's exports are recorded as imports by its trading partners. By using material flow concepts rather than ownership definitions, we aim to provide a more accurate representation of trade, which may diverge from traditional national statistics.

National accounts and balance of payments often define trade through changes in ownership between resident and non-resident units, meaning that physical movement across borders is not considered trade unless ownership changes occur. This approach can misrepresent actual trade flows if compared to customs data, particularly when using definitions based on ownership rather than material flows.

Conversely, economy-wide material flow accounts and related databases, such as GTAP, MRIO, and the OECD TiVA database, track trade according to actual physical flows of goods and cross-border services. For example, EU international trade statistics record these flows as goods physically cross borders, providing a comprehensive view of trade dynamics.

Appendix B Trade barrier reduction in the enlargement scenario

In this appendix, we describe the existing trade barriers between the EU and the candidate countries and detail how trade barriers are reduced in the enlargement scenario.

Box 2. Channels of trade liberalisation in the enlargement scenario.

	Description
100% tariff elimination	Inclusion into the Customs Union implies full elimination of existing tariffs on goods trade between the EU and the candidate countries (and bilaterally between the candidate countries). Sweden currently faces very low tariffs on exports to both Ukraine (on average 0.02 %) and Other Candidates (0.01 %). Similarly, most goods from Ukraine enter Sweden duty-free, and goods from Other Candidates on average face tariffs of 0.05 %.
Reduction of regulatory barriers to goods trade	Entry into the Single Market implies regulatory convergence and harmonisation of non-tariff measures (NTMs), including import quotas, licensing requirements, standards for product quality and safety, and customs procedures. For several reasons (e.g. incomplete or uneven implementation of EU regulation), there are still frictions related to goods trade among the existing members of the Single Market. In the model, NTMs on goods trade with the candidate countries are lowered to intra-EU levels. Trade costs related to NTMs are equivalent to an average tariff on Swedish goods trade of 18 %. Since it is just as cumbersome to adjust Swedish goods to local regulatory requirements in the candidate countries as it is vice versa, the reduction of NTMs is assumed to be symmetric.
Reduction of services trade barriers	Restrictions on market access for service providers include both restrictions on setting up foreign establishments (mode 1) and direct restrictions on cross-border trade (mode 3). Similarly to goods trade, the model reduces services barriers to intra-EU level for both Swedish imports and exports of services. Reducing trade barriers for services is equivalent to a tariff reduction of 14 %.

Tariff elimination in the enlargement scenario

Eliminating tariffs as part of the EU enlargement process is anticipated to lower trade costs, expand market access, and open new opportunities for Swedish businesses by facilitating smoother and more efficient transactions within the integrated

market. Tariffs on Swedish goods exports to the candidate countries are generally low. Sweden faces average tariffs of 0.4 % on exports to Other Candidates and 0.2 % on exports to Ukraine, leading to a combined tariff reduction of 0.3 % in the applied scenario.

While tariffs on Swedish exports to the candidate countries are generally low, tariffs exceed 4.1 % on 'Beverages and tobacco products' and 'Processed foods' in Other Candidates and exceed 2.2 % on other 'Agriculture' products. 'Processed foods' face tariffs of 2.4 %, whereas other 'Agriculture' products face tariffs of 0.9 % and 'Motor vehicles and parts' face tariffs on 1.1 % when exported to Ukraine. It will mainly be Swedish exports of these goods that will benefit from the tariff elimination following the enlargement.

Other Candidates 5 4 Percent 3 2 Trade-weighted avg.: 0.42% 0.0 0.0 0.0 0.0 0.0 Fishing Motor vehicles and parts Wearing apparel Mining Beverages and tobacco products Processed foods Agriculture Leather products Rubber and plastic products Metal products Electrical equipment Textiles Machinery and equipment Wood products Computers, electronics and optics Forestry Paper products and publishing Petroleum and coal products Mineral products nec. Manufactures nec. Transport equipment nec. Pharma Iron and steel Non-ferrous metals Ukraine 5 4 Percent 3 2 Trade-weighted avg.: 0.23% 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Fishing Motor vehicles and parts Leather products Mining Processed foods Agriculture Computers, electronics and optics Beverages and tobacco products Wearing apparel Rubber and plastic products Textiles Metal products Electrical equipment Chemicals Machinery and equipment Transport equipment nec. Wood products Paper products and publishing Petroleum and coal products Pharma Non-ferrous metals Mineral products nec. Manufactures nec. Iron and steel Forestry

Figure 11. Tariffs on Swedish goods exports to the candidate countries, 2023 baseline.

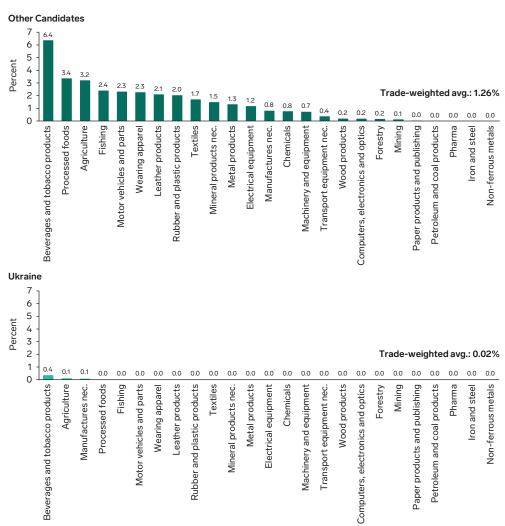
Source: Implement Economics in cooperation with Professor Joseph Francois, based on the UNCTAD Trains database (2023 data) and UN

Trade-weighted averages are calculated using each sectors share of total Swedish goods exports.

Imports from Ukraine are almost duty-free (trade-weighted tariff of 0.02 %), and tariffs are only imposed on certain 'Beverages and tobacco' products and 'Agriculture' products. Eliminating tariffs on goods imported from Ukraine will therefore mainly benefit Swedish consumers through lower costs of living.

Sweden applies average tariffs of 1.3 % on imports from Other Candidates, and once again the main benefits appear to accrue to Swedish consumers. EU tariffs on 'Beverages and tobacco' from Other Candidates are high at 6.4 %, and similar peaks exist for 'Processed foods' and other 'Agricultural' products', raising costs for Swedish consumers. A full elimination of tariffs for Other Candidates would therefore level the playing field relative to Ukraine.

Figure 12. Tariffs on Swedish goods imports from the candidate countries, 2023 baseline.



Source: Implement Economics in cooperation with Professor Joseph Francois, based on the UNCTAD Trains database (2023 data) and UN COMTRADE, Eurostat.

Note: Trade-weighted averages are calculated using each sectors share of total Swedish goods imports.

Reduction of non-tariff barriers in the enlargement scenario

Entry into the Single Market implies regulatory convergence and harmonisation of non-tariff measures (NTMs), including import quotas, licensing requirements, standards for product quality and safety, and customs procedures. For several reasons (e.g. incomplete or uneven implementation of EU regulation), there are still frictions related to goods trade among the existing members of the Single Market. In the model, NTMs on goods trade with the candidate countries are lowered to intra-EU levels estimated in the gravity model. Therefore, the estimates are the same for trade with Other Candidates and Ukraine.

Since it is just as cumbersome to adjust Swedish goods to local regulatory requirements in the candidate countries as it is vice versa, the reduction of NTMs is assumed to be symmetric (i.e. same NTM cost reduction for exporters from both the EU and the candidate countries). The NTM barriers are converted into their ad valorem equivalents (AVEs), which measure the reduction in tariffs required to generate a similar barrier to trade of a certain product as the NTMs. The tariff and AVE reductions are then applied in the CGE model.

Trade costs related to NTMs are equivalent to an average tariff on Swedish goods trade of 18 % across the candidate countries, and regulatory harmonisation is expected to generate a much larger economic stimulus than full tariff elimination. Also, regulatory harmonisation will benefit Swedish producers across a broader set of sectors.

Sweden faces average tariff equivalent of non-tariff measures (AVE) of 15.0 % on exports to Other Candidates and 16.1 % on exports to Ukraine, yielding a combined average AVE saving of 15.6 % in the enlargement scenario. For imports, the average AVEs are 16.5 % for Other Candidates and 13.4 % from Ukraine, leading to a combined average saving of 16.0 %. Goods sectors like 'Processed foods and beverages' will benefit from substantial AVE savings with enlargement, with reductions of nearly 48.4 % and 41.8 % respectively, highlighting significant potential for increased trade efficiency and cost reductions. High AVE savings of 35.4 % for 'Business services' and 29.7 % for 'Transportation' indicate important possibilities for service sector growth and deeper integration through lowered trade barriers.

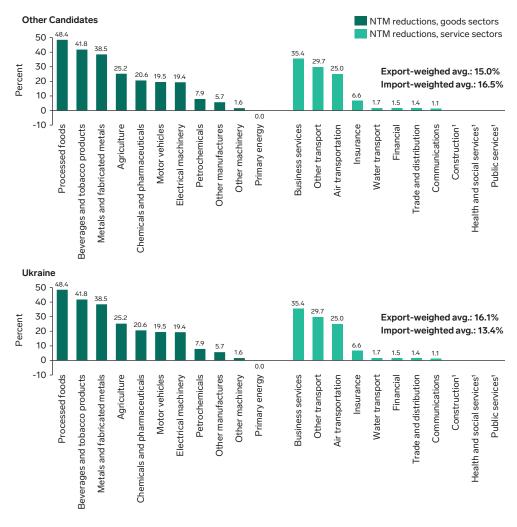


Figure 13. Non-tariff measures on Swedish trade with the candidate countries .

Source: Implement Economics in cooperation with Professor Joseph Francois, based on Egger, P., Francois, J., Manchin, M., & Nelson, D. (2015). Non-tariff barriers, integration and the transatlantic economy. Economic Policy, 30(83), 539-584.

NTM measures are symmetric, meaning that they are identical for export and import. 1) For some service sectors (construction, health and social services and public services), the EU Single Market offers limited preferential access to its members, and the AVE estimates are statistically insignificant. In addition, the sector distribution does not perfectly align with the supplementary data. As a result, we have undertaken a process to match and reconcile these discrepancies.

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