ssindex compass to a sustainable society

Research Note

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Collateral benefit? The war in Ukraine and effects on European supply chain sustainability

- Supply chains between Ukraine, Russia and Europe have been affected either by fighting or political sanctions. European governments and firms are looking for alternative suppliers
- The German and the planned European supply chain laws require adherence to minimum social and environmental standards in procurement
- Substitution of Russian exports is more difficult but may lead to improvement of EU 27 supply chain sustainability.
- Substitution of imports from Ukraine is likely to have negative welfare effects due to trade diversion.
- EU sanctions on imports from Russia appear to improve EU supply chain sustainability.
- This analysis provides policy makers with a tool to identify supplying countries that improve European supply chain sustainability.

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This paper[1] takes an utilitaristic perspective on an element of international warfare. We assume that we can identify benefits from international actions that are intended to harm large parts of a society involved in a military conflict. Specifically, we ask: (1) do economic sanctions directed at Russia after its invasion of Ukraine in 2022 lead to increased welfare in the form of sustainability gains in Europe? (2) does higher European welfare contribute to global welfare?

If both questions yield positive answers, utilitarism is paired with cosmopolitanism (Shapcott 2020): gains in sustainability do not compensate for the huge human and environmental cost of this conflict, but higher degrees of sustainability are supposed to be public goods enjoyed by global society at large.

The paper starts out with an assessment of the trade-sustainability connex. Methodology and data sources are sketched in a second step, followed by an analysis of sustainability profiles of EU trade with Russia, Ukraine and alternative suppliers. Finally, a simple analysis of Revealed Comparative Advantage adds another welfare dimension to the results.

Trade and sustainability in times of crisis

International trade flows, the business cycle and the global political environment are closely connected. At the same time, they are part of a society's sustainability profile, as measured by the Triple Bottom Line of Social, Environmental and Economic Sustainability.

Since the turn of the century, a number of crises have impacted global economic development and trade: The international and subsequently European debt crisis, the Covid pandemic, and Russia's invasion in Ukraine are major examples.

The EU27's international trade reflects the ups and downs of the global economy, and of these crises in particular.

EU CO^2-emmissions decoupled from EU trade

In turn, environmental pollution, to a large degree caused by economic activity, mirrors the global economy to a certain degree. Therefore, EU27 imports would be expected to be in sync with global CO2 emissions. However, it appears that EU27 CO2 emissions have decoupled from global trends. From 2002 to 2020, both EU27 imports and global CO2 emissions increased by 130% and 32% respectively, but EU27 CO2 emissions decreased by 35% overn the same period (Friedlingstein et al. 2021; International Trade Centre (ITC) 2022).

Both the Covid-19 outbreak in 2020 and the Russian invasion of Ukraine in 2022 have impacted international trade heavily, the former severing trade links due to lockdowns in many regions, the latter inducing sanctions and the destruction of production facilities and transport infrastructure. By February 2023 the EU itself had imposed over 5,000 of the 10,971 economic sanctions in place at the time on Russia (Zilli und Sharma 2023). Since then, further action has been taken by the US, the EU and other countries (Russia/Ukraine Sanctions Update - Month of October 2024). Trade with both countries is at risk and substitution effects are at work. This raises the question of whether and how a change in EU27 trade patterns might affect the EU27 sustainability record in general, and the EU27 supply chain sustainability in particular.

The 2022 war in Ukraine has not yet been covered extensively with respect to trade and sustainability. Global repercussions on prices and supply chain reliability (Orhan 2022) , EU27-Russia trade

[1] For editorial reasons research is published in two consecutive papers. This paper focusses on impacts on welfare and sustainability. A second paper (Veit 2025) focusses on data relating to structural European trade and sustainability patterns.

links with respect to the macroeconomic outfall from the war (Estrada and Koutronas 2022), supply-side weaknesses in Russia (FAZ 2022), or the impact on internal Russian reforms towards sustainability (Aliyeva and Daubner 2022) have been analyzed. Although the effect of sanctions on target countries ("receiving countries") is ambiguous in the short term (Bultrini et al. 2024; Gaur et al. 2023; Harrison 2023), there appears to be empirical evidence for companies' reaction to the war like termination of activities in Russia (Parella 2022) and diversification of suppliers (Aksoy et al. 2022). This points to a restructuring of EU27 trade away from Russia – and possibly Ukraine – towards alternative suppliers.

Search for alternative import sources

It is an open question, whether the changing trade patterns will benefit or worsen environmental protection in particular and sustainability in general. This research note analyses major EU27 imports from Ukraine and Russia, investigates the potential for alternative suppliers, and illustrates their sustainability profiles.

With a view to existing German and planned European supply chain legislation the analysis will also provide a tool for supplier assessment by importing companies[2].

Methods and Data

EU27 trade structures and sustainability profiles have been analyzed in a separate paper (Veit 2025) .

Trade

There, two analytical directions are taken. First, products, defined at the two-digit HS code level, are selected. Selection criterion is the share of EU27 imports from Russia and/or Ukraine in total EU27 imports of the same product category. The top ten products imported from Ukraine and Russia are chosen. Data are based on the 2-digit Harmonized System (HS-2) classification (World Customs Organization 2024).

HS2	Product	2019	2021
TOTAL	All products	0,4%	0,5%
10	Cereals	13,9%	8,0%
14	Vegetable plaiting materials; vegetable products not elsewhere specified or included	13,6%	4,1%
12	Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal ...	7,6%	6,3%
26	Ores, slag and ash	6,8%	7,2%
15	Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal ...	5,5%	6,1%
72	Iron and steel	2,4%	3,1%
25	Salt; sulphur; earths and stone; plastering materials, lime and cement	2,3%	2,7%
44	Wood and articles of wood; wood charcoal	2,2%	2,6%
23	Residues and waste from the food industries; prepared animal fodder	2,1%	1,4%
43	Furskins and artificial fur; manufactures thereof	1,4%	0,5%

Source: ITC, authors's calculatons

Figure 1: Share of EU 27 imports from Ukraine in total EU 27 imports by product category

HS2	Product	2019	2021
'TOTAL	All products	2,8%	2,7%
75	Nickel and articles thereof	20,5%	24,3%
27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral ...	19,4%	17,5%
31	Fertilisers	13,5%	12,0%
28	Inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth metals, ...	7,2%	6,0%
81	Other base metals; cermets; articles thereof	6,3%	4,4%
71	Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad ...	5,7%	5,1%
44	Wood and articles of wood; wood charcoal	5,2%	6,1%
76	Aluminium and articles thereof	4,5%	3,2%
72	Iron and steel	4,2%	4,8%
'74	Copper and articles thereof	3,7%	4,4%

Source: ITC, authors's calculatons

Figure 2: Share of EU 27 imports from Russia in total EU 27 imports by product category

Second, for each product, existing alternative suppliers to the EU27 are compared regarding their sales volume and market share. The relevant trade data are taken from the International Trade Center's Trade Map database (International Trade Centre (ITC) 2022) which uses data provided by the UN's Comtrade database (UN Comtrade 2022).

[2] Hilger et al. argue that economic efficiency dominates a company's sustainability considerations (Hilger et al. 2023). However, laws like the German and the upcoming European supply chain laws force companies to integrate their legal consequences into their risk-optimization process.

In order to avoid distortions caused by the Covid-19 pandemic, 2019 and 2021 data are used.

Sustainability

For Russia, Ukraine and alternative supplying countries sustainability is measured along the Triple Bottomline concept.[3].

For each product, the distance between Russian and/or Ukrainian sustainability scores and scores of the top ten alternative suppliers are measured. Veit (2025) assumes that national sustainability profiles approximate this nation's producers' sustainability profiles. As such they represent the EU27 supply chain sustainability at the tier 1 level.

Data are taken from the Sustainable Society Index (TH Köln 2022) which follows this concept and provides up-to-date and consistent data on three comparable dimensions: Human Wellbeing (HUW) representing social sustainability, Environmental Wellbeing (ENW) representing environmental sustainability and Economic Wellbeing (ECW) representing economic sustainability. The national dimension scores range from 1 (worst performance) to 10 (best performance). The combination of trade and sustainability analyses will identify countries that are in a position to act as alternative suppliers to the EU27.

Welfare effects

In this paper, a third step is taken: welfare effects of the substitution of Russia and Ukraine with the identified alternative suppliers will be analyzed. For this purpose, the "Balassa Index" (RCA, Revealed Comparative Advantage) of alternative suppliers will be determined. Welfare analysis based on the RCA can only provide an approximation, though (Bowen et al. 2012, S. 11–22)[4].

Veit(2025) identifies countries which show higher sustainability scores than Russia and Ukraine in one or more of the three SSI dimensions. For the RCA analysis a subset of those countries was selected: countries that perform better than Russia or Ukraine in the sum of the three SSI dimensions are chosen [5]. These countries' RCA values are calculated for the products they offer alternatively to Russia and Ukraine. Russian and Ukrainian RCA values are then deducted from the alternative countries' RCA values. If differences are positive, this results in the identification of Russian and Ukrainian exports' replacement by products that are both produced more sustainably and with a positive effect on global welfare.

As the EU supply chain sustainability legislation (European Parliament 2024) focusses on social and environmental conditions, country selection criteria were adjusted to the sum of HUW and ENW scores ("SSI(2)"). There are no alternative suppliers with a sum of those scores larger than Ukrainian scores, but a number of suppliers with SSI(2) scores exceeding Russian scores. Therefore, RCA comparisons are only performed against Russian RCA values (Annex Table 3). Again, most alternative suppliers that exceed Russian RCAs are non-OECD countries. Most of those countries offer products in one to three HS-groups.

[3] Nieuwenhuis et al argue that the TBL approach does not represent sustainability as the latter is of a strategic nature while TBL is more of an operational nature (Nieuwenhuis et al. 2019). This view, however, ignores the fact that operations are, or should be in rational strategy-development, an integral part of strategic considerations.

[4] For a critical analysis of Balassa's original RCA and subsequently presented alterations see (Laursen 2015). Laursen points out the problematic distributive properties of the RCA. Here, Balassa's version is employed nonetheless because distribution anomalies do not matter when measuring simple binary deviations of RCA values.

[5] This approach appears to contradict the SSI method of not aggregating the three dimension-scores. However, in this analysis it only serves to identify countries that would perform well in the comprehensive sustainability perspective of upcoming EU supply chain regulation.

Russia and Ukraine: sustainability and trade compared

Russian and Ukrainian sustainability profiles determine whether a shift to alternative suppliers is likely to improve EU27 supply chain sustainability.

Diverging sustainability profiles …

Measured by Sustainable Society Index (SSI) data for 2020, Russia and the Ukraine perform differently in two of the three dimensions.

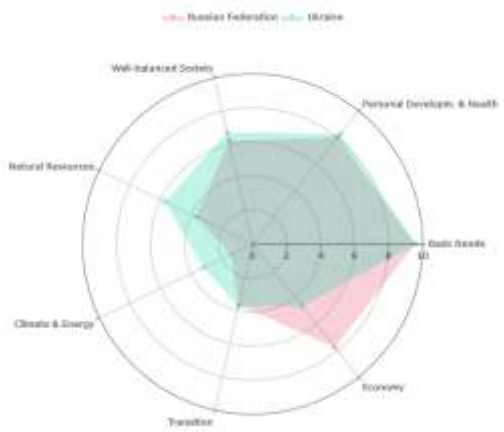

Figure 3: SSI scores Ukraine and Russia, 2020 (Source: SSI 2024)

With regard to Social Sustainability/HUW (Figure 3), both countries performed more or less equally. Bigger differences appear in the Environmental Sustainability/ENW dimension, where Ukraine outperforms Russia in four of six indicators. Within the third dimension Economic Sustainability/ECW, Russia outperforms Ukraine in four of the five indicators, the exception being organic farming.

Neither Russia nor Ukraine dominates in all three dimensions, a typical feature of most countries (Kowalski und Veit 2020) .

… but parallel trade developments

From 2002 to 2021, EU27 imports from Russia and Ukraine increased by a factor of 3 and 5, respectively. Imports grew more steadily from Ukraine, whereas imports from Russia fluctuated more. Politics obviously played a role: both countries recorded a decline after the Russian occupation of Crimea in 2014. From 2015 to 2021 imports from Ukraine recovered by 109% and imports from Russia grew by 29%. It is noteworthy that imports of Russian mineral fuels, a major Russian export item, recovered by only 18%, changing the overall structure of EU27 imports (International Trade Centre (ITC) 2022).

Figure 4: EU 27 imports from Russian Federation and Ukraine 2002-2021, USD bn (International Trade Center 2024)

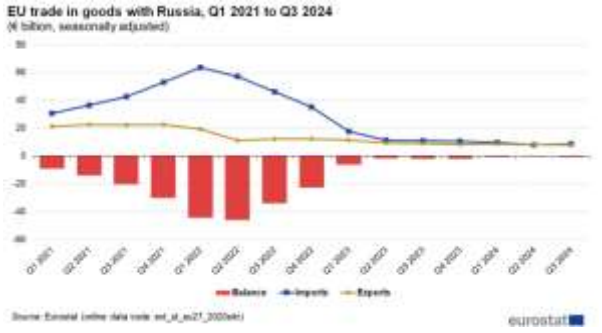

Figure 5: EU trade with Russia 2021-2024, €bn, (Eurostat 2024)

Substitutability and Sustainability

As Russian and Ukrainian top ten exports to EU27 differ in their shares in EU27 imports they impact EU 27 import sustainability profiles differently, too.

Both Russia and Ukraine have a strong position on the 'EU27 market in a number of goods (Russia: Nickel, Mineral Fuels, Fertilizers; Ukraine: Cereals, Vegetable Plaiting Materials). These products will be hard to substitute, not least because limited capacities among alternative suppliers might pose bottlenecks.

The remaining product categories show single digit shares in EU27 imports. Their substitution appears to be slightly more manageable. However, for six product categories China is an alternative supplier. With respect to decoupling or de-risking strategies, if not sanctions imposed by a new US administration, substitution may be limited here, too.

Sustainability: Russia and Ukraine score differently (Veit 2025)

Ukraine and Russia do not show big differences in their Social Sustainability scores, measured by the SSI HUW dimension. However, Ukraine clearly outperforms Russia in Environmental Sustainability, measured by the SSI ENW dimension. The third pillar of the Triple Bottom Line concept, Economic Sustainability, shows a superior performance of Russia.

Due to these different sustainability performances, any substitution of imports from Russia or Ukraine is likely to have different impacts on EU27 supply chain sustainability. Generally, for alternative suppliers it will be harder to beat Ukrainian environmental sustainability scores and Russian economic sustainability scores.

Therefore, in the case of continuing barriers to exports from Russia EU 27 supply chain's environmental sustainability is expected to improve.

Welfare Effects

In a number of cases alternative suppliers to the EU27 provide Europe with a more sustainable supply chain. This does not imply improved global welfare, though. Trade theory requires that countries should export goods in which they have a comparative advantage. Exporting without comparative advantage means resources would be wasted. Therefore, the concept of Revealed Comparative Advantage (RCA) was employed in order to evaluate the welfare effects of substitution by alternative suppliers.

Countries who perform better than Ukraine in the sum of all three SSI dimensions ("SSI(3)") mostly have a comparative disadvantage compared with Ukraine (Annex Table 1 and 2). Only Australia, Israel and Sri Lanka provide alternatives to Ukraine that combine superior sustainability scores with higher RCA values throughout. Furthermore, not considering sustainability scores, a majority of countries had comparative disadvantages vis-a-vis Ukraine.

There are many more countries performing better than Russia in all three SSI-dimensions (Annex Table 2). Of those, non-OECD countries in particular provide alternative supplies at a comparative advantage vis-à-vis Russia, indicating a potential for welfare-increasing exports produced in more sustainable conditions.

Two countries stand out, though: China offers 13 HS-2 product groups , but shows positive RCA-differences only in three of them. The other exception is Ukraine which offers 10 competing product groups at a positive RCA difference. It remains to be seen, however, whether war damages in Ukraine will allow the country to exploit its potential in relatively sustainable and competitive exports.

Summary of findings

Due to different sustainability performances, any substitution of imports from Russia or Ukraine is likely to have different impacts on EU27 supply chain sustainability. Generally, for alternative sup-

pliers it will be harder to beat Ukrainian environmental sustainability scores and harder to beat Russian economic sustainability scores.

Figures 5 – 7 provide a comparison of global alternative suppliers' sustainability scores (i.e. not restricted to the above analyzed top ten competitors) for each of the analyzed product groups and the three sustainability dimensions. For HUW, no big differences between alternative suppliers, Russia and Ukraine can be found. In 12 product groups competitors score slightly better than Ukraine, and 15 score better than Russia. Replacing imports from Ukraine and Russia, therefore, is expected to improve EU27 social supply chain sustainability only slightly. This may matter for German importers due to the German supply chain law of 2021.

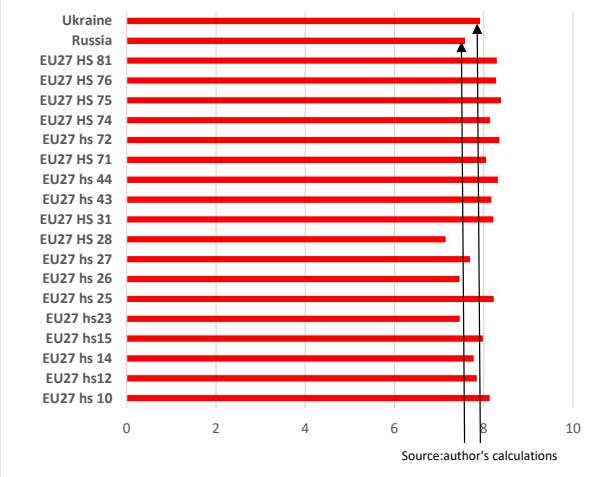

Figure 6: Cumulated HUW scores of EU27 suppliers

With regard to environmental sustainability, Russian and Ukrainian scores differ markedly. Russia scores worse than the average of all global competitors in the 18 product segments, whereas Ukraine tops all scores in all product segments except Inorganic Chemicals. Replacing Russian imports makes an improvement of EU27 environmental supply chain sustainability likely, whereas the opposite can be expected from replacing imports from Ukraine. This will matter to European importers due to the planned European supply chain law.

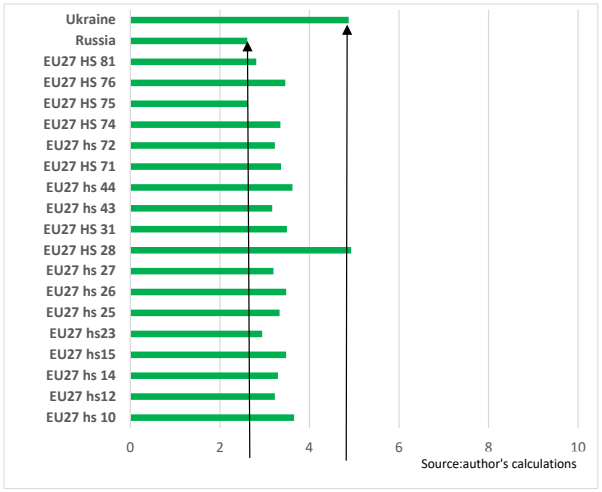

Figure 7: Cumulated ENW scores of EU27 suppliers

Differences between Russia and Ukraine are smaller when economic sustainability is concerned. However, Ukraine scores worse both than Russia and the global competitor average in every product category.

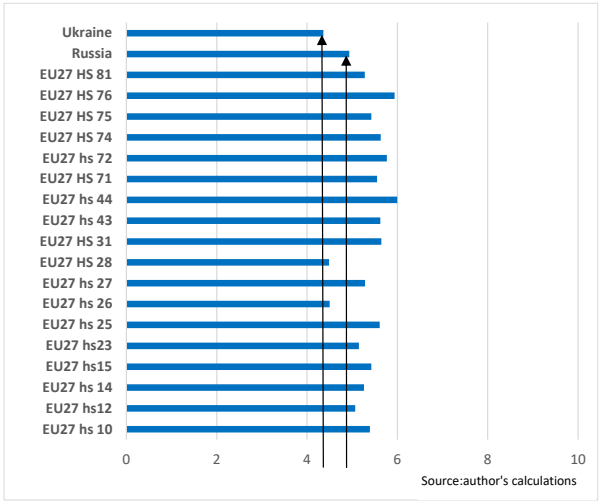

Figure 8: Cumulated ECW scores of EU27 suppliers

Russia scores worse than global competitors in all but two product categories (ores and chemicals). The ECW dimension measures, amongst others, a country's economic transformation towards sustainable production modes. The deficits of both Ukraine and Russia in this field become apparent in figure 8.

Sanctions on Russian exports likely to improve EU 27 supply chain sustainability

According to the selection criteria applied in this paper the likelihood of improving EU27 supply chain sustainability through substitution of imports from Ukraine or Russia depends on two measures: first, on either country's rank among exporters to the EU (indicating its market share), and second on either country's relative sustainability score.

HS2	Product	EIS(ms)*	EIS(ss)**
10	Cereals		
14	Vegetable plaiting materials; vegetable products not elsewhere specified or included		
12	Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal ...		
26	Ores, slag and ash		
15	Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal ...		
72	Iron and steel		
25	Salt; sulphur; earths and stone; plastering materials, lime and cement		
44	Wood and articles of wood; wood charcoal		
23	Residues and waste from the food industries; prepared animal fodder		
43	Furskins and artificial fur; manufactures thereof		
	*Exporting Country is in first tertil (red =hard to replace), second tertil (yellow), third tertil (green=Easy to replace)		
	** Exporting country performs better (red), equal(yellow) or worse (green) than average		

Figure 9: Ease of substitution of imports from Ukraine

HS2	Product	EIS(ms)*	EIS(ss)**
75	Nickel and articles thereof		
27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral ...		
31	Fertilisers		
28	Inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth metals, ...		
81	Other base metals; cermets; articles thereof		
71	Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad ...		
44	Wood and articles of wood; wood charcoal		
76	Aluminium and articles thereof		
72	Iron and steel		
'74	Copper and articles thereof		
	*Exporting Country is in first tertil (red =hard to replace), second tertil (yellow), third tertil (green=Easy to replace)		
	** Exporting country performs better (red), equal(yellow) or worse (green) than average		

Figure 10: Ease of substitution of imports from Russia

Figure 99 and 10 illustrate both measures. Ease of substitution due to market share (EIS(ms)) will be low (marked red) for five out of ten imports from Ukraine. This ratio increases to eight out of ten for Russia. If, however, substitution takes place, we measure ease of substitution due to sustainability scores by (EIS(ss)). In this case, the likelihood of an improvement of EU 27 supply chain sustainability (combined three SSI-dimensions) is much higher with Russian exports: for eight out of ten products (green shaded in Fig.10) Russia performs worse than its competitors; Ukraine does so in only one out of ten products (Fig.9).

Therefore, in the case of continuing barriers to exports from Russia EU 27 supply chain sustainability is expected to improve.

Substitution of Ukrainian exports more likely to lead to trade diversion

Substitution of EU27 imports from Russia and Ukraine will increase welfare if the alternative suppliers have higher RCAs than the original suppliers. This would be akin to trade creation.

When compared with Ukraine, only a few suppliers do show such a positive RCA difference. Most alternative suppliers have lower RCAs than Ukraine in the products concerned, pointing to welfare losses due to trade diversion.

When substitution of Russian imports is considered, a larger number of countries offer products at RCA values exceeding the Russian ones. Most of those countries belong to the Global South. Therefore, substitution of Russian EU27 imports by more sustainable alternatives may not only lead to trade creation, but may benefit non-OECD countries in particular.

Limitations and Discussion

This paper attempts to estimate the effect of import substitution on EU27 supply chains sustainability. It assumes a reduction or complete stop of major imports from Ukraine and Russia. The analysis should inform EU27 importers about their potential to improve the sustainability profile of their supply chains. Results show a strong potential for improving environmental sustainability and some

potential for improving social and economic sustainability. EU27 importers obtain a tool to differentiate between the sustainability of supplying countries, and by extension, between the expected sustainability profiles of supplying firms.

The analysis rests on three critical assumptions: First, the categorization of products at the HS2 level is representative of products actually traded by European firms. The advantage of the Harmonized System (HS) rests in its international comparability and it permits insights into global economic aggregates. However, products actually traded are recorded at a more disaggregate level. Therefore, an analysis of disaggregated data at the six-digit level (HS6) will certainly provide information more suitable to the needs of firms' purchase departments. However, the method applied in this paper is suitable for analysis of each of the almost 1 million products in the HS6 category.

Second, the Sustainable Society Index SSI is used as an approximation of country and, by extension, company sustainability. There are a number of alternative measures of sustainability (Brand and Veit 2018) that offer more comprehensive data, the best known of them being the Sustainable Development Goals Database (UNSDG 2022). SDG offers more disaggregated measures, but they neither translate easily into the Triple Bottom Line concept nor are they time consistent. For specific disaggregated analysis SDG data may be better suited. The SSI is employed in this paper due to the availability of consistent time series data that can be aggregated into TBL. Whether national sustainability data are representative of company sustainability, is an open question. No research has been undertaken so far. Anecdotical evidence suggests not to reject this hypothesis, though.

Third, competitors to Ukraine and Russia in the analyzed product groups are assumed to be able and willing to supply adequate quality and quantities to EU27 importers. Whether they would actually do so depends on the degree of diversification within the HS2 category and the alternative suppliers' market power. The case of OPEC's October 2022 decision to reduce crude oil production illuminates the effects of extensive market power in a specific sector. This may be possible in some of the analyzed international product markets. A study of market concentration is therefore recommended.

Finally, measuring global welfare effects by the original Balassa Index may be refined by an RCA-version that eliminates some of the original's statistical weaknesses like the asymmetric distribution of RCA-values (Laursen 2015) which may, however, have unintended downsides (Benedictis und Tamberi 2004) as a "forced symmetry may obscure some of the BI dynamics" (Benedictis und Tamberi 2001). Adopting refined approaches to the RCA would be particularly meaningful when longitudinal data on EU27 trade relationships are analyzed. Due to the time-specific issues of both the Corona crisis and the war in Ukraine this has not been performed here.

With the paper's limitations in mind two contributions have been made: first, an understanding of restructured trade in the wake of the war in Ukraine, and second, the potential effect of this restructuring on EU27 supply chain sustainability are provided.

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Annex

Country / HS	10	12	14	15	23	25	26	43	44	72	78	OECD
Australia							17,1					*
Israel											0,7	*
Korea, Republic of										-6,7	2,3	*
Norway								0,1	-3,0	-8,3		*
Switzerland					-7,2				-3,7			*
United Kingdom	-32,5	-9,9	-18,0	-19,7	-6,6	-2,8		-0,6	-3,7	-8,1		*
Hong Kong								-0,1				
Peru			-4,8				23,2					
Philippines				-17,2								
Sri Lanka			19,3									

Annex Table 1: RCA-difference for countries with higher SSI(3) scores than Ukraine

Country / HS	10	12	14	15	23	25	26	27	28	29	31	43	44	71	72	74	75	76	78	81	OECD
Australia							22,0										-1,9				*
Canada	-0,6	2,0									-2,3			0,3			-0,3			-1,1	*
Chile							21,4		3,1												*
Iceland																		35,1			*
Israel									1,2		0,5								1,1		*
Korea Republic of										4,5					-0,0				2,6		*
Mexico							0,1														*
Norway									-0,4	0,7	-6,3	0,6	-2,0		-1,6		3,7				*
Switzerland					-0,6								-2,6			-1,3		-0,7		-2,0	*
United Kingdom	-2,9	-0,4	-0,7	-1,4	0,0	-0,5		-4,0	-0,5	2,7	-6,1	-0,0	-2,7		-1,4	-1,1	-2,9	-0,8		-0,2	*
Argentina		11,7										0,2									
China		-0,2	0,1		-0,5	-0,5			-0,2					-0,8	-1,4	-1,2	-4,7				
Egypt																			-0,9		
Hong Kong												0,5									
Indonesia					0,4								0,3								
Kazakhstan		1,0						1,4												1,6	
Morocco						13,0					25,0										
Myanmar	6,4																				
Peru			12,5				28,1														
Philippines				1,2																	
Serbia																			1,9		
Singapore										3,6											
Sri Lanka			36,6																		
Thailand	-0,2		-0,1		1,1									0,8							
Ukraine					6,6	2,4	4,9					0,5	1,1		6,7				0,4		
United Arab Emirates														-1,0				0,4			

Annex Table 2: RCA-difference for countries with higher SSI(3) scores than Russia

Country / HS	10	12	14	23	25	26	27	28	29	31	43	44	71	72	74	75	76	78	81	OECD
Australia						22,0										-1,9				*
Canada	-0,6	2,0				16,6				-2,3	1,0		0,3			-0,5			-1,1	*
Chile						21,4		3,1							24,7					*
Iceland																	35,1			*
Israel								1,2		0,5								1,1		*
Japan								0,1	2,5							-4,1			-0,9	*
Korea Republic of									4,5					-0,0				2,6		*
Mexico						0,1														*
Norway					0,7		0,3	-0,4	0,7	-6,3	0,6	-2,0			-1,2	3,7	2,3			*
Switzerland				-0,6								-2,6	6,3		-1,3		-0,7		-2,0	*
United Kingdom	-2,9	-0,4	-0,7	0,0	-0,5		-4,0	-0,5	2,7	-6,1	-0,0	-2,7	1,6	-1,4	-1,1	-2,9	-0,8	1,8	-0,2	*
United States of America	-1,4	2,4	-0,5	0,8	-0,4	-0,4	-3,7	-0,2	2,2	-5,5	-0,1	-2,1	0,0		-1,0	-3,6		-0,8	-0,5	*
Belarus										25,1		3,1								
Brazil	2,8	22,5	0,2	6,2	-0,0	8,1						-1,0		0,3					-2,4	
Cambodia	1,6																			
China		-0,2	0,1	-0,5	-0,5			-0,2	2,1		3,9	-2,1	-0,8	-1,4	-1,2		-0,4		-1,0	
Congo Democratic Republic of the															69,8					
Egypt										7,5									-2,5	
Hong Kong											0,5									
Indonesia				0,4								0,3								
Kazakhstan		1,0					1,4												1,6	
Libya State of							3,9													
Morocco					13,0					25,0										
Myanmar	6,4																			
Namibia																-5,0				
Peru			12,5			28,1														
Serbia																		1,9		
Singapore									3,6											
South Africa					1,5	10,7							3,9			-2,5				
Sri Lanka			36,6																	
Taipei Chinese														-0,8						
Thailand	-0,2		-0,1	1,1									0,8							
Ukraine	29,6	9,5	17,3	6,6	2,4	4,9					0,5	1,1		6,7				0,4		
United Arab Emirates														-1,7			0,4			

Annex Table 3: RCA-difference for countries with higher SSI(2) scores than Russia

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