



Flossbach von Storch
RESEARCH INSTITUTE

MACROECONOMICS 09/11/2022

EU's dangerous trade dependences

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Abstract

As the energy crisis triggered by the Russian war against Ukraine vividly demonstrated the EU suffers under inconvenient external dependences. Perhaps more dangerous than the dependence on oil and gas from Russia is that China is not only a major exporter to the EU but also ranks third among the EU's export destinations. Despite the evident risks in maintaining such close economic relations with authoritarian regimes, the EU's trade dependence is likely to persist if existing institutional structures remain unchanged. Hence, to avoid growing vulnerabilities of the EU's position in the global economy, a policy change is needed, aimed not only at shifting economic incentives for businesses but also at reconciling sustainability goals with geopolitical requirements.

Zusammenfassung

Wie die durch den russischen Krieg gegen die Ukraine ausgelöste Energiekrise anschaulich gezeigt hat, leidet die EU unter unbequemen externen Abhängigkeiten. Vermutlich noch gefährlicher als die Abhängigkeit von russischem Öl und Gas ist die Tatsache, dass China nicht nur ein wichtiger Exporteur in die EU ist, sondern auch an dritter Stelle der Exportziele der EU steht. Trotz der offensichtlichen Risiken, die mit der Aufrechterhaltung solch enger Wirtschaftsbeziehungen zu autoritären Regimen verbunden sind, wird die Handelsabhängigkeit der EU wahrscheinlich weiter vorherrschen, wenn die bestehenden institutionellen Strukturen unverändert bleiben. Um eine zunehmende Anfälligkeit der EU-Position in der Weltwirtschaft zu vermeiden, ist daher ein politischer Wandel erforderlich, der nicht nur darauf abzielt, wirtschaftliche Anreize für Unternehmen zu verändern, sondern auch Nachhaltigkeitsziele mit geopolitischen Anforderungen in Einklang zu bringen.



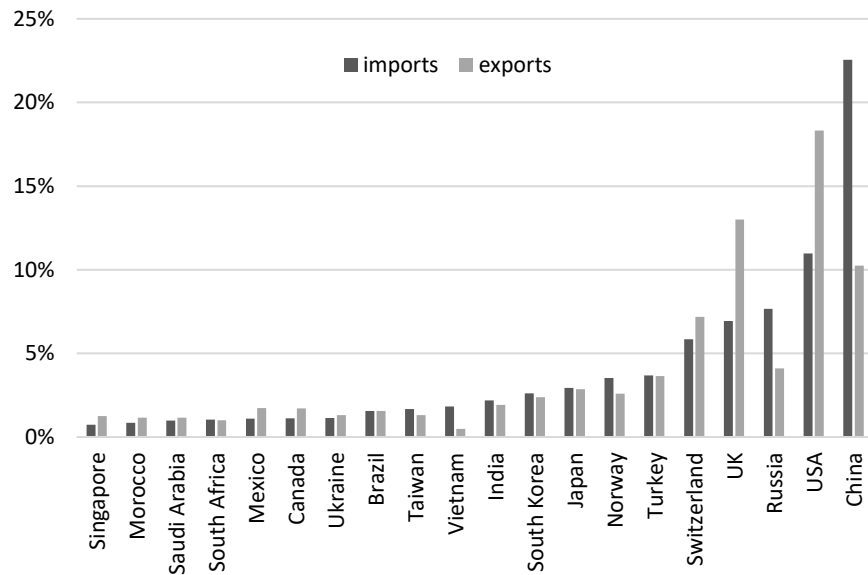
Mapping EU's trade dependences

Tight links with China are a major source of political and economic risks.

Trade relations of the EU are skewed towards a few countries. At least since Russia's invasion of Ukraine the tight links with China must be regarded as a major source of political and economic risks. Contrary to expectations, closer trade relations with authoritarian regimes not only fail to induce shifts towards more democracy but can also be used by these regimes as a tool to blackmail its trading partners.

Specifically, currently almost 23% of the total imports of the EU come from China, followed by 11% from the US and around 8% from Russia. On the export side, the highest share of 18% is held by the US, followed by a 13% share of the UK, and 10% share of China (**Figure 1**).

Figure 1. Country-specific import and export shares over the respective totals in the EU-27

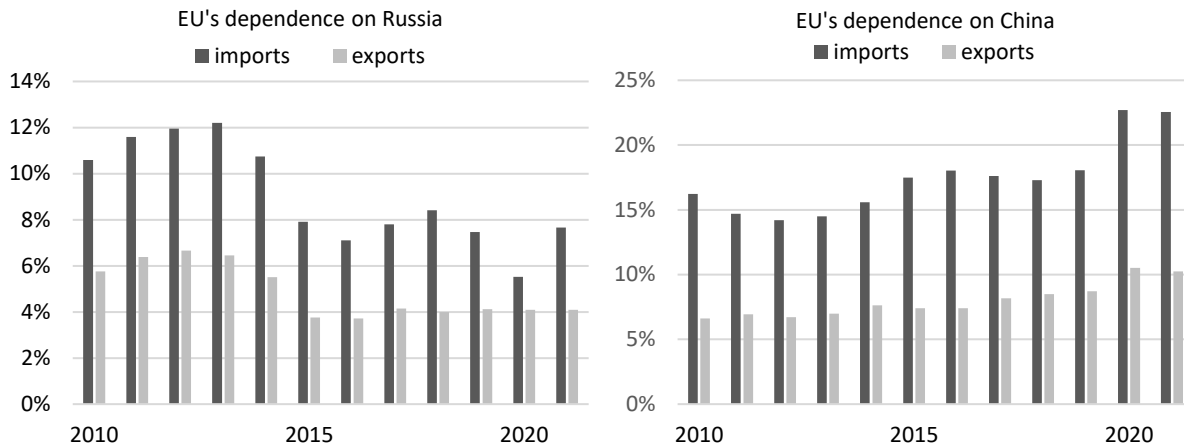


Source: Own elaboration Flossbach von Storch Research Institute based on Eurostat and Comtrade database

Whereas the EU's trade dependence on Russia has diminished somewhat in the wake of Russia's annexation of Crimea in early 2014, trade links with China have continued to intensify, both on the export and import side (**Figure 2**).



Figure 2. EU-27 imports/exports from/to Russia and China as shares of total EU imports/exports



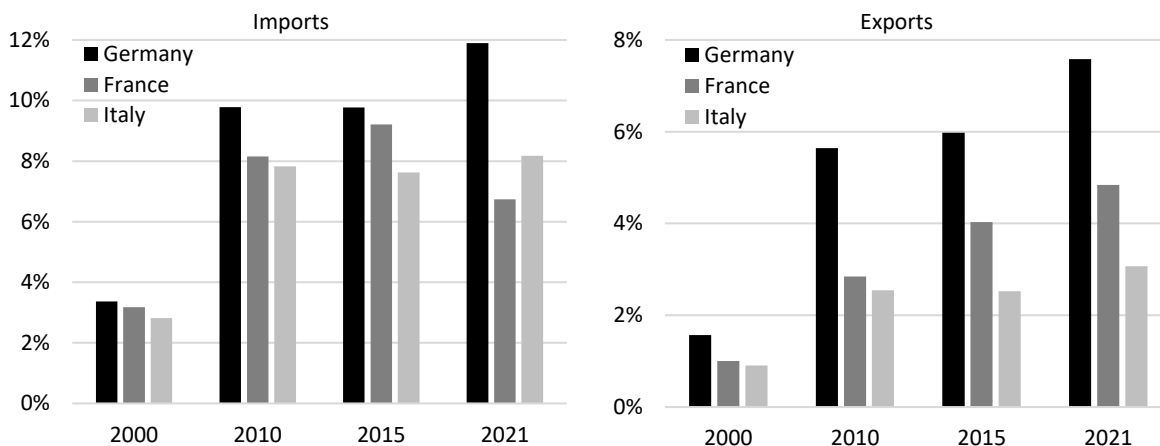
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Trade relations of individual EU countries with China

Within the EU, Germany has the strongest trade links with China.

Among the three largest EU members, Germany has the strongest trade links with China, both in terms of imports and exports. The relationship increased significantly over the last two decades, rising from 3.4% to 11.9% for imports and from 1.6% to 7.6% for exports. Both France and Italy increased their trade relations as well compared with the beginning of the new millennium. France’s export dependency on China increased from 1% in 2000 to almost 5% in 2021. At the same time, France has managed to reduce its import dependency from 9.2% in 2015 to 6.7% in 2021, whereas Italy’s respective trade shares moved sideways over the last decade (**Figure 3**).

Figure 3. Trade dependence from China (shares of imports from and exports to China over total imports/exports) in the three largest EU member states



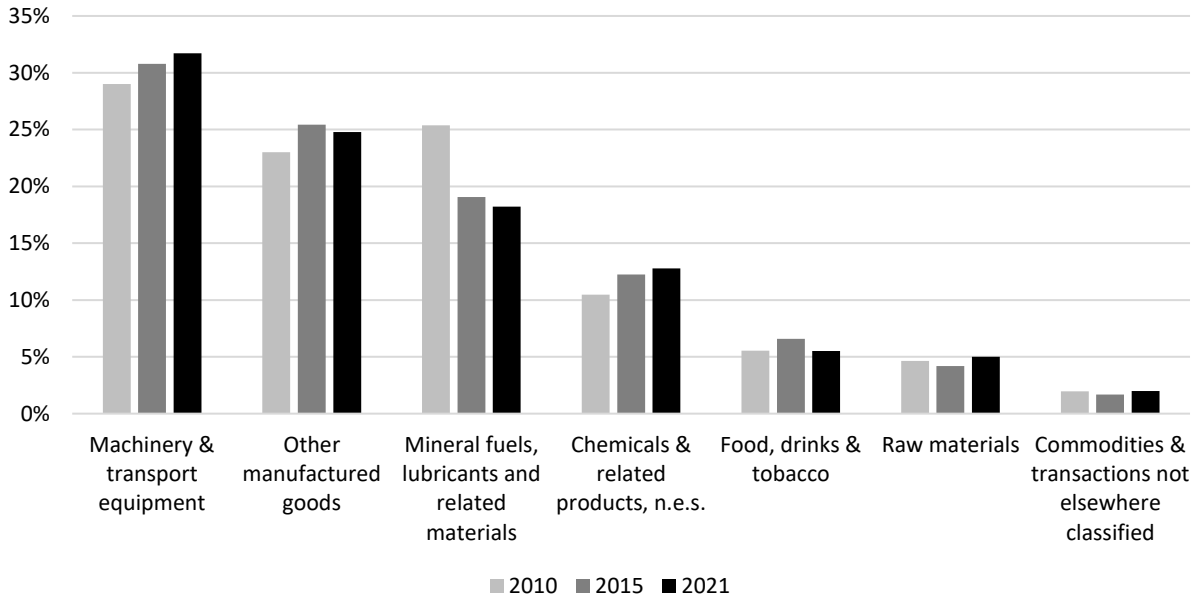
Source: Own elaboration Flossbach von Storch Research Institute based on Comtrade database



Product-level vulnerabilities

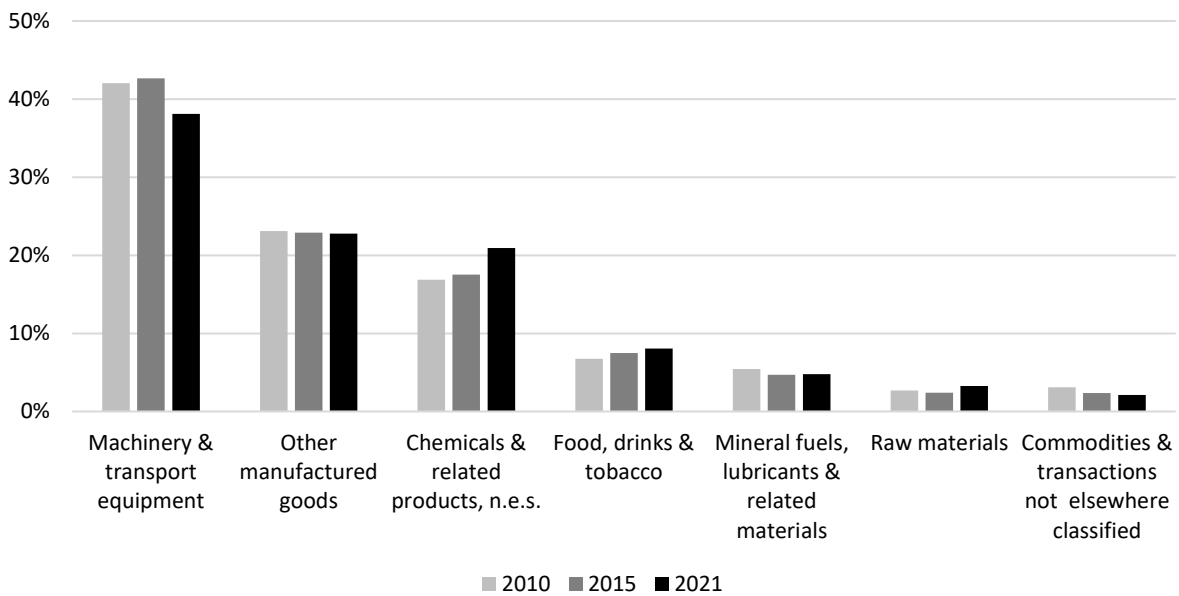
Across the broad product groups, the strongest EU's foreign trade relations exist for machinery and transport equipment. In 2021, the import share in this product group over EU-wide imports increased from 29% in 2010 to 32% in 2021 (Figure 4). The corresponding export share declined from 42% in 2010 to 38% in 2021 (Figure 5).

Figure 4. EU's imports across the product groups, as a share of total imports



Source: Own elaboration Flossbach von Storch Research Institute based on Eurostat database

Figure 5. EU's exports across the product groups, as a share of total exports



Source: Own elaboration Flossbach von Storch Research Institute based on Eurostat database



For the EU's imports in almost all product categories reported in **Figure 4**, China plays a dominant role, reflecting the country's rise as manufacturing superpower since the 1970s.

Whereas not every trade relation – especially on the import side – is toxic per se, it becomes so if it leads to “strategic dependence”. This is the case if simultaneously three conditions are satisfied:

- 1) The country/region is a net importer of a good.
- 2) The country/region imports over 50% of its total imports of the good from a single partner.
- 3) The partner possesses at least 30% of the global market share for the good in question.¹

Strategic trade dependences render the country's production system vulnerable.

Under strategic dependence, it is difficult for the country to readily re-direct its imports away from the exporter, which is a dominant player in the global market.

Following this definition, **Tables 1 and 2** show strategic import dependences of the EU on China for main categories of final consumption and intermediate goods as of 2021. Both classifications are based on import values for 6-digit Harmonized System (HS) product categories.² This allows a detailed view at the goods that are traded.

Among the top ten consumer goods, the strongest import dependence exists for important electronic devices. Specifically, in 2021, over 70% of EU overall imports of mobile phones originated from China, with China having almost 56% of global market share in this product category. Analogously for automatic data processing machines, wheeled toys, video games, and non-sport footwear the EU imports 93%, 83%, 76% and 58%, respectively, from China, with the latter possessing over 50% of the respective global market shares (**Table 1**).

Especially problematic are strategic dependences for intermediate goods.

But even more critical should be strategic dependences for intermediate goods. The unavailability of an essential production factor has the potential to disrupt the industrial production directly and indirectly along the supply and value chain. This is especially so if alternative suppliers cannot be easily and timely found.

The EU is particularly dependent in several categories of electrical machinery and equipment and parts thereof, in machinery and mechanical appliances,

¹ The definition and measurement of strategic dependence adopted in this study follows the approach of Zenglein, M.J. (2020), Mapping and recalibrating Europe's economic interdependence with China, Merics, China Monitor, November 18, 2020.

² The HS is organized into 21 sections, subdivided into 99 chapters (2-digit), 1,244 headings (4-digit) and 5224 subheadings (6-digit).



in base metals, glass, as well as in different categories of organic chemicals and inorganic chemicals (**Table 2**). Although they are not sophisticated technological goods, many of these products are critical inputs in the upstream production and make the entire industrial processes vulnerable to shocks. For instance, the EU's green energy industry – especially the wind energy sector – is highly dependent on China's supply of magnetic metals that are essential component for wind turbines as well as modern electric motors. Also, minerals for power electric car batteries are typically mined and refined by Chinese companies.

Table 1. EU's strategic dependence on imports from China for selected final consumption good categories, classified according to the descending value of overall EU imports of the goods, data for 2021

HS category	Overall EU Imports of the good	EU import dependence from China	China's global market share	EU trade balance (in mio. US-\$)
1. Telephones for cellular or wireless networks	43,185	71.1%	55.5%	-25,264
2. Automatic data processing machines	40,951	93.4%	72.6%	-36,772
3. Communication apparatus (excl. telephone sets or base stations)	33,298	55.2%	31.0%	-16,696
4. Photosensitive electrical apparatus, incl. photovoltaic	13,235	82.6%	48.5%	-10,910
5. Electrical static converters	12,511	60.8%	35.0%	-2,744
6. Tricycles, scooters, pedal cars and similar wheeled toys	8,351	82.8%	67.2%	-5,531
7. Games, video game consoles	5,793	75.5%	55.9%	-4,700
8. Non-sport footwear	3,840	58.1%	55.4%	-1,572
9. Combined refrigerator-freezers	2,380	63.6%	30.3%	-1,577
10. Microwave of a kind used for domestic purposes	909	80.5%	70.1%	-789

Note: The reported good categories have following HS codes: 1 = 851712, 2 = 847130, 3 = 851762, 4 = 854140, 5 = 850440, 6 = 950300, 7 = 950450, 8 = 640419, 9 = 841810, 10 = 851650.

Source: Own elaboration Flossbach von Storch Research Institute based on Comtrade database



Table 2. EU's strategic dependence on imports from China for selected intermediate good categories, classified according to the descending value of overall EU imports of the goods, data for 2021

HS category	Overall EU Imports of the good	EU import dependence from China	China's global market share	EU trade balance (in mio. US-\$)
1. Electric motors and generators, DC of an output not exceeding 750W	2,211.4	54.0%	27.6%	-725.7
2. Printed circuit board	6,117	67.2%	35.8%	-4,944
3. Permanent magnets and metal articles intended to become permanent magnets	1,054	85.5%	64.0%	-923.7
4. Locks of base metal other than those for motor vehicles or furniture	533.8	55.4%	37.4%	-73.6
5. Cells and batteries, primary manganese dioxide	517.7	84.9%	48.1%	-328.9
6. Safety glass	514.8	59.5%	61.0%	-365.3
7. Magnesium unwrought containing less than 99.8% by weight of magnesium	175.6	94.3%	69.9%	-130.6
8. Rubber accelerators, prepared	73.2	64.8%	55.9%	-17.3
9. Vitamin B6 and its derivatives	65.4	98.6%	68.6%	-18.4
10. Chloramphenicol and its derivatives	32.9	98.6%	90.2%	-30.8
11. Manganese dioxide	26.5	70.3%	57.3%	-23.2
12. Heterocyclic compounds containing an unfused imidazole ring	23.7	54.9%	36.2%	-13.1
13. Reciprocating piston engines	13.1	97.0%	76.0%	-12.9
14. Hydroxides and peroxides of strontium or barium	6.6	93.7%	69.5%	-1.1
15. Rare earth-metals	4.0	75.5%	58.8%	-3.5

Note: The reported good categories have following HS codes: 1 = 850131, 2 = 853400, 3 = 850511, 4= 830140, 5 = 850610, 6 = 700719, 7 = 810419, 8 = 381210, 9 = 293625, 10 = 294140, 11 = 282010, 12 = 293321, 13 = 840731, 14 = 281640, 15 = 280530.

Source: Own elaboration Flossbach von Storch Research Institute based on Comtrade database



Ways out of the dilemma

Given the intensifying geopolitical tensions, the growing economic dependence of the EU – especially on China – leads to the loss of strategic sovereignty. China has already shown in the past that it is willing to use its potential for economic blackmail in the supply of crucial resources. Back in 2009, China boycotted its exports of rare earths that are crucial for computer manufacturing. Under the leadership of Xi Jinping the pressure is likely to intensify.

The EU should focus on adopting trade framework and economic incentives for firms.

Reducing underlying dependences should thus be a priority for the EU's industrial policy. It is primarily a matter of adapting the trade framework and the economic incentives to encourage purposeful structural changes. One meaningful instrument includes the abolition or at least substantial reduction of investment guarantees for business activities in and with China.

Another effective strategy could be the development of new export and import markets through intergovernmental agreements abolishing existing trade barriers and creating attractive investment conditions. The short-term effects of a move away from China could come with losses in efficiency and profits. But diversification should pay off in the mid- to long-term when new capacities are sufficiently developed to take yield from economies of scale and scope.

In rethinking the priorities, geopolitics and sustainability should go hand in hand.

Diversification would have been emphasised a long time ago if the EU had taken its own very high standards with regards to environmental and social sustainability more seriously. Instead, a myopic strategy put at risk not only sustainability itself but ultimately also the EU's geopolitical integrity. Since the latter is an essential prerequisite for the former, it would be high time for the EU to rethink its priorities.



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