

# EU imports and exports of medical equipment

## SUMMARY

The crisis caused by the coronavirus pandemic has, with tragic consequences, brought to the fore the fact that the European Union (EU) is dependent on non-EU sources for medical equipment such as personal protection equipment (including masks) and artificial respiratory equipment, as well as other products needed in the fight against the virus. In response to shortages, Member States have taken initiatives to produce and distribute medical equipment and the EU has put in place a number of coordinated responses, such as the creation of the rescEU stockpile of emergency medical equipment, and the restriction of exports of personal protective equipment outside the European Union.

A mapping of EU trade in four categories of product – pharmaceuticals, medical equipment, personal protection and medical supplies – shows that, in all four categories, as few as five trade partners provide about 75 % of EU imports. Exports are more diffuse, with five partners receiving approximately half of EU exports. In 2019, the EU was a net exporter of medical products in all four categories, with pharmaceutical products representing most of its trade surplus of medical products. The weaker domain is personal protection products. The main EU import partners are Switzerland, the United Kingdom, the United States, China, and Singapore, with the first three appearing among the top four countries in all categories. Additional insights into the value chains of chemical and pharmaceutical sector production in the EU's top five import partners suggest that China and other countries provide a far larger share in raw materials and manufacturing than direct imports suggest. These results imply that the production of medical products is far more scattered than direct import numbers would suggest.



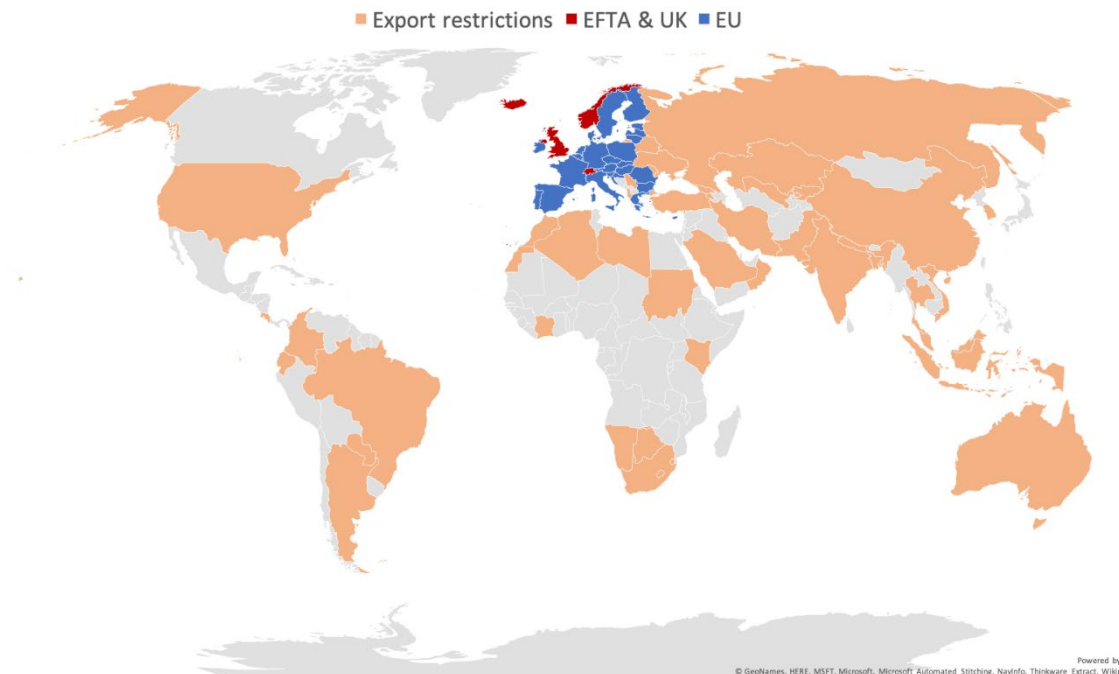
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## Introduction

Responding to the shortage of medical products to tackle the coronavirus pandemic, a large number of countries implemented either de facto or legal [restrictions on exports of medical products](#).<sup>1</sup> On 15 March, the European Commission itself introduced [Implementing Regulation \(2020/402\)](#) on authorisation requirements for exports of personal protective equipment outside the European Union (EU); it came into effect on 21 March.

Figure 1 – Temporary export restrictions on medical products in the world



Source: [International Trade Centre](#) and [World Customs Organization](#).

The coronavirus crisis has revealed the dependence of the EU on imports of medical products from non-EU countries. EU Member States have therefore been taking emergency initiatives in collaboration with the EU to produce and distribute medical products, especially [personal protection](#) and [artificial respiratory equipment](#), as existing producers have been unable to meet the skyrocketing worldwide demand. This raises the question of the need for the EU to enhance its production independence in the future.

## EU international trade in medical products

The figures depicting EU trade provided below use the classification of medical products suggested by the [information note](#) published by the World Trade Organization (WTO). The note identifies four categories of Covid-19 related medical products, namely pharmaceuticals, medical equipment, personal protection, and medical supplies. The four groups are based on the [Harmonised System \(HS\)](#) headings and are described in Table 1. Also, since the analysis is meant to be forward-looking, it considers the EU as the current EU-27, even though trade numbers date back to 2005. The analysis looking at countries covered by the Implementing Regulations (2020/402) and (2020/426) is reported in a subsequent section.

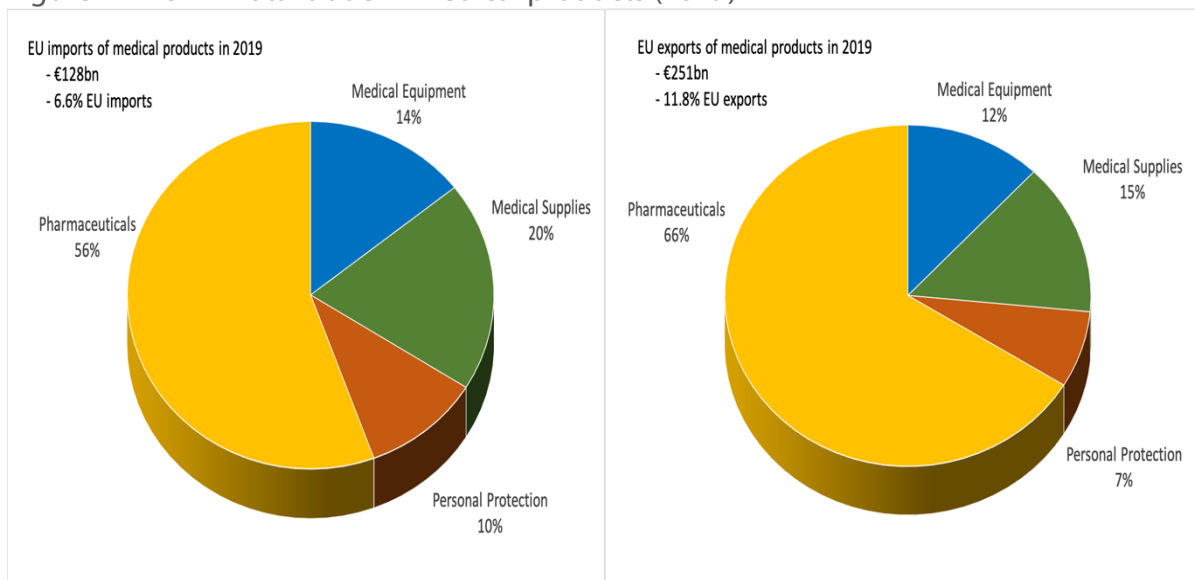
Table 1 – Description of medical products categories

Group	Description
Pharmaceuticals	Medicine and pharmaceutical products: medicaments, immunological and vaccine products, active ingredients.
Medical equipment	Medical equipment and apparatus: artificial respiration, magnetic and ultraviolet apparatus, optical devices.
Personal protection	Personal protection products: face masks, protective spectacles, soap.
Medical supplies	Consumables for hospital and laboratory use: hygienic articles, apparel and clothing, syringes, gauze, X-ray products, diagnostic reagents.

Source: [World Trade Organization](#).

In 2019, total EU trade (imports plus exports) in medical products represented 9.3 % of total EU trade. The EU is a net exporter of medical products overall, with net exports totalling €123 billion (0.9 % of EU gross domestic product – GDP). Total exports of medical products amounted to €251 billion (11.8 % of EU merchandise exports). In 2019, total imports of medical products amounted to €128 billion (6.6 % of EU merchandise imports).

Figure 2 – EU-27 Total trade in medical products (2019)



Source: [Eurostat COMEXT](#), author's calculations.

Figure 1 shows that in 2019 more than half of the EU's imports of medical products were pharmaceutical products, only 10 % were personal protection products. When it comes to exports of medical products, pharmaceuticals account for the largest share by far (66 %). Moreover, Table 2 shows that the EU is a net exporter in all four categories of medical products. The pharmaceutical industry is a major source of income, netting €95.4 billion and representing 85.1 % of the total trade surplus of medical products (0.7 % of EU GDP). Personal protection products represent 10.5 % of imports, but only 3.9 % of the EU's total net exports of medical products.

Table 2 – EU-27 trade in medical products in 2019 (€ billion)

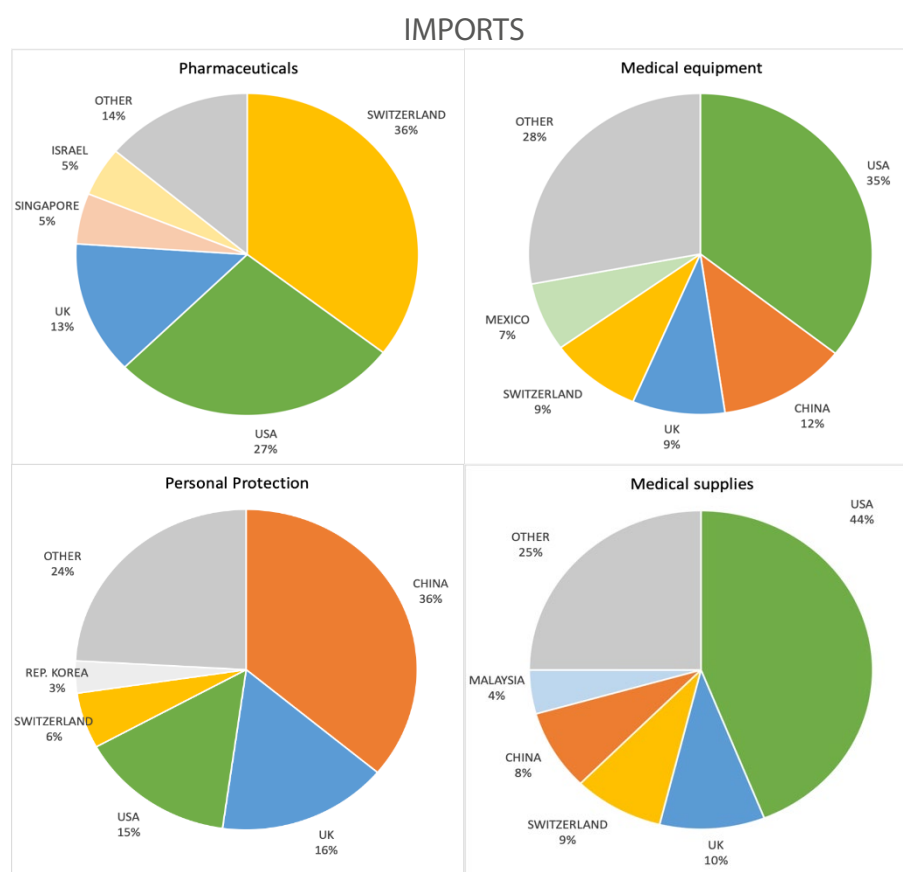
	Exports	Imports	Net exports
Medical equipment	30.4	18.3	12.0
Medical supplies	36.3	24.9	11.3
Personal protection	18.3	13.4	4.9
Pharmaceuticals	166.3	71.0	95.4
TOTAL	251.2	127.6	123.6

Source: [Eurostat COMEXT](#), author's calculations.

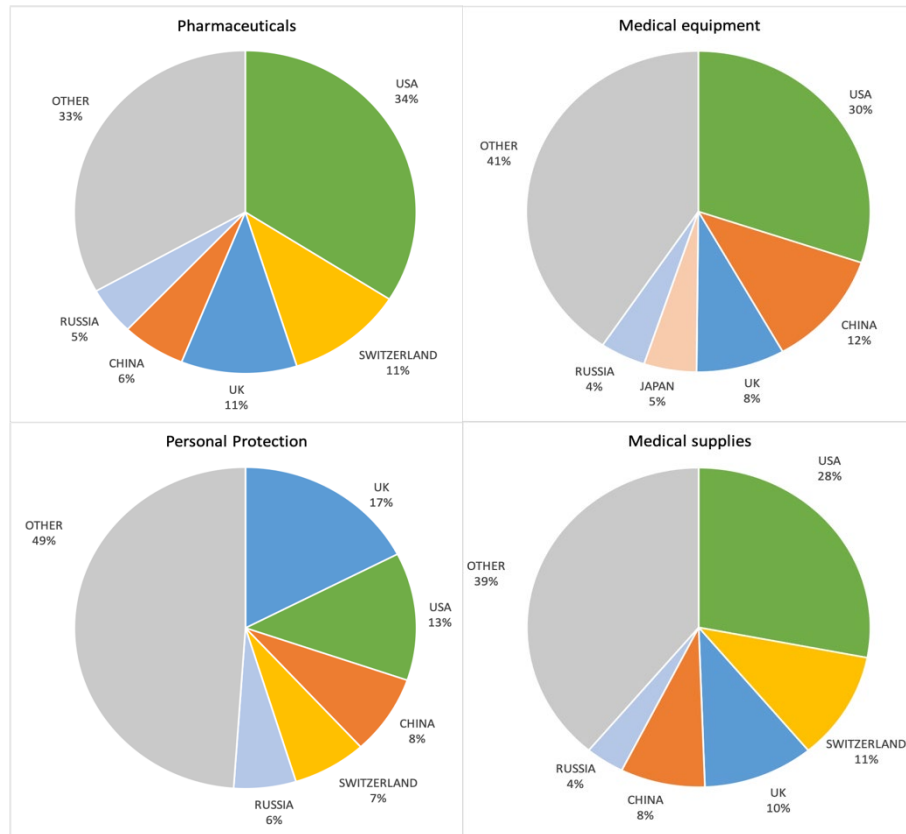
## EU's main trading partners

Figure 3 shows that EU imports of medical products are highly concentrated. In each product category as few as five countries provide at least 72 % of EU imports. In addition, just four countries, namely Switzerland, the US, the UK, and China, provide between 65 % (medical equipment) and 76 % (pharmaceuticals) of EU imports. It is worth noting that the UK and Switzerland are not subject to export restrictions from the EU. Exports are more dispersed and although the four countries just mentioned are significant export destinations, Russia ranks among the EU's five largest export destinations in all four categories. Finally, as depicted in Figure 4, there is an overall growing trend in imports and exports, and China has been taking a growing share in imports of medical equipment. Interestingly, the 2008 crisis had an insignificant impact on the upward trends.

Figure 3 – EU top five trading partners (2019)



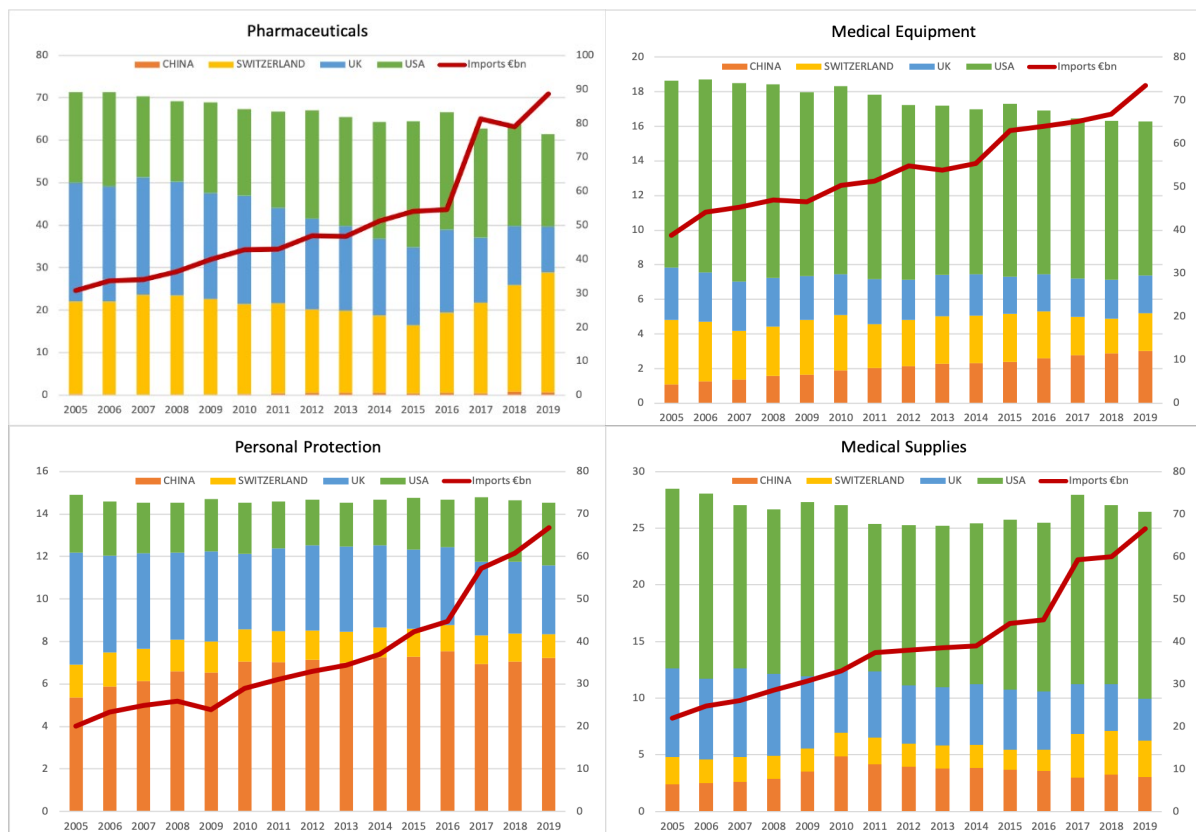
## EXPORTS



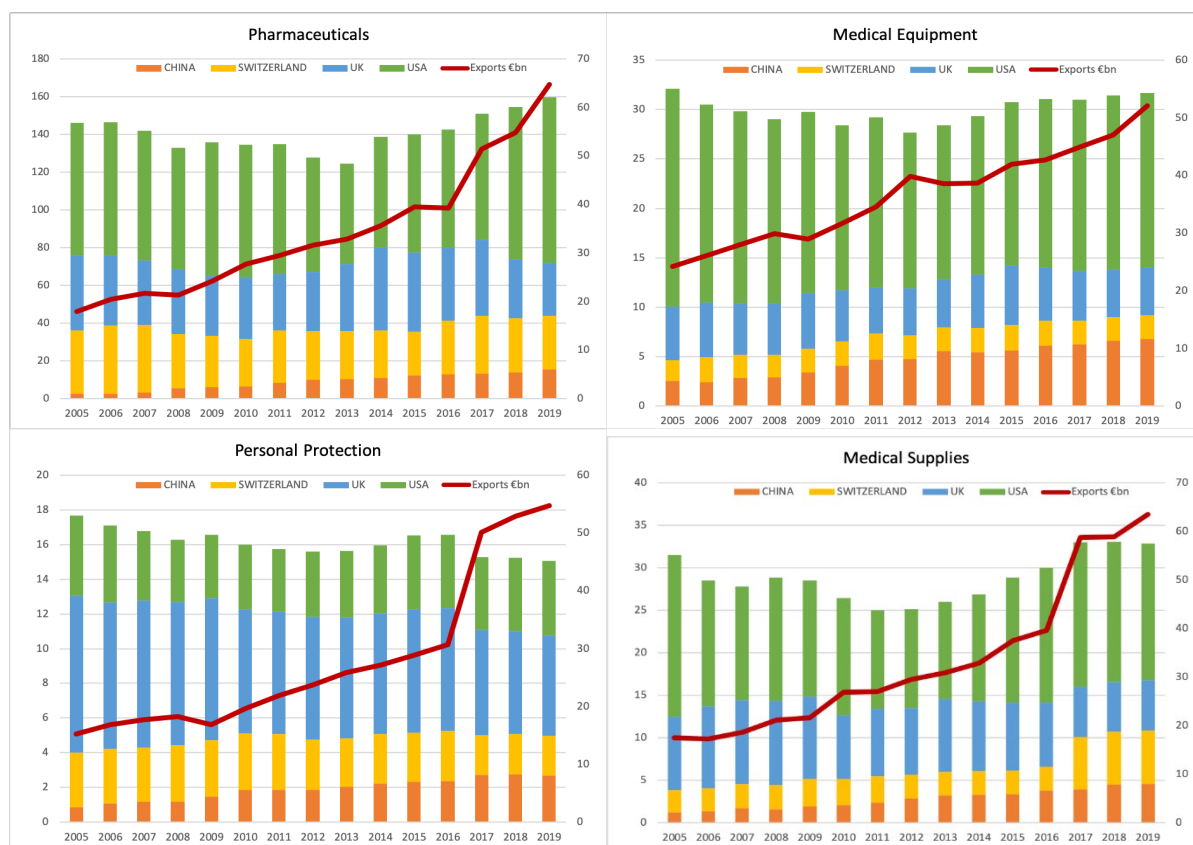
Source: [Eurostat COMEXT](#), author's calculations.

Figure 4 – EU imports (€ billion) and top four EU import partners' shares (right-hand axis: %)

## IMPORTS



## EXPORTS



Source: [Eurostat COMEXT](#), author's calculations.

## EU restrictions on exports of medical goods

[Implementing Regulation 2020/402](#) excludes the UK from any export restrictions since EU law is still applicable (with some exceptions) to the UK during the transition period (Article 127, [Withdrawal Agreement](#)). Furthermore, amending [Implementing Regulation 2020/426](#) excludes member countries of the [European Free Trade Association](#) (EFTA) from export restrictions, as well as the Faroe Islands.<sup>2</sup> In order to analyse the EU trade with the rest of the world in this context, Table 3 shows the EU's total exports and imports, excluding those countries. The EU remains a net exporter in all four product categories, and pharmaceuticals represent 80.1 % of the medical products trade surplus.

Table 3 – EU trade excluding the UK and EFTA in 2019 (€ billion)

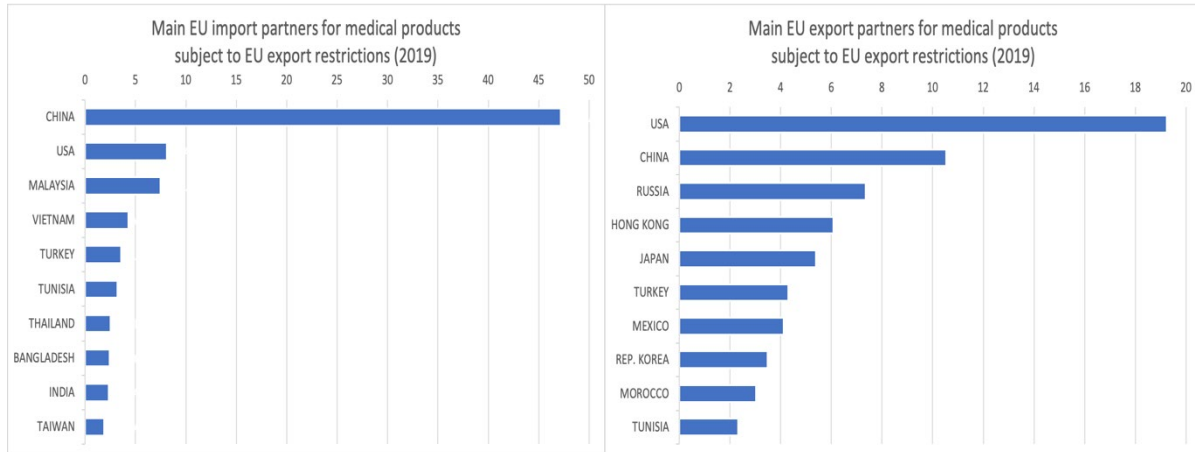
	Exports	Imports	Trade surplus
Pharmaceuticals	128.4	35.9	92.5
Medical equipment	26.1	15.1	11.1
Personal protection	13.2	10.4	2.9
Medical supplies	28.0	20.2	7.8
TOTAL	195.8	81.5	114.3

Source: [Eurostat COMEXT](#); author's calculations.

Figure 5 lists the EU's 10 largest import and export partners (excluding the UK and EFTA countries) for products where export restrictions apply under [Implementing Regulation 2020/402](#). The

regulation targets 'protective equipment' in particular, namely protective spectacles and visors, face shields, mouth–nose-protection equipment, and gloves. The closest medical product category defined by the WTO information note and used for the purposes of this briefing is the 'medical protection' category. The set of products is broader in the EU regulation as it covers sections not specifically aimed at medical use. However, the regulation requires 'authorisation' for exports under these headings and does not actually ban them. China is by far the largest source of those goods for the EU (45 %). China is also a major EU export destination (10 %), behind the US (19 %).

Figure 5 – Main EU trading partners for products subject to EU export restrictions (2019)

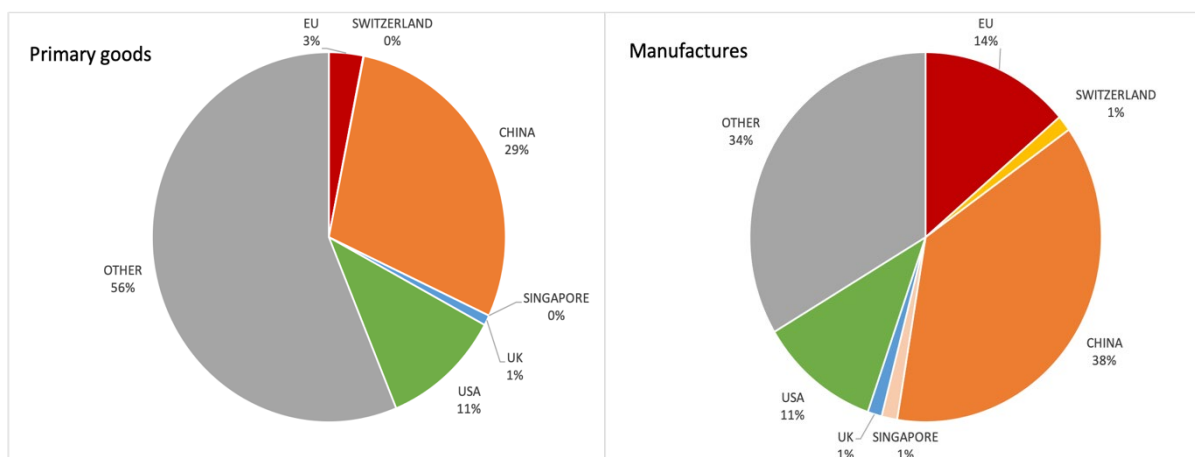


Source: [Eurostat COMEXT](#), author's calculations.

## Sourcing intermediate goods

The coronavirus pandemic has also revealed the extensive [multinational nature and complexity of medical product supply chains](#); intermediate goods that are used in final production are obtained from providers located in many more countries than import figures suggest. Figure 6 illustrates this feature in the chemical and pharmaceutical sector in 2015 (the last available year); it depicts the countries of origin of primary and manufactured intermediate goods used for producing final products by the EU's five largest import partners (namely, China, Singapore, Switzerland, US, UK) in this sector. The results show that the geographic provision of intermediate goods is far more scattered than import figures suggest. Unreported calculations show, albeit to various degrees, that the domestic inputs of Singapore, Switzerland, the US and the UK are mainly in the form of services.

Figure 6 – Origin of intermediate goods used by EU's five largest import partners for the production of chemical and pharmaceutical products (2015)



Source: OECD [Trade in Value Added](#) (TIVA), author's calculations.



## Early EU responses on 'health sovereignty'

Since the crisis began, the [EU has gone to great lengths](#) to support and coordinate Member States' efforts to address the pandemic. In addition to extraordinary [budgetary initiatives](#), the Commission has taken a series of measures to promote cooperation between EU Member States in the production of medical products. For instance, in March 2020, the Commission offered [free access to European standards](#) to allow the production of medical-purpose items by EU companies converting their production lines. Thanks to the EU [Joint Procurement Agreement](#), Member States have been able to work together under the auspices of the EU to gain a stronger position on the world market when buying personal protective equipment, respiratory ventilators and items necessary for coronavirus testing. The EU has also coordinated [solidarity between Member States](#), from donating ventilators to taking in critical patients. The EU's Horizon 2020 research programme is meanwhile [funding 18 research projects](#) and 140 teams across Europe to help the search for a vaccine against Covid-19. The aim is to improve diagnostics, preparedness, clinical management and treatment.

The European Parliament supports the EU's strong commitment and adopted [urgent proposals](#) for specific measures to mobilise investments in Member States' healthcare systems almost unanimously (during the extraordinary plenary session of 26 March 2020).

Some EU political leaders have voiced their intention to preserve or increase their [self-sufficiency in producing vital medical items](#) in the future. The input-output analysis shows that becoming 'fully' self-sufficient is likely to be complex and costly given the wide range of source countries. Talking about the current crisis, the [Commission's Director-General for Trade](#), Sabine Weyand, affirmed that moving supply chains home is inefficient because 'self-sufficiency is not an option for any country'. She gave the example of a respiratory ventilator, which requires more than 900 pieces from all around the world. Rather, she believed diversified supply chains to be more resilient.

## REFERENCES

Ferguson C., [European Union response to the coronavirus threat](#), EPRS, European Parliament, 23 March 2020.

## ENDNOTES

- <sup>1</sup> As of 13 April, the World Customs Organization and the International Trade Centre had listed as many as 46 countries having implemented temporary export restrictions, outside the EU and the European Free Trade Association (EFTA).
- <sup>2</sup> The regulation is applicable until 25 April 2020. The [Commission is conducting consultations](#) with EU Member States to narrow down the authorisation requirements after this date to protective masks.

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