

Box D: QB 3 - September 2023

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What explains the decline in Irish exports in 2023?

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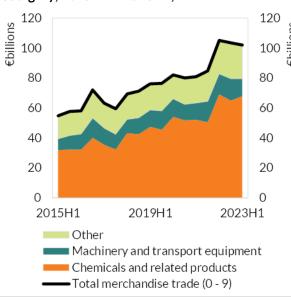
The value of Irish merchandise (goods) exports increased by €42 billion or just under 26 per cent in 2022 – the largest annual growth in exports since 1998. After this exceptional increase in 2022, the latest CSO Goods Exports and Imports release for June 2023 shows a decline of close to €3 billion in Irish goods exports in the first six months of 2023 compared with the same period in 2022 (Table 1). Driven by exports of high-value products from the fast-growing pharmaceutical and ICT manufacturing sectors, overall goods exports increased rapidly in the last decade - more than doubling in value between 2012 and 2022. This marks out the weak performance in the first half of 2023 as somewhat unusual. This Box examines the performance of exports over the first half of the year, using detailed data. The outturn for exports so far in 2023 illustrates the potential risks to the Irish economy resulting from the concentration of trade in a small number of high-value added, multi-national enterprise (MNE)dominated sectors.

¹ This Box uses data from the CSO's monthly Goods Exports and Imports release and related data from Eurostat. These data are based on the physical movement of goods between countries and the export data therefore reflect goods physically produced and exported from Ireland. The data do not include "goods for processing" – goods manufactured abroad on behalf of a multinational enterprise based in Ireland.



Value of goods exports declines in H1 2023 following large increase in 2022

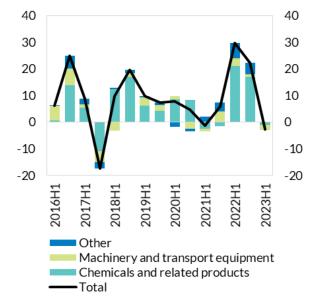
Figure 1: Value of Irish Exports by Product Category, 2015H1 – 2023H1, € billion



Source: CSO and author's calculations Note: Figure shows sum of value of exports for six-month consecutive (half yearly) periods from 2015 H1 - 2023H:

Exports of chemicals and machinery and transport equipment contract in H1 2023

Figure 2: Contribution to growth in overall goods exports (%): H1 on H1 growth rate



Source: CSO and author's calculations

Two product categories – *Chemicals and Related Products* and *Machinery* and *Transport Equipment* – dominate overall exports of goods from Ireland (Figure 1 and Table 1). Together, these two sectors accounted for 78 per cent of overall goods exports in the first half of 2023 and the majority of the growth in exports in Ireland up to end-2022 in turn has come from these two sectors (Figure 2). The value of exports from these sectors declined by 1.8 per cent and 14.4 per cent, respectively in the first half of 2023 compared with the same period in 2022, thereby accounting for the majority of the reduction in overall goods exports over this period (Table 1).



Table 1: Goods exports by commodity, H1 2022 and H1 2023

	Jan-Jun 2022 (€ billion)	Jan-Jun 2023 (€ billion)	% of Total Goods Exports (H1 2023)	Change: Jan-Jun 2022 to Jan-Jun 2023 (€ billion)	Change: Jan-Jun 2022 to Jan-Jun 2023 (%)
Food and live animals	6846.1	7176.9	7	330.7	4.8
Beverages and tobacco	962	877.8	0.9	-84.3	-8.8
Crude materials, inedible, except fuels	1208.8	876.8	0.9	-332.1	-27.5
Mineral fuels, lubricants and related	880.4	516.7	0.5	-363.8	-41.3
Animal and vegetable oils, fats and waxes	75.6	81.8	0.1	6.2	8.2
Chemicals and related products	69152.1	67904.3	66.5	-1247.8	-1.8
Manufactured goods classified by material	1679.2	1677.1	1.6	-2.1	-0.1
Machinery and transport equipment	13610.2	11656.5	11.4	-1953.7	-14.4
Miscellaneous manufactured articles	10362.3	10991.9	10.8	629.6	6.1
Commodities and transactions (NES)	181.4	242.7	0.2	61.2	33.7
Unclassified estimates	75.8	42.5	0	-33.3	-43.9
Total	105034.1	102044.8	100	-2989.3	-2.8

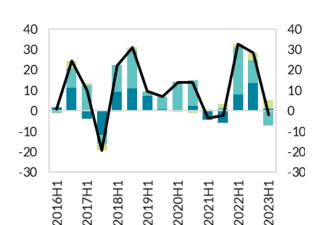
Using Eurostat data, it is possible to examine in more detail the specific products behind the decline in exports in the two aggregate categories *Chemicals and related products* and *Machinery and transport equipment*. The decline in exports of *Chemicals and related products* is concentrated in the *Medicinal and Pharmaceutical Products* subcategory (Figure 3a). Within this subcategory, most of the decrease has resulted from a reduction in *glycoside and vaccination exports*, of which vaccines make up the most part (Figure 3b). The exceptional increase in overall exports of chemicals and related products in 2022 was linked to the increase in Covid-19 vaccine production. In addition, it is likely to have reflected in part a degree of stockpiling of pharmaceutical products in light of uncertainty over the path of the pandemic as well as concerns over global supply chain disruptions last year. As the pandemic has eased and global supply chain conditions improved, a run down of accumulated stocks and a return to more normal production levels are likely to explain a significant part of the decline in pharma exports in the first half of 2023 compared to 2022.²

² For example, in guidance to investors for 2023 published in January, Pfizer stated that it expected a 31 per cent decrease in revenues for 2023 compared to 2022 due entirely to expected revenue declines for Pfizer's COVID-19 products. See: https://investors.pfizer.com/Investors/News/news-details/2023/PFIZER-REPORTS-



Value of medical and pharma exports declines in H1 2023

Figure 3a: Contributions to growth in exports of Chemicals and related products (%) (H1 over H1)



Other

Medicinal and pharmaceutical products (54)

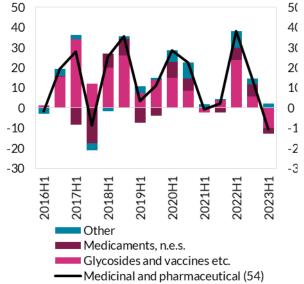
Organic chemicals (51)

Chemicals and related products

Source: CSO and authors' calculations

Reduction in vaccine exports accounts for majority of decline in medical and pharma products in H1 2023

Figure 3b: Contributions to growth in exports of Medical and Pharma products (%) (54) (H1 over H



Source: Eurostat and authors' calculations

Machinery and Transport Equipment is the other category that has registered a decline in the value of exports in 2023. Within this category, *Electrical Machinery* has been driving the decline in export growth (Figure 4a). Most of the export growth and subsequent declines in *Electrical Machinery* has resulted from the export of *Diodes and Semiconductors*, with semiconductors contributing to the majority of the change in export values (Figure 4b).

The precise causes of the reduction in semiconductor exports in 2023 are unclear at present but may reflect a number of developments adversely affecting this part of the global ICT manufacturing sector. China accounts for almost 70 per cent of all exports of semiconductors from Ireland and Figure 5 shows that the drop in exports in H1 2023 is due mainly to a reduction in exports to that market, as well as lower exports of semiconductors from Ireland to the US. It is possible that the decline in Irish exports in this sector reflects headwinds for the global economy coming from reduced Chinese trade, structural demand changes for specific products within the technology sector and government policy changes internationally. In relation to the latter, in October 2022, the Biden Administration announced new



restrictions on exports to China of advanced integrated circuits (ICs), computers and components containing advanced ICs, semiconductor manufacturing equipment and related software and technology. The restrictions cover exports from US-based firms but they also apply to any company worldwide that uses US semiconductor technology in its production processes. It is not possible to determine from publically available information whether the export controls have affected exports of semiconductors from Ireland. However, since US-owned multinational enterprises account for a significant share of exports from this sector in Ireland, it is possible that the restrictions are playing a role in the weakness in Ireland-China ICT goods exports to date in 2023.

Sharp decline in exports of electrical machinery in H1 2023

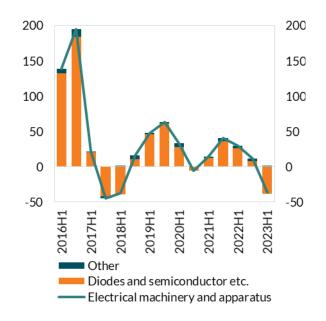
Figure 4a: Contributions to growth in exports of Machinery and transport equipment (H1 over H1) (%)

50 50 40 40 30 30 20 20 10 10 0 0 -10 -10 -20 -20 -30 -30 2023H1 Other Electrical machinery etc. (77) Office machines etc. (75) Machinery and transport equipment

Source: CSO and authors' calculations

Semiconductor exports contract in H1 2023 following strong growth in previous years

Figure 4b: Contributions to growth in exports of Electrical Machinery (77) (H1 over H1) (%)



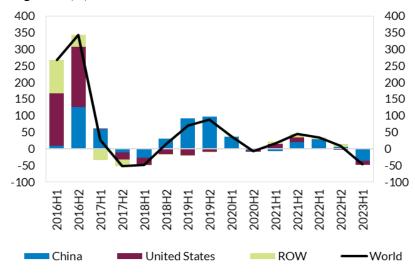
Source: Eurostat and authors' calculations

³ See https://www.bis.doc.gov/index.php/documents/about-bis/newsroom/press-releases/3158-2022-10-07-bis-press-release-advanced-computing-and-semiconductor-manufacturing-controls-final/file



Decline in semiconductor exports concentrated in China

Figure 5: Export destinations contribution to diode and semiconductor export growth (%)



Source: Eurostat and authors' calculations

In summary, two product categories – *medical and pharmaceutical products* and *electrical machinery* – which account for four fifths of overall goods exports, and which expanded rapidly in 2022 and in the years previously, have both recorded declines in exports in the first half of 2023. In the case of pharma, the weakness in 2023 may reflect a return to more normal trading patterns following rapid expansion in 2022 linked to the Covid-19 pandemic. The precise reasons for the decline in exports of *electrical machinery* in 2023 are not fully apparent at present and require ongoing monitoring and analysis. It is possible that future quarters could see a rebound in exports from both sectors, in particular since large-scale physical investments have taken place over recent years to expand production facilities in both the pharmaceutical and ICT manufacturing sectors.⁴

Nevertheless, the decline in trade in the first half of 2023 is a reminder of the wider risks to the Irish economy from the concentration of exports in a small number of highly globalised, multinational-dominated sectors. This characteristic of the economy leaves it exposed in the event of a downturn in global demand, industry or firm-specific structural changes or an acceleration of geo-economic fragmentation.

⁴ For example, In December 2022, <u>Intel</u> announced that it was spending an additional €12 billion and doubling its manufacturing space at its site in Leixlip. On 22 August 2023, the company <u>announced</u> that it had completed an important step towards beginning full production silicon at the site. In the pharmaceutical sector, <u>Pfizer</u> announced a €1.2 billion investment at its Grangecastle facility which the company stated will double the capacity for biological drug substance manufacturing at the site when completed.