Market evolution: Electrical parts (CN 8538) — 2015–2025

Introduction

This report examines the European Union's extra-EU trade in *Parts suitable for use solely or principally with the apparatus of heading 8535, 8536 or 8537, n.e.s.* (CN 8538) from 2015 to 2025. The analysis draws exclusively on annual figures from the trade dashboard and covers the overall trends, the shifting geography of EU trade, and the structural changes in domestic production and vulnerability. The data reveal a market where surging unit values, geopolitical disruptions, and a rapid reconfiguration of supply chains have fundamentally reshaped flows.

Value surge driven by quality and price, not volume

Export values grew substantially while quantities barely moved – the increase was purely price-driven.

Between 2015 and 2025, EU exports of CN 8538 rose from €4.94 bn to €6.93 bn, a gain of 40.3 %, whereas the exported tonnage remained essentially flat (+1.1 %). As a result, the average export price per kilogram jumped by 38.8 % – from €28,669 to €39,784. This contrasts with imports, where value advanced by 84.9 % (from €1.89 bn to €3.50 bn) and quantity by 62.0 %, yielding a more modest import-price increase of 14.2 %. The EU is therefore selling fewer but much more sophisticated and expensive components, while buying a far larger volume of cheaper parts from abroad.

Flow	Value 2015 (€ bn)	Value 2025 (€ bn)	Change	Quantity change	Price change
Exports	4.94	6.93	+40.3%	+1.1%	+38.8%
Imports	1.89	3.50	+84.9%	+62.0%	+14.2%
Balance	3.05	3.43	+12.7%	—	—

Data: General Overview – Trade

The product mix shifted towards more expensive sub-categories.

The two sub-headings of CN 8538 – *other parts* (8538 90) and *boards, panels, consoles, etc.* (8538 10) – both experienced price inflation, but the latter saw an especially steep rise in export unit values. Export prices for 8538 10 climbed from €10,022 to €16,090 per tonne

(+60.6 %), while 8538 90 went from €39,598 to €52,457 (+32.5 %). On the import side, 8538 90 prices rose from €30,942 to €33,538 (+8.4 %) and 8538 10 from €7,915 to €9,271 (+17.1 %). The widening price gap between the two segments highlights the EU's upgrading towards higher-grade assembled infrastructure goods.

Data: Product Segment Breakdown

Geopolitical realignment and the rise of nearshoring

Brexit transformed the UK from a moderate trading partner into the EU's premier export destination, while its role as an import source collapsed.

EU exports to the United Kingdom soared from €301 mn in 2015 to €938 mn in 2025 (+211.1 %), making the UK the top export market. In contrast, UK imports into the EU contracted from €170 mn to €134 mn (-21.3 %). The volatility of UK-sourced imports was the highest among major partners (CV = 1.17), driven by a massive price shock in 2021, when unit values jumped by 407.8 % as volumes fell sharply. Post-Brexit customs and regulatory barriers evidently rerouted supply chains and repositioned the UK as a pure customer.

Data: Top Partners, Volatility – UK imports

Sanctions erased Russia from the export map, while China and India reinforced their positions on both sides of the trade balance.

Exports to the Russian Federation collapsed from €185 mn in 2015 to just €9 thousand in 2025 (-100.0 %), with quantities falling to essentially zero after 2022. Meanwhile, China remained the second-largest export market (€866 mn, -5.4 %) and, far more importantly, the dominant import supplier: EU imports from China grew by 152.6 %, reaching €1.10 bn, about one-third of total extra-EU imports. India posted even faster growth, with imports surging 194.8 % (to €265 mn) and exports up 84.2 %, though its 2022 export price shock (+59.5 %) signals tightening conditions.

Nearshoring accelerated towards the EU's southern and eastern neighbours.

Tunisia, Morocco, Türkiye, and Bosnia and Herzegovina all registered exceptionally strong import growth. EU imports from Tunisia rose by 206.9 % (to €191 mn), from Bosnia and Herzegovina by 743.7 % (to €43 mn), and from Morocco, which also figures among the top export destinations, EU exports expanded by 101.4 % (to €443 mn). These trends, togeth-

er with stable or rising flows from Switzerland, indicate a deliberate shift towards geographically and politically closer supply bases.

Partner (imports)	2015 (€ mn)	2025 (€ mn)	Change
China	436	1 102	+152.6%
Tunisia	62	191	+206.9%
India	90	265	+194.8%
Bosnia & Herz.	5	43	+743.7%
Partner (exports)	2015 (€ mn)	2025 (€ mn)	Change
United Kingdom	301	938	+211.1%
United States	577	1 135	+96.7%
Morocco	220	443	+101.4%
Russian Federation	185	0.009	-100.0%

Data: Top Partners

Structural shifts in EU production and trade vulnerability

EU production value doubled over the long run, but recent volume trends point to an efficiency- and quality-driven transformation.

EU sold production of CN 8538 rose from €13.2 bn in 2015 to an estimated €18.1 bn in 2024, a gain of 37 % within the trade window (and 134.5 % since the earliest recorded year, 2003). Over the same 2015–2024 period, however, production quantity fell from 155.5 mn kg to 140.4 mn kg (-9.7 %). This mirrors the trade pattern: the EU is making fewer, higher-value parts, and the average unit price of domestic output more than kept pace with export prices.

Data: Production volumes and values

Export specialisation is concentrated in Central and Eastern Europe.

In 2025, the most specialised EU member states – measured by revealed symmetric comparative advantage – were Bulgaria (RSCA = 0.73), Romania (0.62), Hungary (0.42), Czechia (0.28) and Estonia (0.25). Germany, the largest absolute exporter, shows a moderate specialisation (0.16). Conversely, traditional trade hubs such as Belgium (-0.75), the Netherlands (-0.49) and Ireland (-0.85) are strongly de-specialised, acting primarily as logistics and re-export platforms rather than production centres for these particular parts.

Data: Specialisation

Despite robust export surpluses, import dependency is gently rising.

The EU remains a solid net exporter (net-import-reliance ratio of -21.8 % in 2024, up from -27.5 % in 2015). The 20.7 % increase in this indicator means the surplus, while still large, is shrinking in relative terms. Export propensity (the share of output exported) rose from 33.0 % to 36.8 %, indicating deeper integration in global value chains. Meanwhile, the Herfindahl-Hirschman index for import concentration climbed from 1 129 to 1 380, reflecting the growing dominance of China and a few near-shore suppliers. Though still moderate, this heightened concentration, together with the gradual erosion of the net-export cushion, deserves monitoring.

Indicator	2015	2024/2025	Change
Net-import-reliance (%)	-27.5	-21.8	+20.7%
Export propensity (%)	33.0	36.8	+11.5%
Import HHI (value)	1 129	1 380	+22.2%

Data: Net Import Reliance, Export Propensity, Concentration

Conclusion

Over the decade to 2025, EU trade in electrical parts CN 8538 expanded strongly in value terms, but almost entirely through quality upgrading and price increases rather than volume growth. The geopolitical landscape shifted decisively: the UK became a top export customer, Russia disappeared as a market, China tightened its grip as the leading import source, and a nearshoring axis from the Maghreb to the Balkans gained prominence. Domestically, the EU concentrated production in a handful of Central and Eastern European economies while its major Western trading hubs played a logistical role. The Union remains a formidable net exporter, yet the slow rise of import penetration and the increasing concentration of supply sources underline the need for vigilance in strategic autonomy policies.
