Market evolution: Interchangeable tools for machines (CN 8207) — 2015–2025

Introduction

This report examines the EU's extra-EU trade in interchangeable tools for hand and machine tools (CN 8207) from 2015 to 2025. The data reveal a dual transformation: the EU has moved towards exporting fewer but far more expensive tools, while imports have surged in volume and value, driven largely by low-cost sources. As a result, the EU's trade surplus in this sector has halved. Shifts in the partner landscape, sharp price shocks, and a pronounced product-segment polarisation underline the changing competitive position of European tool manufacturers.

A shrinking surplus and the volume-value paradox

How the overall trade balance eroded

EU exports of CN 8207 goods rose only modestly in value (from €3.35 billion in 2015 to €3.46 billion in 2025, +3.4 %), but the exported quantity fell by almost a third (from 112.9 ktonnes to 78.9 ktonnes, –30.2 %). Imports, by contrast, grew much faster: value climbed from €2.20 billion to €2.89 billion (+31.7 %) and quantity from 116.1 ktonnes to 169.3 ktonnes (+45.7 %). The net trade surplus consequently dropped from €1.15 billion to €0.57 billion (–50.8 %).

Data source: Trade Overview

Indicator (EU extra-EU)	2015	2025	Change
Exports (€ billion)	3.35	3.46	+3.4 %
Export quantity (ktonnes)	112.9	78.9	–30.2 %
Export unit value (€/kg)	29.6	43.9	+48.0 %
Imports (€ billion)	2.20	2.89	+31.7 %
Import quantity (ktonnes)	116.1	169.3	+45.7 %
Import unit value (€/kg)	18.9	17.1	–9.6 %
Trade surplus (€ billion)	1.15	0.57	–50.8 %

The unit-value divergence and what it signals

The striking divergence between export and import unit values points to a process of quality specialisation. Over the decade, EU export prices rose by nearly half (from €29.6/kg to €43.9/kg), while import prices actually fell (from €18.9/kg to €17.1/kg). The EU is exporting increasingly sophisticated, high-value tools and sourcing simpler, lower-cost products from abroad, notably from Asia. This volume-value paradox is the key to understanding why the surplus has contracted: booming import volumes, fed by low-cost supply, have outpaced the value growth of high-end exports.

Geopolitical realignment and partner concentration

The rise of China as the dominant import source

China's share of EU imports of CN 8207 goods has grown dramatically. Its value more than doubled from €598 million in 2015 to €1.22 billion in 2025 (+103.2 %). It is now by far the largest single supplier, accounting for 42 % of extra-EU imports. Other Asian sources show mixed trends: imports from South Korea fell by 28.1 %, Japan by 4.9 %, and Taiwan by 3.0 %, while Türkiye's shipments rose by 82.6 % (to €98 million). Switzerland, a high-value partner, increased by 31.9 % to €459 million.
Data source: Top Partner Analysis

Major import sources	2015 (€ million)	2025 (€ million)	Change
China	598	1 215	+103.2 %
Switzerland	348	459	+31.9 %
South Korea	230	165	–28.1 %
Japan	158	150	–4.9 %
United Kingdom	153	118	–22.5 %
Türkiye	54	98	+82.6 %
Taiwan	82	79	–3.0 %

Export geography: the US anchors growth, Russia vanishes

The United States remained the top export destination, with sales rising from €597 million to €897 million (+50.4 %). Shipments to Mexico grew even faster (+53.1 %), as did those to Türkiye (+28.3 %) and Switzerland (+31.1 %). In sharp contrast, exports to China fell by 30.2 % and to the United Kingdom by 26.4 %. The trade collapse with Russia is total: from €150 million in 2015 to just €6 thousand in 2025 (–100 %), a direct consequence of sanctions imposed after 2022.
Data source: Top Partner Analysis

Major export destinations	2015 (€ million)	2025 (€ million)	Change
United States	597	897	+50.4 %
China	469	327	–30.2 %
United Kingdom	377	278	–26.4 %
Switzerland	281	368	+31.1 %
Mexico	109	168	+53.1 %
Türkiye	120	155	+28.3 %
Russia	150	0.006	–100 %

Rising concentration and heightened volatility

Import concentration shot up: the HHI value index rose from 1 356 to 2 207 (+62.8 %), reflecting China's growing dominance. Export concentration also increased but less sharply (from 814 to 1 036, +27.2 %). Volume-based concentration on the import side nearly doubled (+107.8 %), indicating that a few partners now supply the bulk of imported quantities.

Data source: Market Concentration

Volatility analysis reveals that import flows from the United Kingdom and Japan have been the most erratic (coefficients of variation of 0.44 and 0.45 for quantities), while Swiss imports have been very stable (CV 0.07). A major price shock was detected in imports from China in 2022, with a 17 % price jump above the 2020-2021 baseline, followed by a partial retreat. On the export side, price spikes hit several markets: Canada (+28.8 % in 2018), Morocco (+142.8 % in 2023), Mexico (+74.6 % in 2018), and Liechtenstein (+25.2 % in 2023), among others. Russia's trade collapsed in both volume and price, with a coefficient of variation of 0.73.

Data sources: Volatility Analysis and Shock Events

Product-segment polarisation and EU specialisation

The high-end character of EU exports across product segments

The breakdown by sub-code (Table below, for 2025) shows that EU exporters obtain substantially higher unit prices than importers in nearly every segment. For milling tools (820770), the export unit value reached €262.8/kg, more than 1.7 times the import unit value (€155.2/kg). For drilling tools (820750), exports earned €57.2/kg versus €19.0/kg for imports. Even for pressing/stamping tools (820730), EU exports fetched €25.0/kg, against €11.5/kg for imports. This premium is the hallmark of a quality-focussed, innovation-driven industry.

Data source: Product Segment Comparison

Sub-code (CN)	Description	Import value 2025 (€ M)	Import unit price (€/kg)	Export value 2025 (€ M)	Export unit price (€/kg)
820730	Pressing, stamping, punching tools	843	11.5	694	25.0
820750	Drilling tools	708	19.0	787	57.2
820790	Other interchangeable tools	406	13.6	585	43.8
820770	Milling tools	476	155.2	504	262.8
820719	Rock/earth boring (non-carbide)	160	9.1	269	22.6
820740	Tapping/threading tools	127	40.1	–	–
820720	Drawing/extruding dies	–	–	99	46.0

Strong specialisation of core EU manufacturing countries

The specialisation map for 2025 reveals a clear geographic concentration of export competitiveness. Slovenia, Germany, Austria, Italy, and Luxembourg exhibit the highest revealed symmetric comparative advantages (RSCA), indicating deep industrial embedding of tool-making. Germany alone accounts for over 39 % of the EU's extra-eU exports of CN 8207 and shows a strong specialisation (RSCA 0.30, RCA 1.86). Meanwhile, peripheral economies such as Greece, Malta, and the Baltic states have virtually no export footprint.

Data source: Specialisation Map

Most specialised reporters, 2025	RSCA	RCA	Share of EU extra-exports
Slovenia	0.58	3.76	3.8 %
Germany	0.30	1.86	39.4 %
Austria	0.26	1.71	5.6 %
Italy	0.22	1.57	12.6 %
Luxembourg	0.16	1.37	0.4 %

Conclusion

The EU's extra-EU trade in interchangeable tools has undergone a structural shift from 2015 to 2025. On the one hand, European producers have successfully moved up the quality ladder, exporting fewer but more valuable tools, especially to the United States, Switzerland, and Mexico. On the other hand, the import side has been reshaped by the overwhelming growth of Chinese shipments, the entry of lower-cost sources, and a corresponding decline in import unit values. This has halved the sector's trade surplus and increased import concentration markedly. Geopolitical events – most visibly the collapse of exports to Russia – and sporadic price shocks in several markets have added turbulence.

The industry's future resilience will likely depend on maintaining its technological and quality edge while managing the risks of concentrated import supply and shifting global demand.

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If you need advice on European trade policy, or representation for your interests in Brussels, feel free to contact me at support@tradedashboard.eu. You can find my CV at this address.