Market evolution: Aluminium and articles (CN 76) — 2015–2025

Introduction

The EU's external trade in aluminium and articles thereof (CN 76) experienced a profound transformation between 2015 and 2025. Total export value grew by 40.0 % while import value surged by 62.2 %, driving the trade deficit from € 6.4 bn to € 13.4 bn. The period was marked by a stark decoupling between volume and price growth, a wholesale realignment of supply partners—most notably the retreat of Russian aluminium—and acute price shocks that rippled through both import and export markets in 2022. These dynamics re-shaped Europe's aluminium vulnerability and redefined the competitive position of its semi-finished and finished goods.

A Widening Trade Gap: Price and Volume Dynamics That Deepened EU's Aluminium Deficit

Export values expanded by 40 % even as volumes grew only 12 %, while imports surged 62 % largely through price effects.

Indicator	Exports (2015 → 2025)	Imports (2015 → 2025)
Value (EUR)	13.6 bn → 19.0 bn (+40.0 %)	20.0 bn → 32.5 bn (+62.2 %)
Quantity (kg)	3.44 m → 3.85 m (+12.0 %)	8.39 m → 9.95 m (+18.6 %)
Unit price (EUR/t)	3 953 → 4 942 (+25.0 %)	2 384 → 3 260 (+36.8 %)
Trade balance (EUR)	–6.4 bn → –13.4 bn (–109.2 %)	

Import prices grew almost half as fast again as export prices, while import volumes exceeded export volumes by a widening margin. The resulting deterioration in the balance is the single most striking headline figure. Overall, the trade deficit reached an extreme of € 21.3 bn in 2022, the year when aluminium prices peaked across the board.

Net import reliance jumped from 2.8 % to 11.5 %, reflecting a rapid loss of self-sufficiency.

The net import reliance ratio climbed from 2.8 % in 2003 to 11.5 % in 2024, after peaking at 17.0 % in 2022. This shows that domestic production—despite a nearly tenfold growth in

production quantity since 2003 (though the data are of mixed quality)—increasingly failed to satisfy consumption, making the EU ever more dependent on non-EU supply. At the same time, export propensity dropped from about 34 % in the early 2000s to 17 % in 2024, indicating a redirection of domestic aluminium output toward internal users rather than foreign markets.

Geopolitical Realignment: The Collapse of Russian Supplies and the Diversification of EU Aluminium Sources

Russian imports plummeted by 71.5 % in value, while Iceland, China, Norway, and Türkiye each registered triple-digit growth, reshaping the supply map.

Import partner	Value 2015 (bn EUR)	Value 2025 (bn EUR)	Change (%)
Norway	2.99	4.54	+51.9
Russian Federation	2.64	0.75	–71.5
China	2.33	4.01	+71.9
Iceland	0.71	2.20	+210.3
United Kingdom	1.63	1.81	+11.4
United Arab Emirates	1.08	1.38	+27.6
Türkiye	1.19	2.94	+147.1

Detailed partner breakdown reveals a deliberate and rapid diversification. Russia, which once rivalled Norway as the top supplier, fell to seventh place as sanctions and corporate withdrawal took hold; its import value collapsed from a 2017 peak of € 3.0 bn to just € 0.75 bn in 2025. Norway remained the stable anchor, while Iceland’s aluminium smelting capacity drove a quadrupling of its shipments. China and Türkiye stepped into the gap, supplying both primary metal and an expanding range of semi-finished products, thereby lifting their combined share of EU imports to over 21 %.

Although import concentration declined overall, high volatility from countries like Canada and India reveals a still-fragile supply structure.

The import concentration index (HHI) dropped from 875 to 679 (–22.4 %) between 2015 and 2025, confirming a more balanced supplier portfolio. However, the coefficient of variation (CV) of import quantities was extremely high for Canada (CV = 0.83), India (CV = 0.67) and Bahrain (CV = 0.53), while Russia itself registered 0.45. Moreover, sharp price shocks hit imports from the UAE (+64.9 %), Mozambique (+65.6 %) and Bahrain

(+69.5 %) in 2022, when unit values momentarily jumped to more than 1.6 times their baseline levels. Such episodes underline that the new supply lines are not free of risk, particularly when global commodity markets are under stress.

Premiumisation and Price Shocks: How High-Value Semi-Finished and Finished Aluminium Exports Cushioned External Pressures

Export unit values for unwrought aluminium and scrap soared, but high-value items like aluminium structures and ‘articles n.e.s.’ achieved sustained value growth.

Export segment (CN)	Value 2025 (m EUR)	Price 2025 (EUR/t)	Value change 2015→2025 (%)
7606 Plates, sheets	4 499	4 317	+14.7
7602 Waste and scrap	2 324	1 825	+174.2
7601 Unwrought aluminium	1 044	2 982	+59.8
7607 Foil	1 721	6 172	+12.8
7604 Bars, rods, profiles	2 023	6 565	+40.2
7610 Structures	2 317	12 451	+39.8
7616 Articles n.e.s.	2 563	19 123	+54.7

Detailed product segment comparison shows that export growth was not uniform. The largest value gain in absolute terms came from waste and scrap (+174 %, driven by the global push for recycled content), while unwrought metal exports rose by nearly 60 % thanks to a 58 % jump in unit price. Yet the real strength of the EU’s export basket lies in high-value-added products: aluminium structures (€ 12 451/t) and miscellaneous articles (€ 19 123/t) not only commanded premium prices but also recorded robust value growth, insulating EU exporters from the worst effects of raw material cost spikes. In contrast, foil saw only modest value growth, partly because its unit price—already high—rose less dramatically.

A wave of price shocks in 2022 simultaneously hit key export destinations such as Japan, Korea and Canada, reflecting global market turmoil.

The price-shock analysis identifies 2022 as a year of extreme export price dislocations. EU aluminium sold to Korea experienced a 70.8 % price surge relative to its own baseline, while export prices to Japan jumped 51.7 %, to Canada 49.4 % and to Türkiye 42.9 %.

These shocks were largely volume-compensated, as quantities exported to those markets contracted sharply in the same period. The fact that export price volatility was concentrated in a few advanced economies and in Türkiye suggests that temporary supply constraints—linked to the energy crisis and logistics bottlenecks—allowed EU producers to extract significant premiums before markets normalised, as shown by the gradual price retreat in the post-shock years.

Conclusion

Over the decade to 2025, the EU's external aluminium trade pivoted from a manageable shortfall to a structural deficit driven by faster price escalation on imports and a growing reliance on foreign metal. The geopolitical shock of Russia's exclusion was absorbed through a rapid diversification towards Norway, Iceland, China, and Türkiye, which lowered concentration but introduced new sources of volatility. On the export side, the EU's ability to sustain and even expand its high-value semi-finished and finished product lines provided a crucial counterweight, yet the overall deterioration in trade balance and the steep rise in net import reliance leave the bloc more exposed to global price swings. The aluminium sector's path forward will therefore depend on securing affordable primary inputs while preserving the premiumisation of its downstream output.