

Market evolution: Signalling apparatus (CN 8531) — 2015–2025

Introduction

This report analyses the European Union's external trade in electric sound or visual signalling apparatus (CN 8531) — covering bells, sirens, indicator panels, burglar and fire alarms, and related parts — with non-EU countries over the period 2015–2025. The data reveal a market undergoing profound transformation: aggregate trade values grew significantly even as physical volumes contracted, the EU's import dependency diminished markedly, and geopolitical forces reshaped sourcing and export destinations. The following three sections unpack these dynamics using the dashboard data.

1. Value Growth Defying Volume Decline: The Price-Driven Expansion

1.1. Exports and imports rose substantially in value despite falling quantities

Between 2015 and 2025, total extra-EU exports of signalling apparatus increased by 45.9 %, from €1.44 billion to €2.10 billion, while the exported quantity fell by 4.6 % (from 20.6 thousand tonnes to 19.7 thousand tonnes). On the import side, the value grew by 12.0 % (€2.76 billion to €3.09 billion) whereas the imported quantity shrank by 22.2 % (from 53.3 thousand tonnes to 41.5 thousand tonnes). These opposing trends produced substantial unit-price inflation across both trade flows.

Indicator	2015	2025	Change	Dashboard link
Exports (€)	1 437 935 571	2 098 057 789	+45.9 %	Trade overview
Exports (tonnes)	20 623	19 672	−4.6 %	Trade overview
Imports (€)	2 763 369 837	3 094 169 255	+12.0 %	Trade overview
Imports (tonnes)	53 278	41 464	−22.2 %	Trade overview

1.2. Unit prices surged across all product categories, reflecting inflation and premiumisation

The average export price rose by 52.9 % (from €69.7/kg to €106.6/kg) and the average import price by 43.9 % (from €51.9/kg to €74.6/kg). This broad-based price escalation is

visible in all four sub-headings, with the most dramatic increases in “electric sound or visual signalling apparatus (excl. indicator panels, burglar/fire alarms)” (CN 853180), where import prices jumped from €43.9/kg to €88.1/kg and export prices from €94.6/kg to €140.1/kg. Even parts (CN 853190) and alarm apparatus (CN 853110) recorded price growth exceeding 40 %.

1.3. The divergence between value and volume was most pronounced in “other signalling apparatus”

The sub-category CN 853180 saw import value soar from €344 million to €1 085 million (+216 %) while import quantity grew by a more modest 58 % (7.8 kt to 12.3 kt). On the export side, the value of CN 853180 more than doubled from €210 million to €513 million (+145 %) while the quantity rose 65 % (2.2 kt to 3.7 kt). This segment increasingly dominates the trade mix, pulling the aggregate price level upward. The detailed segment product breakdown illustrates the compositional shift.

2. Strengthening EU Autonomy: From High Import Reliance to Growing Export Propensity

2.1. The trade deficit narrowed and net import reliance dropped sharply

The EU’s trade deficit in CN 8531 contracted by 24.8 %, from €–1.33 billion in 2015 to €–996 million in 2025. More importantly, net import reliance — the share of apparent consumption met by imports — fell from 63.1 % to 43.1 %, a reduction of nearly one-third. This indicates that EU-based producers are supplying an ever-larger share of domestic demand.

2.2. EU production value increased while output volume declined, signalling domestic upgrading

Over the period for which PRODCOM data are available (2015–2024), the production volume of CN 8531 goods fell from 33.4 million units to 23.2 million units, yet production value rose from €1.21 billion to €1.69 billion. The rising unit value of domestically produced apparatus mirrors the trade price trend and points to a shift towards higher-specification, higher-value products manufactured within the EU.

2.3. Export propensity climbed, and several member states became highly specialised

Export propensity — the fraction of domestic output shipped outside the EU — rose from 50.2 % to 66.0 %. This was accompanied by growing specialisation in certain member states. In 2025, Sweden (RSCA 0.32), Romania (0.28), Austria (0.23) and the Netherlands (0.22) exhibited the strongest revealed comparative advantage, while Germany, despite a 50.7 % rise in its exports as a reporting member, operated slightly below the EU average specialisation (RSCA –0.03). Ireland’s emergence as an export hub is particularly striking: its extra-EU exports jumped 219.3 % (from €81 million to €259 million).

3. Realigning Partnerships: Geopolitical Shocks and the Redrawing of Supply Chains

3.1. China remained the dominant supplier, but Vietnam’s explosive growth reconfigured the import base

Top import partners

Partner	2015 (€ mn)	2025 (€ mn)	Change
China	1 184.6	1 458.9	+23.2 %
United Kingdom	414.6	248.4	–40.1 %
Viet Nam	0.5	280.9	+55 134 %
United States	223.2	345.9	+55.0 %
Taiwan	117.6	132.1	+12.4 %

China’s share remains high, but the supply base has become more concentrated: the import-side Herfindahl-Hirschman Index rose from 2 246 to 2 559 (concentration). Vietnam’s extraordinary ascent — from practically zero to €281 million — reflects the relocation of electronics assembly capacity and represents the single most dramatic supply-chain shift of the decade.

3.2. Brexit triggered severe price shocks and a permanent volume reset in UK–EU trade

The volatility analysis and shock detection identify the UK as the epicentre of trade disruption. EU imports from the UK suffered a price shock in 2021 (unit value jumped 74 % above baseline) as quantities collapsed. Simultaneously, EU exports to the UK recorded a 2020 price shock (+109.6 %) when shipped volumes halved. Exports subsequently stabilised at a high-price, lower-volume equilibrium, while import quantities never recovered.

The UK's coefficient of variation for import quantity (0.55) and export quantity (0.45) underscore the enduring instability.

3.3. Sanctions on Russia collapsed exports, while the US, China and Switzerland absorbed growth

EU exports to Russia evaporated from €55 million in 2015 to a mere €2 389 in 2025 (CV 0.65). The lost volume was more than compensated by booming sales to the United States (+101.0 %, reaching €376 million), China (+85.6 %, €133 million) and Switzerland (+35.2 %, €144 million). Turkey, a traditionally stable market, experienced a price shock in 2023 (unit value +185 %) as export quantities dropped, likely linked to Turkish lira depreciation and subsequent trade frictions. These geographical shifts have marginally raised export-side concentration (HHI from 874 to 1 106) but remain far below import concentration levels.

Conclusion

Over the decade 2015–2025, the EU's external trade in signalling apparatus was reshaped by a powerful combination of price inflation, industrial upgrading, and geopolitical turbulence. While trade values expanded handsomely, physical volumes contracted, pointing to a market that increasingly trades higher-value, technologically advanced products. The EU's import dependence fell significantly, driven by rising domestic output value and an export-oriented production base. At the same time, the supplier landscape grew more concentrated around China and the newly emerged Vietnamese hub, while Brexit and sanctions on Russia forced a painful but ultimately absorbed reorientation of export flows. The sector's future resilience will depend on managing import concentration risks and sustaining the technological premium that underpins both domestic value creation and export competitiveness.

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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](#).