

Market evolution: Hormones (CN 2937) — 2015–2025

Introduction

The EU's extra-Union trade in hormones, prostaglandins, thromboxanes and leukotrienes (CN 2937) has undergone a fundamental transformation between 2015 and 2025. While the headline trade values rose significantly, the underlying story is one of a structural shift away from traditional, high-volume steroidal hormones towards ultra-high-value polypeptide-based biologics. This change has reshaped the EU's partner dependencies, created extreme price volatility, and dramatically altered the balance between import reliance and domestic production. The following report dissects these dynamics using the available dashboard data.

1. The Biopharmaceutical Revolution: From Bulk Steroids to Ultra-High-Value Polypeptides

The most striking feature of the decade is the decoupling of trade value and quantity, driven by the changing composition of the product group.

The overall export price exploded while volumes collapsed

Between 2015 and 2025, the total value of EU exports rose by 43.5 %, from €3.04 billion to €4.36 billion, yet the exported quantity plummeted by 79.6 % (from 1 758 tonnes to only 359 tonnes). Consequently, the average export price per tonne surged by 602.2 %. [Trade overview]

Polypeptide hormones (CN 293719) became the overwhelmingly dominant export segment

The sub-heading “polypeptide hormones, protein hormones and glycoprotein hormones” (excluding somatropin and insulin) recorded a value increase from €0.78 billion in 2015 to an extraordinary €34.54 billion in 2025. Its quantity fell from 702 tonnes to just 54.6 tonnes, pushing the unit price from around €1.1 million/tonne to over €631 million/tonne. This segment alone now explains nearly all of the EU's export value dynamics. [Product segment breakdown]

Insulin (CN 293712) and other high-value products added to the shift

Insulin exports, while smaller in volume, also displayed enormous unit values (up to €55 million/tonne in early years, and still €9 million/tonne in 2025) and contributed to the general price escalation. Traditional steroidal hormones (CN 293729, 293723, 293721) grew modestly or stagnated in value, while halogenated corticosteroid derivatives (CN 293722) hovered around €200–400 million.

The production data confirms a massive scale-up of EU manufacturing

Official production statistics show that EU output of CN 2937 products jumped from an estimated 619 million units in 2003 to 40 billion units by 2024, with value rising from €1.09 billion to €24 billion. The production ramp-up, concentrated in the last few years, is consistent with the introduction of new biologic therapies and underlines that the EU is now a global production hub for high-value hormone-based medicines. [Production data]

2. A Reversal of Fortune: Trade Balance and Dependence Dynamics

Despite the booming export value, the EU's external position moved from a manageable deficit to a deep one, while its reliance on imports changed character.

The trade balance deteriorated sharply

The EU's trade deficit in this product group swelled from €-2.77 billion in 2015 to €-13.73 billion in 2025. Exports grew moderately (+43.5 %), but imports soared by 211.3 %, from €5.81 billion to €18.10 billion. The result was a balance erosion of 395.4 %. [Trade overview]

The United States and China became the dominant import sources, while traditional partners declined

Import values from the United States grew by 344.1 % (to €11.35 billion) and from China by an extraordinary 2003.6 % (to €4.78 billion). In contrast, imports from Switzerland contracted by 53.7 % and from the United Kingdom by 78.6 %. This pivot reshaped the EU's external supply geography. [Top partners by value]

Exports to the US collapsed, while flows to unspecified destinations surged

EU exports to the United States fell by 74.9 % (to only €0.17 billion), whereas exports to “Countries and territories not specified for commercial or military reasons” jumped 427.8 % (to €3.23 billion). Exports to Switzerland also declined by 76.5 %. The shift suggests a re-routing of high-value goods, possibly linked to intellectual property or distribution strategies for novel biologics.

From net importer to net exporter in volume terms

The net import reliance indicator flipped from +64.3 % (high dependence on imports) in the early period to -34.9 % in 2024, meaning the EU has become a net exporter relative to its own consumption when physical volumes are considered. The massive production increase more than compensates for the physical trade deficit, despite the large negative value balance. [Net import reliance]

3. Extreme Volatility and Strategic Concentration Risks

The transformation has been accompanied by unprecedented instability in prices and high market concentration at various levels.

Price shocks hit key export destinations

Three major price shock events were detected:

- **China (exports)** – a 370 % price increase in 2017 compared to 2015-16, with quantities plunging by 84 %. The price rose further in subsequent years.
- **United Kingdom (exports)** – a 524 % price jump in 2017, though this partly reflected quantity adjustments following Brexit-related trade changes.
- **Canada (exports)** – a 158 % price spike in 2022, driven by a sharp quantity drop.

These shocks underline the sensitivity of high-value biologics to supply chain disruptions or regulatory shifts. [Shock events]

Import supplier concentration increased, while export reporter concentration decreased

The Herfindahl-Hirschman Index for imports rose from 3 677 to 4 673, signalling a more concentrated supplier base. For exports, the HHI fell from 1 817 to 949, indicating a less concentrated (more spread-out) export structure among EU member states. [Concentration HHI]

Specialisation is extremely polarised

In 2025 the most specialised exporters were Ireland (RSCA = 0.94, RCA = 30.1) and Sweden (RSCA = 0.45, RCA = 2.6). Ireland alone accounted for 62.9 % of the EU's extra-Union exports of this product group, though its absolute export value dropped sharply from a peak of €4.59 billion in 2022 to just €15 million in 2025, illustrating how quickly the geographic locus of production can shift. Many other member states have minimal specialisation (RSCA scores below -0.9). [Specialisation map]

Volatility across partners is pronounced

The coefficient of variation of import quantities ranges from 0.23 (United States) to over 2.0 (Hong Kong), while for exports the CV for the United Kingdom is 1.36 and for China 1.51. The high volatility, particularly from smaller partners, adds uncertainty to supply and demand planning. [Volatility bars]

Conclusion

Between 2015 and 2025, EU trade in hormone-related products was revolutionised by the rise of biologic polypeptide hormones. The EU transformed itself into a major global production base, scaling up output dramatically and sending unit prices to unprecedentedly high levels. This brought a sharp increase in the value of extra-EU imports, notably from the United States and China, while traditional partners lost share. The physical trade deficit persisted but was overshadowed by domestic production, turning the net import reliance negative in volume terms. However, the market remains highly concentrated on the import side and extremely volatile in prices, with sudden shocks capable of redrawing the trade map within months. The EU's strategic challenge will be to manage the dependencies and instability inherent in such a high-value, innovation-driven sector.

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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](#).