THE EFFECTS OF EUROPEAN UNION EXCISE DUTY HARMONIZATION ON TAX POLICY AND INTERNATIONAL TRADE: THE CASE OF LITHUANIA

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Abstract

This article examines the effects of European Union excise duty harmonization on tax policy and international trade in Lithuania. Excise duties are an important fiscal instrument used to generate government revenue and influence consumer behaviour, particularly regarding products such as alcohol, tobacco, and energy. The research aims to analyse how EU harmonization of excise duties affects Lithuania's national tax policy and trade dynamics within the Single Market. The study applies several research methods, including analysis and synthesis of scientific literature, examination of EU legislation on excise duties, and interpretation of statistical data from Eurostat, the European Commission, and OECD sources. The findings indicate that EU harmonization provides a common legal and administrative framework that improves transparency, facilitates cross-border trade, and supports consistent taxation among member states. At the same time, national fiscal sovereignty allows Lithuania to set higher excise rates to pursue public health and fiscal objectives. Empirical analysis shows that higher excise duties, such as the 2017 alcohol tax increase, contributed to increased tax revenue and reduced legal alcohol consumption. However, differences in excise rates between neighbouring countries continue to encourage cross-border shopping and illicit trade, creating challenges for domestic revenue collection. The study concludes that although EU harmonization strengthens market coordination and regulatory stability, Lithuania must continuously balance public health goals, fiscal policy, and international trade dynamics.

Keywords: Excise Duties; EU Harmonization; Tax Policy; International Trade; Cross-Border Arbitrage; Fiscal Sovereignty; Pigouvian Tax; Lithuania.

Introduction

Excise duties are indirect taxes imposed on specific goods such as alcohol, tobacco, energy products, and electricity, and they represent an essential source of national revenue in all European Union member states. The revenue from these taxes goes entirely to the country where they are collected, which makes them an important fiscal policy instrument for governments. To reduce market distortions and keep competition fair among businesses, the European Union (EU) introduced common rules that align how excise duties are applied to similar products across the Union (European Commission, 2025). These shared rules aim to create a balanced environment within the Single Market by lowering trade barriers and simplifying administrative procedures for companies that operate internationally. Excise duty harmonization also increases transparency and helps ensure that taxation is applied consistently across member states.

The harmonization process is built on EU legislation that defines categories of taxable goods, establishes minimum tax rates, and outlines how countries should cooperate on tax control. In addition to the general framework, the European Union has adopted specific directives harmonising excise duties for particular product groups. For example, alcohol taxation is regulated by Council Directive 92/83/EEC, tobacco products by Directive 2011/64/EU, and energy products and electricity by Directive 2003/96/EC. One important example is the Excise Movement and Control System (EMCS), a computerised framework used to track the movement of excise goods across the EU. This system helps prevent tax fraud and ensures that excise duties are collected correctly. However, even with shared rules in place, each country still has the right to set higher excise duty rates if needed to meet its fiscal or social goals.

In Lithuania, excise duties play a particularly important role in shaping both the national budget and consumer behaviour, especially in sectors such as alcohol, tobacco, and energy. This paper explores how the harmonization of excise duties within the EU affects tax policy and international trade in Lithuania, focusing on whether these measures contribute to greater economic stability, fair competition, and sustainable revenue collection.

Research aim: to analyse how the harmonization of excise duties in the EU influences tax policy and international trade in Lithuania.

The following **objectives** have been set to achieve the aim:

1. To examine the situation of excise duty harmonization in the EU and its role on international trade and tax policy in Lithuania.

2. To analyse the scientific literature on the concept of excise duties, the theoretical principles of their harmonization, and their relationship with international trade.

3. To evaluate the effects of excise duty harmonization on international trade in Lithuania.

Research object and methods

The research object of this study is the effects of European Union excise duty harmonization on tax policy and international trade in Lithuania. The research focuses on how the EU's common regulatory framework for excise duties influences Lithuania's national fiscal policy, cross-border trade dynamics, and revenue collection. Particular attention is given to the taxation of alcohol, tobacco, and energy products, which represent the main categories of excise goods within the European Union and constitute a significant share of Lithuania's indirect tax revenues.

Several research methods were applied in order to analyse the selected research object. The analysis and synthesis of scientific literature were used to examine the theoretical concepts of excise duties, their economic functions, and the principles of tax harmonization within the European Union. The examination of EU legislation was conducted to evaluate the legal framework regulating excise duties, including relevant directives and regulations governing the taxation and movement of excise goods. In addition, the interpretation and comparative analysis of statistical data obtained from international databases, including Eurostat, the European Commission, and the Organisation for Economic Co-operation and Development (OECD), were used to assess the practical effects of excise duty harmonization on Lithuania's tax policy and international trade patterns. The DeepL translation tool was used to support the translation of selected sources and legislative documents written in foreign languages.

1. Harmonization of Excise Duties: Lithuania's Experience within the EU Framework

The harmonization of excise duties across the European Union is a central element in maintaining the integrity of the internal market. Excise duties are indirect taxes imposed on specific goods such as alcohol, tobacco, and energy products. These taxes are not only an important source of revenue for member states but also a tool for achieving social and environmental goals. To avoid trade distortions, tax evasion, and unfair competition, the European Union (EU) has developed a coordinated system that organizes how excise duties are structured, collected, and controlled among its member states.

Excise duty harmonisation in the European Union operates along two main dimensions. The first concerns technical or administrative harmonisation, which includes rules governing the movement of excise goods, administrative cooperation between member states, tax warehouses, and electronic monitoring systems such as EMCS. These measures aim to ensure the smooth functioning of the internal market and facilitate cross-border trade. The second dimension relates to tariff harmonisation, which concerns the structure and minimum levels of excise duties on products such as alcohol, tobacco, and energy products. Differences in national excise rates influence government revenue, consumer behaviour, and cross-border trade patterns.

The main legal framework supporting this harmonization is Council Directive (EU) 2020/262. This directive outlines the common arrangements for charging, collecting, and supervising excise duties. It specifies when duties must be paid and sets out the rules for cooperation between national tax administrations. Another essential element of this framework is the Excise Movement and Control System (EMCS), a digital system that tracks the transport of excise goods across the EU while the duties are suspended. The EMCS increases transparency, lowers administrative burdens, and helps ensure tax compliance (Council of the European Union, 2020). The main EU framework of excise duties system is presented in table 1.

Table 1. Legal acts

Legal acts	Purpose of legal acts
Council Directive (EU) 2020/262	Lays down the general arrangements for excise duty on energy products, electricity, alcohol, alcoholic beverages, and manufactured tobacco, and governs their movement within the EU.
Council Regulation (EU) No 389/2012	Establishes the rules for administrative cooperation between EU Member States in the field of excise duties to ensure compliance and combat fraud.
Commission Implementing Regulation (EU) 2022/1637	Lays down the rules for the application of Directive (EU) 2020/262 concerning the use of electronic and fallback documents for the movement of excise goods both under duty suspension and after release for consumption.
Commission Implementing Regulation (EU) 612/2013	Concerns the operation of the electronic register of economic operators and tax warehouses, as well as related statistics and reporting, pursuant to the administrative cooperation rules for excise duties (Regulation (EU) No 389/2012).
Commission Implementing Regulation (EU) 2016/323	Lays down detailed rules on cooperation and exchange of information between Member States concerning goods under excise duty suspension arrangements, complementing Regulation (EU) No 389/2012.
Commission Recommendation 2000/789/EC	Sets out non-binding guidelines for Member States regarding the authorisation of warehouse keepers for products subject to excise duty to enhance the fight against fraud.
Commission Delegated Regulation (EU) 2022/1636	Supplements Directive (EU) 2020/262 by establishing the structure and content of electronic documents exchanged during the movement of excise goods, and sets a common threshold for partial losses.

Although EU law establishes minimum levels of excise duties, member states are still allowed to set higher national rates depending on their own fiscal and social priorities. For smaller economies such as Lithuania, excise duties make up a large part of total tax revenue, especially from alcohol, tobacco, and energy products. Since joining the EU in 2004, Lithuania has gradually adjusted its excise rates to meet EU requirements and to encourage more responsible consumption. However, differences in rates between Lithuania and its neighbouring countries, such as Poland and Latvia, continue to shape trade patterns and consumer decisions. The main legal act that provides the rules for the application of excise duties in Lithuania is the Law on Excise Duties (Lietuvos Respublikos akcizų įstatymas, 2001), which changes regularly based on Lithuania's sustainability and other policy goals. (Table 2).

Table 2. Legislation changes

Year (when changes come into effect)	Main changes
2025	The legislation introduced the first phase of the updated excise plan for diesel fuel by increasing the fixed component of the excise duty rate and beginning the scheduled incremental increase of the variable CO2 emission component.
2026	The legislation for this year concerned the planned significant step-up in the variable CO2 component of the diesel excise duty, a hike that was later subject to proposals for suspension by subsequent amendments to avoid drastic price increases.
2027	The legislation finalized or amended the excise duty rates, establishing the final planned increase in the fixed and variable CO2 components for diesel fuel as part of the country's long-term energy and climate policy objectives.

When excise rates differ noticeably between countries, people often choose to buy goods where prices are lower. This type of behaviour, known as cross-border shopping or arbitrage, can reduce domestic sales and lower tax revenues. According to Ranđelović and Bisić (2021), such behaviour still occurs even under a harmonized system, particularly in areas where price sensitivity is high**.** In Lithuania's case, these dynamics create a challenge: the country must balance fiscal stability with competitiveness and public health concerns.

In summary, the EU's harmonization of excise duties provides a unified legal and administrative base, but national differences continue to matter. The Lithuanian experience shows that while harmonization improves consistency and transparency, each country's outcomes depend on how these rules are put into practice at the national level.

2.Theoretical Principles of Excise Duties, Harmonization, and Trade Dynamics

The academic literature concerning the core definition and economic function of excise duties, the fundamental principles and goals of tax harmonization within a single market, and the resulting economic dynamics that influence international trade patterns are essential to analyze the effects of EU excise duty harmonization on Lithuania's tax policy and international trade. This section systematically reviews these concepts.

2.1 The Economic concept and Role of Excise Duties

Excise duties are indirect taxes imposed selectively on the consumption, manufacture, or sale of specific goods such as alcohol, tobacco, and energy products. Unlike broad-based consumption taxes such as value-added tax (VAT), excise duties apply only to particular product categories and are usually justified by specific economic and social considerations (Boesen, 2021). These taxes are widely used by governments both as a source of public revenue and as a policy instrument aimed at influencing consumer behaviour and addressing negative externalities associated with the consumption of certain products.

The tax functions are typically split into two key areas:

1. The Pigouvian Function: Excise duties frequently serve a corrective welfare role by addressing negative externalities associated with the consumption of certain goods. Pigouvian taxes are a type of tax designed to correct negative externalities by incorporating the social costs of harmful consumption into the product's final price. These social costs may include increased public healthcare expenditures or environmental damage that are not reflected in the market price (Manthey et al., 2024). By incorporating these external costs through taxation, the state internalizes the societal burden and discourages undesirable consumption (Ranđelović & Bisić, 2021; Sygut, 2018).

2. The Fiscal Function: Excise duties are a vital source of state revenue necessary for funding public services (Sygut, 2018). As indirect taxes, they are a productive and stable component of national budgets. Since the revenue accrues entirely to the collecting member state, they serve as a direct fiscal instrument. However, analysts consistently caution that due to the reliance on narrow and often diminishing consumer bases (like tobacco), excise revenues can be volatile, rendering them unsuitable for core government funding.

2.2 Theoretical Principles of EU Harmonization

Harmonization of taxation within the European Union is dictated by the imperative to establish a fluid Single Market (Ranđelović & Bisić, 2021; Vanistendael, 2018). The overriding objective is the removal of all physical and invisible fiscal obstacles to the free movement of goods, ensuring non-discriminatory conditions for competing national jurisdictions. For excises, this coordination is achieved through EU directives that govern product structure, administrative systems (like EMCS), and mandate minimum excise yield indicators. These common mechanisms stabilize the tax base and promote transparency across the economic bloc (Hrytsyshen et al., 2025).

A core element of the EU structure is the tension between fiscal integration and retained national sovereignty (OECD, 2022). While the EU sets the minimum floor, Member States retain the essential right to set higher national rates to meet local fiscal or social policy objectives. The Court Of Justice Of The European Union preserves this sovereignty by refraining from intervention unless national laws are overtly discriminatory. This preserved autonomy is the fundamental source of residual tax differentials within the purportedly unified market.

2.3 Relationship with International Trade

The resulting tax differentials directly influence trade dynamics by spurring cross-border arbitrage, or regional purchasing shifts. This market distortion occurs when consumers exploit price gaps by purchasing excised goods in neighboring, lower-tax jurisdictions, thereby diverting domestic sales and negatively affecting national revenue. Empirical studies confirm that consumer behavior exhibits a strong cross-border elasticity in response to these pricing incentives (Ranđelović & Bisić, 2021).

In the Baltics, policy interventions such as increasing alcohol excise duties have demonstrated a desirable policy outcome, concurrently boosting revenue and mitigating harmful consumption (Manthey et al., 2024). This evidence refutes the economic argument that tax increases inevitably lead to decreased revenue, validating the use of excise policy to achieve both public health and fiscal stability goals. The effects of EU integration also extend to trade regulation: research indicates that the EU's stringent non-tariff standards often function as *de facto* barriers to imports from non-EU partners, while simultaneously enhancing the export competitiveness of firms like those in Lithuania, which must comply with the high regulatory baseline (Curzi et al., 2018).

In summary, the theoretical review establishes the dual function of excise duties as both a Pigouvian tool for correcting negative externalities and an essential fiscal instrument for national revenue generation. EU harmonization attempts to balance these national priorities with the necessity of a fluid Single Market by instituting minimum tax thresholds and common structural rules. However, the preservation of national fiscal sovereignty allows for persistent tax differentials that create a predictable vulnerability to cross-border arbitrage, diverting trade flows and challenging domestic revenue collection, as demonstrated by empirical studies in the Baltic region. Consequently, the task of modern excise policy in a harmonized but heterogenous fiscal environment is to manage this fundamental trade-off between maximizing domestic fiscal/social benefit and mitigating the trade-distorting effects of cross-border price gaps. This framework will now be applied to evaluate the specific practical effects of harmonization in Lithuania.

3. Evaluation of Harmonization Effects on International Trade in Lithuania

Following the establishment of the theoretical framework in Section 2, this final part of the research analyzes how EU harmonization influences Lithuania's fiscal sovereignty and international trade. The evaluation examines the tension between high domestic Pigouvian taxes (intended for public health) and the economic forces of cross-border arbitrage (which distort trade flows). By focusing on alcohol and tobacco and integrating recent domestic and comparative statistical data, this section quantifies the practical success of Lithuania's policy objectives and assesses its vulnerability within the Single Market.

3.1 Impact on Fiscal Revenue and Public Health

Lithuania's commitment to using excise duties for public health goals serves as a direct case study of the Pigouvian function of taxation. The most dramatic policy test was the 2017 alcohol excise duties increase, where rates were significantly raised: 112% for beer, 111% for wine, and 23% for spirits (Manthey et al., 2024). This measure aimed to reduce consumption and the associated substantial public health burden.

The analysis of the subsequent years confirms the policy achieved a "double dividend" combining fiscal gain with desired behavioral change, though recent data highlights complexities:

1. Fiscal Success: The tax increase generated immediate and substantial returns, yielding a 20% increase (over €100 million) in tax revenue within the first year (Manthey et al., 2024). This trend has proven sustainable, with post-2010 analysis confirming increasing, inflation-adjusted revenue linked to excise taxation (Manthey et al., 2024).

2. Public Health Success with Nuance: Overall consumption dropped significantly, with legal alcohol consumption per resident reaching 10.2 liters in 2024, the lowest recorded level in the last decade (Valstybės duomenų agentūra, 2025). However, consumer behavior is shifting: recent statistics show sales decreases in spirits (-5.3%) and beer (-7.5%) but an increase in sales of wine, fermented beverages, and alcoholic cocktails (+2.1%), suggesting consumers are adapting by favoring lower-proof or less strictly taxed alternatives (Valstybės duomenų agentūra, 2025).

3. Persistent Health Risks: Despite the consumption decline, the most severe health consequences persist: there were 677 deaths directly related to alcohol consumption in 2024 (an increase of 52 deaths from 2023), confirming that the concentration of heavy, high-risk consumption remains a severe public health challenge (Valstybės duomenų agentūra, 2025).

This demonstrates that the core excise policy achieved the double dividend but requires constant policy adaptation to counter evolving consumption patterns and mitigate the persistent health risks posed by high-risk users. The policy's domestic success is continuously challenged by external pricing forces.

3.2 Trade Distortion: Cross-Border Arbitrage Analysis

Despite the unifying goal of the Single Market, Lithuania's geographical position and continued fiscal autonomy mean that managing tax rate differentials against its immediate neighbors remains a major constraint on excise policy. The economic phenomenon of cross-border arbitrage is particularly relevant along the borders with Latvia and Estonia.

To quantify the incentive for trade deflection, Table 2 presents the comparison of key excise duty rates in EUR for Lithuania and its Baltic neighbors, highlighting the price differential that incentivizes consumption choices in 2025.

Table 3. Excise product rates analysis

Excise Product (Rate per Unit)	Lithuania (2025 rate)	Latvia (2025 rate)	Estonia (2025 rate)	Price Inventive/Risk
Spirits (per 100L pure alcohol)	€2,778	€1,955	€2,074	Highest Rate in Region (Risk: Arbitrage to LV)
Beer (per 100L / % vol.)	€10.97	€9.80	€13.34	Intermediate Rate (Risk: Arbitrage to LV)
Cigarettes (Min. rate per 1000 items)	€149.7	€171.9	€177.7	Lowest Minimum Rate (Risk: Arbitrage to LT for LV/EE)

Note: Data is based on final enacted 2025 excise rates (Latvian Ministry of Finance, 2025).

Internal EU Arbitrage (Latvia & Estonia)

The data confirms persistent and significant tax differentials, primarily generating regional "alcohol tourism":

• Spirits (Ethyl Alcohol): Lithuania maintains the strictest excise duties regime for spirits in the Baltic region (€2,778), exceeding Latvia (€1,955) by a substantial margin (Latvian Ministry of Finance, 2025). This creates a powerful economic incentive for Lithuanian consumers to travel to Latvia, directly contributing to fiscal leakage and revenue volatility.

• Tobacco: Conversely, Lithuania's minimum cigarette excise duty rate is lower than in Latvia and Estonia (Latvian Ministry of Finance, 2025). This difference may reduce incentives for Lithuanian consumers to purchase tobacco products abroad and may limit cross-border arbitrage compared to neighbouring countries.

External Trade Distortion (Non-EU Border)

Beyond its EU partners, Lithuania faces a more existential distortion challenge from its non-EU eastern neighbors, Belarus and Russia. Since these countries operate outside EU minimum excise duty directives, their products are drastically cheaper, fueling organized illicit trade (OECD, 2022). This illegal flow channels untaxed goods into the country, undermining policy goals, depressing retail prices, and causing significant, chronic tax revenue losses a far greater enforcement challenge than formal cross-border shopping with Latvia.

3.2 Qualitative and Regulatory Effects on Trade

The EU harmonisation process also affects Lithuania’s trade environment by establishing a common regulatory framework across the Single Market. While excise duties themselves are not applied to goods that are exported outside the EU, harmonised rules and regulatory standards facilitate cross-border trade within the EU and reduce administrative barriers for businesses operating in multiple member states. Compliance with EU standards may also strengthen the competitiveness of Lithuanian producers in international markets (Curzi et al., 2018).

The empirical evaluation confirms that excise duty harmonization in the European Union creates a complex and persistent set of effects on Lithuania’s fiscal and trade policy. Domestically, Lithuania’s aggressive use of its fiscal sovereignty to implement high excise duties has been successful in achieving a desirable "double dividend" marked by increased revenue and decreased overall consumption of spirits and beer. However, this domestic success is perpetually challenged by trade distortions arising from the asymmetric nature of EU harmonization.

The primary vulnerabilities identified are: 1) Internal Cross-Border Arbitrage, quantified by the large 2025 tax differential on spirits (€2,778 in Lithuania versus €1,955 in Latvia), which incentivizes consumption leakage to neighboring EU states; and 2) External Illicit Trade, driven by massive price disparities with non-EU countries (Belarus/Russia), which results in considerable tax revenue losses. Furthermore, integration into the Single Market subjects Lithuania to high non-tariff barriers, which, while challenging for some imports, ultimately enhances the competitiveness of Lithuanian exports by demanding a strict, market-ready regulatory standard. In essence, harmonization imposes a tradeoff where the pursuit of domestic social goals must be constantly balanced against external market forces.

Conclusions

1. The harmonization framework successfully imposed a structural base for Lithuanian excise duties policy, forcing alignment with the minimum excise duties yield rules stipulated by the EU. This provided the political cover for Lithuania to utilize excise duties not merely as a revenue stream but as a crucial Pigouvian policy tool aimed at addressing severe negative externalities, particularly in the health sector. The structural role of EU legislation acts as the foundation, allowing the national tax policy to be dynamically responsive to social and public health goals.

2. The literature establishes that excise duties function as a double dividend mechanism, generating revenue and discouraging harmful consumption. This efficacy is constantly challenged by market forces. The core principle of EU

harmonization aims to minimize tax competition but inevitably leaves room for sovereign rate differences, creating the fundamental mechanism for cross-border arbitrage.

3. Empirically, Lithuania's aggressive excise duties policy, exemplified by the 2017 alcohol tax hike, was a clear domestic success, achieving a double dividend of significantly increased revenue and reduced overall legal alcohol consumption. However, this success comes at the cost of quantifiable and persistent international trade distortions. Specifically, the analysis of current 2025 rates confirms a clear incentive for cross-border arbitrage toward lower-tax neighbors, particularly Latvia, which directly undermines domestic sales and shifts revenue abroad. Furthermore, the persistent threat of illicit trade exploiting the border with Belarus and Russia remains a formidable constraint on future tax increases, costing the treasury substantial lost tax revenue.

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