

The economic footprint of traditional tobacco and new nicotine products

Contributions to the EU-27 in 2021

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Executive Summary

Consumer demand for traditional tobacco and new nicotine products in the EU-27 is in transition.¹ A confluence of factors — socioeconomic situations, lifestyle choices, health consciousness and an aging consumer base as well as regulations — have and will continue to influence consumers' purchase decision processes. The market is characterised by ongoing shifts, wherein the revenue shares held by traditional tobacco products are shifting towards new nicotine products. These changes in consumer demand have implications not just for the traditional tobacco and new nicotine products industry but for follow-on economic activity stimulated by the industry across the EU-27.

The core objectives of this study were to: (1) establish a baseline assessment of the economic contributions the traditional tobacco products value chains made to the EU-27 in 2021; (2) establish a baseline assessment of the economic contributions the new nicotine products value chains made to the EU-27 in 2021; and (3) assess the impact that material changes in consumption (either for traditional tobacco products or new nicotine products) could have on the broader EU-27 economy. The industry's economic contributions were quantified in terms of jobs, sales activity, GDP, and wages at the member state and aggregate EU-27 levels.

In 2021, consumers in the EU-27 spent €151.3 billion on traditional tobacco products and new nicotine products, representing approximately 2.5% of total EU-27 consumer expenditures. By considering both the direct and follow-on economic activities affected by these expenditures, this study provides a comprehensive assessment of the economic contributions stimulated by the industry's value chains and the role they play in generating value and supporting jobs across the EU-27. Key findings of this study:

- The traditional tobacco and new nicotine products industry stimulated €194.5 billion in GDP across the EU-27.
 - If embodied as an individual country, it would rank as the 16th largest in the European Union.²
- The industry ultimately supported over 1.55 million EU-27 jobs that paid €43.5 billion in wages.
 - As a point of reference, this is about the size of the current population of Munich, Germany.³
 - This is equivalent to one out of every 130 jobs across the EU-27.
 - For every direct manufacturing job, another 23 were supported across the EU-27: 8 in the supply chains, 11 in wholesale, distribution and retail, and 4 in the broader economies of the member states.
 - For every €1 million consumers spent on traditional tobacco and new nicotine products in 2021, 10 jobs were supported and €1.3 million of GDP was generated across the EU-27.⁴
- The revenue market share of new nicotine products increased from 2.9% in 2016 to 8.8% in 2021.⁵
 - New nicotine products supported 137,000 jobs that earned €3.7 billion in wages and generated €17.1 billion in GDP across the EU-27.
 - Three member states accounted for 45.7% of the jobs: Poland (16.7%); Italy (14.5%); and Germany (14.4%).
- A 5% decline in traditional tobacco product sales would put over 70,700 jobs at risk and decrease GDP by €8.9 billion across the EU-27.
- A 5% decline in new nicotine product sales would put over 6,800 jobs at risk and decrease GDP by €854.3 million across the EU-27.

¹ Throughout this report, the term "traditional tobacco products" refers to cigarettes, cigars, fine-cut tobacco and other tobacco products. To ensure consistency with terminology used by regulators, "new nicotine products" refers to heated tobacco products, vapour products and nicotine pouches. The results presented in this report include both nicotine-containing and nicotine-free products for vapour products.

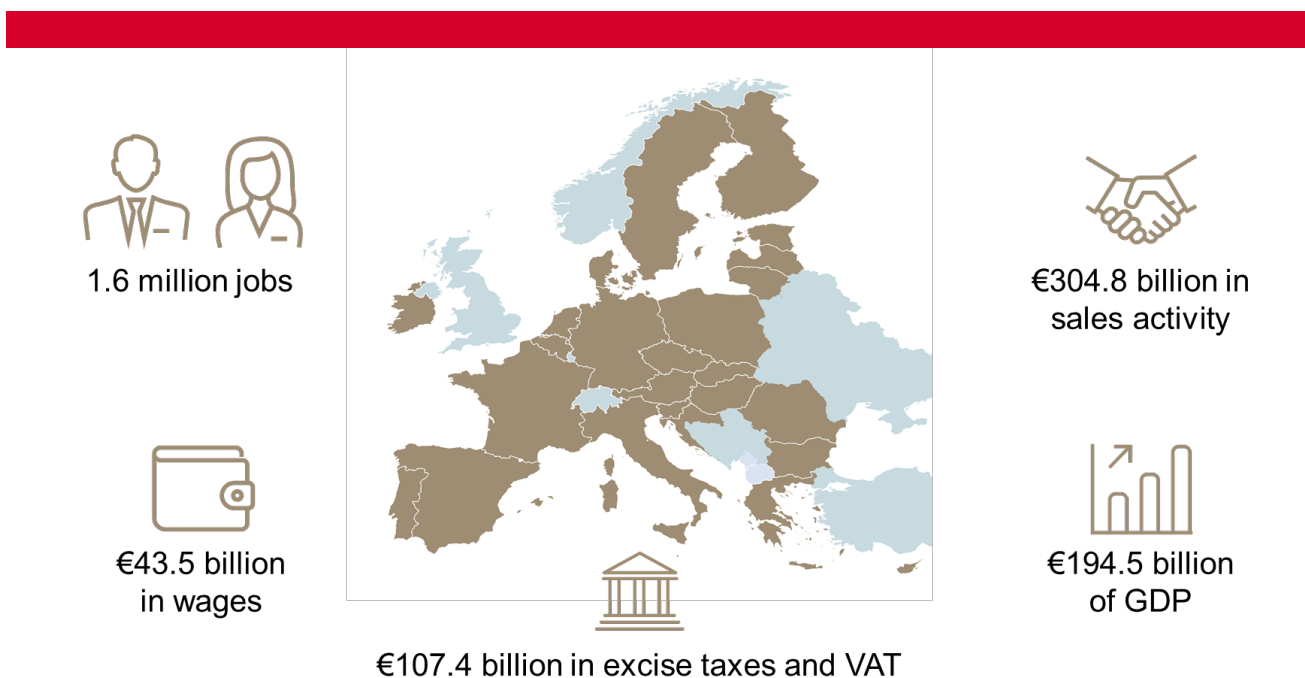
² S&P Global Market Intelligence comparison of the €194.5 billion in GDP stimulated by traditional tobacco and new nicotine products to country-level GDP reported in S&P Global Market Intelligence's Global Economy Service.

³ Federal Statistical Office of Germany (Destatis)

⁴ Jobs calculation: (1.55 million jobs) / (€ 151.3 billion spent on traditional tobacco and new nicotine products) equates to 10 jobs per € million spent; GDP calculation: (€ 194.5 billion in GDP) / (€ 151.3 billion spent on traditional tobacco and new nicotine products) equates to € 1.3 million in GDP per € million spent.

⁵ S&P Global Market Intelligence analysis of Euromonitor and eCigIntelligence data.

The economic contributions of the traditional tobacco and new nicotine products value chains to the EU-27 in 2021



By contribution type	Jobs	Sales activity ⁶	GDP	Wages
Total	1,552K ⁷	€ 304.8B	€ 194.5B	€ 43.4B
Direct	792K	€ 186.7B	€ 140.9B	€ 19.4B
Indirect	522K	€ 80.0B	€ 35.1B	€ 15.7B
Induced	238K	€ 38.0B	€ 18.4B	€ 8.3B

By product category	Jobs	Sales activity	GDP	Wages
Total	1,552K	€ 304.8B	€ 194.5B	€ 43.4B
Traditional tobacco products	1,415K	€ 278.1B	€ 177.4B	€ 39.7B
Cigarettes	1,186K	€ 230.9B	€ 147.4B	€ 32.7B
Cigars, cigarillos and smoking tobacco	49K	€ 9.8B	€ 6.2B	€ 1.4B
Fine-cut tobacco	167K	€ 34.7B	€ 22.3B	€ 5.0B
Other tobacco products	14K	€ 2.7B	€ 1.5B	€ 0.5B
New nicotine products	137K	€ 26.7B	€ 17.1B	€ 3.7B
Heated tobacco products	79K	€ 14.5B	€ 9.2B	€ 2.0B
Vapour products	53K	€ 11.0B	€ 7.2B	€ 1.5B
Nicotine pouches	6K	€ 1.1B	€ 0.7B	€ 0.2B

Source: S&P Global Market Intelligence

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⁶ Direct sales activity and direct GDP contributions include €107 billion of excise taxes and VAT.

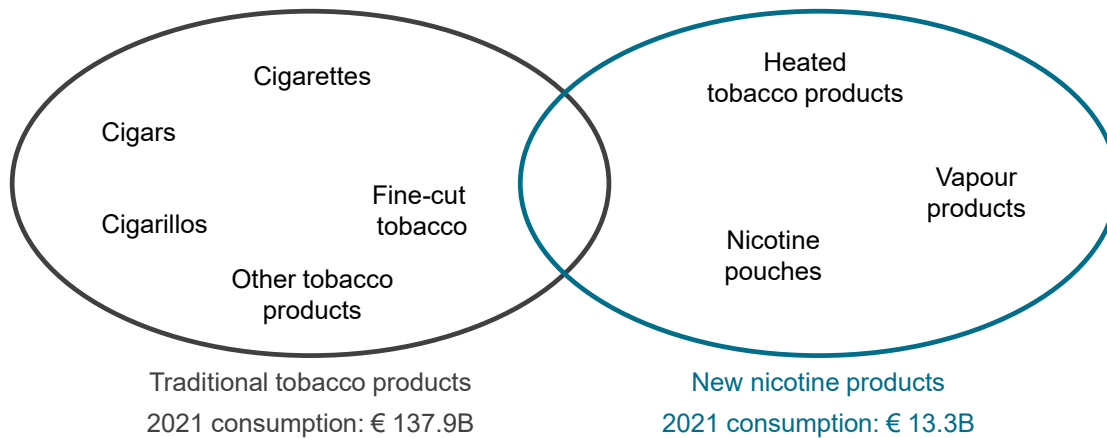
⁷ Both full-time and part-time employees are counted in this figure. If converted to full-time-equivalent jobs, the total would be 1,375K jobs. The reader is referred to Appendix D for further details on the methodology.

Introduction

This study assessed the economic contributions that accrued to the EU-27 member states in 2021 attributable to the production, distribution and consumption of traditional tobacco products and new nicotine products. The first classification, traditional tobacco products, refers to products such as cigarettes, cigars, cigarillos and fine-cut tobacco. To ensure consistency with terminology used by regulators, the new nicotine products classification refers to heated tobacco products, vapour products and nicotine pouches.

In 2021, consumers in the EU-27 spent approximately €151.3 billion on traditional tobacco and new nicotine products,⁸ representing 2.5% of consumer spending across the member states.⁹ Sales were dominated by traditional tobacco products, which accounted for €137.9 billion or 91.2% of sales. New nicotine products made up the remaining €13.3 billion or 8.8% of sales.

Traditional tobacco and new nicotine products consumption in the EU-27, 2021

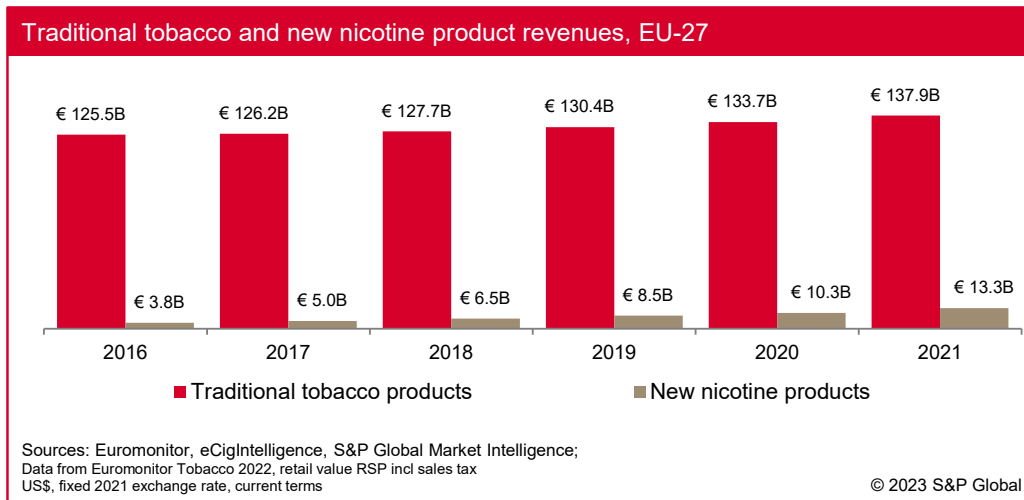


The core objectives of this study were to: (1) establish a baseline assessment of the economic contributions the traditional tobacco products sector made to the EU-27 in 2021; (2) establish a baseline assessment of the economic contributions the new nicotine products sector made to the EU-27 in 2021; and (3) assess the impact that shifts in consumer spending (either for traditional tobacco products or new nicotine products) could have on the broader EU-27 economy. The key economic indicators that were the basis of these assessments included contributions to jobs, sales activity, GDP, wages, excise taxes, and VAT at the EU-27 and member state levels.

Markets are in the midst of a transition as declines in spending on traditional tobacco products are being partially offset by increases in spending on new nicotine products. For example, between 2016 and 2021, cigarette unit sales declined by 10.5%, from 451.6 billion sticks to 404.3 billion sticks. Over the same period, consumer spending on new nicotine products grew to €13.3 billion (from €3.8 billion), primarily driven by growth in heated tobacco sticks unit sales. Four member states — Italy, Poland, Germany and the Czech Republic — accounted for almost two-thirds of the EU-27’s heated tobacco stick unit sales in 2021. As shown in the following graph, the share of retail spending on new nicotine products markedly increased from 2.9% in 2016 to 8.8% in 2021.

⁸ The monetary figures in this paragraph were derived from an analysis of Euromonitor data, supplemented with data from S&P Global Market Intelligence’s Global Consumer Service.

⁹ Source: S&P Global Market Intelligence’s Global Consumer Service.



This study isolates the economic contributions attributable to each of the main subcategories of traditional tobacco products and three subcategories of new nicotine products.

Measuring economic contributions

As explained in depth in Appendix C, S&P Global Market Intelligence developed models for measuring the economic contributions stimulated by the traditional tobacco and new nicotine products industry using industry-standard input-output modelling techniques. The core data set was the World Input-Output Database (WIOD), originally funded by the European Commission as part of the 7th Framework Programme, Theme 8: Socio-Economic Sciences and Humanities.

The models measured the following economic metrics:



Sales activity (output). Output represents the value of sales that occur in the national economies that are ultimately attributable to transactions initiated by or through tobacco product manufacturers, distributors, wholesalers or retailers.



Employment. This indicator measures the number of workers required to support a given level of sales activity within an economy on an industry level.



Contribution to Gross Domestic Product/Gross State Product (value added). Gross domestic product (GDP) captures the total value added across a country or the entire EU-27. GDP is generally considered the broadest measure of the size and health of an economy.



Labour Income. Labour income captures the compensation paid to workers.



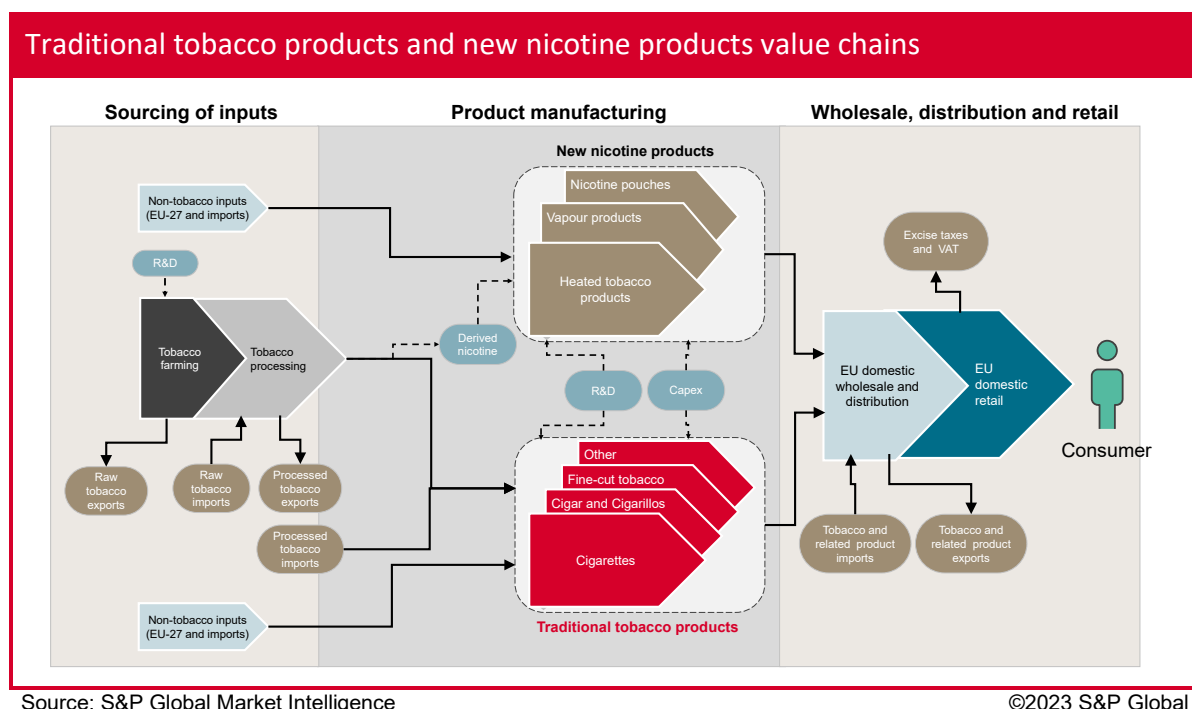
Excise taxes and VAT. Estimates of the taxes paid on traditional tobacco and new nicotine products.

Also explained in Appendix C is how these economic indicators were assessed on three levels: (1) direct effects; (2) indirect or supply chain effects; and (3) induced spending effects.

Traditional tobacco and new nicotine products value chains in the EU-27

Regardless of whether a traditional tobacco product or a new nicotine product is purchased, preceding any retail transaction are a series of interconnected production and logistical processes, each of which generates economic activity and added value. The activities associated with making and supplying traditional tobacco and new nicotine products are spread across the EU-27, spanning raw materials; supply chains; manufacturing; plus distribution, wholesale and retail activities.

As implied by the graphic below, the value chains differ by product category. Any shifts in consumer demand — whether for traditional tobacco products or new nicotine products — will have corresponding upstream impacts on the associated value chains.



Source: S&P Global Market Intelligence

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Sourcing of inputs

While tobacco is obviously used in traditional tobacco products such as cigarettes and cigars, new nicotine products may also use nicotine derived from tobacco. As such, sourcing of raw tobacco is a core input to the production link of multiple value chains. According to data compiled in the Philip Morris International Tobacco and Nicotine Database¹⁰, there were 30,054 tobacco-growing farms in the EU in 2019. In 2021, tobacco-growing farms in the EU harvested tobacco across 54,730 hectares of land, generating a total of 133,810 tonnes of raw tobacco harvest in the EU.¹¹ This translated into a value of €520.4 million in raw tobacco production in the EU-27 in 2021.¹² Among EU-27 countries, Greece, Italy, Poland, and Spain are the primary contributors to this production, accounting for 85% of the total raw tobacco production value in 2021.

Most of the raw tobacco needed to produce cigarettes and other traditional tobacco products is imported from countries outside the EU-27, including Brazil, Zimbabwe, and the United States. In comparison to the

¹⁰ <https://www.pmi.com/tobacco-economics/tobacco-database>

¹¹ Eurostat: Crop production in EU standard humidity

¹² Eurostat: Economic accounts for agriculture – values at current prices

estimated 133,810 tonnes of raw tobacco produced in the EU in 2021, the EU imported (net of all exports) 346,695 tonnes of raw tobacco, according to data from UN Comtrade.

The manufacturing processes source inputs from multiple supply chains that vary depending on the product category. For example, a number of flavourings, preservatives, thickening agents, and other additives may be added to the tobacco used in cigarettes and heated tobacco products. Running in parallel to the production of tobacco-related components is the sourcing of non-tobacco components that include:

- cigarette paper
- acetate tow, a fibre used to make cigarette filters with machinery in EU-27 factories
- finished filters
- packaging and wrapping materials
- inks / adhesives

Some of these raw materials are imported and used as inputs to manufacturing plants in the EU-27. The importation process involves purchasing staff, transport workers (both marine and road) and supporting business services (such as lawyers and accountants).

In other cases, raw materials are manufactured in the EU-27. While manufacturers may directly integrate some of these ingredients and components, a significant portion is sourced from suppliers that serve multiple industries. For example, additives essential to the manufacture of cigarettes may be sourced from a supplier that also serves other sectors such as the food and beverage industries. In addition, manufacturers need to purchase services that are vital for their operations such as information technology, maintenance, legal and accounting services. The economic activity initiated by spending with these Tier 1 suppliers spurred follow-on economic activity that was collectively captured as indirect contributions from the extended supply chains of the traditional tobacco and new nicotine products sector.

Product manufacturing

The product manufacturing segment has a significant role in the value chain as inputs are transformed into the final products ultimately purchased by consumers. Over 65,500 people were directly employed across the EU-27 in the manufacturing of traditional tobacco and new nicotine products in 2021. The top four EU-27 countries were Poland (16,900 jobs), Romania (10,700 jobs), Hungary (5,900 jobs) and Germany (5,800 jobs).

For traditional tobacco products, approximately €32.3 billion of production occurred across 17 countries within the EU-27 in 2021, with Poland and Germany collectively accounting for 62.3% of the total. The approximately 59,800 workers who were employed across the EU-27 earned a combined €4.1 billion in wages and salaries.

In addition, the product manufacturing link also requires continual investments in both physical capital (capex) and research & development. These investments are primarily focused on new machinery and innovative methods to: (1) produce new nicotine products and (2) replace or upgrade older machinery producing traditional tobacco products. Thus, not only does the product manufacturing link generate economic activity itself, but it also serves as the connection point of several important subcomponents of the value chain.

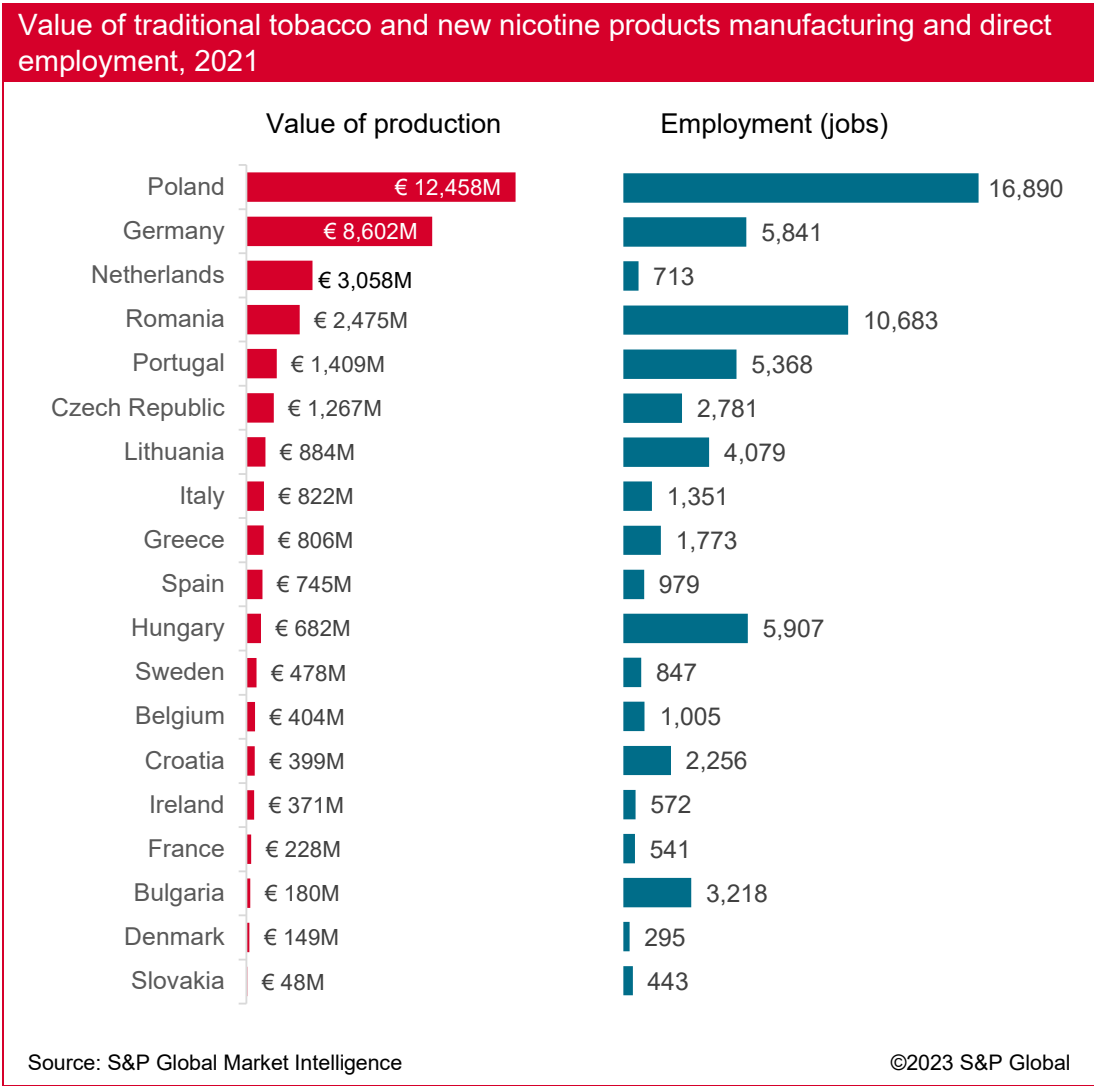
While there is some overlap in the value chains for production of traditional tobacco and new nicotine products, the ramp-up in consumer demand for new nicotine products has led to the emergence of different technologies and inputs used in the manufacturing processes. For example, both vapour and heated tobacco products require accompanying electronic hardware, which, in turn, drives investments in research and development — both in product design and manufacturing equipment — as well as sourcing of electronic components (typically from outside the EU-27). As another example, liquids used in some vapour products use nicotine derived from tobacco, requiring additional processing to isolate the nicotine.

Moreover, there are ongoing reconfigurations of the value chains resulting from demand for new nicotine products that have led to the retooling of existing facilities or capacity expansion across member states. For

example, countries including Croatia, Germany, Greece, Italy, Poland and Romania have experienced scaling in heated tobacco product production; reconstituted tobacco used to make heated tobacco sticks is produced in France; vaping e-liquids are produced in Poland and France, and production of nicotine pouches in the EU is primarily found in Denmark, Hungary and Sweden.

For both traditional tobacco and new nicotine products, approximately €35.5 billion of production occurred across 17 countries within the EU-27 in 2021,¹³ with Germany and Poland collectively accounting for 59.4% of the total. The approximately 65,500 workers who were employed earned a combined €4.5 billion in wages and salaries. The value of production and its associated direct employment by country are shown in the following chart.

The economic contributions stimulated by manufacturing go beyond these direct effects. As explained in Appendix C, spending with EU-27-based suppliers stimulates multiple cycles of economic activity that radiate across the member states' economies. In addition, employees of the traditional tobacco and new nicotine product manufacturers and the workers within their extended supply chains spend significant portions of their wages in the broader EU-27 economies. This induces additional rounds of economic contributions.

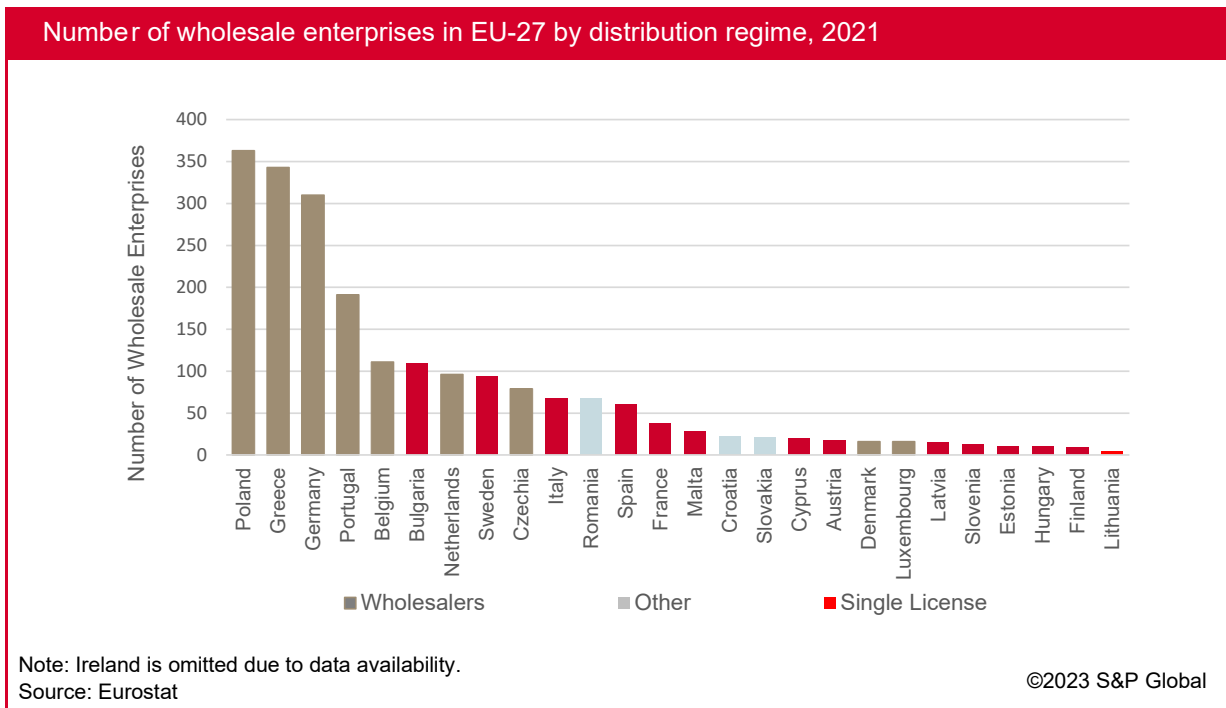


¹³ Source: S&P Global Market Intelligence Comparative Industry Service, based on OECD data

Wholesale and distribution

Following the manufacturing stage, a number of different wholesale and distribution models are deployed across the EU-27. The approximately 2,300 wholesaler enterprises generated €6.7 billion of value added, which was additive to the EU-27's GDP in 2019¹⁴. More than 37,650 full-time equivalent workers were employed by these wholesalers and earned over €1.5 billion in wages.¹⁵

Wholesale and distribution companies create jobs across the EU-27 by employing workers to transport, store, and manage their products. Beyond this, a number of highly skilled jobs have been created to ensure compliance with regulations. The EU's Excise Movement and Control System (EMCS) and Track & Trace (T&T) serve as examples requiring the development of specific systems and involvement of technology providers and manufacturers of specialised equipment.



The distribution systems for traditional tobacco and new nicotine products vary across the EU-27. According to the most recent data available from Eurostat, in 2019, approximately half of the value flowed through centralised distribution systems while wholesaler networks accounted for 44%.¹⁶ Nine member states use traditional systems in which large networks of wholesalers distribute products from manufacturers to retailers. At the other end of the spectrum are countries that authorise and regulate licensed distribution systems that require the use of a single centralised distributor.¹⁷ A small handful of countries, including Croatia, Denmark, Luxembourg, Ireland and Slovakia, use some variant in between. Romania is the only country in the EU-27 that uses a direct sales-to-retail distribution scheme.

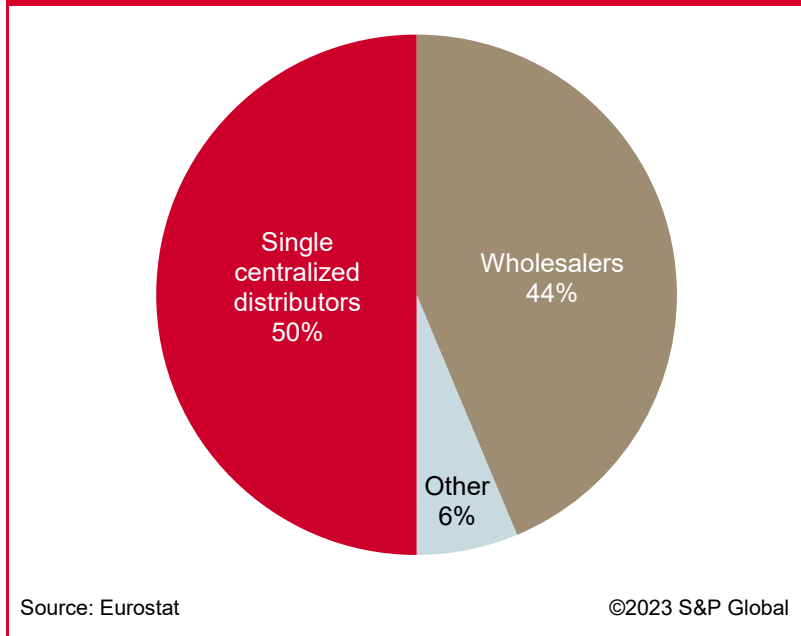
¹⁴ The latest year for which data were available. In 2019, the United Kingdom was still part of the European Union (the EU-28). The statistics cited in this report exclude the United Kingdom in order to present data relevant for the EU-27.

¹⁵ Eurostat: Annual detailed enterprise statistics for trade

¹⁶ Eurostat: Annual detailed enterprise statistics for trade

¹⁷ Individual countries need not use the same distributor as other countries.

Wholesale value by distribution regime, 2019



Retail

The permitted points of sale for traditional tobacco and new nicotine products vary across the EU-27. In some countries, such as Hungary, tobacco sales are restricted to approximately 5,500 national tobacco stores.¹⁸ In other countries, such as Italy and Austria, a mix of specialised tobacconists alongside licensed general retail outlets sell traditional tobacco and new nicotine products.

According to Eurostat, there were 70,661 retail stores that specialised in tobacco in the EU in 2019 that employed 123,000 full-time equivalent employees who collectively earned €2.1 billion in wages and salaries.¹⁹ Sales of tobacco also supported jobs in non-specialised retail stores in countries where sales are allowed in such channels. We estimate there were over 726,400 direct employees across the entirety of the industry's EU wholesale, distribution and retail networks in 2021.

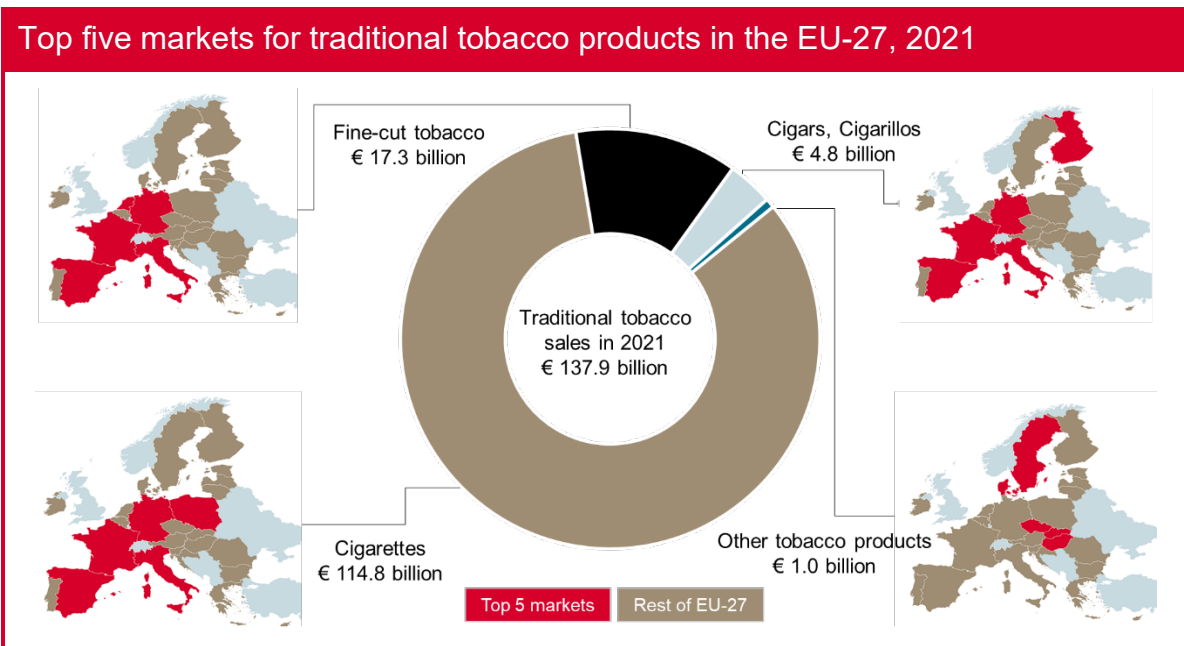
In the EU, the sale of traditional tobacco products is highly regulated and taxed. Of the €151.3 billion in consumer spending, €107.4 went to excise taxes and VAT payments. Thus, over 70% of the prices consumers paid went to various EU-27 governments. Taxation is a powerful lever that affects affordability and can indirectly influence a consumer's purchase decision. However, while making traditional tobacco products less affordable through taxation may be expected to induce consumers to reduce consumption, it also often stimulates demand for cheaper or illegal cigarettes and other contraband. While an analysis of the dynamics of illegal markets was beyond the scope of this study, the existence of illegal trade must be acknowledged as it has historically been a significant issue in many EU-27 countries.

¹⁸ According to Confédération Européennes des Détaillants en Tabac (C.E.D.T).

¹⁹ Eurostat: Annual detailed enterprise statistics for trade

The economic contributions stimulated by traditional tobacco products in 2021

The following graphic breaks out the sales revenues for the main subcategories of traditional tobacco products and identifies the top five markets for each. The largest subcategory, cigarettes, accounted for over 83% of traditional tobacco product sales in 2021.



Sources: Euromonitor, S&P Global Market Intelligence

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The €137.9 billion in purchases of traditional tobacco products initiated a cascade of economic activity throughout their value chains. The resultant contributions to key economic indicators such as jobs and GDP are shown below for each traditional tobacco subcategory. Overall, the 1.4 million jobs supported by the traditional tobacco sector accounted for about 0.7% of EU-27 jobs. The sector generated €177.4 billion or 1.2% of the EU-27's overall GDP in 2021. This considerably higher contribution percentage is due, in large part, to the excise taxes and VAT assessed on tobacco products. Taxes are a form of economic value added and, as such, are additive to GDP. With combined excise tax and VAT rates exceeding 70% in most member states, traditional tobacco products generated about €100 billion in revenue for the EU-27 governments. Indeed, more than half of the GDP contributions stimulated by the traditional tobacco sector was in the form of excise taxes and VAT.

Traditional tobacco products are consumed throughout the EU-27 and produced in 17 member states: Belgium, Bulgaria, Czech Republic, Denmark, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Poland, Portugal, Romania, Slovakia, Spain, and Sweden.²⁰ Not surprisingly, most of the economic contributions associated with the production of traditional tobacco products accrue to these member states. However, in 2021 about 2.1% of the sales activity and 2.4% of the employment initiated by production accrued across all of the non-producing member states, mainly via supply chain linkages. This indicates that traditional tobacco supply chains extend across the entirety of the EU-27.

Over 721,300 direct jobs were supported across all traditional tobacco product value chains in the EU-27 during 2021. An additional 693,640 jobs were supported through indirect and induced activity. This implies a

²⁰ Source: S&P Global Market Intelligence Comparative Industry Service

jobs multiplier of 0.96. This means for every 100 direct jobs in the traditional tobacco sector, another 96 jobs were supported across the EU-27.

Moreover, economic contribution cycles are initiated by direct sales activity.²¹ The €170.3 billion of direct sales activity led to a follow-on indirect and induced sales activity of €107.8 billion, a multiplier of 0.63. In other words, every €1 million of direct sales activity triggered an additional €630,000 of sales activity across the EU-27.

Ultimately, direct sales activity converts to GDP contributions and supports jobs. In 2021, the €170.3 billion of direct sales activity (€137.9 billion of consumer spending plus €32.3 billion value of production) converted to €177.4 billion of GDP across the EU-27, a conversion rate of 104%. Thus, every euro of direct sales activity ultimately converted to slightly more than one euro of GDP across the EU-27. Viewed from a different perspective, traditional tobacco products helped generate €486 million of GDP, on average, every day in 2021.

More detailed insights, broken out by EU-27 member state, are included in Appendix A.

Economic contributions of traditional tobacco products to the EU-27, 2021				
Economic Indicator	Employment	Sales activity	GDP	Wages
By contribution type	1,414,953	€ 278,125M	€ 177,405M	€ 39,740M
Direct (production + wholesale, distribution and retail)	721,311	€ 170,291M	€ 128,481M	€ 17,792M
Indirect	476,046	€ 72,999M	€ 32,047M	€ 14,383M
Induced	217,596	€ 34,835M	€ 16,876M	€ 7,565M
By product category	1,414,953	€ 278,125M	€ 177,405M	€ 39,740M
Cigarettes	1,185,878	€ 230,900M	€ 147,387M	€ 32,746M
Cigars, cigarillos and smoking tobacco	48,502	€ 9,806M	€ 6,249M	€ 1,431M
Fine-cut tobacco	167,066	€ 34,719M	€ 22,279M	€ 5,035M
Other tobacco products	13,506	€ 2,699M	€ 1,491M	€ 528M

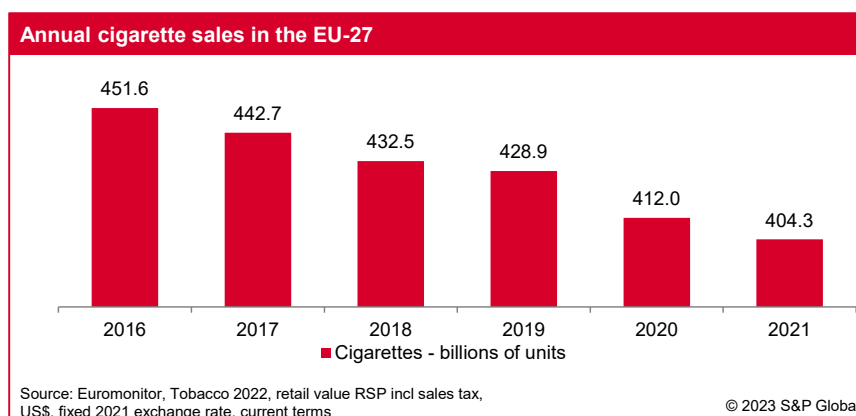
Source: S&P Global Market Intelligence

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²¹ For more information on economic contribution cycles, the reader is referred to Appendix D.

The estimated economic impacts of a 5% decline in traditional tobacco product sales revenue

Cigarette unit sales, which accounted for over 83% of traditional tobacco product sales in 2021, have been on a downward trajectory for many years. Between 2016 and 2021, annual unit sales dropped from 451.6 billion sticks to 404.3 billion sticks — an annual decline of 2.2%.



The models created for this study were used to estimate the impact of a €6.9 billion, or 5%, decline in traditional tobacco product sales across the EU-27. Such a decline would have ripple effects as sales and production activity drops throughout the cigarette value chain. Once the indirect and induced effects are considered, the total drop in sales activity would exceed €13.9 billion. This, in turn, would put over 70,700 jobs at risk, and result in a €8.9 billion decrease in EU-27 GDP. The impacts on each member state are summarised below.

The economic impacts of a 5% decline in traditional tobacco product sales across the EU-27

Member state	Employment	Sales	GDP	Wages
Austria	-1,094	-€ 279.0M	-€ 205.1M	-€ 40.6M
Belgium	-953	- 377.4M	- 250.8M	- 48.7M
Bulgaria	-1,099	- 119.6M	- 94.7M	- 7.5M
Croatia	-1,045	- 111.4M	- 77.7M	- 18.4M
Cyprus	-263	- 35.8M	- 27.4M	- 5.5M
Czech Republic	-2,928	- 426.3M	- 243.3M	- 51.0M
Denmark	-515	- 162.1M	- 112.0M	- 24.4M
Estonia	-93	- 21.7M	- 17.6M	- 1.6M
Finland	-482	- 152.8M	- 111.5M	- 20.9M
France	-5,190	- 1,626.2M	- 1,253.6M	- 225.5M
Germany	-16,694	- 3,353.9M	- 2,038.4M	- 630.4M
Greece	-1,403	- 266.1M	- 200.2M	- 29.5M
Hungary	-2,791	- 217.0M	- 127.0M	- 30.1M
Ireland	-512	- 179.7M	- 129.0M	- 17.9M
Italy	-4,491	- 1,442.1M	- 1,074.0M	- 159.4M
Latvia	-446	- 34.0M	- 24.1M	- 5.2M
Lithuania	-843	- 107.3M	- 56.2M	- 16.9M
Luxembourg	-145	- 102.5M	- 59.7M	- 8.1M
Malta	-151	- 19.1M	- 12.7M	- 2.8M
Netherlands	-2,291	- 704.7M	- 403.4M	- 98.2M
Poland	-10,815	- 1,880.9M	- 851.2M	- 220.2M
Portugal	-1,916	- 301.7M	- 171.0M	- 41.9M
Romania	-7,443	- 564.6M	- 329.5M	- 62.8M
Slovakia	-843	- 116.5M	- 79.5M	- 12.9M
Slovenia	-313	- 54.0M	- 40.2M	- 7.9M
Spain	-4,732	- 971.9M	- 709.1M	- 139.4M
Sweden	-1,257	- 277.7M	- 171.2M	- 59.2M
EU-27	-70,748	-€ 13,906.2M	-€ 8,870.2M	-€ 1,987.0M

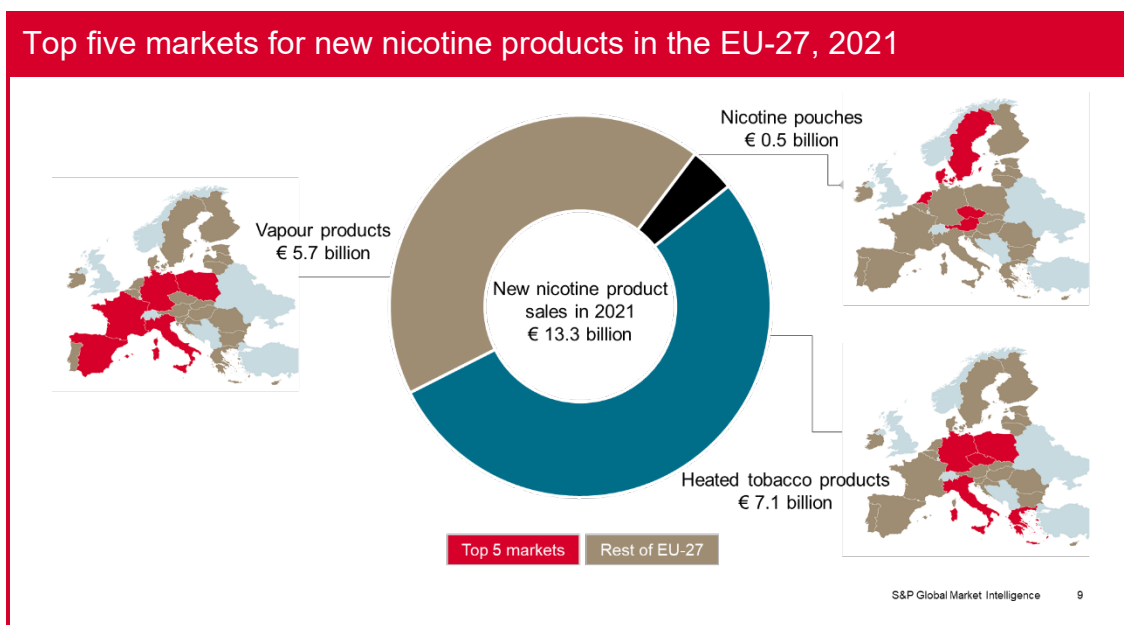
Source: S&P Global Market Intelligence

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The economic contributions stimulated by new nicotine products in 2021

Sales of new nicotine products are on a growth trajectory in the EU-27. The share of retail spending on new nicotine products tripled from 2.9% in 2016 to 8.8% in 2021.²² More than half of new nicotine product sales in the EU-27 were for heated tobacco products, which have been gaining significant traction in countries such as Italy, surpassing vapour products sales in 2021.

The €13.3 billion market for new nicotine products in the EU-27 is broken out by sub-category and the top five markets for each are identified in the graphic below.



Sources: Euromonitor, eCigIntelligence, S&P Global Market Intelligence

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The €13.3 billion in purchases of new nicotine products initiated a cascade of economic activity throughout their value chains. The resultant contributions to key economic indicators, such as jobs and GDP, are shown in the table below, broken out by product category. Key multipliers and conversion rates for the new nicotine products sector include:

- In addition to the 70,645 direct jobs across the EU-27 value chains, the new nicotine products sector supported another 66,100 indirect and induced jobs, a multiplier of 0.94. Thus, for every 100 direct jobs, another 94 jobs were supported across the EU-27.
 - The top four countries, accounting for approximately 54.4% of the jobs, were Poland, Italy, Germany and Romania.
- The €16.5 billion of direct sales activity (€13.3 billion of consumer spending plus €3.2 billion value of production) led to another €10.2 billion of indirect and induced sales activity, a multiplier of 0.62. Thus, every €1.0 million of direct sales activity in the new nicotine sector was matched by an additional €620,000 of indirect and induced sales activity across the EU-27.
- The €16.5 billion of direct sales activity ultimately converted to €17.1 billion of GDP contribution. Thus, every euro of direct sales activity ultimately converted to slightly more than one euro in EU-27 GDP.

More detailed insights for each member state are included in Appendix A.

²² S&P Global Market Intelligence analysis of Euromonitor and eCigIntelligence data.

Economic contributions of new nicotine products to the EU-27, 2021

Economic Indicator	Employment	Sales activity	GDP	Wages
By contribution type	136,741	€ 26,667M	€ 17,086M	€ 3,655M
Direct (production + wholesale, distribution and retail)	70,645	€ 16,452M	€ 12,465M	€ 1,612M
Indirect	46,085	€ 7,011M	€ 3,070M	€ 1,347M
Induced	20,011	€ 3,204M	€ 1,552M	€ 696M
By product category	136,741	€ 26,667M	€ 17,086M	€ 3,655M
Heated tobacco products	78,612	€ 14,504M	€ 9,182M	€ 1,981M
Vapour products	52,627	€ 11,027M	€ 7,209M	€ 1,488M
Nicotine pouches	5,502	€ 1,136M	€ 695M	€ 186M

Source: S&P Global Market Intelligence

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The estimated economic impacts of a 5% decline in new nicotine product sales revenue

The models created for this study were used to estimate the impact of a €666.8 million, or 5%, decline in new nicotine product sales across the EU-27. With the inclusion of indirect and induced activity, over €1.3 billion in sales would be lost across the EU-27. This, in turn, would put over 6,800 jobs at risk jobs and result in €854.3 million less EU-27 GDP. The impacts for each member state are summarised below.

The economic impacts of a 5% decline in new nicotine product sales across the EU-27

Member state	Employment	Sales	GDP	Wages
Austria	-70	-€ 17.3M	-€ 11.8M	-€ 2.8M
Belgium	-57	- 20.8M	- 13.0M	- 3.0M
Bulgaria	-83	- 11.2M	- 9.8M	- 0.5M
Croatia	-126	- 13.4M	- 8.4M	- 2.6M
Cyprus	-3	- 0.4M	- 0.2M	- 0.1M
Czech Republic	-375	- 50.6M	- 37.4M	- 4.9M
Denmark	-72	- 23.2M	- 17.9M	- 3.0M
Estonia	-6	- 0.9M	- 0.6M	- 0.1M
Finland	-22	- 6.3M	- 3.7M	- 1.1M
France	-417	- 126.9M	- 96.4M	- 18.3M
Germany	-983	- 180.4M	- 114.7M	- 35.0M
Greece	-369	- 69.5M	- 43.1M	- 9.1M
Hungary	-413	- 31.1M	- 19.2M	- 4.3M
Ireland	-35	- 11.3M	- 8.4M	- 1.2M
Italy	-995	- 332.5M	- 213.8M	- 38.6M
Latvia	-82	- 6.1M	- 4.7M	- 0.9M
Lithuania	-81	- 8.2M	- 7.1M	- 1.0M
Luxembourg	-3	- 1.8M	- 0.5M	- 0.2M
Malta	-2	- 0.3M	- 0.1M	0.0M
Netherlands	-229	- 87.0M	- 38.9M	- 12.9M
Poland	-1,144	- 169.5M	- 97.8M	- 18.5M
Portugal	-161	- 23.5M	- 19.2M	- 2.8M
Romania	-595	- 43.7M	- 24.1M	- 4.9M
Slovakia	-100	- 14.0M	- 10.2M	- 1.5M
Slovenia	-22	- 3.7M	- 2.6M	- 0.6M
Spain	-218	- 40.0M	- 27.1M	- 6.6M
Sweden	-172	- 39.8M	- 23.8M	- 8.2M
EU-27	-6,837	-€ 1,333.4M	-€ 854.3M	-€ 182.7M

Source: S&P Global Market Intelligence

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Conclusion

The traditional tobacco and new nicotine products industry faces material changes in consumer demand. This study sought to provide comprehensive assessments of the economic contributions to the EU-27 in 2021 as a result of consumers spending €137.9 billion on traditional tobacco products and €13.3 billion on new nicotine products. Serving this demand were value chains encompassing the production, wholesaling, distribution and retailing of traditional tobacco and new nicotine products that spanned the EU-27.

The combined €151.3 billion of consumer spending ultimately supported over 1.6 million jobs and generated €194.5 billion of GDP across the EU-27. As a point of reference, the jobs impact was approximately equivalent to the current population of Munich, Germany. The GDP impact was larger than the individual economies of eleven of the EU-27 member states.

The economic contributions accrue across multiple industries and all member states. For every direct traditional tobacco and new nicotine product manufacturing job, another 23 are supported across the EU-27: 8 in the supply chains, 11 in wholesale, distribution and retail, and 4 in the broader economies of the member states.

While this study did not forecast the potential impacts of any specific policies or regulations that may be implemented in the EU-27, two counterfactual analyses were included to provide insights on how subtle changes in consumer preferences could affect baseline economic indicators such as jobs and GDP. A 5% decline in traditional tobacco product sales could put over 70,700 jobs at risk and lessen EU-27 GDP by €8.9 billion. A 5% decrease in new nicotine product sales could put 6,800 jobs at risk and lower EU-27 GDP by €854.3 million.

Many factors influence each consumer's decision whether to buy or pass on traditional tobacco and new nicotine products including, but not limited to socioeconomic situations, lifestyle choices, health consciousness and an aging consumer base. Amidst ongoing transitions in the industry and in consumer preferences, this study can inform current and future dialogues on how to effectively navigate the transitions necessitated by shifts in consumer demand for traditional tobacco and new nicotine products.

Appendix A: Economic contributions of traditional tobacco products and new nicotine products in the EU-27 by member state in 2021

Economic contributions of the tobacco and related products sector to the economy of the EU-27

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts
Employment by contribution type (across all product categories) Direct Indirect Induced	491,535 65,541 327,061 98,933	1,060,159 726,415 195,070 138,674	1,551,694 791,957 522,131 237,607	Jobs (workers)
Employment by product category (direct, indirect and induced) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	448,337 371,508 15,821 55,485 5,523 43,198 23,964 17,250 1,984	966,616 814,370 32,681 111,581 7,983 93,543 54,648 35,378 3,517	1,414,953 1,185,878 48,502 167,066 13,506 136,741 78,612 52,627 5,502	
Sales activity by contribution type (across all product categories, in € millions) Direct Indirect Induced	101,272 35,466 49,967 15,838	203,521 151,277 30,043 22,200	304,792 186,744 80,010 38,039	
Sales activity by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	92,372 76,542 3,260 11,432 1,138 8,900 4,937 3,554 409	185,753 154,358 6,547 23,287 1,562 17,767 9,567 7,473 727	278,125 230,900 9,806 34,719 2,699 26,667 14,504 11,027 1,136	
GDP by contribution type (across all product categories, in € millions) Direct Indirect Induced	36,055 8,142 20,240 7,673	158,436 132,804 14,877 10,755	194,491 140,946 35,117 18,428	GDP contribution (€ millions)
GDP by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	32,886 27,251 1,161 4,070 405 3,169 1,758 1,265 146	144,518 120,136 5,089 18,209 1,085 13,918 7,424 5,944 550	177,405 147,387 6,249 22,279 1,491 17,086 9,182 7,209 695	
Wages by contribution type (across all product categories, in € millions) Direct Indirect Induced	17,265 4,505 9,320 3,440	26,129 14,898 6,410 4,821	43,395 19,404 15,730 8,261	
Wages by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	15,748 13,049 556 1,949 194 1,517 842 606 70	23,992 19,697 875 3,086 334 2,138 1,140 882 116	39,740 32,746 1,431 5,035 528 3,655 1,981 1,488 186	

Source: S&P Global Market Intelligence

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Economic contributions of the tobacco and related products sector to the economy of Austria

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts
Employment by contribution type (across all product categories)	3,676	19,605	23,281	Jobs (workers)
Direct	0	13,357	13,357	
Indirect	1,517	3,174	4,691	
Induced	2,159	3,074	5,233	
Employment by product category (direct, indirect and induced)	3,676	19,605	23,281	
Traditional tobacco products	3,354	18,519	21,873	
Cigarettes	2,665	16,609	19,274	
Cigars, cigarillos and smoking tobacco	115	626	741	
Fine-cut tobacco	532	1,238	1,769	
Other tobacco products	43	46	89	
New nicotine products	322	1,086	1,408	
Heated tobacco products	181	356	537	
Vapour products	124	484	608	
Nicotine pouches	17	247	264	
Sales activity by contribution type (across all product categories, in € millions)	906	5,022	5,927	Sales activity (€ millions)
Direct	0	3,673	3,673	
Indirect	483	756	1,240	
Induced	422	592	1,014	
Sales activity by product category (direct, indirect and induced, in € millions)	906	5,022	5,927	
Traditional tobacco products	831	4,749	5,580	
Cigarettes	669	4,277	4,946	
Cigars, cigarillos and smoking tobacco	29	160	189	
Fine-cut tobacco	126	303	429	
Other tobacco products	8	9	17	
New nicotine products	74	272	347	
Heated tobacco products	41	85	126	
Vapour products	30	122	151	
Nicotine pouches	4	65	69	
GDP by contribution type (across all product categories, in € millions)	389	3,948	4,337	GDP contribution (€ millions)
Direct	0	3,299	3,299	
Indirect	182	359	541	
Induced	207	291	498	
GDP by product category (direct, indirect and induced, in € millions)	389	3,948	4,337	
Traditional tobacco products	357	3,744	4,101	
Cigarettes	288	3,394	3,682	
Cigars, cigarillos and smoking tobacco	12	125	138	
Fine-cut tobacco	53	220	273	
Other tobacco products	4	4	8	
New nicotine products	32	204	236	
Heated tobacco products	18	56	74	
Vapour products	13	93	106	
Nicotine pouches	2	54	56	
Wages by contribution type (across all product categories, in € millions)	193	674	867	Wages (€ millions)
Direct	0	375	375	
Indirect	97	164	260	
Induced	97	136	232	
Wages by product category (direct, indirect and induced, in € millions)	193	674	867	
Traditional tobacco products	177	635	812	
Cigarettes	144	565	710	
Cigars, cigarillos and smoking tobacco	6	22	28	
Fine-cut tobacco	25	46	71	
Other tobacco products	2	2	4	
New nicotine products	16	39	55	
Heated tobacco products	9	14	23	
Vapour products	7	17	24	
Nicotine pouches	1	8	9	

Source: S&P Global Market Intelligence

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Economic contributions of the tobacco and related products sector to the economy of Belgium

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts
Employment by contribution type (across all product categories)	5,697	14,503	20,199	<p style="text-align: center;">Jobs (workers)</p> <p style="text-align: center;">Sales activity (€ millions)</p> <p style="text-align: center;">GDP contribution (€ millions)</p> <p style="text-align: center;">Wages (€ millions)</p>
Direct	1,005	9,139	10,144	
Indirect	2,792	2,711	5,502	
Induced	1,900	2,653	4,553	
Employment by product category (direct, indirect and induced)	5,697	14,503	20,199	
Traditional tobacco products	5,321	13,745	19,066	
Cigarettes	4,565	10,638	15,203	
Cigars, cigarillos and smoking tobacco	144	328	472	
Fine-cut tobacco	549	2,731	3,280	
Other tobacco products	64	47	111	
New nicotine products	375	758	1,134	
Heated tobacco products	171	152	323	
Vapour products	186	590	776	
Nicotine pouches	19	16	35	
Sales activity by contribution type (across all product categories, in € millions)	2,012	5,951	7,963	
Direct	404	4,368	4,771	
Indirect	1,074	835	1,908	
Induced	535	749	1,284	
Sales activity by product category (direct, indirect and induced, in € millions)	2,012	5,951	7,963	
Traditional tobacco products	1,892	5,655	7,547	
Cigarettes	1,643	4,353	5,997	
Cigars, cigarillos and smoking tobacco	52	129	181	
Fine-cut tobacco	182	1,159	1,340	
Other tobacco products	16	14	30	
New nicotine products	120	296	416	
Heated tobacco products	52	46	98	
Vapour products	62	246	307	
Nicotine pouches	5	5	10	
GDP by contribution type (across all product categories, in € millions)	667	4,609	5,276	
Direct	77	3,919	3,996	
Indirect	359	368	728	
Induced	230	322	552	
GDP by product category (direct, indirect and induced, in € millions)	667	4,609	5,276	
Traditional tobacco products	622	4,394	5,016	
Cigarettes	533	3,360	3,893	
Cigars, cigarillos and smoking tobacco	18	94	112	
Fine-cut tobacco	66	934	999	
Other tobacco products	6	6	12	
New nicotine products	45	215	259	
Heated tobacco products	20	19	38	
Vapour products	23	194	217	
Nicotine pouches	2	2	4	
Wages by contribution type (across all product categories, in € millions)	352	682	1,034	
Direct	50	361	411	
Indirect	191	166	357	
Induced	111	155	266	
Wages by product category (direct, indirect and induced, in € millions)	352	682	1,034	
Traditional tobacco products	329	644	973	
Cigarettes	285	501	787	
Cigars, cigarillos and smoking tobacco	10	16	26	
Fine-cut tobacco	31	124	155	
Other tobacco products	3	3	6	
New nicotine products	23	37	61	
Heated tobacco products	10	9	19	
Vapour products	12	27	39	
Nicotine pouches	1	1	2	

Source: S&P Global Market Intelligence

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Economic contributions of the tobacco and related products sector to the economy of Bulgaria

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts		
Employment by contribution type (across all product categories) Direct Indirect Induced	10,640 3,218 5,634 1,787	13,016 8,169 2,375 2,472	23,656 11,388 8,009 4,259	Jobs (workers) 		
Employment by product category (direct, indirect and induced) Traditional tobacco products Cigarettes Cigars, cigarillos and smoking tobacco Fine-cut tobacco Other tobacco products New nicotine products Heated tobacco products Vapour products Nicotine pouches	10,640 10,212 9,701 101 375 35 427 299 115 13	13,016 11,774 10,976 215 547 37 1,242 878 351 13	23,656 21,986 20,677 315 922 72 1,670 1,177 467 26			
Sales activity by contribution type (across all product categories, in € millions) Direct Indirect Induced	533 180 283 70	2,083 1,873 111 99	2,616 2,053 394 169			Sales activity (€ millions)
Sales activity by product category (direct, indirect and induced, in € millions) Traditional tobacco products Cigarettes Cigars, cigarillos and smoking tobacco Fine-cut tobacco Other tobacco products New nicotine products Heated tobacco products Vapour products Nicotine pouches	533 513 491 5 16 1 20 14 5 1	2,083 1,878 1,799 26 51 2 205 151 53 1	2,616 2,391 2,290 31 67 3 225 165 58 1			
GDP by contribution type (across all product categories, in € millions) Direct Indirect Induced	188 47 112 29	1,902 1,814 47 41	2,089 1,861 158 70	GDP contribution (€ millions) 		
GDP by product category (direct, indirect and induced, in € millions) Traditional tobacco products Cigarettes Cigars, cigarillos and smoking tobacco Fine-cut tobacco Other tobacco products New nicotine products Heated tobacco products Vapour products Nicotine pouches	188 180 171 2 6 1 8 5 2 0	1,902 1,713 1,650 22 40 1 188 140 48 0	2,089 1,894 1,821 24 47 1 196 145 50 0			
Wages by contribution type (across all product categories, in € millions) Direct Indirect Induced	80 20 47 13	81 43 20 18	161 63 67 31			Wages (€ millions)
Wages by product category (direct, indirect and induced, in € millions) Traditional tobacco products Cigarettes Cigars, cigarillos and smoking tobacco Fine-cut tobacco Other tobacco products New nicotine products Heated tobacco products Vapour products Nicotine pouches	80 77 73 1 3 0 3 2 1 0	81 73 68 1 4 0 8 5 2 0	161 150 141 2 7 0 11 8 3 0			

Source: S&P Global Market Intelligence

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Economic contributions of the tobacco and related products sector to the economy of Croatia

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts
Employment by contribution type (across all product categories)	6,169	17,237	23,407	<div style="text-align: center;">Jobs (workers)</div> <p>Jobs (workers)</p> <p>Direct: 14,997 Indirect: 6,553 Induced: 1,856</p> <p>Traditional tobacco products: 20,895 New nicotine products: 2,511</p>

Source: S&P Global Market Intelligence

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Economic contributions of the tobacco and related products sector to the economy of Cyprus

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts
Employment by contribution type (across all product categories)	321	5,003	5,325	Jobs (workers)
Direct	0	3,980	3,980	
Indirect	90	703	793	
Induced	231	320	551	
Employment by product category (direct, indirect and induced)	321	5,003	5,325	
Traditional tobacco products	288	4,968	5,256	
Cigarettes	239	4,394	4,633	
Cigars, cigarillos and smoking tobacco	10	113	122	
Fine-cut tobacco	35	456	490	
Other tobacco products	5	5	10	
New nicotine products	33	35	69	
Heated tobacco products	20	20	40	
Vapour products	12	14	25	
Nicotine pouches	2	2	4	
Sales activity by contribution type (across all product categories, in € millions)	40	684	724	Sales activity (€ millions)
Direct	0	536	536	
Indirect	15	112	127	
Induced	25	36	61	
Sales activity by product category (direct, indirect and induced, in € millions)	40	684	724	
Traditional tobacco products	36	680	716	
Cigarettes	30	602	632	
Cigars, cigarillos and smoking tobacco	1	15	17	
Fine-cut tobacco	4	62	66	
Other tobacco products	1	1	1	
New nicotine products	4	4	8	
Heated tobacco products	2	2	5	
Vapour products	1	2	3	
Nicotine pouches	0	0	0	
GDP by contribution type (across all product categories, in € millions)	20	531	551	GDP contribution (€ millions)
Direct	0	455	455	
Indirect	6	57	64	
Induced	13	19	32	
GDP by product category (direct, indirect and induced, in € millions)	20	531	551	
Traditional tobacco products	18	529	547	
Cigarettes	15	469	484	
Cigars, cigarillos and smoking tobacco	1	12	12	
Fine-cut tobacco	2	48	50	
Other tobacco products	0	0	1	
New nicotine products	2	2	4	
Heated tobacco products	1	1	2	
Vapour products	1	1	2	
Nicotine pouches	0	0	0	
Wages by contribution type (across all product categories, in € millions)	9	103	113	Wages (€ millions)
Direct	0	74	74	
Indirect	3	21	25	
Induced	6	8	14	
Wages by product category (direct, indirect and induced, in € millions)	9	103	113	
Traditional tobacco products	8	102	111	
Cigarettes	7	90	98	
Cigars, cigarillos and smoking tobacco	0	2	3	
Fine-cut tobacco	1	9	10	
Other tobacco products	0	0	0	
New nicotine products	1	1	2	
Heated tobacco products	1	1	1	
Vapour products	0	0	1	
Nicotine pouches	0	0	0	

Source: S&P Global Market Intelligence

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Economic contributions of the tobacco and related products sector to the economy of Czech Republic

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts
Employment by contribution type (across all product categories)	21,309	44,739	66,048	<div style="text-align: center;">Jobs (workers)</div> <p>Jobs (workers)</p> <p>Direct: 33,622 Indirect: 26,424 Induced: 6,002</p> <p>Traditional tobacco products: 58,557 New nicotine products: 7,491</p>

Source: S&P Global Market Intelligence

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Economic contributions of the tobacco and related products sector to the economy of Denmark

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts
Employment by contribution type (across all product categories)	3,294	8,432	11,726	<div style="text-align: center;">Jobs (workers)</div> <p>Direct 5,907 Indirect 2,752 Induced 3,067</p> <p>Traditional tobacco products 10,294 New nicotine products 1,432</p>

Source: S&P Global Market Intelligence

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Economic contributions of the tobacco and related products sector to the economy of Estonia

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts
Employment by contribution type (across all product categories)	528	1,439	1,967	Jobs (workers)
Direct	0	743	743	
Indirect	247	308	555	
Induced	281	388	669	
Employment by product category (direct, indirect and induced)	528	1,439	1,967	
Traditional tobacco products	486	1,369	1,855	
Cigarettes	395	1,230	1,625	
Cigars, cigarillos and smoking tobacco	13	51	64	
Fine-cut tobacco	53	75	129	
Other tobacco products	24	14	38	
New nicotine products	42	70	112	
Heated tobacco products	18	26	45	
Vapour products	17	40	57	
Nicotine pouches	6	4	10	
Sales activity by contribution type (across all product categories, in € millions)	58	393	451	Sales activity (€ millions)
Direct	0	323	323	
Indirect	33	34	67	
Induced	25	35	61	
Sales activity by product category (direct, indirect and induced, in € millions)	58	393	451	
Traditional tobacco products	54	380	434	
Cigarettes	46	353	398	
Cigars, cigarillos and smoking tobacco	1	14	15	
Fine-cut tobacco	5	12	17	
Other tobacco products	2	2	4	
New nicotine products	4	13	17	
Heated tobacco products	2	3	4	
Vapour products	2	10	12	
Nicotine pouches	1	0	1	
GDP by contribution type (across all product categories, in € millions)	23	341	364	GDP contribution (€ millions)
Direct	0	310	310	
Indirect	12	15	27	
Induced	11	16	27	
GDP by product category (direct, indirect and induced, in € millions)	23	341	364	
Traditional tobacco products	21	331	353	
Cigarettes	18	311	329	
Cigars, cigarillos and smoking tobacco	1	12	12	
Fine-cut tobacco	2	8	11	
Other tobacco products	1	1	1	
New nicotine products	2	10	12	
Heated tobacco products	1	1	2	
Vapour products	1	9	9	
Nicotine pouches	0	0	0	
Wages by contribution type (across all product categories, in € millions)	11	23	35	Wages (€ millions)
Direct	0	10	10	
Indirect	6	6	12	
Induced	5	7	12	
Wages by product category (direct, indirect and induced, in € millions)	11	23	35	
Traditional tobacco products	10	22	33	
Cigarettes	9	20	29	
Cigars, cigarillos and smoking tobacco	0	1	1	
Fine-cut tobacco	1	1	2	
Other tobacco products	0	0	1	
New nicotine products	1	1	2	
Heated tobacco products	0	1	1	
Vapour products	0	1	1	
Nicotine pouches	0	0	0	

Source: S&P Global Market Intelligence

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Economic contributions of the tobacco and related products sector to the economy of Finland

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts
Employment by contribution type (across all product categories)	1,696	8,401	10,098	Jobs (workers)
Direct	0	5,399	5,399	
Indirect	646	1,521	2,167	
Induced	1,050	1,482	2,532	
Employment by product category (direct, indirect and induced)	1,696	8,401	10,098	
Traditional tobacco products	1,546	8,104	9,650	
Cigarettes	1,224	6,426	7,650	
Cigars, cigarillos and smoking tobacco	49	804	853	
Fine-cut tobacco	204	837	1,042	
Other tobacco products	69	37	105	
New nicotine products	151	298	448	
Heated tobacco products	71	78	150	
Vapour products	62	209	270	
Nicotine pouches	18	11	28	
Sales activity by contribution type (across all product categories, in € millions)	469	2,714	3,182	Sales activity (€ millions)
Direct	0	2,002	2,002	
Indirect	233	381	614	
Induced	236	330	566	
Sales activity by product category (direct, indirect and induced, in € millions)	469	2,714	3,182	
Traditional tobacco products	430	2,626	3,057	
Cigarettes	349	2,078	2,427	
Cigars, cigarillos and smoking tobacco	13	272	285	
Fine-cut tobacco	53	267	320	
Other tobacco products	15	10	24	
New nicotine products	38	87	125	
Heated tobacco products	17	19	36	
Vapour products	17	66	82	
Nicotine pouches	4	3	7	
GDP by contribution type (across all product categories, in € millions)	190	2,115	2,305	GDP contribution (€ millions)
Direct	0	1,784	1,784	
Indirect	78	173	251	
Induced	112	157	269	
GDP by product category (direct, indirect and induced, in € millions)	190	2,115	2,305	
Traditional tobacco products	174	2,056	2,230	
Cigarettes	142	1,623	1,765	
Cigars, cigarillos and smoking tobacco	6	224	229	
Fine-cut tobacco	22	206	227	
Other tobacco products	5	4	9	
New nicotine products	16	59	75	
Heated tobacco products	7	8	16	
Vapour products	7	50	56	
Nicotine pouches	2	1	3	
Wages by contribution type (across all product categories, in € millions)	95	345	439	Wages (€ millions)
Direct	0	190	190	
Indirect	42	82	124	
Induced	52	73	125	
Wages by product category (direct, indirect and induced, in € millions)	95	345	439	
Traditional tobacco products	87	331	418	
Cigarettes	71	263	334	
Cigars, cigarillos and smoking tobacco	3	32	34	
Fine-cut tobacco	10	35	45	
Other tobacco products	2	2	4	
New nicotine products	8	13	21	
Heated tobacco products	4	4	8	
Vapour products	4	9	12	
Nicotine pouches	1	1	1	

Source: S&P Global Market Intelligence

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Economic contributions of the tobacco and related products sector to the economy of France

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts
Employment by contribution type (across all product categories) Direct Indirect Induced	20,113 541 6,146 13,427	92,037 56,305 16,762 18,970	112,150 56,846 22,907 32,397	Jobs (workers)
Employment by product category (direct, indirect and induced) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	20,113 18,389 15,206 632 2,320 230 1,724 957 690 78	92,037 85,412 67,481 3,250 14,418 263 6,626 1,125 5,408 92	112,150 103,800 82,687 3,883 16,738 493 8,350 2,082 6,097 171	
Sales activity by contribution type (across all product categories, in € millions) Direct Indirect Induced	4,562 228 1,650 2,684	30,501 23,433 3,306 3,762	35,062 23,662 4,955 6,446	Sales activity (€ millions)
Sales activity by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	4,562 4,193 3,523 136 491 43 368 204 149 16	30,501 28,331 22,260 1,086 4,932 53 2,170 261 1,891 18	35,062 32,524 25,783 1,222 5,423 96 2,538 465 2,039 34	
GDP by contribution type (across all product categories, in € millions) Direct Indirect Induced	2,057 61 647 1,349	24,943 21,440 1,612 1,890	27,000 21,501 2,260 3,239	GDP contribution (€ millions)
GDP by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	2,057 1,888 1,578 64 226 20 169 93 69 7	24,943 23,185 18,159 892 4,107 26 1,758 156 1,593 9	27,000 25,072 19,737 957 4,333 46 1,928 249 1,663 16	
Wages by contribution type (across all product categories, in € millions) Direct Indirect Induced	1,084 35 383 666	3,792 1,931 927 934	4,876 1,966 1,309 1,601	Wages (€ millions)
Wages by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	1,084 994 835 34 114 10 90 49 37 4	3,792 3,517 2,786 133 584 13 275 54 216 5	4,876 4,511 3,621 168 698 23 365 103 253 8	

Source: S&P Global Market Intelligence

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Economic contributions of the tobacco and related products sector to the economy of Germany

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts		
Employment by contribution type (across all product categories) Direct Indirect Induced	94,160 5,841 66,153 22,165	259,385 176,085 51,939 31,361	353,544 181,926 118,092 53,527	Jobs (workers) 		
Employment by product category (direct, indirect and induced) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	89,469 66,558 1,200 21,181 530 4,690 2,903 1,604 183	244,408 196,413 9,768 37,765 462 14,977 8,580 6,155 242	333,878 262,971 10,968 58,946 992 19,667 11,483 7,759 425			
Sales activity by contribution type (across all product categories, in € millions) Direct Indirect Induced	24,566 8,602 12,248 3,716	46,120 32,239 8,672 5,209	70,686 40,841 20,920 8,925			Sales activity (€ millions)
Sales activity by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	23,618 18,032 239 5,268 79 948 617 300 31	43,460 34,925 1,737 6,718 79 2,660 1,525 1,093 42	67,078 52,957 1,976 11,986 158 3,608 2,142 1,393 73			
GDP by contribution type (across all product categories, in € millions) Direct Indirect Induced	9,016 1,938 5,244 1,834	34,046 26,936 4,540 2,571	43,062 28,873 9,783 4,405	GDP contribution (€ millions) 		
GDP by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	8,633 6,616 107 1,875 35 383 236 134 13	32,135 25,782 1,292 5,022 38 1,911 1,101 786 24	40,767 32,397 1,400 6,898 73 2,294 1,337 920 37			
Wages by contribution type (across all product categories, in € millions) Direct Indirect Induced	5,331 1,484 2,940 907	7,975 4,571 2,133 1,271	13,306 6,055 5,074 2,177			Wages (€ millions)
Wages by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	5,105 4,007 60 1,021 18 226 143 76 7	7,502 6,039 298 1,145 19 474 270 194 9	12,607 10,046 358 2,166 37 699 413 270 16			

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Economic contributions of the tobacco and related products sector to the economy of Greece

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts
Employment by contribution type (across all product categories)	9,614	25,827	35,441	Jobs (workers)
Direct	1,773	20,718	22,491	
Indirect	5,949	2,508	8,457	
Induced	1,892	2,600	4,493	
Employment by product category (direct, indirect and induced)	9,614	25,827	35,441	
Traditional tobacco products	5,808	22,250	28,057	
Cigarettes	5,470	16,645	22,115	
Cigars, cigarillos and smoking tobacco	65	1,080	1,145	
Fine-cut tobacco	249	4,490	4,739	
Other tobacco products	24	34	58	
New nicotine products	3,807	3,577	7,384	
Heated tobacco products	3,724	2,440	6,163	
Vapour products	75	1,125	1,200	
Nicotine pouches	8	12	20	
Sales activity by contribution type (across all product categories, in € millions)	1,854	4,859	6,713	Sales activity (€ millions)
Direct	806	4,006	4,812	
Indirect	789	490	1,279	
Induced	259	363	622	
Sales activity by product category (direct, indirect and induced, in € millions)	1,854	4,859	6,713	
Traditional tobacco products	1,145	4,178	5,323	
Cigarettes	1,097	3,116	4,213	
Cigars, cigarillos and smoking tobacco	9	204	214	
Fine-cut tobacco	35	853	888	
Other tobacco products	3	5	8	
New nicotine products	709	681	1,390	
Heated tobacco products	697	466	1,163	
Vapour products	10	213	224	
Nicotine pouches	1	2	3	
GDP by contribution type (across all product categories, in € millions)	790	4,076	4,866	GDP contribution (€ millions)
Direct	231	3,537	3,768	
Indirect	413	335	748	
Induced	146	205	351	
GDP by product category (direct, indirect and induced, in € millions)	790	4,076	4,866	
Traditional tobacco products	506	3,498	4,004	
Cigarettes	480	2,600	3,080	
Cigars, cigarillos and smoking tobacco	5	173	178	
Fine-cut tobacco	19	723	742	
Other tobacco products	2	3	4	
New nicotine products	284	578	863	
Heated tobacco products	278	397	675	
Vapour products	6	180	186	
Nicotine pouches	1	1	2	
Wages by contribution type (across all product categories, in € millions)	301	471	771	Wages (€ millions)
Direct	109	337	446	
Indirect	149	72	221	
Induced	43	61	104	
Wages by product category (direct, indirect and induced, in € millions)	301	471	771	
Traditional tobacco products	184	406	590	
Cigarettes	176	305	481	
Cigars, cigarillos and smoking tobacco	2	20	21	
Fine-cut tobacco	6	81	87	
Other tobacco products	1	1	1	
New nicotine products	117	64	181	
Heated tobacco products	115	44	159	
Vapour products	2	20	22	
Nicotine pouches	0	0	0	

Source: S&P Global Market Intelligence

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Economic contributions of the tobacco and related products sector to the economy of Hungary

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts			
Employment by contribution type (across all product categories) Direct Indirect Induced	18,966 5,907 10,744 2,315	45,118 33,854 8,030 3,234	64,084 39,761 18,774 5,550	Jobs (workers) 			
Employment by product category (direct, indirect and induced) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	18,966 16,707 4,828 3,202 8,624 53 2,259 311 1,560 388	45,118 39,108 28,045 1,778 9,223 62 6,010 5,443 520 47	64,084 55,814 32,873 4,980 17,847 115 8,270 5,754 2,080 436				
Sales activity by contribution type (across all product categories, in € millions) Direct Indirect Induced	1,812 682 980 149	3,150 2,406 535 209	4,962 3,089 1,515 358		Sales activity (€ millions) 		
Sales activity by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	1,812 1,609 458 395 753 3 202 26 137 40	3,150 2,731 1,961 124 641 4 419 380 36 3	4,962 4,340 2,419 519 1,395 7 622 406 173 43				
GDP by contribution type (across all product categories, in € millions) Direct Indirect Induced	580 144 374 61	2,343 2,003 254 86	2,923 2,147 629 147			GDP contribution (€ millions) 	
GDP by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	580 515 164 122 229 1 64 9 43 12	2,343 2,025 1,438 93 491 2 319 292 24 2	2,923 2,540 1,602 215 720 3 383 302 68 14				
Wages by contribution type (across all product categories, in € millions) Direct Indirect Induced	275 86 161 28	414 263 111 39	689 349 272 68				Wages (€ millions)
Wages by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	275 242 76 64 101 1 33 4 23 5	414 360 260 16 83 1 54 49 5 0	689 602 337 80 184 1 87 53 28 6				

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Economic contributions of the tobacco and related products sector to the economy of Ireland

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts	
Employment by contribution type (across all product categories) Direct Indirect Induced	1,981 572 603 806	8,955 6,949 866 1,139	10,935 7,521 1,470 1,945	Jobs (workers) Direct 7,521 Indirect 1,470 Induced 1,945 Total 10,935	
Employment by product category (direct, indirect and induced) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i>	1,862 1,663 38 144 18	8,382 6,958 133 1,274 18	10,245 8,621 170 1,418 35		Sales activity (€ millions) Traditional tobacco products 3,595 New nicotine products 226 Induced 493 Total 3,821
New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	118 66 46 6	573 61 505 7	691 127 552 12		
Sales activity by contribution type (across all product categories, in € millions) Direct Indirect Induced	818 371 242 205	3,003 2,409 306 288	3,821 2,780 547 493		
Sales activity by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i>	783 724 11 43 4	2,812 2,333 43 431 5	3,595 3,057 54 474 9		
New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	35 19 14 2	191 17 172 2	226 36 186 3		
GDP by contribution type (across all product categories, in € millions) Direct Indirect Induced	309 109 101 99	2,440 2,151 150 139	2,749 2,259 251 239	GDP contribution (€ millions) Traditional tobacco products 2,581 New nicotine products 168 Induced 239 Total 2,749	
GDP by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i>	293 268 5 19 2	2,287 1,899 32 355 2	2,581 2,166 37 374 4		
New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	15 8 6 1	153 8 144 1	168 16 150 2		
Wages by contribution type (across all product categories, in € millions) Direct Indirect Induced	96 25 35 35	286 188 48 50	382 214 84 85		
Wages by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i>	90 82 2 6 1	268 222 5 40 1	358 304 6 46 1	Wages (€ millions) Traditional tobacco products 358 New nicotine products 24 Induced 85 Total 382	
New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	5 3 2 0	19 3 16 0	24 6 18 1		

Source: S&P Global Market Intelligence

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Economic contributions of the tobacco and related products sector to the economy of Italy

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts
Employment by contribution type (across all product categories)	20,507	89,210	109,717	<p style="text-align: center;">Jobs (workers)</p> <p>Direct 56,495 Indirect 25,612 Induced 27,611</p> <p>Traditional tobacco products 89,819 New nicotine products 19,898</p>
Direct	1,351	55,144	56,495	
Indirect	7,607	18,005	25,612	
Induced	11,549	16,062	27,611	
Employment by product category (direct, indirect and induced)	20,507	89,210	109,717	
Traditional tobacco products	13,199	76,620	89,819	
Cigarettes	10,857	67,250	78,107	
Cigars, cigarillos and smoking tobacco	472	2,321	2,793	
Fine-cut tobacco	1,700	6,832	8,531	
Other tobacco products	170	218	388	
New nicotine products	7,308	12,591	19,898	
Heated tobacco products	6,726	9,145	15,871	
Vapour products	522	3,348	3,869	
Nicotine pouches	61	98	158	
Sales activity by contribution type (across all product categories, in € millions)	5,279	30,214	35,493	<p style="text-align: center;">Sales activity (€ millions)</p> <p>Direct 23,098 Indirect 6,480 Induced 5,916</p> <p>Traditional tobacco products 28,843 New nicotine products 6,650</p>
Direct	822	22,276	23,098	
Indirect	1,994	4,486	6,480	
Induced	2,463	3,453	5,916	
Sales activity by product category (direct, indirect and induced, in € millions)	5,279	30,214	35,493	
Traditional tobacco products	3,055	25,787	28,843	
Cigarettes	2,534	22,769	25,303	
Cigars, cigarillos and smoking tobacco	108	767	875	
Fine-cut tobacco	378	2,204	2,582	
Other tobacco products	35	47	82	
New nicotine products	2,224	4,427	6,650	
Heated tobacco products	2,093	3,259	5,352	
Vapour products	118	1,144	1,261	
Nicotine pouches	13	24	37	
GDP by contribution type (across all product categories, in € millions)	2,119	23,638	25,757	<p style="text-align: center;">GDP contribution (€ millions)</p> <p>Direct 19,764 Indirect 3,071 Induced 2,922</p> <p>Traditional tobacco products 21,481 New nicotine products 4,276</p>
Direct	153	19,611	19,764	
Indirect	749	2,321	3,071	
Induced	1,217	1,705	2,922	
GDP by product category (direct, indirect and induced, in € millions)	2,119	23,638	25,757	
Traditional tobacco products	1,396	20,085	21,481	
Cigarettes	1,157	17,807	18,965	
Cigars, cigarillos and smoking tobacco	50	590	639	
Fine-cut tobacco	173	1,665	1,838	
Other tobacco products	16	23	39	
New nicotine products	723	3,553	4,276	
Heated tobacco products	663	2,638	3,301	
Vapour products	54	900	955	
Nicotine pouches	6	14	20	
Wages by contribution type (across all product categories, in € millions)	892	3,068	3,960	<p style="text-align: center;">Wages (€ millions)</p> <p>Direct 1,776 Indirect 1,119 Induced 1,066</p> <p>Traditional tobacco products 3,188 New nicotine products 773</p>
Direct	101	1,674	1,776	
Indirect	347	772	1,119	
Induced	444	622	1,066	
Wages by product category (direct, indirect and induced, in € millions)	892	3,068	3,960	
Traditional tobacco products	546	2,642	3,188	
Cigarettes	455	2,314	2,768	
Cigars, cigarillos and smoking tobacco	20	81	100	
Fine-cut tobacco	66	239	305	
Other tobacco products	6	8	15	
New nicotine products	346	427	773	
Heated tobacco products	322	308	630	
Vapour products	22	115	136	
Nicotine pouches	2	4	6	

Source: S&P Global Market Intelligence

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Economic contributions of the tobacco and related products sector to the economy of Latvia

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts
Employment by contribution type (across all product categories)	1,100	9,470	10,570	Jobs (workers)
Direct	0	7,497	7,497	
Indirect	626	1,319	1,945	
Induced	475	654	1,129	
Employment by product category (direct, indirect and induced)	1,100	9,470	10,570	
Traditional tobacco products	1,026	7,896	8,922	
Cigarettes	866	6,958	7,824	
Cigars, cigarillos and smoking tobacco	25	460	485	
Fine-cut tobacco	101	464	565	
Other tobacco products	33	14	47	
New nicotine products	74	1,574	1,648	
Heated tobacco products	32	1,212	1,244	
Vapour products	33	358	391	
Nicotine pouches	9	4	13	
Sales activity by contribution type (across all product categories, in € millions)	99	703	802	Sales activity (€ millions)
Direct	0	535	535	
Indirect	66	121	187	
Induced	33	47	80	
Sales activity by product category (direct, indirect and induced, in € millions)	99	703	802	
Traditional tobacco products	94	586	680	
Cigarettes	82	517	598	
Cigars, cigarillos and smoking tobacco	2	34	36	
Fine-cut tobacco	8	34	42	
Other tobacco products	2	1	3	
New nicotine products	6	117	123	
Heated tobacco products	2	90	92	
Vapour products	3	27	29	
Nicotine pouches	1	0	1	
GDP by contribution type (across all product categories, in € millions)	37	538	575	GDP contribution (€ millions)
Direct	0	463	463	
Indirect	22	55	78	
Induced	15	21	35	
GDP by product category (direct, indirect and induced, in € millions)	37	538	575	
Traditional tobacco products	35	447	482	
Cigarettes	30	395	425	
Cigars, cigarillos and smoking tobacco	1	26	27	
Fine-cut tobacco	3	25	28	
Other tobacco products	1	0	1	
New nicotine products	2	91	94	
Heated tobacco products	1	71	72	
Vapour products	1	20	21	
Nicotine pouches	0	0	0	
Wages by contribution type (across all product categories, in € millions)	17	105	123	Wages (€ millions)
Direct	0	76	76	
Indirect	11	21	32	
Induced	6	9	15	
Wages by product category (direct, indirect and induced, in € millions)	17	105	123	
Traditional tobacco products	16	88	104	
Cigarettes	14	78	92	
Cigars, cigarillos and smoking tobacco	0	5	5	
Fine-cut tobacco	1	5	7	
Other tobacco products	0	0	0	
New nicotine products	1	17	18	
Heated tobacco products	0	13	14	
Vapour products	0	4	4	
Nicotine pouches	0	0	0	

Source: S&P Global Market Intelligence

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Economic contributions of the tobacco and related products sector to the economy of Lithuania

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts
Employment by contribution type (across all product categories)	10,703	7,765	18,467	Jobs (workers)
Direct	4,079	5,903	9,982	
Indirect	5,920	884	6,805	
Induced	703	978	1,681	
Employment by product category (direct, indirect and induced)	10,703	7,765	18,467	
Traditional tobacco products	10,569	6,285	16,855	
Cigarettes	10,309	5,694	16,004	
Cigars, cigarillos and smoking tobacco	47	336	383	
Fine-cut tobacco	176	236	412	
Other tobacco products	37	19	56	
New nicotine products	133	1,479	1,613	
Heated tobacco products	51	1,281	1,332	
Vapour products	72	192	264	
Nicotine pouches	11	6	17	
Sales activity by contribution type (across all product categories, in € millions)	1,527	784	2,311	Sales activity (€ millions)
Direct	884	646	1,530	
Indirect	594	71	665	
Induced	48	67	115	
Sales activity by product category (direct, indirect and induced, in € millions)	1,527	784	2,311	
Traditional tobacco products	1,516	631	2,146	
Cigarettes	1,495	574	2,070	
Cigars, cigarillos and smoking tobacco	4	34	39	
Fine-cut tobacco	14	21	35	
Other tobacco products	2	1	4	
New nicotine products	11	154	164	
Heated tobacco products	4	134	138	
Vapour products	6	19	25	
Nicotine pouches	1	0	1	
GDP by contribution type (across all product categories, in € millions)	590	676	1,266	GDP contribution (€ millions)
Direct	280	604	883	
Indirect	286	39	325	
Induced	24	34	58	
GDP by product category (direct, indirect and induced, in € millions)	590	676	1,266	
Traditional tobacco products	585	540	1,125	
Cigarettes	576	494	1,071	
Cigars, cigarillos and smoking tobacco	2	30	32	
Fine-cut tobacco	6	14	21	
Other tobacco products	1	1	2	
New nicotine products	5	137	141	
Heated tobacco products	2	120	122	
Vapour products	3	16	19	
Nicotine pouches	0	0	1	
Wages by contribution type (across all product categories, in € millions)	264	92	356	Wages (€ millions)
Direct	131	66	197	
Indirect	123	13	137	
Induced	9	13	23	
Wages by product category (direct, indirect and induced, in € millions)	264	92	356	
Traditional tobacco products	262	75	337	
Cigarettes	259	68	327	
Cigars, cigarillos and smoking tobacco	1	4	5	
Fine-cut tobacco	2	3	5	
Other tobacco products	0	0	1	
New nicotine products	2	17	19	
Heated tobacco products	1	15	16	
Vapour products	1	2	3	
Nicotine pouches	0	0	0	

Source: S&P Global Market Intelligence

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Economic contributions of the tobacco and related products sector to the economy of Luxembourg

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts
Employment by contribution type (across all product categories) <ul style="list-style-type: none"> Direct 0 Indirect 210 Induced 159 	369	2,605	2,974	Jobs (workers)
Employment by product category (direct, indirect and induced) <ul style="list-style-type: none"> Traditional tobacco products <ul style="list-style-type: none"> Cigarettes 262 Cigars, cigarillos and smoking tobacco 9 Fine-cut tobacco 57 Other tobacco products 6 New nicotine products <ul style="list-style-type: none"> Heated tobacco products 19 Vapour products 13 Nicotine pouches 2 	369	2,605	2,974	
Sales activity by contribution type (across all product categories, in € millions) <ul style="list-style-type: none"> Direct 0 Indirect 107 Induced 77 	184	1,902	2,086	
Sales activity by product category (direct, indirect and induced, in € millions) <ul style="list-style-type: none"> Traditional tobacco products <ul style="list-style-type: none"> Cigarettes 136 Cigars, cigarillos and smoking tobacco 5 Fine-cut tobacco 24 Other tobacco products 2 New nicotine products <ul style="list-style-type: none"> Heated tobacco products 10 Vapour products 6 Nicotine pouches 1 	184	1,902	2,086	
GDP by contribution type (across all product categories, in € millions) <ul style="list-style-type: none"> Direct 0 Indirect 29 Induced 22 	52	1,152	1,204	
GDP by product category (direct, indirect and induced, in € millions) <ul style="list-style-type: none"> Traditional tobacco products <ul style="list-style-type: none"> Cigarettes 38 Cigars, cigarillos and smoking tobacco 1 Fine-cut tobacco 7 Other tobacco products 1 New nicotine products <ul style="list-style-type: none"> Heated tobacco products 2 Vapour products 2 Nicotine pouches 0 	52	1,152	1,204	
Wages by contribution type (across all product categories, in € millions) <ul style="list-style-type: none"> Direct 0 Indirect 17 Induced 11 	28	140	168	
Wages by product category (direct, indirect and induced, in € millions) <ul style="list-style-type: none"> Traditional tobacco products <ul style="list-style-type: none"> Cigarettes 21 Cigars, cigarillos and smoking tobacco 1 Fine-cut tobacco 4 Other tobacco products 0 New nicotine products <ul style="list-style-type: none"> Heated tobacco products 1 Vapour products 1 Nicotine pouches 0 	28	140	168	

Source: S&P Global Market Intelligence

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Economic contributions of the tobacco and related products sector to the economy of Malta

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts												
Employment by contribution type (across all product categories)	166	2,898	3,063	Jobs (workers) <table border="1"> <caption>Jobs (workers) by contribution type</caption> <thead> <tr> <th>Contribution Type</th> <th>Value</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Direct</td> <td>2,390</td> <td>78%</td> </tr> <tr> <td>Indirect</td> <td>407</td> <td>13%</td> </tr> <tr> <td>Induced</td> <td>266</td> <td>9%</td> </tr> </tbody> </table>	Contribution Type	Value	Percentage	Direct	2,390	78%	Indirect	407	13%	Induced	266	9%
Contribution Type	Value	Percentage														
Direct	2,390	78%														
Indirect	407	13%														
Induced	266	9%														
Direct	0	2,390	2,390													
Indirect	54	353	407													
Induced	112	154	266													
Employment by product category (direct, indirect and induced)	166	2,898	3,063													
Traditional tobacco products	148	2,878	3,026													
<i>Cigarettes</i>	122	2,481	2,603													
<i>Cigars, cigarillos and smoking tobacco</i>	5	53	57													
<i>Fine-cut tobacco</i>	17	340	357													
<i>Other tobacco products</i>	5	5	9													
New nicotine products	17	20	37													
<i>Heated tobacco products</i>	10	11	21													
<i>Vapour products</i>	6	7	13													
<i>Nicotine pouches</i>	1	1	3													
Sales activity by contribution type (across all product categories, in € millions)	31	358	389	Sales activity (€ millions) <table border="1"> <caption>Sales activity (€ millions) by contribution type</caption> <thead> <tr> <th>Contribution Type</th> <th>Value</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Direct</td> <td>268</td> <td>69%</td> </tr> <tr> <td>Indirect</td> <td>78</td> <td>20%</td> </tr> <tr> <td>Induced</td> <td>42</td> <td>11%</td> </tr> </tbody> </table>	Contribution Type	Value	Percentage	Direct	268	69%	Indirect	78	20%	Induced	42	11%
Contribution Type	Value	Percentage														
Direct	268	69%														
Indirect	78	20%														
Induced	42	11%														
Direct	0	268	268													
Indirect	13	65	78													
Induced	17	25	42													
Sales activity by product category (direct, indirect and induced, in € millions)	31	358	389													
Traditional tobacco products	28	354	382													
<i>Cigarettes</i>	23	305	328													
<i>Cigars, cigarillos and smoking tobacco</i>	1	7	7													
<i>Fine-cut tobacco</i>	3	42	45													
<i>Other tobacco products</i>	1	1	2													
New nicotine products	3	4	7													
<i>Heated tobacco products</i>	2	2	4													
<i>Vapour products</i>	1	1	2													
<i>Nicotine pouches</i>	0	0	0													
GDP by contribution type (across all product categories, in € millions)	9	248	257	GDP contribution (€ millions) <table border="1"> <caption>GDP contribution (€ millions) by contribution type</caption> <thead> <tr> <th>Contribution Type</th> <th>Value</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Direct</td> <td>220</td> <td>86%</td> </tr> <tr> <td>Indirect</td> <td>23</td> <td>9%</td> </tr> <tr> <td>Induced</td> <td>13</td> <td>5%</td> </tr> </tbody> </table>	Contribution Type	Value	Percentage	Direct	220	86%	Indirect	23	9%	Induced	13	5%
Contribution Type	Value	Percentage														
Direct	220	86%														
Indirect	23	9%														
Induced	13	5%														
Direct	0	220	220													
Indirect	3	20	23													
Induced	6	8	13													
GDP by product category (direct, indirect and induced, in € millions)	9	248	257													
Traditional tobacco products	8	247	255													
<i>Cigarettes</i>	7	213	220													
<i>Cigars, cigarillos and smoking tobacco</i>	0	4	5													
<i>Fine-cut tobacco</i>	1	29	30													
<i>Other tobacco products</i>	0	0	0													
New nicotine products	1	1	2													
<i>Heated tobacco products</i>	0	1	1													
<i>Vapour products</i>	0	0	1													
<i>Nicotine pouches</i>	0	0	0													
Wages by contribution type (across all product categories, in € millions)	4	52	57	Wages (€ millions) <table border="1"> <caption>Wages (€ millions) by contribution type</caption> <thead> <tr> <th>Contribution Type</th> <th>Value</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Direct</td> <td>40</td> <td>70%</td> </tr> <tr> <td>Indirect</td> <td>11</td> <td>19%</td> </tr> <tr> <td>Induced</td> <td>6</td> <td>11%</td> </tr> </tbody> </table>	Contribution Type	Value	Percentage	Direct	40	70%	Indirect	11	19%	Induced	6	11%
Contribution Type	Value	Percentage														
Direct	40	70%														
Indirect	11	19%														
Induced	6	11%														
Direct	0	40	40													
Indirect	2	9	11													
Induced	3	4	6													
Wages by product category (direct, indirect and induced, in € millions)	4	52	57													
Traditional tobacco products	4	52	56													
<i>Cigarettes</i>	3	45	48													
<i>Cigars, cigarillos and smoking tobacco</i>	0	1	1													
<i>Fine-cut tobacco</i>	0	6	7													
<i>Other tobacco products</i>	0	0	0													
New nicotine products	0	0	1													
<i>Heated tobacco products</i>	0	0	1													
<i>Vapour products</i>	0	0	0													
<i>Nicotine pouches</i>	0	0	0													

Source: S&P Global Market Intelligence

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Economic contributions of the tobacco and related products sector to the economy of Netherlands

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts
Employment by contribution type (across all product categories) Direct Indirect Induced	15,838 713 11,302 3,824	34,563 24,620 4,352 5,591	50,401 25,333 15,654 9,414	Jobs (workers)
Employment by product category (direct, indirect and induced) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	15,838 13,510 9,927 203 3,267 113 2,328 659 1,632 36	34,563 32,309 23,467 1,260 7,496 86 2,254 735 1,196 323	50,401 45,819 33,394 1,463 10,764 199 4,582 1,395 2,828 359	
Sales activity by contribution type (across all product categories, in € millions) Direct Indirect Induced	7,671 3,058 3,780 834	8,162 5,815 1,179 1,169	15,834 8,873 4,958 2,002	Sales activity (€ millions)
Sales activity by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	7,671 6,461 4,777 54 1,606 24 1,210 269 932 9	8,162 7,632 5,534 298 1,781 19 530 171 282 77	15,834 14,093 10,311 352 3,388 42 1,740 440 1,215 85	
GDP by contribution type (across all product categories, in € millions) Direct Indirect Induced	2,460 658 1,417 385	6,385 5,292 552 540	8,845 5,951 1,969 926	GDP contribution (€ millions)
GDP by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	2,460 2,087 1,557 23 498 10 373 85 284 4	6,385 5,980 4,275 236 1,462 8 405 119 222 64	8,845 8,068 5,831 259 1,959 18 778 205 506 67	
Wages by contribution type (across all product categories, in € millions) Direct Indirect Induced	1,167 313 668 186	1,055 543 252 260	2,222 856 920 446	Wages (€ millions)
Wages by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	1,167 980 754 12 210 4 187 44 141 2	1,055 984 730 38 211 4 71 26 36 9	2,222 1,964 1,485 50 421 9 258 70 178 10	

Source: S&P Global Market Intelligence

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Economic contributions of the tobacco and related products sector to the economy of Poland

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts
Employment by contribution type (across all product categories) Direct Indirect Induced	144,378 16,890 119,172 8,316	94,808 65,645 17,714 11,449	239,186 82,535 136,886 19,765	Jobs (workers)
Employment by product category (direct, indirect and induced) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	144,378 134,433 121,377 4,482 8,341 234 9,945 1,282 8,481 182	94,808 81,877 75,314 722 5,655 187 12,931 5,498 7,343 90	239,186 216,310 196,691 5,203 13,995 420 22,876 6,780 15,824 272	
Sales activity by contribution type (across all product categories, in € millions) Direct Indirect Induced	28,837 12,458 15,685 694	12,172 9,582 1,617 973	41,009 22,040 17,301 1,667	Sales activity (€ millions)
Sales activity by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	28,837 27,143 24,870 937 1,320 17 1,694 173 1,497 24	12,172 10,475 9,697 75 687 16 1,697 715 974 9	41,009 37,618 34,567 1,011 2,007 33 3,391 888 2,470 33	
GDP by contribution type (across all product categories, in € millions) Direct Indirect Induced	9,212 2,629 6,283 299	9,769 8,651 698 419	18,980 11,281 6,981 719	GDP contribution (€ millions)
GDP by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	9,212 8,647 7,893 310 437 7 565 58 499 8	9,769 8,377 7,804 45 521 7 1,391 580 806 5	18,980 17,024 15,697 356 958 14 1,956 638 1,305 13	
Wages by contribution type (across all product categories, in € millions) Direct Indirect Induced	3,837 1,396 2,330 110	935 517 263 155	4,773 1,914 2,594 265	Wages (€ millions)
Wages by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	3,837 3,592 3,300 132 158 2 245 25 217 3	935 811 741 9 59 3 124 53 70 1	4,773 4,403 4,040 141 217 5 369 78 287 4	

Source: S&P Global Market Intelligence

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Economic contributions of the tobacco and related products sector to the economy of Portugal

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts
Employment by contribution type (across all product categories) Direct Indirect Induced	18,439 5,368 10,429 2,642	23,103 15,902 3,539 3,662	41,543 21,271 13,969 6,304	Jobs (workers) Sales activity (€ millions) GDP contribution (€ millions) Wages (€ millions)
Employment by product category (direct, indirect and induced) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	18,439 18,164 17,627 132 366 38 276 151 111 13	23,103 20,162 17,924 781 1,408 50 2,941 2,202 722 17	41,543 38,326 35,552 913 1,774 88 3,217 2,353 833 30	
Sales activity by contribution type (across all product categories, in € millions) Direct Indirect Induced	3,122 1,409 1,449 263	3,383 2,647 368 368	6,505 4,056 1,817 631	
Sales activity by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	3,122 3,092 3,035 15 39 4 29 16 12 1	3,383 2,942 2,629 114 194 5 441 334 105 2	6,505 6,035 5,664 129 233 9 470 350 117 3	
GDP by contribution type (across all product categories, in € millions) Direct Indirect Induced	1,025 292 604 129	2,779 2,414 184 181	3,803 2,706 787 310	
GDP by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	1,025 1,011 985 6 18 2 13 7 5 1	2,779 2,409 2,163 94 149 2 370 284 86 1	3,803 3,420 3,148 101 167 4 384 291 91 1	
Wages by contribution type (across all product categories, in € millions) Direct Indirect Induced	499 167 277 55	394 237 80 77	893 404 357 132	
Wages by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	499 493 482 3 8 1 6 3 2 0	394 344 305 13 25 1 49 36 12 0	893 838 787 16 33 2 55 40 15 1	

Source: S&P Global Market Intelligence

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Economic contributions of the tobacco and related products sector to the economy of Romania

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts
Employment by contribution type (across all product categories)	50,854	109,911	160,765	<div style="text-align: center;">Jobs (workers)</div> <p>Jobs (workers)</p> <p>Direct: 91,926 Indirect: 58,715 Induced: 10,124</p> <p>Traditional tobacco products: 148,855 New nicotine products: 11,910</p>

Source: S&P Global Market Intelligence

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Economic contributions of the tobacco and related products sector to the economy of Slovakia

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts	
Employment by contribution type (across all product categories) Direct Indirect Induced	3,571 443 2,037 1,090	15,281 10,127 3,651 1,503	18,852 10,570 5,688 2,594	Jobs (workers) 	
Employment by product category (direct, indirect and induced) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	3,571 3,360 2,852 107 382 20 210 89 108 13	15,281 13,494 11,711 995 657 131 1,787 1,449 240 98	18,852 16,855 14,563 1,102 1,039 151 1,997 1,537 349 111		Sales activity (€ millions)
Sales activity by contribution type (across all product categories, in € millions) Direct Indirect Induced	450 48 278 124	2,160 1,604 382 174	2,610 1,652 660 298		
Sales activity by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	450 425 363 14 46 2 25 11 13 1	2,160 1,906 1,656 143 89 18 254 207 33 14	2,610 2,331 2,019 157 135 20 280 218 46 15		
GDP by contribution type (across all product categories, in € millions) Direct Indirect Induced	174 13 114 47	1,620 1,382 173 66	1,794 1,394 287 113	GDP contribution (€ millions) 	
GDP by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	174 164 139 6 18 1 10 4 6 1	1,620 1,427 1,243 111 59 14 194 161 22 11	1,794 1,590 1,383 117 77 14 204 164 28 11		
Wages by contribution type (across all product categories, in € millions) Direct Indirect Induced	65 6 41 18	223 134 64 25	288 141 105 43		Wages (€ millions)
Wages by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	65 62 53 2 6 0 4 2 2 0	223 197 171 14 10 2 26 21 4 1	288 259 224 16 16 2 30 22 6 2		

Source: S&P Global Market Intelligence

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Economic contributions of the tobacco and related products sector to the economy of Slovenia

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts
Employment by contribution type (across all product categories)	771	5,931	6,702	Jobs (workers)
Direct	0	3,786	3,786	
Indirect	353	1,569	1,922	
Induced	418	576	994	
Employment by product category (direct, indirect and induced)	771	5,931	6,702	
Traditional tobacco products	688	5,571	6,259	
Cigarettes	551	4,939	5,489	
Cigars, cigarillos and smoking tobacco	27	321	348	
Fine-cut tobacco	102	303	405	
Other tobacco products	8	9	17	
New nicotine products	83	360	443	
Heated tobacco products	47	308	355	
Vapour products	32	49	80	
Nicotine pouches	4	4	8	
Sales activity by contribution type (across all product categories, in € millions)	106	1,048	1,154	Sales activity (€ millions)
Direct	0	805	805	
Indirect	57	175	232	
Induced	49	69	118	
Sales activity by product category (direct, indirect and induced, in € millions)	106	1,048	1,154	
Traditional tobacco products	94	986	1,080	
Cigarettes	77	877	954	
Cigars, cigarillos and smoking tobacco	4	58	62	
Fine-cut tobacco	13	50	63	
Other tobacco products	1	1	2	
New nicotine products	11	62	74	
Heated tobacco products	7	55	61	
Vapour products	4	7	12	
Nicotine pouches	0	0	1	
GDP by contribution type (across all product categories, in € millions)	44	812	857	GDP contribution (€ millions)
Direct	0	695	695	
Indirect	22	86	108	
Induced	22	31	53	
GDP by product category (direct, indirect and induced, in € millions)	44	812	857	
Traditional tobacco products	40	765	805	
Cigarettes	32	682	714	
Cigars, cigarillos and smoking tobacco	2	46	47	
Fine-cut tobacco	5	37	42	
Other tobacco products	0	0	1	
New nicotine products	5	47	52	
Heated tobacco products	3	43	45	
Vapour products	2	5	7	
Nicotine pouches	0	0	0	
Wages by contribution type (across all product categories, in € millions)	24	145	169	Wages (€ millions)
Direct	0	85	85	
Indirect	13	44	57	
Induced	11	16	27	
Wages by product category (direct, indirect and induced, in € millions)	24	145	169	
Traditional tobacco products	22	136	158	
Cigarettes	18	121	139	
Cigars, cigarillos and smoking tobacco	1	8	9	
Fine-cut tobacco	3	8	10	
Other tobacco products	0	0	0	
New nicotine products	3	9	11	
Heated tobacco products	1	8	9	
Vapour products	1	1	2	
Nicotine pouches	0	0	0	

Source: S&P Global Market Intelligence

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Economic contributions of the tobacco and related products sector to the economy of Spain

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts
Employment by contribution type (across all product categories) Direct Indirect Induced	19,389 979 7,674 10,735	79,622 53,910 10,710 15,002	99,011 54,889 18,385 25,737	Jobs (workers) Sales activity (€ millions) GDP contribution (€ millions) Wages (€ millions)
Employment by product category (direct, indirect and induced) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	19,389 18,244 12,599 4,028 1,469 148 1,145 637 456 52	79,622 76,397 64,228 3,263 8,706 200 3,225 1,383 1,772 70	99,011 94,641 76,828 7,291 10,175 348 4,370 2,020 2,228 122	
Sales activity by contribution type (across all product categories, in € millions) Direct Indirect Induced	3,955 745 1,602 1,609	16,281 12,118 1,909 2,255	20,237 12,863 3,511 3,863	
Sales activity by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	3,955 3,773 2,395 1,126 230 22 182 102 72 8	16,281 15,665 13,188 675 1,771 30 617 256 350 11	20,237 19,438 15,583 1,801 2,001 52 799 359 422 18	
GDP by contribution type (across all product categories, in € millions) Direct Indirect Induced	1,587 162 615 811	13,136 11,003 997 1,136	14,723 11,165 1,612 1,947	
GDP by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	1,587 1,502 1,006 375 109 10 86 47 35 4	13,136 12,681 10,692 553 1,421 15 456 180 270 5	14,723 14,182 11,698 928 1,530 25 541 228 305 9	
Wages by contribution type (across all product categories, in € millions) Direct Indirect Induced	742 87 297 358	2,178 1,291 386 502	2,921 1,379 682 859	
Wages by product category (direct, indirect and induced, in € millions) Traditional tobacco products <i>Cigarettes</i> <i>Cigars, cigarillos and smoking tobacco</i> <i>Fine-cut tobacco</i> <i>Other tobacco products</i> New nicotine products <i>Heated tobacco products</i> <i>Vapour products</i> <i>Nicotine pouches</i>	742 703 466 183 49 5 39 22 16 2	2,178 2,085 1,751 88 239 7 94 41 50 2	2,921 2,788 2,217 271 288 11 133 63 66 4	

Source: S&P Global Market Intelligence

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Economic contributions of the tobacco and related products sector to the economy of Sweden

Economic indicator	Production	Wholesale, distribution and retail	Total	Charts
Employment by contribution type (across all product categories)	7,288	21,294	28,581	<div style="text-align: center;">Jobs (workers)</div> <p>Jobs (workers)</p> <p>Direct: 15,601 Indirect: 8,002 Induced: 4,979</p> <p>Traditional tobacco products: 25,135 New nicotine products: 3,447</p>

Source: S&P Global Market Intelligence

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Appendix B: Excise tax and VAT assumptions

Directive 2011/64.EU requires EU-27 member states to levy excise duties on tobacco products as follows:

- **Cigarettes:** a specific component between 7.5% and 76% of the total tax burden, expressed as a fixed amount per 1,000 cigarettes plus an ad valorem component expressed as a percentage of the maximum retail selling price. The overall excise must be at least €90 per 1,000 cigarettes and be at least 60% of the weighted average retail selling price. Countries that apply an excise duty of €115 or higher are not required to comply with the 60% criterion
- **Cigars and Cigarillos:** 5% of the retail selling price or €12 per 1,000 items or per kilogram
- **Fine-cut tobacco:** 50% of weighted average retail selling price or €60 per kilogram
- **Other smoking tobaccos:** 20% of retail selling price or €22 per kilogram

In addition, value added taxes (VAT), which differ by country (ranging from 14.5% to 21.2%), are applied on top of the excise duties.

The following table summarises the taxes that were assessed by country during 2021 and calculates the pre-tax value of tobacco sales and the effective tax rate levied on tobacco products. For the aggregate EU-27, the effective tax rate was 71.6% of the tax included retail selling price (TIRSP).

Summary of traditional tobacco and new nicotine product taxes by country, 2021 (millions of Euros)						
Country	Product sales (TIRSP)	Excise taxes	VAT	Total taxes	Pre-tax value of products	Taxes (% of TIRSP)
Austria	€ 3,679B	€ 2,052B	€ 613B	€ 2,666B	€ 1,013B	72.5%
Belgium	€ 4,368B	€ 2,442B	€ 758B	€ 3,200B	€ 1,167B	73.3%
Bulgaria	€ 1,901B	€ 1,442B	€ 317B	€ 1,759B	€ 143B	92.5%
Croatia	€ 1,402B	€ 774B	€ 280B	€ 1,054B	€ 347B	75.2%
Cyprus	€ 536B	€ 161B	€ 86B	€ 247B	€ 289B	46.0%
Czech Republic	€ 4,632B	€ 2,431B	€ 804B	€ 3,235B	€ 1,397B	69.8%
Denmark	€ 2,030B	€ 1,239B	€ 406B	€ 1,645B	€ 385B	81.0%
Estonia	€ 323B	€ 236B	€ 54B	€ 290B	€ 33B	89.8%
Finland	€ 2,002B	€ 1,113B	€ 387B	€ 1,500B	€ 502B	74.9%
France	€ 23,494B	€ 14,287B	€ 3,917B	€ 18,204B	€ 5,291B	77.5%
Germany	€ 32,271B	€ 15,698B	€ 5,154B	€ 20,852B	€ 11,419B	64.6%
Greece	€ 4,028B	€ 2,169B	€ 779B	€ 2,948B	€ 1,080B	73.2%
Hungary	€ 2,440B	€ 1,103B	€ 519B	€ 1,622B	€ 818B	66.5%
Ireland	€ 2,409B	€ 1,338B	€ 418B	€ 1,757B	€ 652B	72.9%
Italy	€ 22,397B	€ 11,550B	€ 4,038B	€ 15,588B	€ 6,809B	69.6%
Latvia	€ 543B	€ 242B	€ 94B	€ 337B	€ 207B	62.0%
Lithuania	€ 666B	€ 347B	€ 116B	€ 463B	€ 203B	69.5%
Luxembourg	€ 1,455B	€ 702B	€ 211B	€ 913B	€ 542B	62.7%
Malta	€ 268B	€ 93B	€ 41B	€ 134B	€ 134B	50.0%
Netherlands	€ 5,822B	€ 3,314B	€ 1,011B	€ 4,324B	€ 1,497B	74.3%
Poland	€ 9,617B	€ 5,087B	€ 1,798B	€ 6,885B	€ 2,732B	71.6%
Portugal	€ 2,663B	€ 1,455B	€ 498B	€ 1,953B	€ 710B	73.3%
Romania	€ 5,283B	€ 3,030B	€ 844B	€ 3,873B	€ 1,410B	73.3%
Slovakia	€ 1,617B	€ 806B	€ 270B	€ 1,075B	€ 542B	66.5%
Slovenia	€ 807B	€ 410B	€ 146B	€ 555B	€ 252B	68.8%
Spain	€ 12,139B	€ 6,681B	€ 2,107B	€ 8,789B	€ 3,351B	72.4%
Sweden	€ 2,978B	€ 892B	€ 596B	€ 1,488B	€ 1,490B	50.0%
EU-27	€ 151,773B	€ 81,096B	€ 26,262B	€ 107,358B	€ 44,415B	70.7%

Source: S&P Global Market Intelligence

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Appendix C: Economic contribution analysis methodology

Economic contribution analysis methodology

The findings and insights presented in this report are the result of a top-down macro analysis of how the production, distribution and selling of traditional tobacco and new nicotine products contribute to the economies of EU-27 member states. Industry-standard input-output (I-O) modelling techniques were used to trace how direct production and sales activities lead to follow-on supply chain and consumer activities, all of which stimulate economic contributions that accrue across the EU-27. Similar to dual entry accounting, I-O models link buying activities with selling activities both within and across industry sectors. As such, these models trace the flow of money through an economy, from an initial purchase through follow-on spending on inputs across supply and service networks. I-O techniques were originally pioneered by economist Wassily Leontief in the 1930s, ultimately earning him the 1973 Nobel Prize in Economics.

S&P Global applied these techniques to build economic impact models that were focused on two main links of the traditional tobacco and new nicotine products value chains. The first model focused on the production link, directly capturing the economic contributions associated with the manufacturing of traditional tobacco and new nicotine products while indirectly capturing the economic contributions generated by the sourcing of manufacturing inputs, such as raw tobacco, filters and so on. The second model focused on the sales link, directly capturing the economic contributions stimulated by consumer spending on traditional tobacco and new nicotine products while indirectly capturing the economic contributions from the associated wholesale and distribution activities.

The model inputs for the sales link analysis were created by first combining product category sales by member state from Euromonitor with data from eCigIntelligence and S&P Global's Global Consumer Service. This yielded a distribution of €151.7 billion worth of traditional tobacco and new nicotine products retail sales, by product category, across the EU-27 member states. However, taxes account for over 70% of aggregate retail sales. Using data from the European Commission's Excise Duty Tables from August 2021, pre-tax retail sales estimates — totaling €52.5 billion — were derived and used as model inputs. Thus, the economic contributions stimulated by the underlying value of the traditional tobacco and new nicotine products were derived.

For the production link analysis, preliminary model inputs were extracted from S&P Global's Comparative Industry Services, which, in turn, draws from OECD data as a primary source. Members of Tobacco Europe felt the OECD data may not fully capture recent shifts in production locations. Therefore, Tobacco Europe members provided guidance regarding the level of production activity by product category and member state. This was used to distribute €35.5 billion of production activity across the EU-27 member states, yielding the model inputs for the production link analysis.

Though input-output models are built using generally accepted techniques, the results obtained from these models can differ based on the underlying assumptions and data used to generate the model inputs. As described above, a top-down analysis such as this study typically uses model inputs derived from macro or country level data. Studies using bottom-up analyses, which often develop model inputs based on data collected at the entity level or through primary research surveys, would likely obtain a different set of results. Moreover, an entity similarly conducting a top-down analysis but that utilizes different sources and methods to collect data will also likely develop model inputs that differ from those used by S&P Global.

Other factors that can lead to different results include, but are not necessarily limited to:

- The source data used to build the core models. As stated, S&P Global used data from the World Input-Output Database to build the models used in this study. Datasets are also available from Eurostat and the OECD. Models built from these datasets would likely produce different results than a WIOD-based model.
- The geographic scope of the models. The WIOD dataset includes industry-level transactions both within and across the EU-27 member states. This allowed S&P Global to develop a set of multi-regional models that captured the follow-on economic activity that occurred within the EU-27,

regardless of the member state in which the original economic activity occurred. For example, if cigarette production in Germany triggered follow-on supply chain activity in France, it was captured by the S&P Global models. A stand-alone model for Germany would have captured just the economic activity that remained in Germany.

- The vintage of the models. The S&P Global models started with core data from the World Input-Output Database (WIOD), which was published in 2014. Using data from S&P Global's proprietary asset, such as the Comparative Industry Service and Global Economy Service, the core data was updated to reflect 2021 conditions. In contrast, any analysis conducted using models built on the 2014 WIOD data would yield results based on core assumptions that do not reflect either post-pandemic conditions or the rise in new nicotine product sales.

The bottom line is different approaches and methodologies for collecting data, building and refining models, etc. may yield different modelled results. Each model brings a different perspective regarding how economic contributions are generated rather than a set of definitive results. Thus, results from different models can be viewed as establishing a range of possible answers.

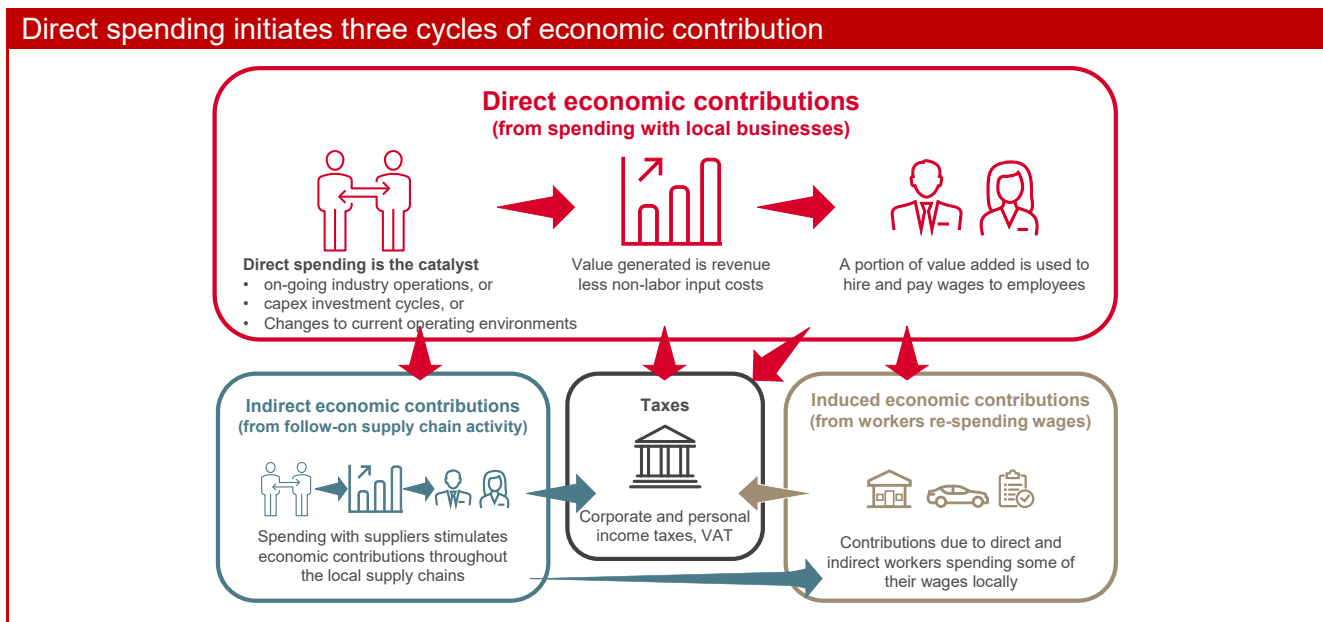
Economic contribution analysis overview

An economic contribution analysis quantifies how specific economic activity catalyses multiple rounds of contributions to key metrics such as economic output, employment, value added, and labour income. For this study, S&P Global Market Intelligence developed a set of models to trace how streams of economic activity initiated by the tobacco and new product value chains stimulate three levels of economic contribution throughout the EU-27 economy. The first level, designated as **direct contributions**, encompasses the economic contributions resulting from directly purchasing goods and services from businesses. The second level, **indirect contributions**, captures the follow-on effects that ripple through multiple tiers of tobacco companies' extended supply chains (i.e., suppliers' suppliers, etc.). The third level, **induced contributions**, covers the economic contributions due to the spending activity of people who work for tobacco companies or any of the extended supply chain businesses.

The direct, indirect, and induced contributions are reported for the following economic indicators:

- **Employment.** To produce their goods and services, companies must hire and retain employees. This indicator measures the number of workers required to support a given level of sales activity within an economy.
- **Sales activity (economic output).** In the context of this analysis, economic output represents the value of sales activity that occurs in the economy that is ultimately attributable to transactions initiated by the tobacco industry.
- **Value added (contribution to gross domestic product).** Value added is the difference between the revenue businesses receive for a product or service and their non-labour input costs. Gross domestic product (GDP) is the sum of all value added across a national economy.
- **Labour income.** A subcomponent of value added, labour income captures the compensation paid to workers.
- **Taxes:** Businesses pay corporate taxes; employees pay personal taxes.

The following flow diagram presents the process by which the three economic contribution cycles (direct, indirect, and induced) interact and affect the key economic contribution metrics (employment, sales activity, GDP contribution, labour income, and taxes). The catalyst event occurs when firms directly engaged in the tobacco industry purchase products or services from local businesses (the arrow at the upper left portion of the graphic). At this point, money is exchanged (tobacco firms to the business) in return for a product or service (from the business to tobacco firms).



Source: S&P Global Market Intelligence

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These transactions initiate the “Direct economic contribution” cycle (shown in the red box in the graphic), beginning in the “Economic output” box. These sales then enable local businesses to accomplish two primary objectives:

- First, they buy the non-labour inputs (also known as intermediate purchases) needed to make and deliver their products and services from their supply network. This initiates the “Indirect economic contribution” cycle, which will be discussed later.
- Second, they generate what economists call “value added.” For the purposes of this analysis, value added is the difference between the value of the sales transactions and the intermediate purchases.

After the value added is distributed to workers or paid to tax authorities or retained as gross profits, the direct economic contribution cycle ends.

As previously mentioned, the local businesses that tobacco firms directly buy from, in turn, make intermediate purchases from their supply networks, which commences the “Indirect economic contribution” cycle. For this part of the discussion, we will designate the businesses that tobacco firms directly buy from as “tier 1 suppliers.” The tier 1 suppliers make intermediate purchases from their suppliers (tier 2 suppliers). The tier 2 suppliers then make intermediate purchases (from tier 3 suppliers), compensate their workers, pay taxes, and derive profits. This cycle repeats through the remaining tiers of the extended supply chain. The sum of the contributions stimulated by these multiple rounds of economic activity are the indirect impacts.

Tobacco firms and the local businesses in the direct and indirect supply networks pay their employees, who then spend a substantial portion of their income on household purchases (food, consumer goods, healthcare, education, housing, etc.) in their local economies. These sales transactions launch the “Induced economic contribution” cycle. The induced economic cycle is similar to the indirect economic contribution cycle in that it is multi-tiered. The main difference is the induced spending activity tends to centre on consumer activity.

Building an input-output model with the World Input-Output Database

S&P Global Market Intelligence built the core economic impact models upon input-output (I-O) data from the World Input-Output Database (WIOD) that contains sectoral spending and sales data for 43 countries and 56 sectors, based on Revision 4 of the United Nations' International Standard Industrial Classification (ISIC, Rev 4). For the purposes of this analysis, the model isolated all European countries in the EU-27 and aggregated the remaining countries as a "Rest of World" region. It also consolidated the sectors to align with S&P Global Market Intelligence internal data incorporated in the analysis. The 51 sectors are listed below.

Industry	Sector	Sector / Industry Description
1	A	Agriculture, Forestry and Fishing
2	B	Mining and Quarrying
3	C10-C12	Manufacture of Tobacco Products, Beverages and Food Products
4	C13-C15	Textiles, Apparel and Leather
5	C16	Manufacture of Wood and of Products of Wood and Cork, except Furniture
6	C17	Manufacture of Paper and Paper Products
7	C18	Printing and Reproduction of Recorded Media
8	C19	Manufacture of Coke and Refined Petroleum Products
9	C20	Manufacture of Chemicals and Chemical Products
10	C21	Manufacture of Basic Pharmaceutical Products
11	C22	Manufacture of Rubber and Plastics Products
12	C23	Manufacture of Other Non-Metallic Mineral Products
13	C24	Manufacture of Basic Metals
14	C25	Manufacture of Fabricated Metal Products, except Machinery + Equipment
15	C26	Manufacture of Computer, Electronic and Optical Products
16	C27	Manufacture of Electrical Equipment
17	C28	Manufacture of Machinery and Equipment N.E.C.
18	C29	Manufacture of Motor Vehicles, Trailers and Semi-Trailers
19	C30	Manufacture of Other Transport Equipment
20	C31_C32	Manufacture of Furniture, Safety, Fire, and Other Goods
21	C33	Repair and Installation of Machinery and Equipment
22	D35	Electricity, Gas, Steam and Air Conditioning Supply
23	E36	Water Supply, Sewerage, Waste Management and Remediation Activities
24	E37-E39	Sewerage, Waste and Remediation
25	F	Construction
26	G45	Wholesale and Retail Trade and Repair of Motor Vehicles and Motorcycles
27	G46	Wholesale Trade, except of Motor Vehicles and Motorcycles
28	G47	Retail Trade, except of Motor Vehicles and Motorcycles
29	H49	Land Transport and Transport via Pipelines
30	H50	Water Transport
31	H51	Air Transport
32	H52	Warehousing and Support Activities for Transportation
33	H53	Postal and Courier Activities
34	I	Accommodation and Food Service Activities
35	J58	Publishing Activities

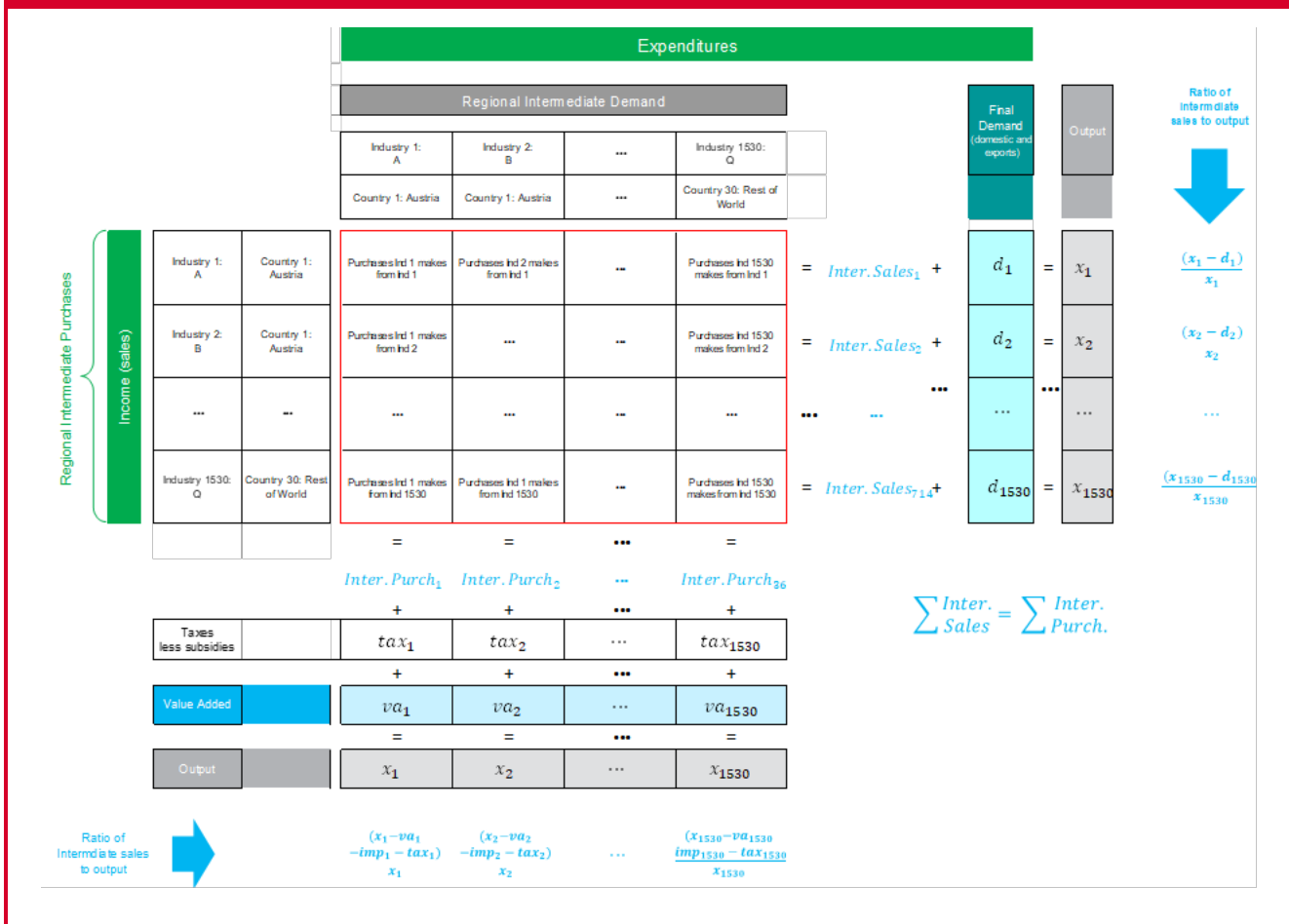
36	J59_J60	Audiovisual and Broadcasting
37	J61	Telecommunications
38	J62_J63	IT and Information Services
39	K64	Financial Service Activities, except Insurance and Pension Funding
40	K65	Insurance, Reinsurance and Pension Funding, except Compulsory Social Security
41	K66	Activities Auxiliary to Financial Service and Insurance Activities
42	L68	Real Estate Activities
43	M69_M70	Legal, Accounting, Consultancy
44	M71	Architectural and Engineering Activities, Technical Testing and Analysis
45	M72	Scientific Research and Development
46	M73	Advertising and Market Research
47	M74_M75	Professional, Scientific, Veterinary
48	N	Administrative and Support Service Activities
49	OSTU + R	Public Admin and Defense, Other Services Arts, Entertainment and Recreation
50	P85	Education
51	Q	Human Health and Social Work Activities

The I-O data are organised into tables (input-output tables) that link the purchase and sale relationships between producers and consumers within an economy. The global I-O table captures domestic inter-industry trade activity as well as international trade between industries/countries. Economic transactions occur at the intersection of a column (purchasing activity) and a row (sales activity) in the graphic below.

There are a few features of the I-O table structure that are important to consider when building IO-based models.

- In a balanced I-O table such as the World Input-Output table, the output, x_n , for any industry's rows equals the output of the same industry's column.
- The rows capture the flow of sales revenue into an industry. That is, the output shown in Industry 1's row, x_1 , captures the payments industry 1 receives for its products and services both from intermediate sales to other industries and sales to end users (final demand).
- The "Intermediate Demand" columns break down the output, x_n , into: (1) the intermediate purchases industry n makes from both domestic industries and imports; (2) the value added, va_n , created by the industry.
- Value added, va_n , can be further broken down into three primary subcategories: labour income, other taxes, and gross operating profits. The value-added subcategories by industry were incorporated separately from the core I-O tables. In some cases, S&P Global Market Intelligence's proprietary data was used.

Format of the WIOD global input-output table



Source: S&P Global Market Intelligence interpretation of WIOD input-output table structure

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Using techniques that ultimately earned economist Wassily Leontief the 1973 Nobel Prize in Economics, S&P Global Market Intelligence transformed the world I-O table into the core of the models used for the analysis. Reading across the industry rows in the I-O table reveals a simple equation that captures the relationship between the output of an economy, intermediate demand, and final demand.

Output = Intermediate Purchases + Final Demand

As shown in the prior graphic, this concept can be broken out as a set of equations that capture these relationships on an industry or sector level. From the world I-O table, 1530 equations can be written:

$$\begin{aligned}
 x_1 &= a_{1,1}x_1 + a_{1,2}x_2 + \dots + a_{1,1530}x_{1530} + d_1 \\
 x_2 &= a_{2,1}x_1 + a_{2,2}x_2 + \dots + a_{2,1530}x_{1530} + d_2 \\
 &\dots \\
 x_{1530} &= a_{1530,1}x_1 + a_{1530,2}x_2 + \dots + a_{1530,1530}x_{1530} + d_{1530}
 \end{aligned}$$

Where:

- x_i is the gross output of industry i
- $a_{i,j}$ is the proportion of industry j 's gross output that is used for purchases from industry i
- d_i is the final demand for industry i 's products or services

Next, these equations can be represented in matrix form as follows:

$$X = AX + D$$

Where:

- $X = \begin{bmatrix} x_1 \\ \cdots \\ x_{1530} \end{bmatrix}$; a 1530-by-1 matrix (or vector) of industry sales (output)
- $A = \begin{bmatrix} a_{1,1} & \cdots & a_{1,1530} \\ \vdots & \ddots & \vdots \\ a_{1530,1} & \cdots & a_{1530,1530} \end{bmatrix}$; a 1530-by-1530 Direct Requirements Matrix
- $D = \begin{bmatrix} d_1 \\ \cdots \\ d_{1530} \end{bmatrix}$; a 1530-by-1 (or vector) matrix of Final Demand by industry.

Finally, solving the above equation for X yields the relationship between changes in demand, D, affect gross output.

$$X - AX = D$$

$$X(I - A) = D$$

$$X = (I - A)^{-1}D$$

Where:

- **I** represents a 1,530-by-1,530 identity matrix (top-left to lower-right diagonal is all 1s; other elements are 0s);
- $(I - A)^{-1}$ represents the inverse matrix of $(I - A)$, also known as the **Leontief Inverse Matrix**.

The IO-based approach measures how changes in Final Demand, D, affect output, X. To assess how tobacco firms contribute to the European economy, S&P Global Market Intelligence created new Final Demand vectors, D, based on 2021 production levels and consumer spending on tobacco products across all EU-27 member states. S&P Global Market Intelligence then aggregated these data into the 1530 industries contained in the model to create a series of annual Final Demand vectors. Each annual Final Demand vector was brought into the corresponding economic impact model, where it was matrix multiplied by the Leontief Inverse Matrix, which yielded the industry-level changes in output, X.

S&P Global Market Intelligence also needed to quantify the contributions to GDP (value added), labour income and employment in the countries from which it sources goods and services. WIOD provides information on the value added for each industry. Thus, ratios of value-added-to-output by industry can be determined directly from any of the I-O tables S&P Global Market Intelligence used to create the models. In separate tables, the WIOD provides details on the components of value added (labour income, other taxes, gross operating profits) by industry. S&P Global Market Intelligence used these data to generate labour-income-to-output ratios by industry.

To quantify the employment effects, S&P Global Market Intelligence needed to calculate output-per-worker ratios by industry. To create the output-per-worker ratios, S&P Global Market Intelligence combined the WIOD output data with employment data from the OECD and WIOD.

S&P Global Market Intelligence analysed retail jobs supported by traditional tobacco and new nicotine product sales in terms of total jobs supported and full-time-equivalent (FTE) jobs. Retail establishments employ a high

number of part-time workers in Europe. In fact, employees in the retail sector worked the third-lowest number of hours in 2016 (latest year for which data was published) compared with all other sectors, according to data from WIOD. To view the jobs supported by traditional tobacco and new nicotine product sales on a more standardised basis, S&P Global Market Intelligence converted retail jobs to full-time equivalents.

To create estimates of full-time equivalent jobs supported, S&P Global Market Intelligence calculated unique output-per-employee ratios for each country's retail sector using output, employment, and total-hours-worked data from WIOD. First, an average weekly hours figure was calculated for each country's retail sector (ISIC code G47) using the total hours worked data from WIOD. Then, assuming a forty-hour work week as full-time, FTE conversion factors were created for each country's retail sector. For example, if retail employees in one country worked 20 hours per week on average, the FTE conversion factor would be 0.5. These factors were then applied to the retail employment figures to create FTE employment in each European country's retail sectors. The FTE employment figures were then used to create output-per-employee ratios.

The supported jobs estimated using the two different approaches differ by about 177,000 jobs. The reported figure in the body of the report, 1.55 million total jobs supported, uses output-per-employee ratios created using the original WIOD employment and output data. In terms of full-time equivalents, a total of 1.37 million jobs were supported using the method detailed above.

The ratios for value added/output, labour income/output and output/employment by industry were compiled into look-up tables. The industry output results were multiplied by the appropriate ratio to quantify the value added, labour income or employment impacts. For example, the output results for industry i were multiplied by the corresponding value added/output ratios to calculate the value-added impacts generated in industry i .

The following sections provide more detail on how the WIOD data, supplemented by data from S&P Global Market Intelligence and the OECD, was used to create the economic impact models. The model used to assess the tobacco industry's economic contributions was built within S&P Global Market Intelligence's EViews modelling environment.

Creating the Leontief Inverse Matrix

The heart of an input-output model is the Leontief Inverse Matrix. To create this matrix, S&P Global Market Intelligence started with WIOD's input-output tables. Below is a screenshot of a section of a 2014 input-output table, where only Austria's industry data are visible. 29 other countries are captured in the version of the I-O tables used for the analysis. The full list of countries is below.

millions of USD

Industry Code	A	B	C10-C12	C13-C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	
Country	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	
A	AUT	2,549	0	4,570	17	1,089	412	0	1	123	11	27	2	2
B	AUT	9	28	26	2	7	15	1	488	27	2	4	49	139
C10-C12	AUT	752	3	3,641	134	16	39	5	2	293	89	15	13	18
C13-C15	AUT	2	0	7	1	3	2	1	0	3	1	2	2	4
C16	AUT	34	8	36	5	1,653	53	5	1	16	3	37	29	62
C17	AUT	10	4	244	16	114	732	295	1	169	42	54	39	13
C18	AUT	2	1	21	3	3	17	202	0	6	4	6	4	4
C19	AUT	83	15	26	5	14	8	2	37	79	4	12	40	151
C20	AUT	46	7	94	33	36	58	11	27	859	41	142	43	39
C21	AUT	7	1	34	4	11	8	3	1	15	72	7	7	10
C22	AUT	21	4	142	15	26	20	25	2	49	17	125	53	15
C23	AUT	24	9	85	8	65	7	2	31	24	30	88	652	56
C24	AUT	16	6	34	4	25	24	4	2	62	8	65	38	2,201

The I-O table was transformed into the Leontief Inverse Matrix in three steps. The first step was creating the Direct Requirements Matrix (also known as the A Matrix). The Direct Requirements Matrix specifies the proportion of a given industry's output that is spent on intermediate purchases across all sectors. This means a Direct Requirements Matrix can be created by normalizing the intermediate purchases (the columns) of the I-O table relative to each industry's total output. In other words, each "intermediate purchases" cell in a given industry of the I-O table is divided by the total output of that industry. Shown in the screenshot below is a section of the 2021 Direct Requirements Matrix.

Countries included in economic contribution analysis			
Country abbreviation	Country	Country abbreviation	Country
AUT	Austria	IRL	Ireland
BEL	Belgium	ITA	Italy
BGR	Bulgaria	LTU	Lithuania
CYP	Cyprus	LUX	Luxembourg
CZE	Czech Republic	LVA	Latvia
DEU	Germany	MLT	Malta
DNK	Denmark	NLD	Netherlands
ESP	Spain	POL	Poland
EST	Estonia	PRT	Portugal
FIN	Finland	ROU	Romania
FRA	France	SVK	Slovakia
GRC	Greece	SVN	Slovenia
HRV	Croatia	SWE	Sweden
HUN	Hungary	ROW	Rest of World

The Direct Requirements Matrix provides insights into the direct spending between industries. For example, the C13-C15 (Textiles, Apparel and Leather) Austria column in the screenshot shows the proportional spending of that industry across all others. Assume D1 increases output by \$100. The Direct Requirements Matrix shows that, to generate that \$100 of additional output, Austria's C13-C15 sector will spend \$0.41 with industry sector A (Agriculture, forestry and fishing) in Austria. This is the cell highlighted in yellow

A Matrix

Industry Code		A	B	C10-C12	C13-C15	C16	C17	C18	C19	C20	C21	C22	C23	C24
	Country	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT
A	AUT	0.1997	0.0001	0.1664	0.0041	0.1060	0.0503	0.0001	0.0001	0.0068	0.0019	0.0034	0.0003	0.0001
B	AUT	0.0007	0.0083	0.0009	0.0004	0.0007	0.0019	0.0004	0.0658	0.0015	0.0004	0.0005	0.0056	0.0069
C10-C12	AUT	0.0589	0.0008	0.1326	0.0315	0.0016	0.0048	0.0015	0.0003	0.0161	0.0151	0.0019	0.0015	0.0009
C13-C15	AUT	0.0001	0.0001	0.0003	0.0002	0.0003	0.0003	0.0002	0.0000	0.0002	0.0002	0.0002	0.0002	0.0002
C16	AUT	0.0026	0.0025	0.0013	0.0012	0.1608	0.0065	0.0014	0.0001	0.0009	0.0006	0.0046	0.0034	0.0031
C17	AUT	0.0008	0.0011	0.0089	0.0037	0.0111	0.0895	0.0867	0.0001	0.0093	0.0070	0.0067	0.0044	0.0006
C18	AUT	0.0001	0.0003	0.0008	0.0007	0.0003	0.0021	0.0594	0.0001	0.0003	0.0006	0.0008	0.0005	0.0002
C19	AUT	0.0065	0.0043	0.0010	0.0011	0.0013	0.0010	0.0007	0.0050	0.0044	0.0007	0.0015	0.0046	0.0075
C20	AUT	0.0036	0.0022	0.0034	0.0078	0.0035	0.0070	0.0032	0.0036	0.0473	0.0070	0.0177	0.0049	0.0020
C21	AUT	0.0005	0.0004	0.0012	0.0009	0.0011	0.0009	0.0008	0.0002	0.0008	0.0121	0.0009	0.0008	0.0005
C22	AUT	0.0017	0.0013	0.0052	0.0035	0.0025	0.0024	0.0074	0.0003	0.0027	0.0029	0.0155	0.0061	0.0008
C23	AUT	0.0018	0.0027	0.0031	0.0019	0.0063	0.0009	0.0006	0.0042	0.0013	0.0050	0.0110	0.0747	0.0028
C24	AUT	0.0013	0.0019	0.0012	0.0008	0.0024	0.0030	0.0012	0.0002	0.0034	0.0013	0.0080	0.0044	0.1098

The next step is creating the (1-A) Matrix. This is accomplished by subtracting the Direct Requirements Matrix elements from an Identity Matrix. The results of this operation are shown in the following screenshot.

1-A Matrix

Industry Code		A	B	C10-C12	C13-C15	C16	C17	C18	C19	C20	C21	C22	C23	C24
	Country	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT
A	AUT	0.934	0.000	-0.021	-0.001	-0.022	-0.012	0.000	0.000	-0.001	-0.001	-0.006	0.000	0.000
B	AUT	0.000	0.998	0.000	0.000	0.000	0.000	0.000	-0.002	0.000	0.000	-0.001	-0.005	-0.019
C10-C12	AUT	-0.099	-0.002	0.913	-0.020	-0.002	-0.006	-0.003	0.000	-0.010	-0.023	-0.004	-0.002	-0.001
C13-C15	AUT	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.002	-0.001	0.000
C16	AUT	-0.001	-0.001	0.000	0.000	0.968	-0.002	-0.001	0.000	0.000	0.000	0.000	0.000	0.000
C17	AUT	0.000	0.000	0.000	0.000	0.000	0.996	-0.005	0.000	0.000	0.000	-0.001	-0.002	0.000
C18	AUT	0.000	0.000	0.000	0.000	0.000	0.000	0.998	0.000	0.000	0.000	0.000	0.000	0.000
C19	AUT	-0.006	-0.005	0.000	0.000	-0.001	-0.001	-0.001	0.999	-0.002	-0.001	-0.003	-0.001	-0.002
C20	AUT	-0.001	-0.001	0.000	-0.001	0.000	-0.001	-0.001	0.000	0.996	-0.001	-0.023	-0.003	0.000
C21	AUT	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.002	0.000	-0.001	0.980	-0.003	-0.002	0.000
C22	AUT	-0.001	-0.001	-0.001	-0.001	-0.001	-0.002	-0.007	0.000	-0.002	-0.002	0.990	-0.001	0.000
C23	AUT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.007	0.000
C24	AUT	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.999

The final transformation is inverting the (I-A) Matrix to create the Leontief Inverse Matrix. A portion of the 2021 Leontief Inverse Matrix is shown in the screenshot below.

Leontief Inverse Matrix

Industry Code	A	B	C10-C12	C13-C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	
	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	
A	AUT	1.269	0.002	0.246	0.014	0.163	0.074	0.009	0.001	0.015	0.008	0.007	0.003	0.002
B	AUT	0.002	1.010	0.003	0.001	0.003	0.005	0.002	0.067	0.004	0.001	0.002	0.008	0.010
C10-C12	AUT	0.088	0.002	1.172	0.039	0.015	0.013	0.005	0.001	0.022	0.020	0.004	0.004	0.003
C13-C15	AUT	0.000	0.000	0.000	1.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
C16	AUT	0.006	0.004	0.004	0.003	1.196	0.011	0.004	0.001	0.003	0.002	0.007	0.006	0.007
C17	AUT	0.003	0.002	0.013	0.006	0.016	1.101	0.105	0.001	0.012	0.009	0.009	0.007	0.002
C18	AUT	0.001	0.002	0.004	0.002	0.002	0.004	1.081	0.001	0.002	0.002	0.002	0.002	0.001
C19	AUT	0.009	0.005	0.004	0.002	0.004	0.003	0.002	1.006	0.006	0.002	0.003	0.007	0.010
C20	AUT	0.006	0.003	0.007	0.010	0.007	0.010	0.006	0.005	1.054	0.009	0.021	0.007	0.004
C21	AUT	0.001	0.001	0.002	0.001	0.002	0.001	0.001	0.000	0.001	1.013	0.001	0.001	0.001
C22	AUT	0.003	0.002	0.008	0.004	0.005	0.004	0.010	0.001	0.004	0.004	1.017	0.008	0.002
C23	AUT	0.005	0.005	0.007	0.004	0.011	0.003	0.003	0.006	0.003	0.007	0.014	1.084	0.005
C24	AUT	0.004	0.004	0.005	0.003	0.007	0.006	0.004	0.001	0.006	0.003	0.012	0.008	1.131

The Leontief Inverse Matrix is also known as the Total Requirements Matrix because the coefficients capture how a marginal change in spending in industry i affects all industries in the economy, through multiple tiers of the supply chain. Building on the example from the direct requirements discussion, a \$100 increase in the output of industry C13-C15 triggers a total increase of \$1.40 in industry A. From the previous example, we know that C13-C15 directly spends \$0.41 with industry A. This means an additional \$0.99 of spending with sector A is stimulated during the indirect contribution cycle.

Quantifying Value Added, Labour Income and Employment

Use of a Leontief Inverse Matrix in an input-output model captures how direct changes in output in one or more industries leads to indirect changes in output across all industries in an economy. The next step of economic impact analysis is to determine how the key economic indicators of value added, labour income, and employment are affected. WIOD provides employment, labour income, and total value added for all industries/countries contained in the World I-O table. S&P Global Market Intelligence used these figures, as well as output, to create the following ratios in each industry/country. S&P Global Market Intelligence also used OECD figures for direct employment attributable to tobacco manufacturing to capture employment activity more accurately in that industry.

- Output per employee
- Labour income per \$1 of output
- Total value added per \$1 of output

These ratios were applied to the direct, indirect, and induced output results to generate the employment, labour income, and total value-added effects on the EU-27 economy.

Estimating Induced Impacts

Induced impacts are those stimulated by workers spending a portion of their income in the local economy. Typically, an enhanced version of an I-O table, known as a Social Accounting Matrix or SAM, is used to derive the induced impacts. As its name implies, a SAM extends the I-O framework to include financial flows beyond the industry-to-industry transactions in an I-O table. Examples of these flows include inter-institution transfers (e.g., government to households) and consumption (e.g., final demand). In a SAM-based model, a portion of the labour income workers receive is fed back into the economy via consumer purchase activity and general consumption.

A current SAM from WIOD does not exist; therefore, S&P Global Market Intelligence used a proxy approach to estimate the induced effects. The world I-O table contains industry-level household spending patterns for each country. The percentage distribution of household spending can be used as a proxy for the household spending patterns that initiate the induced impact cycle. For the induced impact analysis, S&P Global Market Intelligence assumed that 70% of direct and indirect labour income would be re-spent in the local economy consistent with the household consumption distribution in each country.

The annual household consumption distributions were treated as inputs to the models. The models then determined the follow-on effects. Included in these effects is another, smaller round of labour income, which was fed back into the model. In theory, this represents an infinite loop in which each round of labour income was fed back into the model. Fortunately, there is a more efficient way to determine the total induced impacts. Recall that the household final consumption distribution is held constant. Thus, the labour income generated by the first round of the spending is feedback into the model using the same distribution. As such, the ratio of one round's labour income to the next round's labour income will be a constant. This is, by definition, an infinite geometric series.

Summing an infinite series requires determining the common ratio, r , which is the ratio of the labour income entering into round 1 divided by the labour income generated by round 1. The common ratio can be used to calculate a scale factor by which the initial results are multiplied to derive the infinite sum. The formula for this scale factor is as follows: $Induced\ scale\ factor = \frac{1}{1-r}$

For example, initial testing for the 2021 model indicated a common ratio in EU-27 countries of approximately 33% (the exact figure varies by country). This leads to an induced scale factor of around 1.5. Thus, multiplying the first round of induced gross output impacts by 1.5 will yield the sum of gross output induced impacts. The value added, labour income and employment ratios can then be applied to determine the induced results for those metrics.

Updating the World I-O Table with RAS procedure

S&P Global Market Intelligence used a standard matrix balancing process known as the RAS method to transform the World input-output models from their original vintage (2014) to the present year (2021). Updated input-output tables – which underpin the economic impact analysis – help ensure the results of the analysis are more accurate. Starting with the 2014 global model, the RAS method iteratively scales and rebalances first the rows and then the columns of the Direct Requirements Matrix (the A Matrix) until the coefficients converge to a create matrix that produces a balanced response to a targeted level of output. This means that for a targeted level of output, the sum of direct intermediate purchases equals the sum of direct intermediate demand. This section presents a brief discussion of the RAS methodology S&P Global Market Intelligence used to create A Matrices that were then transformed into Leontief Inverse matrices for models with data years 2015 to 2021. For a more extensive discussion, the reader is referred to Input-Output Analysis, Foundations and Extensions, Second Edition by Miller and Blair, where Chapter 7 presents a comprehensive overview of the RAS technique.

Based on the process put forth by Miller and Blair, transforming the 2014 global A Matrix to an A Matrix in subsequent years requires three sets of inputs. The first is the regional output by sector. For example, the output for each of the 1,530 industry sectors (51 sectors x 30 different countries) in 2020 is needed to create the A Matrix that will be transformed into the Leontief Inverse Matrix for that year. The two other sets of required inputs are: (a) intermediate sales by industry in each year; and (b) intermediate purchases by industry in each year.

Using the “Format of the WIOD global input-output table” graphic presented earlier in this appendix, one can derive the relationships between: (a) output and intermediate sales by industry; and (b) output and intermediate purchases by industry. Specifically, the I-O table can be used to derive ratios of intermediate-sales-to-output and intermediate-purchases-to-output by industry. Thus, if one knows the regional output by industry, one can derive estimates of the regional intermediate sales by industry and intermediate purchases by industry.

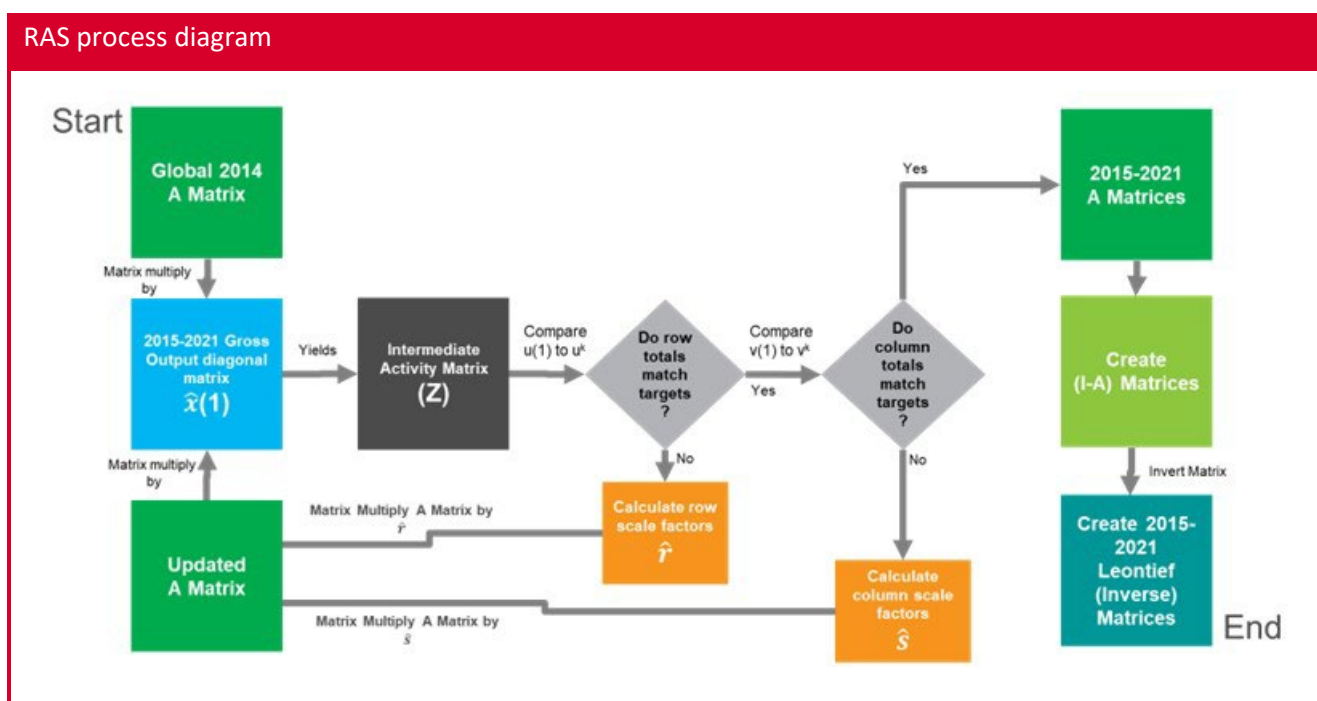
S&P Global Market Intelligence used gross output from its Comparative Industry group as the targets by which it updated the I-O table. Gross output by industry/geography was used in the RAS procedure. To align the classifications from the WIOD database and S&P Global Market Intelligence’s data, some sectors and countries were aggregated. Other industry-specific data, such as employment, labour income and value added, was sourced from either WIOD, the OECD, or internally at S&P Global Market Intelligence.

One more preparatory step is needed before beginning the RAS process. To facilitate the matrix multiplication required by the RAS process, the regional output by industry must be converted from a 1,530 row by 1 column matrix (or vector) to a 1,530 row by 1,530 column diagonal matrix, sometimes called the \hat{x} matrix or x-hat matrix. To illustrate, a portion of the output data from the prior table are shown in \hat{x} matrix format below. The figures are in millions of US dollars.

Industry Code	A		B		C10-C12		C13-C15		C16		C17		C18		C19		C20		C21		C22		C23		C24		
	Country	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	AUT	
A	AUT	12,012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B	AUT	-	3,168	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C10-C12	AUT	-	-	23,943	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C13-C15	AUT	-	-	-	3,239	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C16	AUT	-	-	-	-	12,097	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C17	AUT	-	-	-	-	-	7,966	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C18	AUT	-	-	-	-	-	-	1,891	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C19	AUT	-	-	-	-	-	-	-	8,979	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C20	AUT	-	-	-	-	-	-	-	-	19,960	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C21	AUT	-	-	-	-	-	-	-	-	-	6,842	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C22	AUT	-	-	-	-	-	-	-	-	-	-	7,523	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C23	AUT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,317	-	-	-	-	-
C24	AUT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19,263	-	-

A schematic of the RAS process is shown below. To start the RAS process, the 2014 A Matrix is multiplied by the \hat{x} Matrix of the future year. This results in what is known as an Intermediate Activity Matrix, which captures the first round of intermediate sales and intermediate purchase activity required to meet the target output in the \hat{x} Matrix. Because the intermediate-purchases-to-output percentages were used as a constraining factor when the regional targets were derived, the sum of each industry column in the Intermediate Activity Matrix will match the Intermediate Purchases targets.

The sum of each row likely will not match the Intermediate Sales targets. For each industry, the target level is divided by the result to derive a set of scale factors. Each industry row of the A Matrix is multiplied by the corresponding scale factor to create an updated A Matrix. The updated A Matrix is then multiplied by the \hat{x} Matrix, which results in an updated Intermediate Activity Matrix. This round, the sum of the rows will match the Intermediate Sales targets while the sum of the columns will likely not match the Intermediate Purchases targets. This time, scale factors are created for the columns, which are then used to update the A matrix again. This cycle repeats until the row and column sums of the Intermediate Activity Matrix converge to the Intermediate Sales and Intermediate Purchases targets. Once this convergence is achieved, the regional A Matrix is transformed into the (I-A) matrix, followed by the Leontief Inverse Matrix. The process was repeated for each year (2015-2021).



Source: S&P Global Market Intelligence interpretation of WIOD input-output table structure

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Once the Leontief Inverse Matrix is created for each new year, the core of the models is in place, and direct, indirect and induced contributions to output can be captured using the new models for years 2015-2021.

Appendix D: Glossary

Capital expenditure (Capex)	This includes the investments made by establishments operating in a particular sector during a certain year, net of fixed assets sold.
Compound Annual Growth Rate (CAGR)	A measure of annual growth rate with the effect of compounding considered. The CAGR formula is equal to: $\left[\frac{\text{ending value}}{\text{beginning value}} \right]^{(1/\# \text{ of periods})} - 1$
Corporate income tax	The tax levied on a corporation's income.
Direct impacts	The first-order responses throughout the economy due to direct sales transactions
Economic impact analysis	A study that examines the direct, indirect and induced impacts of the independent operators' production activities and supply chain spending.
Employment	This includes wages, salaries and self-employment jobs within the economy.
Extended supply chain	The network of suppliers who provide goods and services to the first tier of a supply chain. This is a subset of the indirect economic contributions.
Fiscal analysis	The estimation of the impacts of tax and non-tax contributions of an entity to the government in which it is currently operating.
Government revenues	The streams of revenues paid to a government agency.
Gross domestic product (GDP)	The sum of value added across all products and services produced within a national economy.
Gross state product (GSP)	The sum of value added across all products and services produced within a state economy.

Indirect impacts	The follow-on supply chain or purchasing network activities that are initiated by direct spending.
Induced impacts	The response of the economy to marginal changes in consumer spending from employees of the direct and indirect businesses.
Input-output analysis	The analysis uses an input-output table that represents a particular economy and depicts the flows of related economic transactions that take place within the country. It also shows the economic interconnections that exist between different components of the economic system, i.e., production activities, the government and supplier enterprises.
Labour income	This captures all forms of employment income, including employee compensation (wages and benefits, employer-paid payroll taxes, unemployment taxes, etc.) and proprietor income (payments received by self-employed individuals and unincorporated businesses).
New nicotine products	This includes the following product categories: vapour products, heated tobacco products, and nicotine pouches.
Operating expenditures (Opex)	This captures purchases of inputs and suppliers.
Output	The total value of all goods and services produced within an economy.
Personal income tax	The tax levied on an individual's income.
Supply chain	The combination of the direct and indirect suppliers.
Tier-1 suppliers	The suppliers with whom the independent operators directly spend their capital expenditure and operating expenditure funds.
Traditional tobacco products	This includes the following product categories: cigarettes, cigars, cigarillos, fine-cut tobacco and smokeless tobacco products.
Value added	The difference between the revenue received for a product or service and its non-labour input costs. It is also understood as the difference between the value of sale and the cost of its required non-labour inputs.

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