



VAT GAP **IN THE EU**



2023 REPORT

COUNTRY CHAPTER LUXEMBOURG

CASE - Center for Social and Economic Research
WIFO - Austrian Institute of Economic Research

*Taxation and
Customs Union*

EUROPEAN COMMISSION

Directorate-General for Taxation and Customs Union
Directorate C – Indirect taxation and tax administration
Unit C.5 – Economic analysis and taxation of exempted sectors

E-mail: TAXUD-UNIT-C5@ec.europa.eu@ec.europa.eu

*European Commission
B-1049 Brussels*

Introduction

This document contains a country-specific excerpt from the 2023 VAT gap report. The full report includes more detailed methodology discussions and country-specific information for all 27 EU Member States concerning VAT compliance. It can be downloaded here [VAT Gap - European Commission \(europa.eu\)](https://ec.europa.eu/economy_finance/vat-gap-report-2023).

Value Added Tax (VAT) in the European Union (EU) is a broad-based tax levied on goods and services used or consumed in the territory of the EU. It serves as one of the core revenue sources for the EU Member States and VAT rules play a very important role in the EU Single Market. In 2021, the contribution of VAT accounted for approximately 27 percent of the total yearly tax receipts for general government in the EU¹. It is also used as a reference to calculate the EU's own resources. A rate of 0.3 percent applies to each EU member's harmonised VAT base. Thus, VAT-based resources in 2021 amounted to 17.97 EUR billion and 11 percent of the EU's total own resources.

One of the key challenges of meeting the fiscal objective of VAT is taxpayer non-compliance with VAT payment obligations. The forms of such non-compliance range from the legal exploitation of loopholes in tax systems to evasion or organised large-scale tax fraud. These are the underlying drivers of the *VAT compliance gap*, the difference between the tax revenue that would be collected in the case of full compliance and the actual VAT receipts. Non-compliance could also be non-intentional and result, among others, from administrative errors, omissions, and non-fraudulent bankruptcies. Tax fraud, evasion, and avoidance, which are the core interest of this study, cost EU Member States' budgets billions of euros every year. They also threaten the principle of fair taxation and impede fairness of competition between businesses.

Other important sources of the forgone VAT revenue are the policy decisions narrowing the tax base or reducing VAT liability for certain parts of the tax base. These choices are made to meet distributional objectives or to provide certain incentives for taxpayers at the cost of VAT revenue. They could also be taken due to difficulties imposing payments on certain taxpayers or on certain types of goods and services. The policy decisions reducing tax revenue are often referred to as *tax expenditures*. The fiscal cost of the VAT expenditures is highly inter-related with the broad measure of the departure of the VAT base and effective rates from the notional VAT system, the so-called *VAT policy gap*, which is also addressed by this report. The policy gap is an indicator of the additional VAT revenue that could theoretically (i.e., under the assumption of perfect tax compliance) be generated if a uniform VAT rate is applied to the final domestic use of all goods and services by households.

The relevance of the problem of lost VAT revenue due to non-compliance and the design of the VAT rules would be largely unknown without tax gap estimates. These estimates not only serve as a useful tool to understand the overall size of the revenue losses in VAT but also help to understand their nature, which is crucial for making well-grounded policy decisions and improvements to tax administration. The estimates of the tax gap components and their evolution in time provide insights on the strategies and measures that improve the efficiency of VAT collection.

¹ Eurostat GOV_10A_TAXAG dataset.

I. Economic and policy context in the EU

In 2021, both real and nominal GDP increased in all 27 EU Member States. This growth was to a large extent a result of the gradual recovery of economies from the effects of the COVID-19 pandemic. Given this context, macroeconomic figures for 2021 are hard to compare against any other recent year. In total, the EU-27 economy grew by 5.6 percent in real terms compared to 2020.

Another factor influencing VAT compliance may be the level of support measures, which are often contingent on paying taxes. In 2021, several EU Member States introduced temporary changes to their VAT systems. All in all, the total net balance of general government in the EU-27, which may serve as an indicator of the strength of support measures and economic situation, rose from -6.7 percent in 2020 to -4.8 percent in 2021².

VAT compliance might also be affected by changes in the structure of expenditure – changes in the share of purchases of services provided by sectors where non-compliance tends to be higher, for example those related to tourism, hospitality, and entertainment can impact overall compliance.

The number of bankruptcies – which could be treated as an indicator of broader liquidity problems – rose in the first three quarters of the year compared to the same period in 2020, with the largest increase (27.1 percent) in Q2 and smallest in Q4 (by 5.0 percent).³ This increase could suggest that, despite the recovery, many firms suffered from the economic turbulences related to the pandemic and the gradual withdrawal of support measures.

II. VAT compliance gap in the EU

Total EU-27 VAT revenue and VAT liability increased in all years except for 2020, where both fell below the levels observed in 2017. In 2021, revenue and liability recovered and exceeded the values observed before the COVID-19 pandemic. Amid these extraordinary conditions, the VAT compliance gap continued to narrow albeit at a significantly faster pace.

In 2021, the VAT compliance gap amounted to EUR 60.6 billion or – in relative terms – 5.3 percent of the VAT Total Tax Liability (VTTL) -the tax revenue that would be collected in the case of full compliance-. Compared to 2020, the gap went down by EUR 38.7 billion or 4.3 percent of the VTTL (see Figure 1).

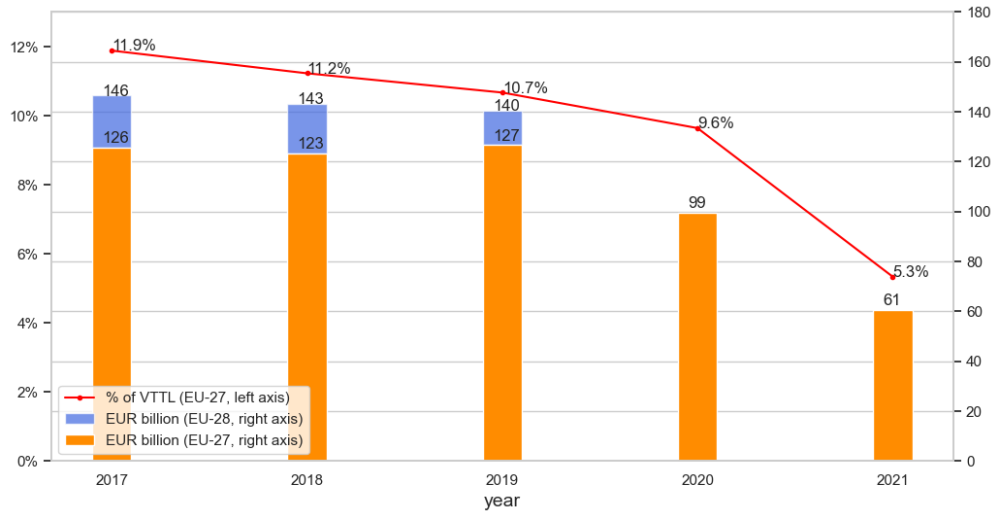
The unprecedented decline of the EU-wide VAT compliance gap of over EUR 65 billion and over 5 pp between 2019 and 2021 calls for a thorough examination of the underlying data sources and assumptions. The change in the VAT compliance gap between 2019 and 2021 was driven primarily by shifts in the VAT revenue, whereas the estimated VTTL in 2021 was nearly identical to its value observed in 2019, before the COVID-19 pandemic.

This suggests that the changes in the VAT compliance gap result from shifts in “recorded values” rather than changes in the estimated “unobserved” revenue potential. The stability of the VTTL was accompanied by the stability of its two main components, the nominal base, and the effective rate.

² https://ec.europa.eu/eurostat/databrowser/view/gov_10dd_edpt1/default/table?lang=en.

³ https://ec.europa.eu/eurostat/databrowser/view/STS_RB_Q_custom_4329332/default/table?lang=en.

Figure 1: Evolution of the VAT compliance gap in the EU-27 and EU-28 (% of the VTTL and EUR billion, 2017-2021)⁴



Source: own calculations, [download underlying data](#).

Although there is some uncertainty around certain components of the calculation, much of the reduction in compliance appears to be robust and justified by the sharp increase in VAT receipts. The estimates of the VAT compliance gap are subject to revision due to future updates of national accounts figures, but a substantial revision of the EU-wide trend of VAT compliance is unlikely.

III. VAT policy gap in the EU

The VAT policy gap captures the effects of the departure of the tax base from the theoretical one and lower than standard VAT rates applied to certain parts of the tax base. Compared to the VAT compliance gaps, the VAT policy gaps have remained much more stable. For the EU-27 overall, the average VAT policy gap level in 2021 was approximately 44.9 percent of the notional ideal revenue, which is a slight, 0.3 pp, decline from the value recorded in 2020. At the same time, the public services gap further increased, which indicates an incline in expenses on public services, mostly medical treatment. In nominal terms, the policy gap in 2021 amounted to EUR 1 127 billion, which, due to an incline in the overall tax base largely driven by price inflation, was approximately EUR 77 billion higher than in 2020.

Of the average value of 44.9 percent, in 2021, approximately 10.4 percent can be attributed to the application of various reduced and super reduced rates. The VAT exemption gap, interpreted as the share of notional ideal revenue forgone due to exemptions or maintaining components of household final consumption outside the VAT base, was on average 34.5 percent in 2021.

⁴ It is important to note that the 2020 results consider the EU-27, accounting for BREXIT in January 2020. As a reference, some graphs and tables until year 2019 present the EU-28 estimates including the UK.

IV. VAT compliance and policy gaps – results for Luxembourg

This section presents the VAT gap estimates and discusses the economic and policy developments that might have affected value and dynamics for Luxembourg⁵. The chapter also contains highlights enumerating and discussing the main developments in the VAT gaps as well as calculation-related issues. It also presents road signalling which indicates the confidence around the VAT compliance gap.



- Estimates based on relatively up-to-date information with no or very limited unexplained volatility which could signal inaccuracies.



- Estimates based on somewhat outdated information or relatively large unexplained volatility of estimates.



- Estimates based on some very outdated information or very large unexplained volatility of estimates.

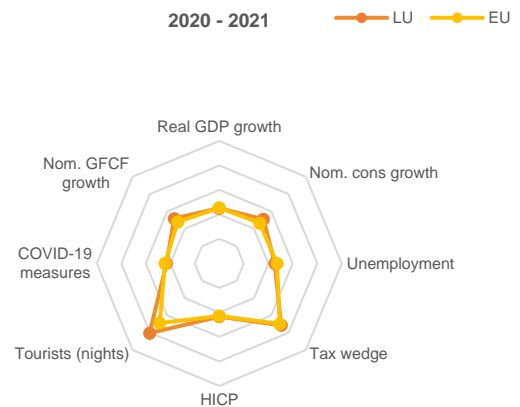
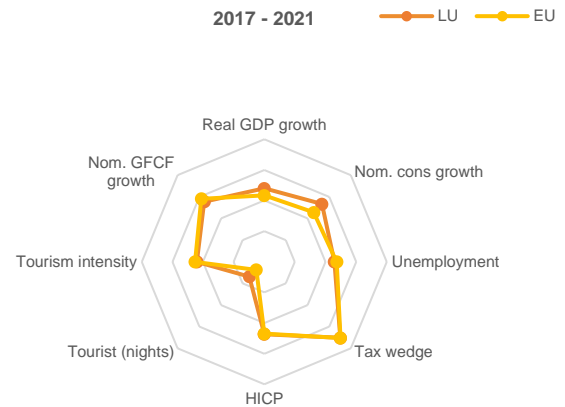
⁵ Source of information: Eurostat (<https://ec.europa.eu/eurostat>, NAMA_10_GDP, TIPSUN20, EARN_NT_TAXRATE, PRC_HICP_AIND and TOUR_OCC_NINAT) and Our World in Data (<https://ourworldindata.org/coronavirus>).

Luxembourg

Economic and policy context

The developments in the economy of Luxembourg in 2021 resemble the EU-average. The economy increased by 5.1 percent following a relatively mild recession in 2020 (-0.8 percent). The intensity of COVID-19 measures increased slightly in 2021, which did not hamper the strong rebound of 40.5 percent in the number of nights spent by tourists. The growth of nominal household and NPISH consumption was relatively strong (+10.9 percent). GFCF increased by 11.9 percent. Inflation, measured as change in the HICP, was comparably high at 3.5 percent and above the EU average.

Between 2017 and 2021, the economic conditions in Luxembourg were more favourable than on average in the EU. GDP increased by 8 percent in real terms. The main components of the VTTL, household and NPISH final consumption, and GFCF increased by 13.3 percent and 15.5 percent, respectively. The relatively mild impact of the COVID-19 crisis was likely partially caused by the relatively low contribution of the tourism industry to GDP.



Highlights

- In 2021, the VAT compliance gap fell by 3.5 pp and was estimated at 1.6 percent of the VTTL.
- As there is some uncertainty around the accuracy of fast estimates for 2022, they are not presented at this stage.
- As a result of the low policy and compliance gaps as well as relatively large share of the VTTL generated through intermediate consumption liability, C-efficiency in Luxembourg was the highest in the EU (79 percent in 2021).

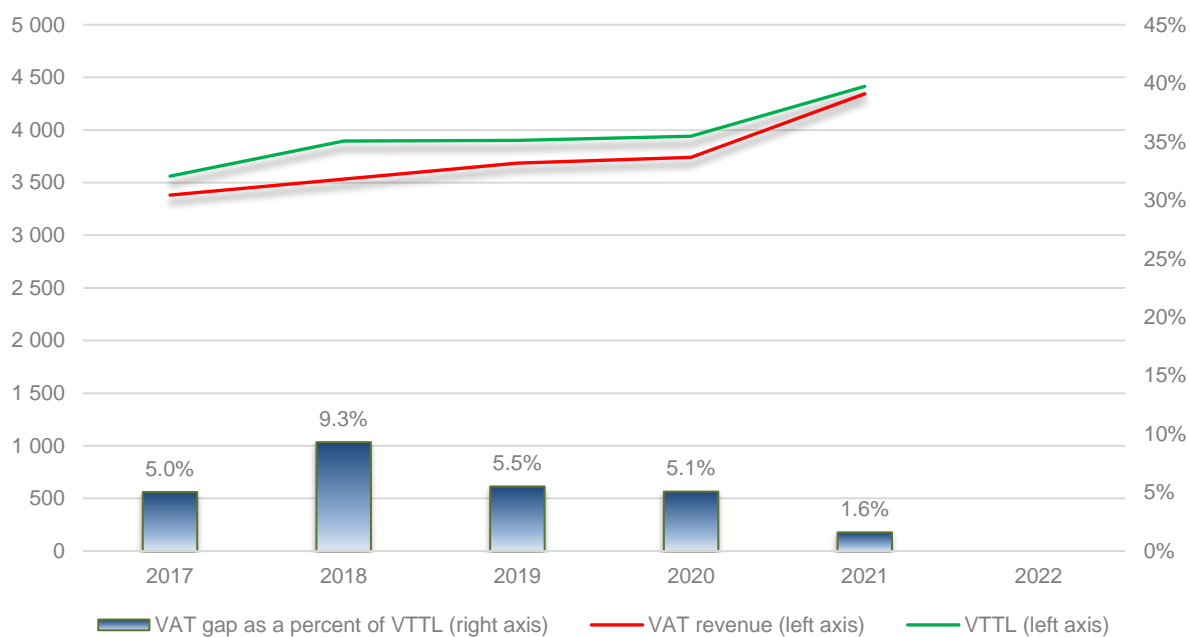
Variable	2017-2021		2020-2021	
	LU	EU	LU	EU
GDP (real, % change)	8.0	3.4	5.1	5.4
HH/NPISH cons. (nom)	13.3	5.7	10.9	6.7
Unemployment rate	5.8	7.4	5.3	7.1
Tax wedge	30.2	30.4	31.4	29.7
HICP	7.3	7.0	3.5	2.9
Tourist nights (% change)	-26.3	-32.6	40.5	28.8
Tourist nights (average)	4.0	5.2	-	-
COVID-19 measures (change)	-	-	3.1	4.3
GFCF (nom, % change)	15.5	18.1	11.9	8.0

Source: Eurostat



Table 1: LU: VAT compliance gaps, VAT receipts, composition of VTTL (EUR million, 2017-2021)

	2017	2018	2019	2020	2021	2022
VTTL	3 561	3 896	3 901	3 941	4 414	X
o/w liability on household final consumption	1 450	1 540	1 572	1 432	1 609	
o/w liability on gov. and NPISH final consumption	43	90	38	82	88	
o/w liability on intermediate consumption	1 189	1 384	1 471	1 581	1 659	
o/w liability on GFCF	580	565	462	567	612	
o/w net adjustments	300	317	358	280	446	
VAT revenue	3 382	3 534	3 685	3 741	4 344	X
VAT compliance gap	180	363	215	200	70	
VAT compliance gap (percent of VTTL)	5.0%	9.3%	5.5%	5.1%	1.6%	X
VAT compliance gap change since 2017					-3.4 pp	

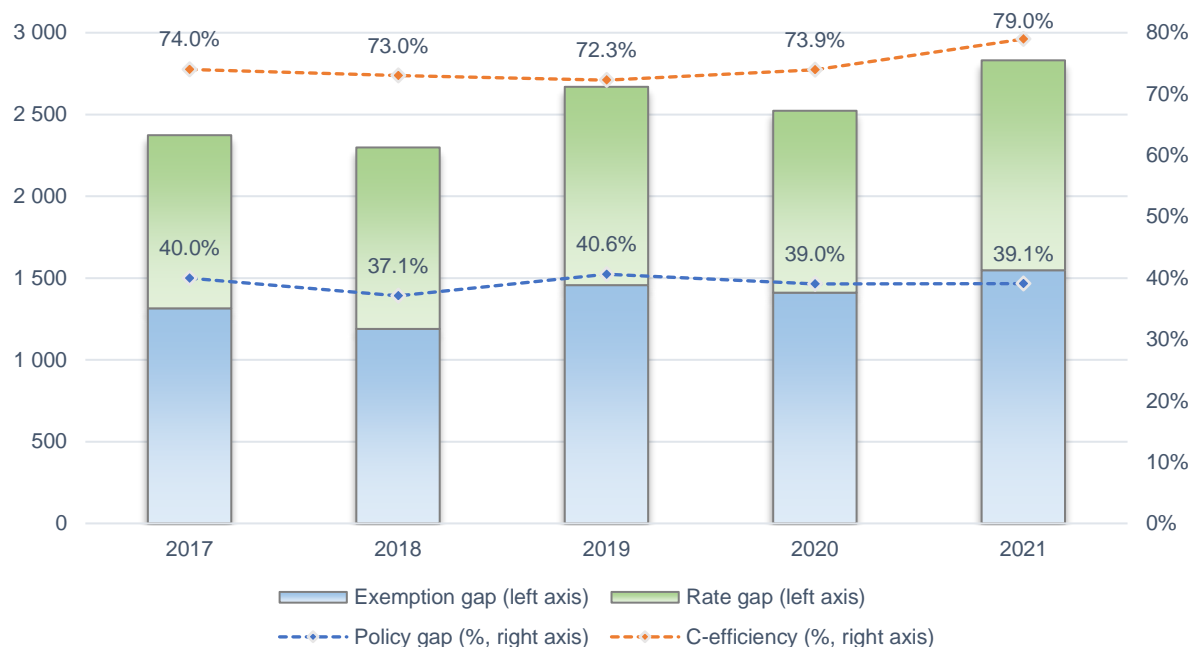
Figure 1: LU: VAT compliance gap, VAT revenue, and VTTL

Source: own calculation, [download underlying data](#).

Table 2: LU: VAT policy gap and its components (EUR million, 2017-2021)

	2017	2018	2019	2020	2021
VAT policy gap	2 374	2 299	2 669	2 523	2 831
Rate gap	1 059	1 109	1 212	1 112	1 283
Exemption gap	1 315	1 189	1 457	1 411	1 548
<i>o/w imputed rents</i>	476	487	503	516	553
<i>o/w public services</i>	1 330	1 391	1 623	1 670	1 946
<i>o/w financial services</i>	- 797	- 915	- 958	-1 043	-1 172
Actionable exemption gap	307	226	290	268	220
Actionable policy gap	1 365	1 335	1 502	1 380	1 503
C-efficiency	74.03%	73.01%	72.27%	73.94%	78.96%

Figure 2: LU: VAT policy gap, rate gap, and exemption gap



Source: own calculation, [download underlying data](#).

V. Data availability and reliability

The major risk factor for the study and its continuation in the future is related to the availability of the data necessary to calculate the VTTL model parameters. As discussed in EC/CASE (2022), it was expected that in total less than 50 percent of the information that was gathered earlier from the Own Resource Submission (ORS) would be available for the calculation of the 2021 VTTL in this vintage of the study. Moreover, the availability of information was expected to vary substantially across Member States. In addition to the scarcity of granular and timely information necessary to calculate model parameters, some delays and inaccuracies in national accounts data caused by the COVID-19 pandemic were expected. In addition to the inaccuracies related to availability, timeliness, and granularity of information, the accuracy of VAT compliance gap estimates could largely be affected by the content and quality of the information. However, the quality of the aggregate information used in the calculation cannot be fully controlled for.

This study supported the projection from the earlier analysis. Around 60 percent of the overall information used earlier for estimating model parameters was made available for the study team. The information needed to estimate the most important parameters was available, sufficiently granular, and up to date for over 80 percent of the Member States.

This indicates that the accuracy of estimates has not decreased dramatically and that the continuation of the top-down consumption-side approach is still the only method that can be employed for all Member States. The exchanges with Member State administrations signalled that most of the Member States continue to gather relevant data and that they are able to share it for the purposes of the VAT Gap in the EU study.

For a comprehensive overview of the data availability and reliability, as well as scope and methodology of the study, please consult the full resource [VAT Gap - European Commission \(europa.eu\)](https://ec.europa.eu/economy_finance/vat-gap)

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