# Study to quantify and analyse the VAT Gap in the EU Member States

2015 Report

TAXUD/2013/DE/321

FWC No. TAXUD/2010/CC/104

Client: European Commission, TAXUD

CASE – Center for Social and Economic Research (Project leader)
CPB – Consortium Leader

In consortium with:

| | | |
|---|---|---|
| CAPP | CEPII | ETLA |
| IFO | IFS | IHS |


Warsaw, May 2015

**Acknowledgements**

This report was written by a team of experts from CASE (Center for Social and Economic Research, Warsaw), directed by Luca Barbone, and composed of Mikhail Bonch-Osmolovskiy and Grzegorz Poniatowski. The Project was coordinated by Iryna Shuvaieva (CASE).

We also acknowledge discussions with several officials of tax and statistical offices of the Member States, who offered valuable comments and suggestions. All responsibility for the estimates and the interpretation in this report remain with the authors.

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| | |
|---|---|
| CASE | Center for Social and Economic Research (Warsaw) |
| CPA | Statistical Classification of Products by Activity in accordance with Regulation (EC) No 451/2008 of the European Parliament and of the Council of 23 April 2008 establishing a new statistical classification of products by activity |
| CPB | Netherlands Bureau for Economic Policy Analysis (Central Planning Bureau) |
| ESA95 | European System of Accounts 1995 in accordance with Council Regulation (EC) No 2223/96 of 25 June 1996 on the European system of national and regional accounts in the Community |
| ESA10 | European System of Accounts 2010 in accordance with Regulation (EU) No 549/2013 of the European Parliament and of the Council of 21 May 2013 on the European system of national and regional accounts in the European Union |
| EU-26 | Current Member States of the European Union except for Croatia and Cyprus |
| EU-28 | Current Member States of the European Union |
| GDP | Gross Domestic Product |
| GFCF | Gross Fixed Capital Formation |
| HMRC | Her Majesty's Revenue and Customs |
| MS | Member States |
| NACE Rev. 2 | Statistical Classification of Economic Activities in the European Community in accordance with Regulation (EC) No 1893/2006 of the European Parliament and of the Council of 20 December 2006 establishing the statistical classification of economic activities NACE Revision 2 (also referred to as NACE-2 or NACE2) |
| NPISH | Non-Profit Institutions Serving Households |
| OECD | Organisation for Economic Cooperation and Development |
| o/w | Of which |
| TAXUD | Taxation and Customs Union Directorate-General of the European Commission |
| UK | United Kingdom |
| VAT | Value Added Tax |
| VTTL | VAT Total Tax Liability |
| VTL | VAT Tax Liability |
| VRR | VAT Revenue Ratio |

# Executive Summary

This report provides estimates of the VAT Gap for 26 EU Member States for 2013, as well as revised estimates for the period 2009-2012. It is a follow-up to the report "*Study to quantify and analyse the VAT Gap in the EU-27 Member States*"[1], published in September 2013 (hereafter: 2013 Report), and to the report "*2012 Update Report to the Study to Quantify and Analyse the VAT Gap in the EU-27 Member States*"[2], published in October 2014 (hereafter: 2014 Report). As in previous reports, it was not possible to include estimates for Croatia and Cyprus, due to as-yet-incomplete national account statistics for the two countries.

The VAT Gap is an indicator of the effectiveness of VAT enforcement and compliance measures, as it provides an estimate of revenue loss due to fraud and evasion, tax avoidance, bankruptcies, financial insolvencies as well as miscalculations. As the VAT Gap in this study is based on a top-down approach, it does not readily lend itself to be deconstructed according to industrial sectors or other criteria (territorial, professional), and can be best used as a diagnostic tool in the context of its evolution over time.

As discussed in previous reports, the VAT Gap is defined as the difference between the amount of VAT actually collected and the VAT Total Tax Liability (VTTL), in absolute or percentage terms. The VTTL is an estimated amount of VAT that is theoretically collectable based on the VAT legislation and ancillary regulations. This report calculates, for each country the VTTL on the basis of national accounts, by mapping information on standard, reduced rates and exemptions onto data available on final and intermediate consumption, as well as gross fixed capital formation, from national accounts and use tables. Thus, the quality of the VAT Gap estimates depends on the accuracy and completeness of national accounts data and use tables.

The year 2013 saw a continuing overall unfavourable economic environment, as the GDP of the European Union was nearly stagnant. This contributed to a slowdown of nominal final consumption and of other economic aggregates that form the basis of the Value Added Tax.

Six countries applied changes to standard or reduced rates in 2013, marking a relatively stable policy environment.

During 2013, the overall VAT Total Tax Liability (VTTL) for the EU-26 Member States grew by about 1.2 percent, while collected VAT revenues rose by 1.1 percent. As a result, the overall VAT Gap in the EU-26 saw an increase in absolute values of about Euro 2.8 billion, to reach Euro 168 billion[3]. As a percentage, the overall VAT Gap stayed constant at 15.2 percent. The median VAT Gap rose by 1.6 percentage point, to reach 13.9 percent.[4]

In 2013, Member States' estimated VAT Gaps ranged from the low of 4 percent in Finland, the Netherlands and Sweden, to the high of 41 percent in Romania. Overall, 15 Member States decreased their VAT Gap, with the largest improvements noted in Latvia, Malta and Slovakia. 11 Member States saw an increase in the VAT Gap, generally of small magnitudes, with the largest deteriorations in Estonia and Italy.

[1] http://ec.europa.eu/taxation_customs/resources/documents/common/publications/studies/vat-gap.pdf
[2] http://ec.europa.eu/taxation_customs/resources/documents/common/publications/studies/vat_gap2012.pdf
[3] The 2009-2012 estimates were revised from those in the 2014 Report, as discussed in Box 2.2.
[4] For 2012, the VAT Gap in absolute terms is estimated at Euro 165 billion against Euro 177 billion in the 2014 Report, and in percentage terms, at 15.2 percent in contrast to 16 percent. The reasons for the revisions in the estimates are discussed in Box 2.2.

This report also provides new and expanded evidence on the Policy Gap for the EU-26. The Policy Gap is an indicator of the additional VAT revenue that a Member State could theoretically collect if it applied standard rate to all consumption of goods and services supplied for consideration. We provide here estimates of the Policy Gap adjusted to take into account items that could not easily be taxed even in an "ideal" system (imputed rents, public goods, financial services). The results moderate views of the relative importance of reduced rates and exemptions in reducing the revenue potential of VAT, and suggest that better enforcement remains a key component of any strategy of improvement of the VAT system.

The results of this report and the underlying data were presented to Member States in advance of publication and discussed on several occasions with the representatives of Member States. Deviating approaches and views of Member States are noted in the relevant country section in Chapter 3. The authors are grateful for the constructive cooperation and helpful input of Member States.

# Chapter 1. Background: Economic and Policy Context in 2013

## 1.1. Introduction

Studies have shown that the behaviour of the VAT Gap (the difference between the VAT revenues theoretically established by legislation, or VTTL, and actual collections) is influenced by a number of economic variables as well as by policy actions, through the influence that these factors have on both the growth of the theoretical VAT revenue on the one hand, and the capacity and willingness to pay by taxpayers on the other hand. The VAT Gap is sensitive to the economic cycle (as declines in real GDP make it more difficult for some taxpayers to pay VAT obligations), to growth of nominal consumption (which is the most important base of the VAT), as well as to rate changes (which correspondingly change the VTTL, but may also affect incentives not to pay) and other parameters (such as changes in exemptions or shifts in the applicability of reduced rates). These elements are briefly discussed in this Chapter.

## 1.2. Economic Conditions in the EU during 2013

During 2013, the European Union (EU-28) experienced a minimal growth rate in GDP (0.1 percent), with a much differentiated performance across countries (see Figure 1.1 and Table 1.1).

Seventeen Member States saw negative GDP growth, while the rest saw a positive but sometimes sharply reduced rate of growth. As was the case in 2012, Latvia registered the highest growth rate in the EU, at 4.2 percent, while Cyprus marked the sharpest decline in GDP, at -5.4 percent.

Growth of *nominal final consumption* was positive in most countries, except for Bulgaria, Cyprus, Greece, Italy, Portugal, Slovenia, and Spain (see Table 1.1). For these countries this development tended to result in lower estimated VAT liability, when not counteracted by policy changes, as discussed in Section 1.3 below and in Chapter 3.

Overall, VAT revenues as a percentage of GDP remained virtually constant, at 7 percent of GDP for the EU-26. However, the behavior of this ratio was split evenly, with half of the countries experiencing an increase and half a decline (see Figure 1.2). For the EU-26 in this report, the VAT/GDP ratio in 2013 ranged from 9.6 percent in Denmark to 5.8 percent in Italy and Spain.

| Table 1.1 - Real and Nominal Growth in the EU-28 in 2013 | | | | | |
|---|---|---|---|---|---|
| | Real GDP Growth (%) | Nominal Growth (%) | | | |
| | | GDP | Final Consumption | GFCF (Total) | Intermediate Consumption |
| **Austria** | 0.2 | 1.7 | 2.2 | 0.04 | 1.0 |
| **Belgium** | 0.3 | 1.8 | 2.3 | -1.1 | 0.0 |
| **Bulgaria** | 1.1 | 0.3 | -1.6 | -0.8 | -3.3 |
| **Croatia** | -0.9 | -0.9 | 0.4 | -2.4 | -1.0 |
| **Cyprus** | -5.4 | -6.7 | -6.8 | -17.4 | -7.0 |
| **Czech Republic** | -0.7 | -2.3 | 1.4 | -6.5 | -3.7 |
| **Denmark** | -0.5 | 0.9 | 1.1 | 1.0 | 0.7 |
| **Estonia** | 1.6 | 6.3 | 8.3 | 7.3 | 7.1 |
| **Finland** | -1.3 | 1.1 | 1.5 | -4.0 | -1.1 |
| **France** | 0.3 | 1.1 | 1.3 | -0.6 | 0.7 |
| **Germany** | 0.1 | 2.2 | 2.7 | 0.8 | 0.4 |
| **Greece** | -3.9 | -6.1 | -7.4 | -10.1 | -6.2 |
| **Hungary** | 1.5 | 1.9 | 2.6 | 6.2 | 0.5 |
| **Ireland** | 0.1 | 1.2 | 2.0 | -1.8 | 0.8 |
| **Italy** | -1.7 | -0.4 | -1.2 | -5.3 | -3.1 |
| **Latvia** | 4.2 | 4.7 | 5.7 | -3.2 | 2.9 |
| **Lithuania** | 3.3 | 4.9 | 4.7 | 10.1 | -1.0 |
| **Luxembourg** | 2.1 | 3.4 | 4.3 | -3.9 | 10.3 |
| **Malta** | 2.8 | 4.8 | 3.0 | 4.8 | 1.8 |
| **Netherlands** | -0.8 | 0.3 | 0.0 | -3.9 | -1.2 |
| **Poland** | 1.7 | 2.6 | 2.0 | -0.7 | 0.4 |
| **Portugal** | -1.6 | 0.6 | -0.1 | -7.4 | 0.9 |
| **Romania** | 3.4 | 7.8 | 5.7 | -6.8 | 1.5 |
| **Slovakia** | 1.4 | 2.0 | 1.6 | -2.3 | -1.3 |
| **Slovenia** | -1.0 | 0.4 | -2.0 | 2.9 | -1.6 |
| **Spain** | -1.2 | -0.6 | -0.8 | -6.7 | -3.2 |
| **Sweden** | 1.3 | 3.1 | 3.4 | 0.6 | 3.2 |
| **United Kingdom** | 1.7 | -1.2 | 3.6 | 0.2 | -1.3 |
| **EU-28** | 0.1 | 0.7 | 0.6 | -1.7 | 0.7 |
| Source: Eurostat. For Ireland, Croatia, Portugal, Sweden and UK, the growth of Intermediate Consumption is estimated through the growth in gross value added | | | | | |

**Figure 1.1 GDP growth in the EU, 2012-2013**

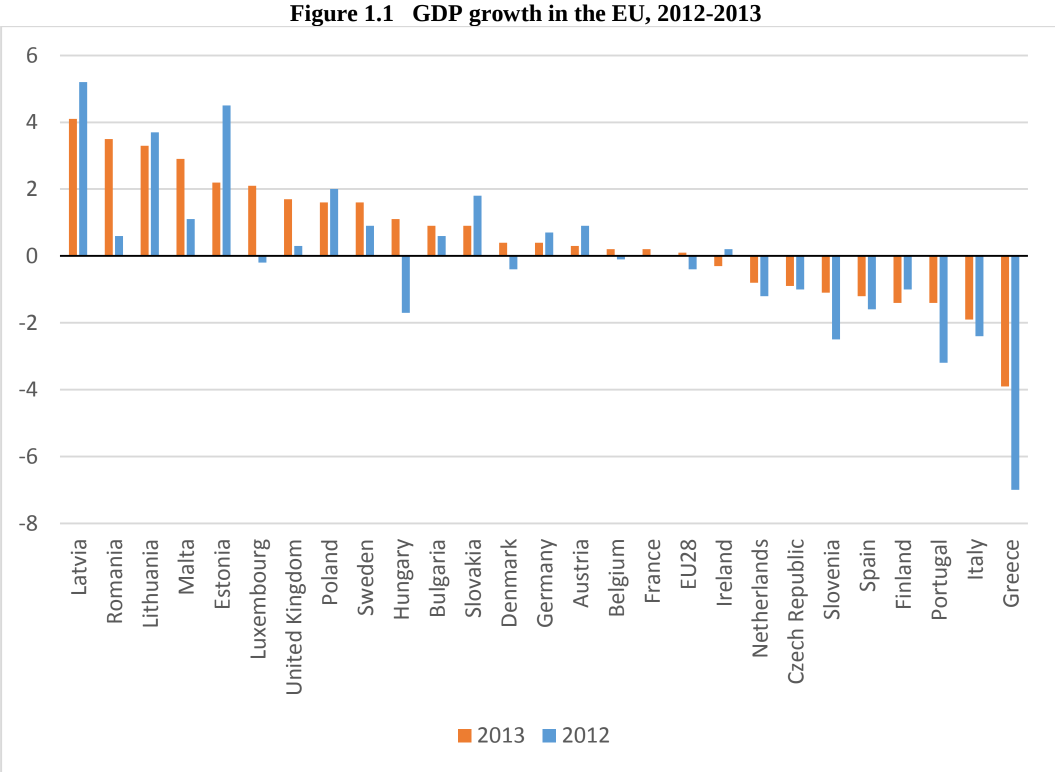
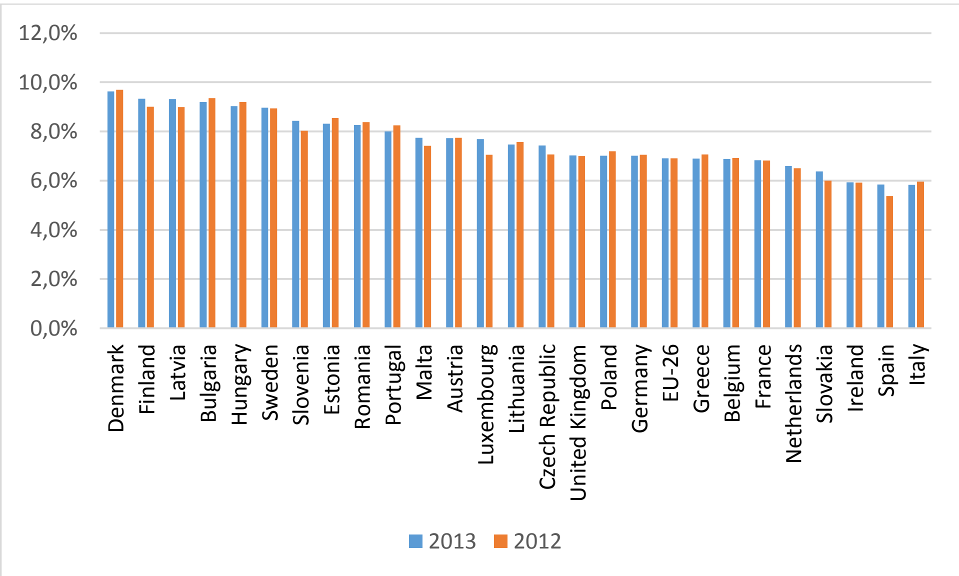



**Figure 1.2 VAT Revenue/GDP**



## 1.3. VAT Regime Changes

The year 2013 saw very limited changes to the VAT rates of Member States, with six of the 28 Member States implementing changes to the VAT rates: Croatia, Cyprus, Czech Republic, Finland, Italy and Slovenia (see Table 1.2). Luxembourg remains the Member State with the lowest standard rate (15 percent), and Hungary the highest at 27 percent. The median standard rate is 21 percent.

**Table 1.2 – VAT Rate Structure as of 31 December 2013, and Changes during 2013**

| EU Member State | Standard Rate (SR) | Reduced Rate(s) (RR) | Super Reduced Rate | Parking Rate | Changes during 2012 |
|---|---|---|---|---|---|
| **Austria** | 20 | 10 | - | 12 | .. |
| **Belgium** | 21 | 6 / 12 | - | 12 | .. |
| **Bulgaria** | 20 | 9 | - | - | .. |
| **Croatia** | 25 | 5/10 | | | RR 0/10 to 5/10 |
| **Cyprus** | 18 | 5 / 8 | - | - | SR 17 to 18 |
| **Czech Republic** | 21 | 15 | - | - | SR 20 to 21, RR 14 to 15 |
| **Denmark** | 25 | - | - | - | .. |
| **Estonia** | 20 | 9 | - | - | .. |
| **Finland** | 24 | 10 / 14 | - | - | SR 23 to 24, RRs 9/13 to 10/14 |
| **France** | 19.6 | 5.5 / 7 | 2.1 | - | .. |
| **Germany** | 19 | 7 | - | - | .. |
| **Greece** | 23 | 6.5 / 13 | - | - | .. |
| **Hungary** | 27 | 5 / 18 | - | - | .. |
| **Ireland** | 23 | 9 / 13.5 | 4.8 | 13.5 | .. |
| **Italy** | 22 | 10 | 4 | - | SR 21 to 22 |
| **Latvia** | 20 | 12 | - | - | .. |
| **Lithuania** | 21 | 5 / 9 | - | - | .. |
| **Luxembourg** | 15 | 6 / 12 | 3 | 12 | .. |
| **Malta** | 18 | 5 / 7 | - | - | .. |
| **Netherlands** | 21 | 6 | - | - | .. |
| **Poland** | 23 | 5 / 8 | - | - | .. |
| **Portugal** | 23 | 6 / 13 | - | 13 | .. |
| **Romania** | 24 | 5 / 9 | - | - | .. |
| **Slovakia** | 20 | 10 | - | - | .. |
| **Slovenia** | 22 | 9.5 | - | - | SR 21 to 22, RR 8.5 to 9.5 |
| **Spain** | 21 | 10 | 4 | - | .. |
| **Sweden** | 25 | 6 / 12 | - | - | .. |
| **United Kingdom** | 20 | 5 | - | - | .. |

Source: TAXUD 2014

# Chapter 2. The VAT Gap in 2013

## 2.1. Methodological Observations

As discussed in previous reports, the VAT Gap is defined as the difference between the amount of VAT actually collected and the VAT Total Tax Liability (VTTL), in absolute or percentage terms. The VTTL is an estimated amount of VAT that is theoretically collectable based on the VAT legislation and ancillary regulations. The VTTL is calculated with a "top-down" methodology, based on national accounting. It maps information on standard, reduced rates and exemptions onto data available on final and intermediate consumption, as well as gross fixed capital formation, from national accounts and use tables. In Box 2.1 we review a number of methodological objections that have been voiced in recent past with regard to the top-down approach utilized in our calculations.

The "top-down" approach underlying the calculations of the VTTL is sometimes contrasted with (or complemented by) the so-called "bottom-up" approach, which is based on detailed examination of individual tax returns and audits, to ascertain the extent of non-compliance. This approach, which can have tremendous diagnostic value for the tax administration, is much more time- and resources-consuming, and is not immune from shortcomings (for instance, dealing with unregistered taxpayers). Ideally, both approaches could be used to complement each-other's indications.

For more details on the methodology, see the 2013 Report and the 2014 Report.

During 2014, EU Member States began the transition of their national accounts to ESA10 standards (see Eurostat 2013). The transition is ongoing, and it will result in several changes to estimates of consumption, investment and GDP for most or all EU countries. As the transition is not yet complete, and Use tables according to ESA10 standards have not yet been produced for most Member States, this update used the ESA95-based national accounts published by Eurostat[5]. Publication of ESA95 data is to be discontinued starting with 2014 data, and hence any future updates will need to reconcile the ESA95 and ESA10 databases.

[5] Note that 2013 (and beyond) VAT revenue data are now only published by Eurostat in the gov_10a_main database, which is part of the ESA10 wider database, and this data has been utilized in this report. The revenue data were accessed on Dec. 9, 2014, and on May 26, 2015. Available at http://goo.gl/lnzM0m

**Box 2.1 – Methodological Objections to the Top-down Approach**

A number of methodological objections have been voiced with regards to the Top-down approach methodology used in this report and elsewhere. Their common root stems from the fact that National accounts data are not produced for tax monitoring purposes, and hence a degree of approximation is necessary to calculate the VTTL. Here we review three objections: (i) the size of the informal economy and its impact on the estimated liability; (ii) certain kinds of National Accounts conventions vs tax laws, particularly in the construction sector; (iii) the accuracy of estimates of accrued VAT revenues as reported by Eurostat.

**Informal Economy.** Conceptually, the non-observed economy, which must be included in GDP estimates in the European Union, is composed of four distinct categories: *underground, informal* (including those undertaken by households for their own final use), *illegal*, and other *activities omitted* due to deficiencies in the basic data collection programme. Underground activities are legal but conceived in order to avoid taxation (including VAT). Informal activities are legal but of small scale and mostly involving little capital. Illegal activities are those explicitly prohibited by the law (and will be incorporated in national accounts under ESA2010). Other activities omitted are “unknown unknowns”, the results of deficiencies in sampling methods and procedures. All EU Member States adjust their National Account statistics to capture some elements of the informal economy, and with the adoption of ESA 2010 standards currently underway, illegal activities will also be included in statistics. However, the methodology followed by each Member State varies depending on the estimation procedures used in each country, so it is not possible to strictly ensure that all countries capture all informal activities in equal proportions. This might affect the comparability of VAT Gap estimates. While this issue cannot be solved empirically at present, we tend to regard the criticism as unfounded, as it would imply that countries with the lowest VAT Gaps somehow systematically underestimate the informal economy, and the opposite for countries with the highest VAT Gaps. Inspection of the results in this and other reports does not seem to support such a contention.

**Accounting conventions**. Because tax laws and statistical conventions are not necessarily harmonized, there may be (important) discrepancies in the recording of sales of goods or services to particular time periods, leading to bias in the estimation of the liability. This appears to have been the case, for instance, in Spain with regards to the construction industry, where the taxable moment for VAT purposes is different from the time at which construction is recorded in the national accounts. In normal times, these differences would even themselves out over time, but for instance during the post-2008 construction collapse, important differences remained as stocks of unsold housing continued as such over time. We have adjusted Spain’s estimates, given the availability of accurate corrections. We cannot exclude that this might apply to other countries, and to other items possibly of importance.

**Accrued Revenues**. Eurostat conventions correct net VAT cash collections with a lag of about 2 months in order to approximate accrued revenues, the relevant concept for national accounting purposes. Yet, this method is very crude, and several countries have made efforts to construct better data series that more closely approximate accrued revenues. The net effect of these corrections over time is generally very small or zero, but the allocation of revenues across years may be changed, leading to possibly different time profiles of VAT gap estimates. In this update, we have provided alternative estimates for Italy and Spain, for which the phenomenon has been particularly relevant.

## 2.2 VAT Gap: Overall Results for 2013

During 2013, the overall VAT Total Tax Liability (VTTL) for the EU-26 Member States grew by about 1.2 percent, while collected VAT revenues rose by 1.1 percent. As a result, the overall VAT Gap in the EU-26 saw an increase in absolute values of about Euro 2.8 billion, to reach Euro 168 billion[6]. As a percentage, the overall VAT Gap stayed constant at 15.2 percent. The median VAT Gap rose by 1.6 percentage point and was 13.9 percent.

These overall developments were in line with general economic conditions. As mentioned in Chapter 1, the EU economy was essentially stagnant in 2013, while nominal final consumption rose marginally by 0.6 percent. In the absence of policy (and enforcement practices) changes, revenues and VTTL tend to follow the nominal growth of the economic base, although revenues reflect a greater sensitivity to the business cycle (real GDP growth), as discussed in the 2013 Report.

In 2013, the VAT Gap in individual Member States ranged from the low of 4 percent of Finland, the Netherlands and Sweden, to the high of 41 percent in Romania. Fig. 2.1 and Table 2.1 provide an overview of the results of the VAT Gap estimates for 2012 and 2013.

**Box 2.2 – Sources of Revisions of Gap Estimates, 2009-2012**

The estimates for various components of the VTTL and consequently of the VAT Gap for the years 2009-2012 have been revised (compared to the 2014 Report) on account of a number of factors. The most important factor is a substantial downward revision of the VTTL for France, which has led to a decrease in the estimated VAT Gap of some Euro 10 billion for 2012, and comparable amounts for earlier years. The revision was necessitated because of new official, but unpublished information received from the authorities on the applicability of reduced and super-reduced rates for both household and government final consumption. The most important information concerned the rates applicable to pharmaceuticals, but also involved several other categories of goods and services as well as GFCF. The second factor derives from the need to estimate the VAT liability on GFCF of exempt sectors, which is only available with a 2-year lag. Every additional year of statistical information thus leads to two years of "backwards" revisions for all countries. These revisions are generally but not always relatively minor. Finally, a number of countries have revised their historical national accounts, and in particular data on consumption and on VAT revenues, and this leads to changes in estimates of the VTTL and the VAT Gap.

For the year 2012, the difference between the original (2014 Report) and the revised estimates of the VAT Gap is approximately Euro 12 billion. The VAT Gap in absolute numbers is estimated at Euro 165 billion against Euro 177 billion in the 2014 Report. In percentage terms, the VAT Gap is estimated 0.9 percentage points lower, at 15.2 percent in contrast to 16.1 percent in the 2014 Report.

[6] The 2009-2012 estimates were revised from those in the 2014 Report, as discussed in Box 2.2.

**Figure 2.1. – VAT Gap in the EU-26 countries, 2012-2013**

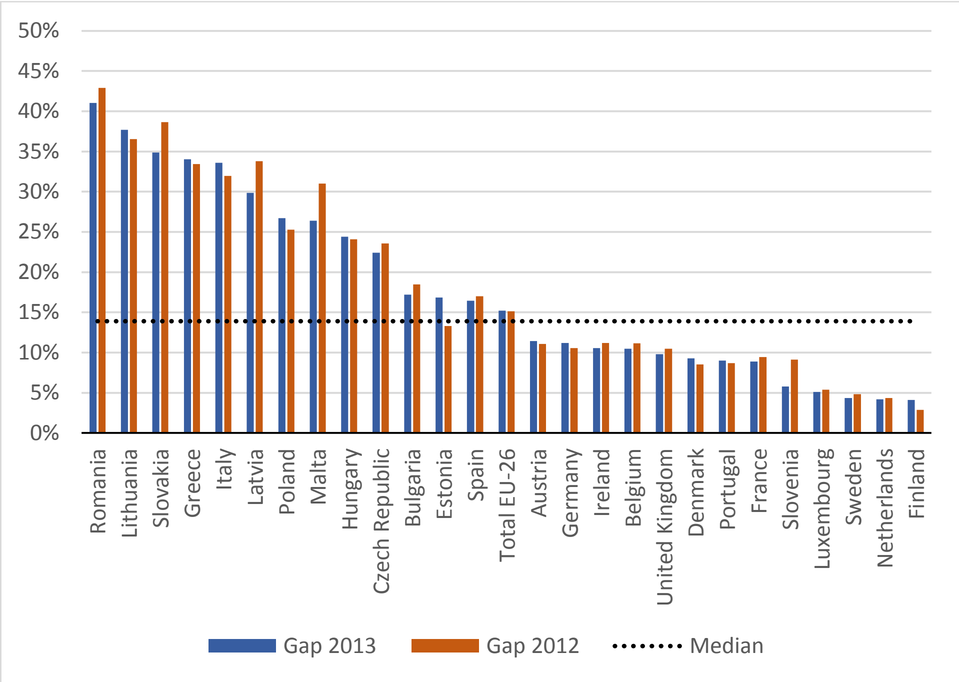


**Table 2.1 VAT Gap Estimates, 2012-2013 (million Euros)**

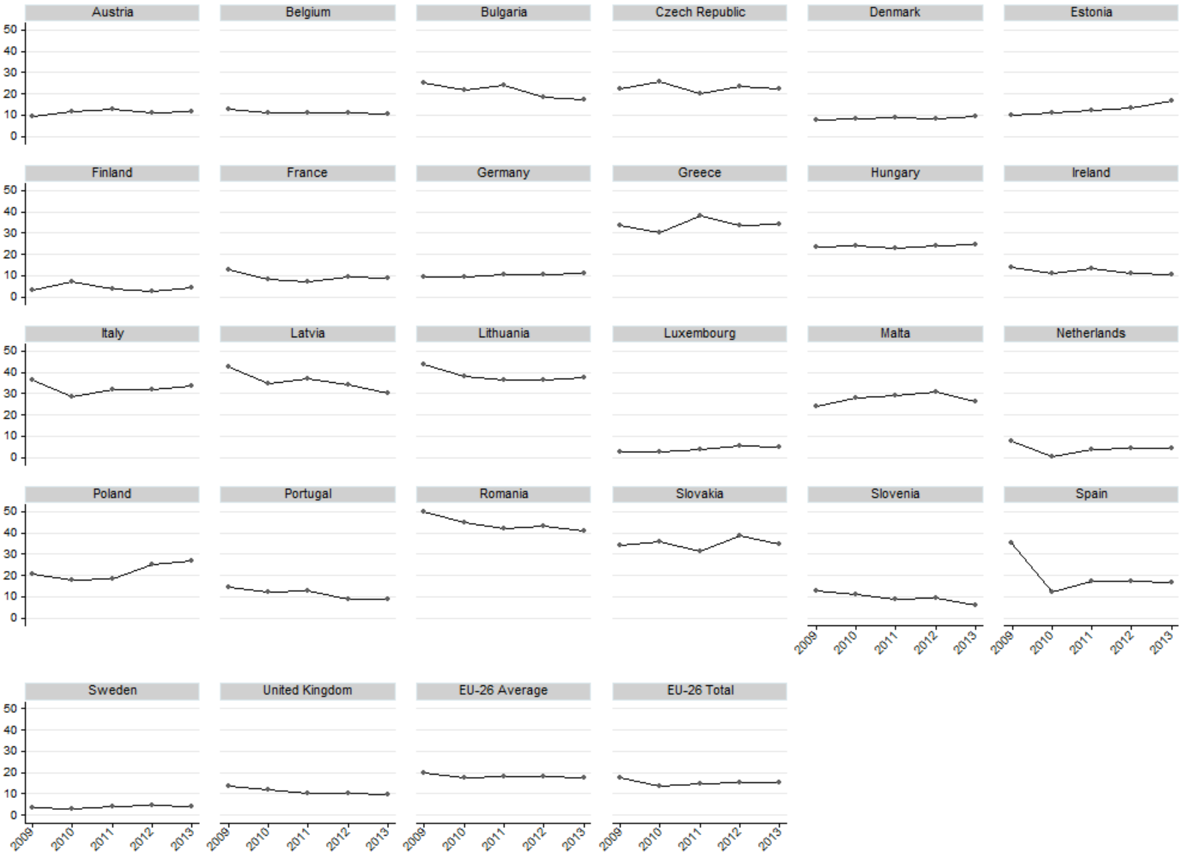
| | 2012 | | | | 2013 | | | |
|---|---|---|---|---|---|---|---|---|
| **Country** | **Revenues** | **VTTL** | **VAT Gap** | **VAT Gap %** | **Revenues** | **VTTL** | **VAT Gap** | **VAT Gap %** |
| **Austria** | 24,563 | 27,629 | 3,066 | 11.1% | 24,953 | 28,170 | 3,217 | 11.4% |
| **Belgium** | 26,896 | 30,272 | 3,376 | 11.2% | 27,226 | 30,412 | 3,186 | 10.5% |
| **Bulgaria** | 3,828 | 4,697 | 869 | 18.5% | 3,775 | 4,560 | 785 | 17.2% |
| **Czech Republic** | 11,377 | 14,883 | 3,506 | 23.6% | 11,694 | 15,070 | 3,375 | 22.4% |
| **Denmark** | 24,296 | 26,563 | 2,267 | 8.5% | 24,360 | 26,850 | 2,489 | 9.3% |
| **Estonia** | 1,508 | 1,740 | 232 | 13.3% | 1,558 | 1,873 | 315 | 16.8% |
| **Finland** | 17,987 | 18,524 | 537 | 2.9% | 18,848 | 19,660 | 812 | 4.1% |
| **France** | 142,526 | 157,360 | 14,834 | 9.4% | 144,414 | 158,510 | 14,096 | 8.9% |
| **Germany** | 194,034 | 216,984 | 22,950 | 10.6% | 197,005 | 221,878 | 24,873 | 11.2% |
| **Greece** | 13,712 | 20,595 | 6,883 | 33.4% | 12,593 | 19,090 | 6,497 | 34.0% |
| **Hungary** | 9,084 | 11,963 | 2,879 | 24.1% | 9,073 | 12,003 | 2,930 | 24.4% |
| **Ireland** | 10,219 | 11,508 | 1,289 | 11.2% | 10,371 | 11,596 | 1,225 | 10.6% |
| **Italy** | 96,170 | 141,332 | 45,162 | 32.0% | 93,921 | 141,437 | 47,516 | 33.6% |
| **Latvia** | 1,583 | 2,391 | 808 | 33.8% | 1,693 | 2,414 | 721 | 29.9% |
| **Lithuania** | 2,521 | 3,971 | 1,450 | 36.5% | 2,611 | 4,192 | 1,580 | 37.7% |
| **Luxembourg** | 3,093 | 3,269 | 176 | 5.4% | 3,485 | 3,672 | 187 | 5.1% |
| **Malta** | 536 | 777 | 241 | 31.0% | 586 | 796 | 210 | 26.4% |
| **Netherlands** | 41,699 | 43,598 | 1,899 | 4.4% | 42,424 | 44,276 | 1,852 | 4.2% |
| **Poland** | 27,783 | 37,175 | 9,391 | 25.3% | 27,780 | 37,911 | 10,131 | 26.7% |
| **Portugal** | 13,995 | 15,330 | 1,335 | 8.7% | 13,710 | 15,068 | 1,358 | 9.0% |
| **Romania** | 11,212 | 19,634 | 8,422 | 42.9% | 11,913 | 20,209 | 8,296 | 41.1% |
| **Slovakia** | 4,328 | 7,054 | 2,726 | 38.6% | 4,696 | 7,209 | 2,513 | 34.9% |
| **Slovenia** | 2,889 | 3,180 | 291 | 9.1% | 3,045 | 3,232 | 186 | 5.8% |
| **Spain** | 56,652 | 68,262 | 11,610 | 17.0% | 61,350 | 73,444 | 12,094 | 16.5% |
| **Sweden** | 37,834 | 39,762 | 1,928 | 4.8% | 39,091 | 40,867 | 1,776 | 4.3% |
| **United Kingdom** | 142,943 | 159,695 | 16,752 | 10.5% | 141,668 | 157,099 | 15,431 | 9.8% |
| | | | | | | | | |
| **Total EU-26** | 923,269 | 1,088,147 | 164,879 | 15.2% | 933,843 | 1,101,498 | 167,654 | 15.2% |
| **Median** | | | | 12.3% | | | | 13.9% |

Sources: Eurostat (revenues); Own calculations. Figures in million Euros unless otherwise indicated. National currency figures for countries not using the Euro converted at the average Euro exchange rate (source: Eurostat).

Overall, 15 Member States decreased their VAT Gap, with the largest improvements noted in Latvia, Malta and Slovakia. Eleven Member States saw an increase in the VAT Gap, generally of small magnitudes, with the highest deteriorations in Estonia and Italy.

The trend of the VAT Gap over the period 2009-2013 is shown in Fig. 2.2. Member States have tended to slightly reduce their gap compared to the beginning of the period (at the depth of the Great Recession). For the EU-26 as a whole, the Gap declined by 4 percentage points, from 19 to 15 percent. Figure 2.2 shows the behaviour of the VAT Gap in the EU-26 countries over this period, and more detailed information is to be found in Chapter 3, where the individual country sections are presented.

**Figure 2.2 – VAT Gap in the EU-26 countries, 2009-2013**




## Explaining Changes in VTTL

Table 2.2 presents further details on changes in the VTTL in 2013, which are useful to understand the performance of individual countries discussed in Chapter 3. The change in VTTL is decomposed into the change in its base (final consumption and other components) and the change in the "effective rate", i.e. the weighted average VAT rate by commodity group. The latter can represent modifications in the classification of goods and services for the purposes of the applicable VAT rate (e.g., reclassification from standard to reduced rate, or vice-versa), or shift in consumption patterns across sub-categories. Finally, for those countries where a rate change was implemented (either in 2013 or during 2012), the last column captures the effect of such statutory changes on the VTTL.

**Table 2.2 - Decomposition of Changes in VTTL**

| | Change in VTTL | Change in Base | Change in Effective Rate | Change in Statutory Rates |
|---|---|---|---|---|
| **Austria** | 2.3% | 2.0% | 0.2% | .. |
| **Belgium** | 2.1% | 1.7% | 0.4% | .. |
| **Bulgaria** | -2.9% | -1.5% | -1.4% | .. |
| **Czech Republic** | 4.6% | 0.4% | 0.1% | 4.0% |
| **Denmark** | 1.3% | 1.2% | 0.1% | .. |
| **Estonia** | 7.7% | 8.1% | -0.4% | .. |
| **Finland** | 5.9% | 0.7% | 0.7% | 4.4% |
| **France** | 0.7% | 1.2% | -0.5% | .. |
| **Germany** | 2.3% | 2.8% | -0.5% | .. |
| **Greece** | -7.4% | -7.6% | 0.2% | .. |
| **Hungary** | 3.4% | 2.9% | 0.4% | .. |
| **Ireland** | 0.9% | 0.0% | 0.8% | .. |
| **Italy** | 0.1% | -1.3% | 0.3% | 1.2% |
| **Latvia** | 1.6% | 5.0% | -1.6% | -1.6% |
| **Lithuania** | 5.5% | 3.8% | 1.6% | .. |
| **Luxembourg** | 3.5% | 4.9% | -1.4% | .. |
| **Malta** | 2.3% | 2.2% | 0.1% | .. |
| **Netherlands** | 1.6% | -0.7% | -2.3% | 4.7% |
| **Poland** | 2.4% | 1.3% | 1.0% | .. |
| **Portugal** | -1.6% | -0.4% | -1.2% | .. |
| **Romania** | 2.7% | 4.6% | -1.8% | .. |
| **Slovakia** | 2.3% | 1.1% | 1.2% | .. |
| **Slovenia** | 1.8% | -1.8% | -0.3% | 4.0% |
| **Spain** | 9.2% | -1.6% | 1.2% | 9.7% |
| **Sweden** | 2.1% | 2.9% | -0.7% | .. |
| **United Kingdom** | 3.2% | 2.2% | 1.0% | .. |

Source: Own Calculations

As can be seen from the table, the largest component of the change in the VTTL is generally represented by the change in the base. In some cases, however, changes within the commodity classification have resulted in noticeable decreases in liability, for instance in the cases of the Netherlands, Romania, Latvia, Bulgaria and Luxembourg, and, in the opposite direction, Lithuania, Slovakia and Spain. Statutory rate changes have of course a powerful effect on liability (but not necessarily on collections), as shown in the last column, and the magnitude of the effect depends among other things on the timing of the change in rate(s). Thus for instance in the case of Spain, which implemented substantial increases in standard and reduced rates in late 2012 (from 18 to 21 percent for the standard rate, and from 4/8 to 4/10 for the reduced rates), and whose effect carried over to 2013, leading to an increase in liability of more than 9 percent. At the other end of the spectrum, Latvia implemented a reduction of the VAT rates in July 2012, and the full effect was felt in 2013, leading to a reduction of the liability by 1.6 percent.

## 2.3 Policy Gap

In this section we present a new series of estimates of the Policy Gap for the EU-26, which modifies and extends the work done in the 2013 Report and the 2014 Report.

As discussed in the above mentioned reports and elsewhere in the literature, the Policy Gap tries to capture the effects of discretionary decisions regarding multiple rates and exemptions on the revenue that could be generated by a given VAT system. The Policy Gap is defined as the ratio between the VTTL and an "ideal" VAT Revenue, in turn defined and estimated by applying, for each country, the standard rate of VAT to final consumption (thereby eliminating the effects of reduced rates and exemptions). Thus, the Policy Gap is an indicator of the additional VAT revenue that a Member State could theoretically collect if it applied uniform taxation to all consumption of goods and services. The concept is a static one, since it does not take into account what would be consumer reactions to changes in prices brought upon by VAT increases, but it is one that has been popularized in the literature.

### Rate Gap, Exemption Gap and "Actionable Exemption Gap"

The Policy Gap as defined above can in turn be decomposed into two separable effects, namely the Rate Gap and the Exemption Gap. As the terminology suggests, the Rate Gap represents the potential revenue loss due to the existence of reduced rates, whereas the Exemptions Gap represents the potential revenue loss due to the existence of exempted supplies of goods and services (see Box 2.3 for a brief discussion of EU rules on VAT rates, exemptions and right to deduct input VAT). Using our database of rates and exempt goods and services, we are able to provide a fully decomposable definition of the Exemption and Rate Gaps as summing to the Policy Gap (see Appendix A for the methodology).

We also address the issue of the extent to which the "ideal base", and consequently the "ideal VAT revenue", is a relevant concept for policymakers. We note that in the national accounting of final consumption, "imputed rents" (the notional value of home occupancy by homeowners) amount to a considerable portion of final consumption (typically 10 percent or more). It seems unlikely that even in an ideal world a workable method could be found to assess and collect VAT on such items, as they do not involve any monetary transaction (let alone the political feasibility of such a measure). Similarly, the provision of public goods[7] or free goods on the part of government also presents a great problem, since any attempt to impose VAT on, say, police services would be impractical, and attempts to tax services such as primary education which are currently free would require changing the nature of the public provision of the service itself, or EU directives (e.g., art. 132 of the VAT

[7] Under this category we have included public administration and defense services, compulsory social security services, education services, human health services and social work services (most of which are granted exemption under Art. 132 of the VAT Directive (EU 2006).

Directive). Finally, with respect to financial sector services the imposition of VAT may be both impractical and/or beyond the control of national authorities, as many aspect of taxation in this area are beyond national legislation purview (art. 135 of the VAT Directive).

**Box 2.3 – Summary of EU legislation on rates, exemptions, and rights to deduct**

In this Box we briefly recall essential elements of the EU legislation with regard to VAT rates, exempted goods or services, and right of deductibility of VAT on inputs. For more information, see http://europa.eu/legislation_summaries/taxation/l31057_en.htm

**Rates of VAT**

Taxable transactions are taxed at the rates and under the conditions set by the EU country where they take place. The standard rate of VAT is set as a percentage of the taxable amount which, until 31 December 2015, may not be less than 15%.

EU countries may apply one or two reduced rates of not less than 5 %. The reduced rates may only be applied to supplies of goods and services in the categories listed in Annex III to the VAT Directive (as last amended by Directive 2009/47/EC).

The EU countries may also, after consultation of the VAT Committee, apply a reduced rate to supplies of natural gas, electricity and district heating.

Finally, by way of derogation from the normal rules, certain EU countries have been authorised to maintain reduced rates, including those lower than the minimum, or zero rates, in certain areas.

Some of these derogations provided for in the act of accession of the ten countries which joined the EU on 1 May 2004 only applied until 31 December 2010. Others have been extended or incorporated into the general rules by Directive 2009/47/EC.

**Exemptions**

Goods and services which are exempt from VAT are sold to the final consumer without VAT applying to the sale. However, where the supply of goods or services is exempt, the supplier may not deduct the VAT on purchases. Such exemption without a right to deduct means that 'hidden' VAT remains included in the price paid by the consumer. This exemption should be clearly distinguished from a zero rate of VAT which certain EU countries have a derogation to retain and which means that the final price to the consumer includes no residual VAT.

There are also exemptions with a right to deduct whose main aim is to take into account the place where the goods or services are deemed to have been consumed and so taxed: these transactions are relieved of all VAT in their EU country of origin because they will be taxed in the country of destination.

**Exemptions without a right to deduct**

For socio-economic reasons, the following are exempted:

- certain activities of general interest (such as hospital and medical care, goods and services linked to welfare and social security work, school and university education and certain cultural services);
- certain transactions including insurance, the granting of credit, certain banking services, supplies of postage stamps, lotteries and gambling and certain supplies of immovable property.

To facilitate trade, certain importations of goods from outside the EU are exempt. These include the final importation of goods the supply of which is exempt in the EU country of importation and goods the final importation of which is governed by Directives 2007/74/EC (goods carried in travellers' luggage), 2009/132/EC (goods imported for non-commercial purposes) and 2006/79/EC (small consignments of goods of a non-commercial character).

**Exemptions with a right to deduct**

To take account of the place where goods and services are deemed to have been consumed and hence taxed, the following transactions are exempt with a right to deduct:

- intra-EU supplies of goods, including new means of transport and products subject to excise duty dispatched from one EU country to another;
- exports of goods from the EU to a third territory or a non-EU country;
- certain transactions relating to international transport or treated as exports;
- supplies of services by intermediaries when they take part in transactions relating to exports;
- certain transactions relating to international trade, such as those concerning customs warehouses and other warehouses.

Source: TAXUD website

In order to provide an estimate of the Policy Gap and its components that takes into account the practical problems relating to the exemptions for imputed rents, public goods and financial services just discussed, we have thus produced a new index, called the index of "Actionable Exemption Gap", which is more likely to represent actual policy choices that could be seized by the legislator if it chose to do so. This index is obtained by calculating separate exemption gaps for the three sectors concerned, and subtracting them from the overall Exemption Gap. An "Actionable Policy Gap" is then obtained by adding to the Rate Gap the "Actionable Exemption Gap". In formulas:

Policy Gap = Rate Gap + Exemptions Gap

Exemptions Gap = Imputed Rents Gap + Public Goods Gap + Financial Services Gap + "Actionable Exemption Gap"

"Actionable" Policy Gap = Rate Gap + "Actionable" Exemption Gap

### Results for 2013

The results of the estimates for the various gaps just discussed are shown in Table 2.3 for the year 2013. As can be seen, Column B displays the Policy Gap calculated according to the classic definition. As customary, the Policy Gap is generally higher than the VAT Gap, a result well-established in the literature. For the year 2013, the Policy Gap ranges from the low of 27 percent in Slovakia and Bulgaria, to the high of 54 percent for Spain and Belgium. The EU-26 average Policy Gap is 42 percent, the median 43 percent.

The Policy Gap, in turn, is decomposed into the Rate Gap and the Exemption Gap (Columns C and D). The latter, in all countries, is the larger of the two, ranging from the high of 43 percent for Finland, to the low of 22 percent for Lithuania. The EU-26 average Exemption Gap is 33 percent, as is the median. The Rate Gap, on the other hand, ranges from the low of 1 percent in the case of Denmark, to the high of 19 percent in Portugal. The average is 10 percent, and the median is 11 percent.

From these results, it could be argued that the largest revenue losses induced by the legislation, compared to a single-rate, non-exemption regime, are attributable in all countries to exemption rather than multiple rates.

**Table 2.3 - Policy Gap, Rate Gap, Exemption Gap (2013)**

| | A | B | C | D | E | F | G | H | I |
|---|---|---|---|---|---|---|---|---|---|
| | VAT Gap | Policy Gap | Rate Gap | Exemption Gap | o/w Imputed Rents | o/w Financial Services | o/w Public Goods | "Actionable" Exemption Gap (D-E-F-G) | "Actionable" Policy Gap (C+H) |
| Austria | 11.4% | 40.7% | 12.0% | 28.7% | 7.6% | 1.8% | 18.0% | 1.4% | 13.4% |
| Belgium | 10.5% | 53.8% | 11.7% | 42.1% | 8.8% | 2.5% | 29.5% | 1.3% | 13.0% |
| Bulgaria | 17.2% | 26.7% | 1.9% | 24.8% | 9.0% | -0.2% | 13.8% | 2.2% | 4.1% |
| Czech Republic | 22.4% | 33.0% | 6.3% | 26.8% | 9.3% | 0.5% | 17.8% | -0.9% | 5.4% |
| Denmark | 9.3% | 42.7% | 0.6% | 42.0% | 7.9% | 3.3% | 29.7% | 1.2% | 1.8% |
| Estonia | 16.8% | 30.5% | 2.7% | 27.8% | 8.6% | 1.3% | 15.2% | 2.7% | 5.3% |
| Finland | 4,1% | 50.2% | 7.7% | 42.5% | 9.5% | 1.3% | 26.1% | 5.6% | 13.4% |
| France | 8.9% | 53.4% | 14.2% | 39.2% | 9.9% | 1.2% | 24.1% | 3.9% | 18.1% |
| Germany | 11.2% | 42.6% | 8.4% | 34.2% | 6.7% | 2.0% | 22.3% | 3.2% | 11.6% |
| Greece | 34.0% | 50.8% | 13.6% | 37.1% | 10.6% | 1.2% | 19.0% | 6.3% | 19.9% |
| Hungary | 24.4% | 36.2% | 5.2% | 31.0% | 8.5% | 2.1% | 17.6% | 2.8% | 8.0% |
| Ireland | 10.6% | 52.5% | 16.9% | 35.6% | 8.6% | 1.0% | 23.0% | 2.9% | 19.8% |
| Italy | 33.7% | 45.6% | 13.3% | 32.3% | 10.5% | -0.8% | 19.3% | 3.4% | 16.7% |
| Latvia | 29.9% | 33.3% | 3.4% | 29.8% | 10.8% | 0.6% | 17.3% | 1.2% | 4.6% |
| Lithuania | 37.7% | 25.5% | 3.3% | 22.2% | 5.2% | 0.8% | 14.5% | 1.7% | 5.0% |
| Luxembourg | 5.1% | 53.2% | 12.5% | 40.8% | 10.2% | 2.5% | 23.9% | 4.1% | 16.6% |
| Malta | 26.4% | 41.5% | 18.0% | 23.6% | 5.0% | -0.5% | 18.0% | 1.2% | 19.1% |
| Netherlands | 4.2% | 52.0% | 11.0% | 41.1% | 5.5% | 2.8% | 29.0% | 3.8% | 14.8% |
| Poland | 26.7% | 43.1% | 18.5% | 24.6% | 4.4% | 2.8% | 14.1% | 3.3% | 21.7% |
| Portugal | 9.0% | 51.9% | 19.0% | 32.9% | 6.5% | 2.6% | 21.4% | 2.3% | 21.3% |
| Romania | 41.1% | 17.0% | 4.0% | 13.0% | 10.8% | -0.9% | 9.4% | -6.4% | -2.4% |
| Slovakia | 34.9% | 27.3% | 1.8% | 25.5% | 5.4% | 3.0% | 15.9% | 1.2% | 3.0% |
| Slovenia | 5.8% | 43.3% | 11.7% | 31.6% | 8.2% | 2.0% | 18.8% | 2.6% | 14.3% |
| Spain | 16.5% | 53.9% | 15.7% | 38.2% | 8.9% | 1.8% | 20.4% | 7.0% | 22.7% |
| Sweden | 4.3% | 48.8% | 7.8% | 40.9% | 6.2% | 1.4% | 28.1% | 5.3% | 13.1% |
| United Kingdom | 9.8% | 51.4% | 12.8% | 38.6% | 11.1% | 1.4% | 20.8% | 5.3% | 18.1% |
| Average | 18.5% | 42.3% | 9.8% | 32.6% | 8.2% | 1.4% | 20.3% | 2.6% | 12.4% |
| Median | 13.9% | 43.2% | 11.3% | 32.6% | 8.6% | 1.4% | 19.2% | 2.7% | 13.4% |

However, if we deduct from the Exemption Gap three elements that either might not belong in an “Ideal” VAT system, or that would be extremely hard to tax (public goods, financial services, and imputed rents, as displayed in columns E, G and F), we can observe an interesting reversal:

- The individual “Exemption Gaps” for imputed rents, public goods and financial services have a similar ordering across countries, with public goods being the largest item (ranging from 29.5 percent in Belgium to 10 percent in Romania), followed by imputed rents and then financial services.
- The “actionable” Exemption Gap (the Exemption Gap net of imputed rents, financial services and public goods; Column H) is consequently of a much smaller magnitude than the original Exemption Gap, reflecting the importance of the three items in final consumption, particularly imputed rents and public goods. In some cases (Czech Republic and Romania[8]), this measure is actually negative, as the sum of the “non-actionable” sectors is greater than the gap itself. The “actionable” Exemption Gap can be less than zero if the "non-actionable" sectors have a sufficiently large share of GFCF. Due to the large share of non-deductible VAT on GFCF expenditures in the exempt sectors in that particular year, removing the exemptions would lead to a revenue loss for the Treasury if the GFCF expenditures are larger than the value added by the sector (i.e. VAT on GFCF expenditures would become deductible)[9].
- Consequently, the “actionable” Policy gap (defined as the sum of the Rate gap and the “actionable” Exemption Gap; Column I) is actually, in a number of cases, smaller than the VAT Gap. Thus, the "actionable" Policy Gap ranges from the negative 2 percent for Romania (again, negative because the negative “actionable” Exemption Gap is greater than the Rate Gap), to 3 percent in the case of Slovakia, to 23 percent in the case of Spain, and it is lower than the VAT in the cases of Bulgaria, Czech Republic, Denmark, Estonia, Greece, Hungary, Italy, Latvia, Lithuania, Malta, Poland, Romania and Slovakia.

The above results should not of course be interpreted as an indication that the scope for increased revenues from less distortive VAT systems is insignificant, but rather that, in the balance of considerations, for most of the EU-26 countries a better-functioning collection system has to remain a priority for public action.

[8] In the case of Romania, the financial sector also had an overall negative value added.

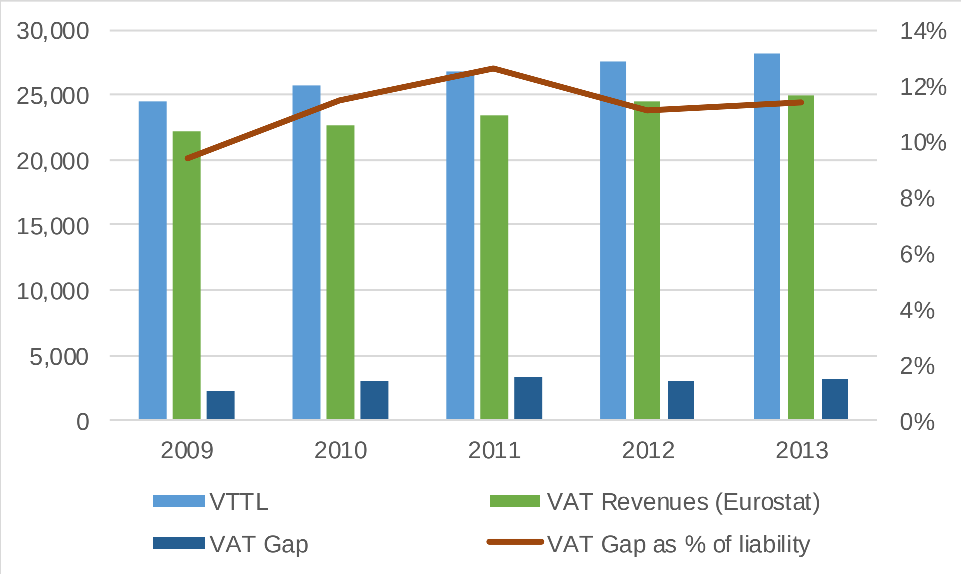
[9] See Appendix A for a formal discussion.

# Chapter 3. Individual Country Results

This chapter reviews in detail the results for each EU-26 Member State for which this study has produced updates of the VAT Gap for 2013. For the general country features the reader is referred to the 2013 Report.

**Table 3.1 Austria: VAT receipts, VTTL, composition of VTTL and Gap, 2009–2013 (EUR million)**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| VTTL | 24,447 | 25,681 | 26,838 | 27,629 | 28,170 |
| Liability on Household Consumption | 16,280 | 17,230 | 17,980 | 18,524 | 18,986 |
| Unrecoverable input liability on Intermediate consumption, Government and NPISH | 4,751 | 4,795 | 4,900 | 5,067 | 5,184 |
| Unrecoverable input liability on GFCF of exempt industries | 2,191 | 2,387 | 2,477 | 2,568 | 2,586 |
| Net Adjustments | 1,225 | 1,269 | 1,481 | 1,469 | 1,414 |
| VAT Revenues (Eurostat) | 22,158 | 22,735 | 23,447 | 24,563 | 24,953 |
| **VAT Gap** | **2,289** | **2,945** | **3,392** | **3,066** | **3,217** |
| **VAT Gap as % of liability** | **9%** | **11%** | **13%** | **11%** | **11%** |



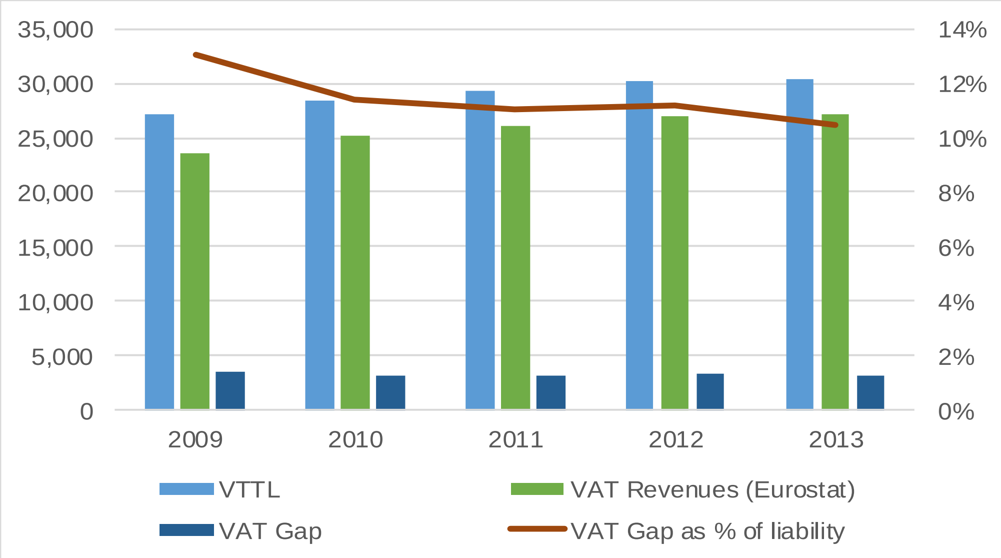

**Highlights for 2013**

The VAT Gap in Austria was virtually stationary during 2013, compared to the previous year. With the economy experiencing virtually no growth in real GDP, and with nominal final consumption advancing barely by 2 percent, the VTTL rose by slightly less than 2 percent, just slightly ahead of the 1.6 percent growth in VAT revenues. As a ratio to total liability, the gap remained at 11 percent.

No significant changes were made to the VAT system during the year.

**Table 3.2 Belgium: VAT receipts, VTTL, composition of VTTL and Gap, 2009–2013 (EUR million)**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| VTTL | 27,150 | 28,473 | 29,255 | 30,272 | 30,412 |
| Liability on Household Consumption | 15,763 | 16,281 | 16,847 | 17,240 | 17,656 |
| Unrecoverable input liability on Intermediate consumption, Government and NPISH | 6,057 | 6,593 | 7,053 | 7,198 | 7,467 |
| Unrecoverable input liability on GFCF of exempt industries | 4,039 | 4,126 | 4,007 | 4,262 | 4,173 |
| Net Adjustments | 1,290 | 1,473 | 1,348 | 1,572 | 1,116 |
| VAT Revenues (Eurostat) | 23,600 | 25,230 | 26,019 | 26,896 | 27,226 |
| **VAT Gap** | **3,549** | **3,243** | **3,236** | **3,376** | **3,186** |
| **VAT Gap as % of liability** | **13%** | **11%** | **11%** | **11%** | **10%** |



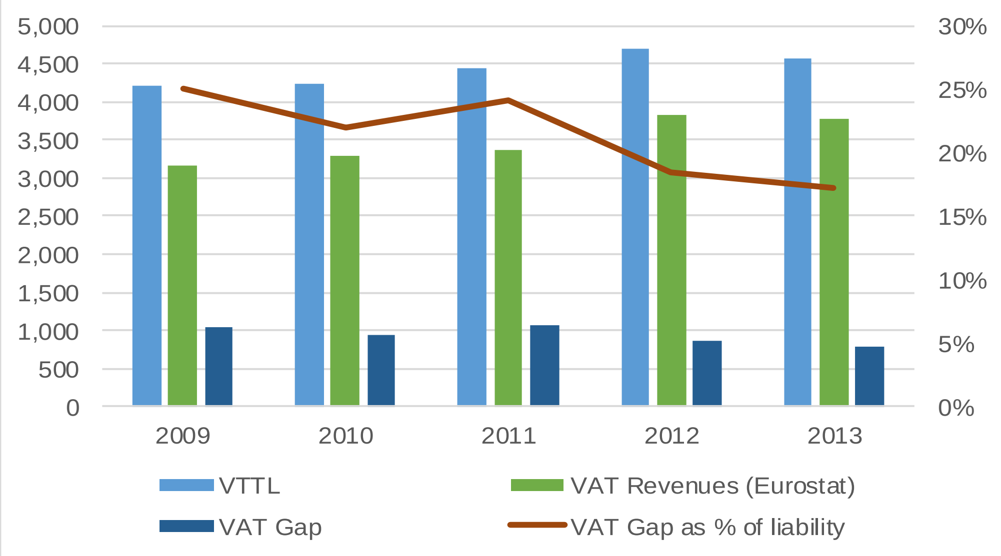

**Highlights for 2013**

Belgium's total VAT liability (VTTL) rose very slightly in 2013, reflecting the sluggish behavior of the economy (real GDP growth: 0.1 percent, final consumption nominal growth: 2.3 percent). Revenues increased a modest 1.2 percent, thus overall leading to a decreased estimated VAT gap (Euro 3.2 billion, or 10 percent of liability, down from 11 percent in 2012).

No systemic changes were introduced to the VAT system parameters.

**Table 3.3 Bulgaria: VAT receipts, VTTL, composition of VTTL and Gap, 2009–2013 (EUR million)**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| VTTL | 4,208 | 4,229 | 4,434 | 4,697 | 4,560 |
| Liability on Household Consumption | 3,016 | 3,177 | 3,351 | 3,664 | 3,529 |
| Unrecoverable input liability on Intermediate consumption, Government and NPISH | 652 | 579 | 613 | 575 | 588 |
| Unrecoverable input liability on GFCF of exempt industries | 459 | 422 | 399 | 397 | 384 |
| Net Adjustments | 80 | 51 | 70 | 61 | 59 |
| VAT Revenues (Eurostat) | 3,156 | 3,299 | 3,362 | 3,828 | 3,775 |
| **VAT Gap** | **1,052** | **930** | **1,072** | **869** | **785** |
| **VAT Gap as % of liability** | **25%** | **22%** | **24%** | **18%** | **17%** |




**Highlights for 2013**

Bulgaria's VAT gap continued in a welcome downward trajectory already remarked in 2012. Despite registering an overall slight increase in real GDP, nominal final consumption declined in absolute terms, and this contributed to an almost 3 percent reduction in the VTTL. Revenues, on the other hand, were virtually unchanged after the substantial increase registered in 2012, and this allowed the gap to decline to 17 percent, a 1/3 improvement over the 2009 high.

No changes were introduced to the VAT system in 2013.

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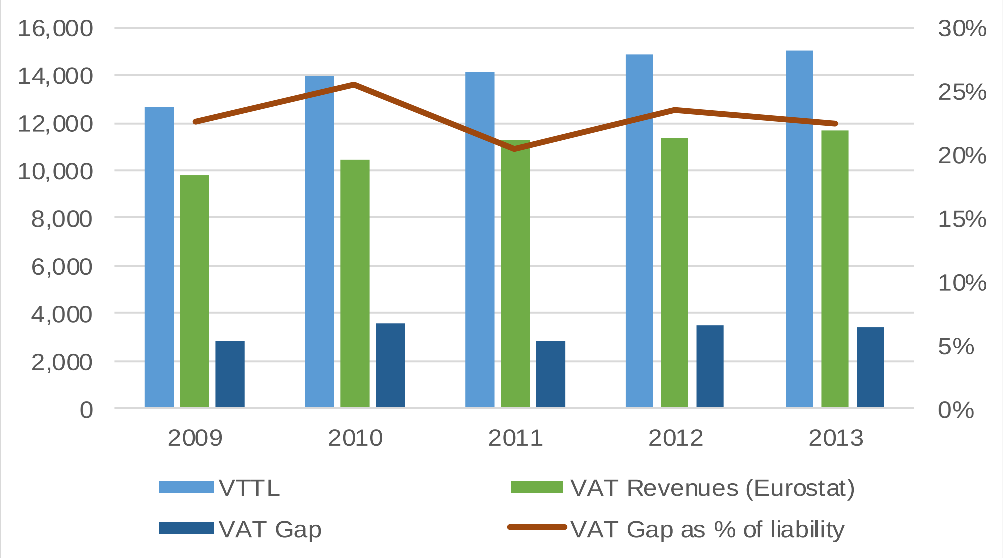
**Table 3.4 Czech Republic: VAT receipts, VTTL, composition of VTTL and Gap, 2009–2013 (EUR million)**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| VTTL | 12,636 | 13,991 | 14,122 | 14,883 | 15,070 |
| Liability on Household Consumption | 7,509 | 8,428 | 8,659 | 9,304 | 9,531 |
| Unrecoverable input liability on Intermediate consumption, Government and NPISH | 3,246 | 3,692 | 3,809 | 3,869 | 3,954 |
| Unrecoverable input liability on GFCF of exempt industries | 1,654 | 1,793 | 1,574 | 1,632 | 1,502 |
| Net Adjustments | 226 | 78 | 79 | 77 | 83 |
| VAT Revenues (Eurostat) | 9,784 | 10,420 | 11,246 | 11,377 | 11,694 |
| **VAT Gap** | **2,852** | **3,571** | **2,876** | **3,506** | **3,375** |
| **VAT Gap as % of liability** | **23%** | **26%** | **20%** | **24%** | **22%** |



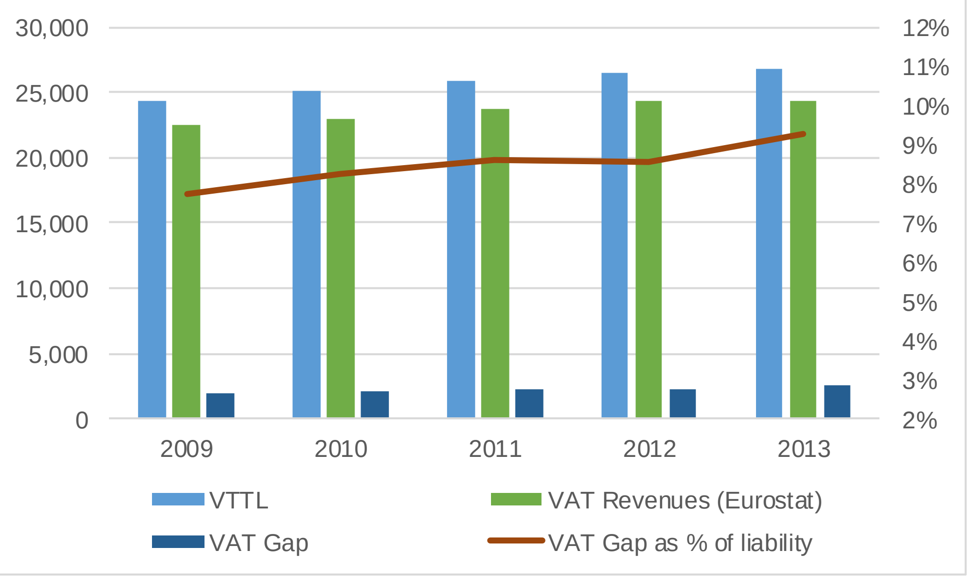

**Highlights for 2013**

The VAT Gap for the Czech Republic registered a small decline in 2013 compared to 2012, although at 22 percent it placed the country in the top tier in the EU-26 Member States.

The VTTL rose by a robust 4.6 percent, outpacing nominal final consumption growth on account of an increase in both the Standard and the Reduced rates (from 20 to 21 percent, and 14 to 15 percent, respectively). Revenue collection growth was even more pronounced, thus resulting in the small decline in the gap.

**Table 3.5 Denmark: VAT receipts, VTTL, composition of VTTL and Gap, 2009–2013 (EUR million)**

| | **2009** | **2010** | **2011** | **2012** | **2013** |
|---|---|---|---|---|---|
| VTTL | 24,390 | 25,107 | 25,916 | 26,563 | 26,850 |
| Liability on Household Consumption | 13,716 | 14,271 | 14,549 | 14,961 | 15,108 |
| Unrecoverable input liability on Intermediate consumption, Government and NPISH | 6,861 | 7,117 | 7,310 | 7,620 | 7,745 |
| Unrecoverable input liability on GFCF of exempt industries | 3,139 | 3,022 | 3,293 | 3,178 | 3,179 |
| Net Adjustments | 674 | 697 | 765 | 804 | 818 |
| VAT Revenues (Eurostat) | 22,499 | 23,040 | 23,682 | 24,296 | 24,360 |
| **VAT Gap** | **1,892** | **2,067** | **2,234** | **2,267** | **2,489** |
| **VAT Gap as % of liability** | **8%** | **8%** | **9%** | **9%** | **9%** |



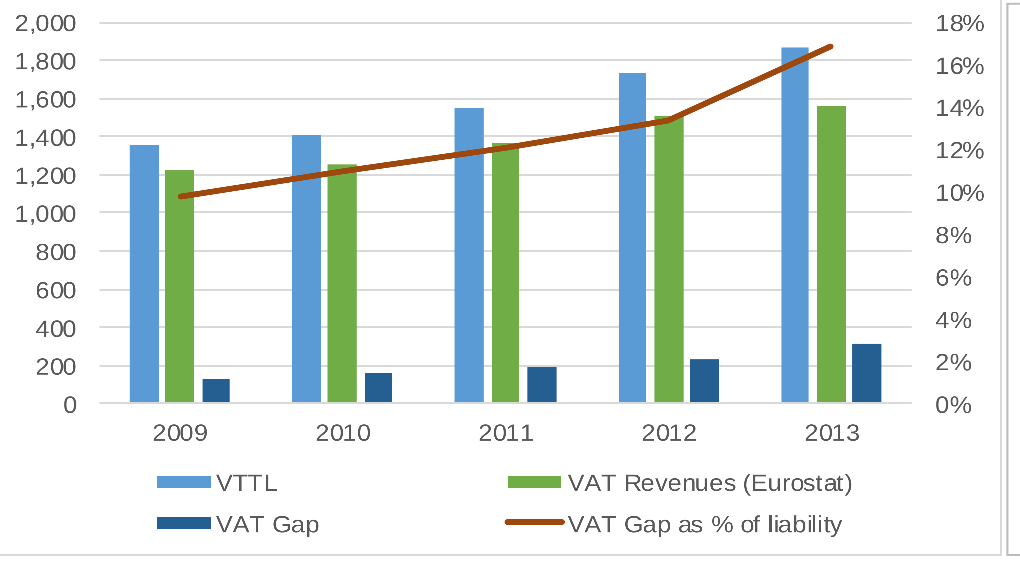

**Highlights for 2013**

The VAT Gap registered a small uptick in Denmark during 2013 compared to the previous year. The VAT liability (VTTL) rose by about 1.5 percent, reflecting the anemic growth of final consumption, while VAT collections stagnated, at 0.5 percent growth, resulting in a wider gap of about Euro 1.7 billion. As a ratio to total liability, the gap was unchanged at 9 percent.

No changes of significance were made to the VAT system during 2013.

**Table 3.6 Estonia: VAT receipts, VTTL, composition of VTTL and Gap, 2009–2013 (EUR million)**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| VTTL | 1,357 | 1,413 | 1,550 | 1,740 | 1,873 |
| Liability on Household Consumption | 925 | 989 | 1,067 | 1,163 | 1,257 |
| Unrecoverable input liability on Intermediate consumption, Government and NPISH | 215 | 230 | 258 | 287 | 308 |
| Unrecoverable input liability on GFCF of exempt industries | 208 | 186 | 214 | 280 | 299 |
| Net Adjustments | 8 | 8 | 11 | 10 | 10 |
| VAT Revenues (Eurostat) | 1,224 | 1,257 | 1,363 | 1,508 | 1,558 |
| **VAT Gap** | **133** | **156** | **187** | **232** | **315** |
| **VAT Gap as % of liability** | **10%** | **11%** | **12%** | **13%** | **17%** |



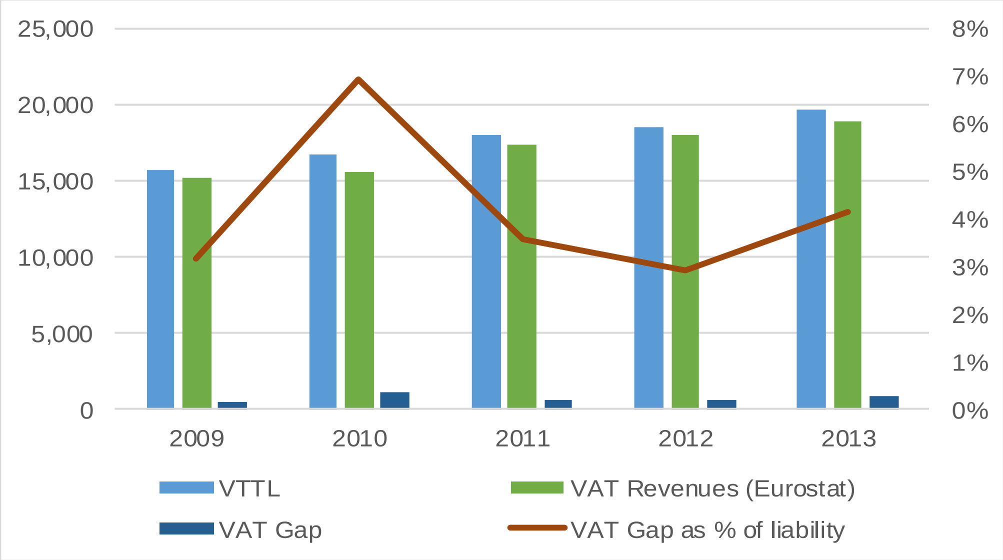

**Highlights for 2013**

The VAT gap for Estonia marked a noticeable increase in 2013 over 2012, as a result of the continuing erosion in collections relative to VTTL, which has led to the doubling of the Gap in Euro terms since 2009. Despite modest real GDP growth recorded for the year (1.6 percent), nominal final consumption rose instead by 8 percent, and overall VTTL by 7.6 percent. Revenue growth was a more modest 3.3 percent, hence the increase in the Gap to 17 percent.

No systemic changes were made to the VAT system in the course of the year.

**Table 3.7 Finland: VAT receipts, VTTL, composition of VTTL and Gap, 2009–2013 (EUR million)**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| VTTL | 15,673 | 16,691 | 17,955 | 18,524 | 19,660 |
| Liability on Household Consumption | 8,961 | 9,243 | 9,859 | 10,265 | 10,953 |
| Unrecoverable input liability on Intermediate consumption, Government and NPISH | 3,987 | 4,198 | 4,514 | 4,730 | 4,991 |
| Unrecoverable input liability on GFCF of exempt industries | 2,251 | 2,729 | 3,037 | 3,063 | 3,175 |
| Net Adjustments | 474 | 521 | 545 | 466 | 542 |
| VAT Revenues (Eurostat) | 15,176 | 15,533 | 17,315 | 17,987 | 18,848 |
| **VAT Gap** | **497** | **1,158** | **640** | **537** | **812** |
| **VAT Gap as % of liability** | **3%** | **7%** | **4%** | **3%** | **4%** |



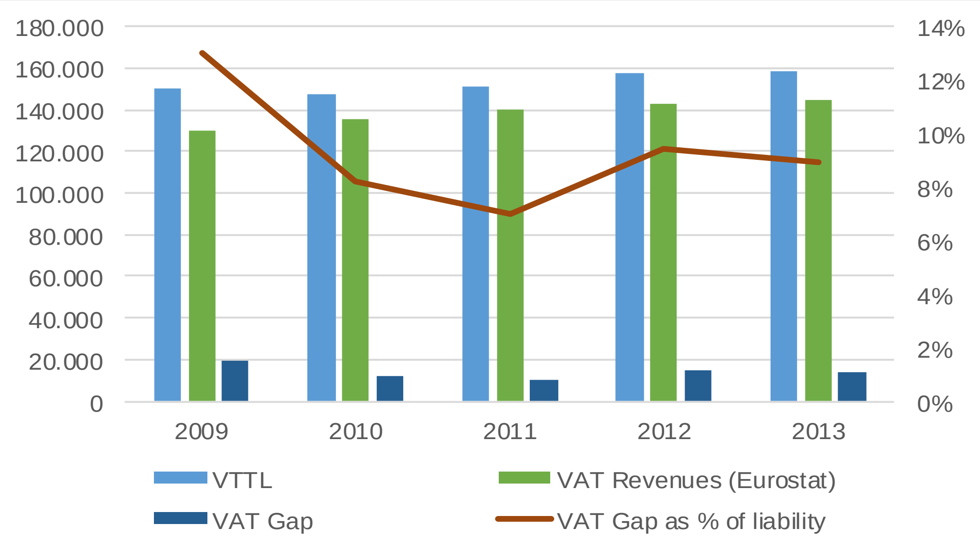

**Highlights for 2013**

Finland continues to have one of the EU-26 Member States lowest VAT Gap, despite a slight increase in its value in 2013. During the year, the overall economy experienced a slight recession, and the growth of nominal final consumption was an anemic 1.5 percent.

A rate increase by 1 percentage point in both the Standard and the Reduced rates resulted in a VTTL surge of 6.2 percent, but revenue growth lagged, at 4.7 percent. Hence the increase in the overall VAR gap from 3 to 4 percent of liability.

**Table 3.8 France: VAT receipts, VTTL, composition of VTTL and Gap, 2009–2013 (EUR million)**

| | **2009** | **2010** | **2011** | **2012** | **2013** |
|---|---|---|---|---|---|
| VTTL | 149.824 | 147.739 | 151.118 | 157.360 | 158.510 |
| Liability on Household Consumption | 90.889 | 92.700 | 95.147 | 98.891 | 99.718 |
| Unrecoverable input liability on Intermediate consumption, Government and NPISH | 25.204 | 25.863 | 25.692 | 26.859 | 27.234 |
| Unrecoverable input liability on GFCF of exempt industries | 30.186 | 25.142 | 26.577 | 27.772 | 27.636 |
| Net Adjustments | 3.546 | 4.035 | 3.702 | 3.839 | 3.922 |
| VAT Revenues (Eurostat) | 130.303 | 135.578 | 140.552 | 142.526 | 144.414 |
| **VAT Gap** | **19.521** | **12.161** | **10.566** | **14.834** | **14.096** |
| **VAT Gap as % of liability** | **13%** | **8%** | **7%** | **9%** | **9%** |




**Highlights for 2013**

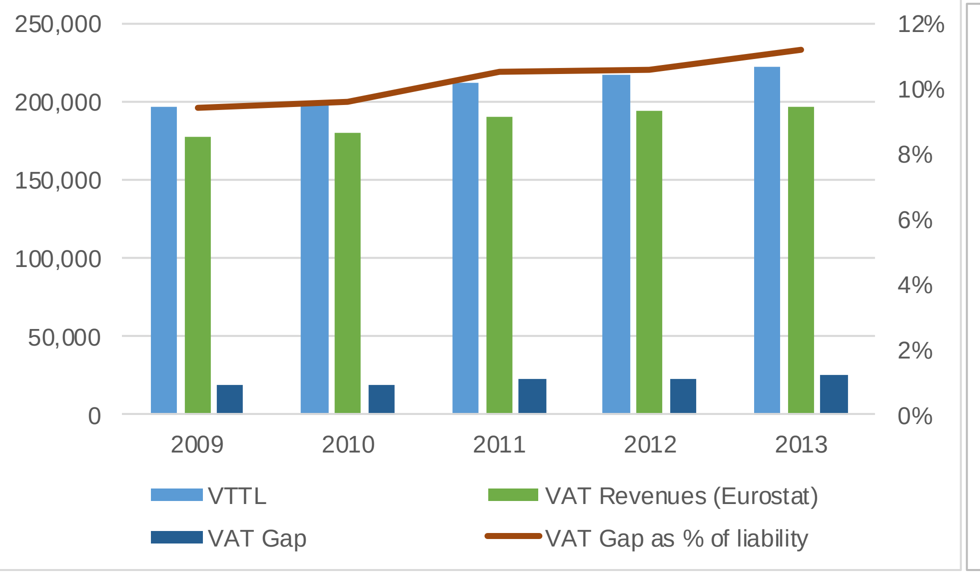
The VAT Gap for France declined marginally during 2013. Given the stagnant economy, and very low growth of nominal final consumption, the VTTL rose by less than one percent. Revenues were slighly more resilient, and as a result, the Gap declined somewhat, in absolute terms, and remained unchanged at 9 percent of the VTTL.

No changes were made to the VAT regime during this period of time.

The estimates for 2009-2012 have been substantially revised on account of new official, but unpublished information received from the authorities on the applicability of reduced and super-reduced rates for both household and government final consumption. The most important information concerned the rates applicable to pharmaceuticals, but also involved several other categories of goods and services, as well as better information on GFCF liability.

**Table 3.9 Germany: VAT receipts, VTTL, composition of VTTL and Gap, 2009–2013 (EUR million)**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| VTTL | 196,095 | 199,283 | 212,245 | 216,984 | 221,878 |
| Liability on Household Consumption | 124,984 | 124,549 | 132,667 | 135,841 | 139,315 |
| Unrecoverable input liability on Intermediate consumption, Government and NPISH | 42,269 | 43,786 | 45,569 | 46,789 | 47,971 |
| Unrecoverable input liability on GFCF of exempt industries | 27,413 | 29,400 | 32,277 | 32,602 | 32,830 |
| Net Adjustments | 1,429 | 1,548 | 1,731 | 1,752 | 1,763 |
| VAT Revenues (Eurostat) | 177,701 | 180,213 | 189,910 | 194,034 | 197,005 |
| **VAT Gap** | **18,394** | **19,070** | **22,335** | **22,950** | **24,873** |
| **VAT Gap as % of liability** | **9%** | **10%** | **11%** | **11%** | **11%** |




**Highlights for 2013**

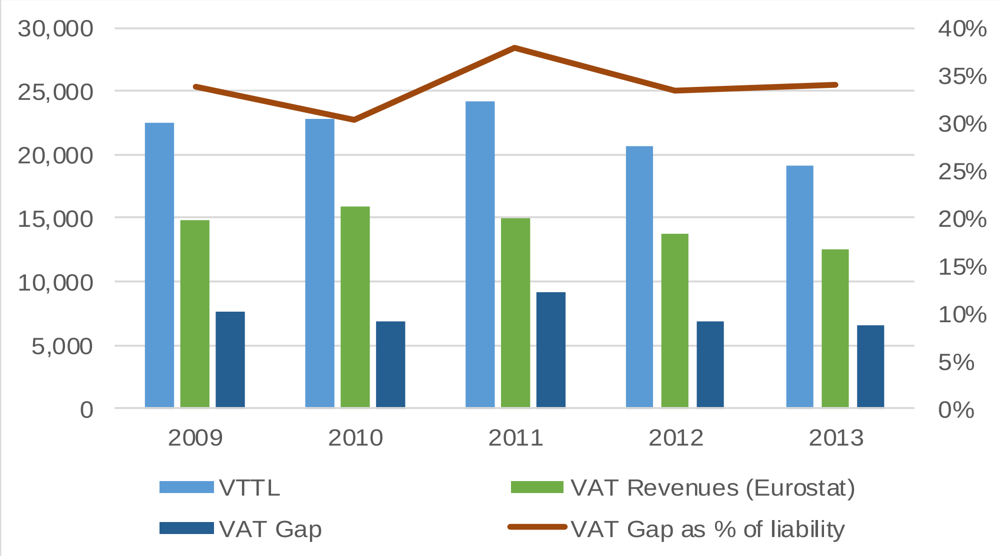
The VAT Gap for Germany for 2013, while increasing in absolute terms by almost Euro 2 billion, remained at the level of 11 percent of liability, as in 2012.

The underlying reasons for these developments are the slightly diverging behaviour of the VTTL and revenues. The former grew by some 2.6 percent, in line with final consumption nominal growth. The latter grew by a more restrained 1.5 percent, despite an overall modest GDP growth of 0.4 percent.

No changes to the VAT system were registered during the period.

**Table 3.10 Greece: VAT receipts, VTTL, composition of VTTL and Gap, 2009–2013 (EUR million)**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| VTTL | 22,453 | 22,885 | 24,181 | 20,595 | 19,090 |
| Liability on Household Consumption | 14,763 | 16,033 | 18,031 | 15,607 | 14,571 |
| Unrecoverable input liability on Intermediate consumption, Government and NPISH | 2,570 | 2,379 | 2,113 | 1,868 | 1,761 |
| Unrecoverable input liability on GFCF of exempt industries | 4,745 | 4,058 | 3,494 | 2,717 | 2,358 |
| Net Adjustments | 376 | 416 | 543 | 403 | 400 |
| VAT Revenues (Eurostat) | 14,876 | 15,958 | 15,021 | 13,712 | 12,593 |
| **VAT Gap** | **7,577** | **6,927** | **9,160** | **6,883** | **6,497** |
| **VAT Gap as % of liability** | **34%** | **30%** | **38%** | **33%** | **34%** |



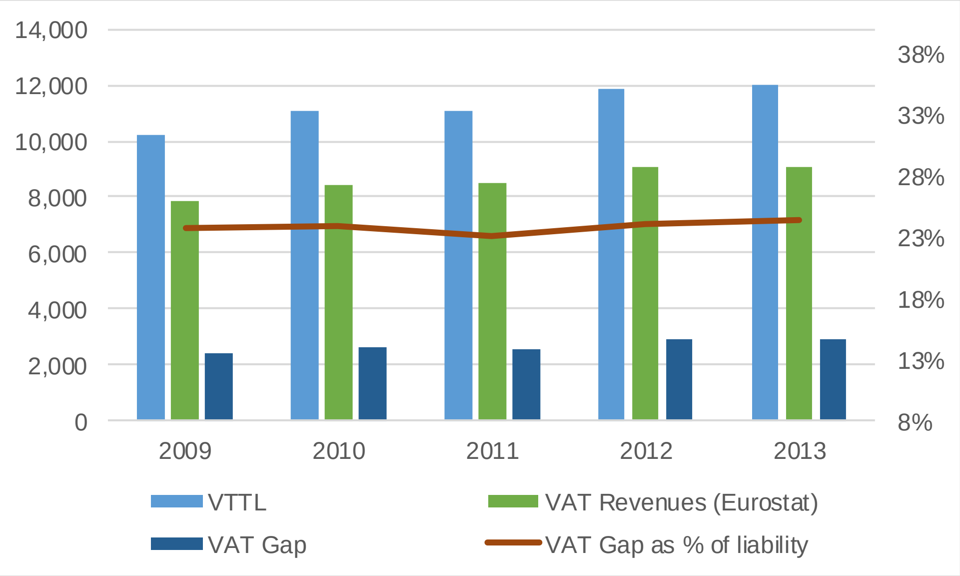

**Highlights for 2013**

The VAT Gap in Greece increased slightly during 2013, as a percent of VTTL.
In an economic environment showing continuing albeit slowing decline, and with strong compression of final consumption, the VTTL declined by little more than 7 percent, but revenues took an even steeper fall, by over 8 percent, this leading to the increase in the percentage Gap to 34 percent.

Greece did not modify the VAT regime during 2013.

**Table 3.11 Hungary: VAT receipts, VTTL, composition of VTTL and Gap, 2009–2013 (EUR million)**

| | **2009** | **2010** | **2011** | **2012** | **2013** |
|---|---|---|---|---|---|
| VTTL | 10,244 | 11,102 | 11,066 | 11,866 | 12,003 |
| Liability on Household Consumption | 6,834 | 7,468 | 7,676 | 8,180 | 8,127 |
| Unrecoverable input liability on Intermediate consumption, Government and NPISH | 2,075 | 2,263 | 2,220 | 2,279 | 2,283 |
| Unrecoverable input liability on GFCF of exempt industries | 1,278 | 1,292 | 1,074 | 1,269 | 1,410 |
| Net Adjustments | 57 | 78 | 97 | 235 | 183 |
| VAT Revenues (Eurostat) | 7,820 | 8,442 | 8,516 | 9,084 | 9,073 |
| **VAT Gap** | **2,424** | **2,660** | **2,550** | **2,879** | **2,930** |
| **VAT Gap as % of liability** | **24%** | **24%** | **23%** | **24%** | **24%** |




**Highlights for 2013**

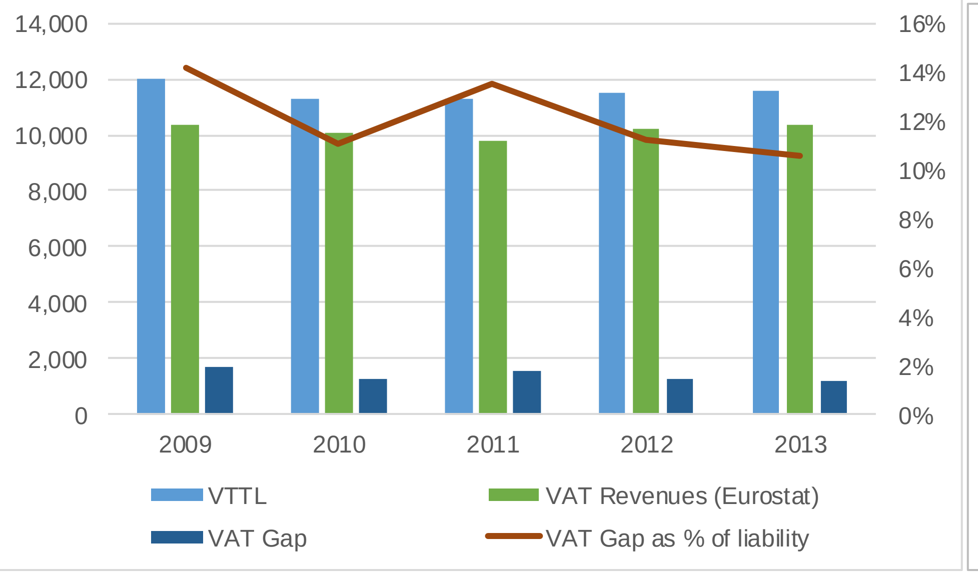
The VAT Gap in Hungary in 2013 was virtually unchanged from the 2012 value.

The VTTL rose by about 3 percent in Forint terms, along the lines of nominal final consumption, but was virtually unchanged in Euro terms. Revenue growth was similar, at 2.6 percent in forint and zero in Euro, hence the virtually unchanged VAT Gap, equivalent to 24 percent of VAT liability.

No changes were made to the VAT regime during the period under consideration.

**Table 3.12 Ireland: VAT receipts, VTTL, composition of VTTL and Gap, 2009–2013 (EUR million)**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| VTTL | 12,034 | 11,324 | 11,276 | 11,521 | 11,596 |
| Liability on Household Consumption | 7,026 | 6,922 | 6,923 | 7,266 | 7,294 |
| Unrecoverable input liability on Intermediate consumption, Government and NPISH | 2,710 | 2,654 | 2,641 | 2,719 | 2,787 |
| Unrecoverable input liability on GFCF of exempt industries | 2,045 | 1,518 | 1,471 | 1,279 | 1,279 |
| Net Adjustments | 253 | 230 | 242 | 244 | 236 |
| VAT Revenues (Eurostat) | 10,325 | 10,067 | 9,755 | 10,219 | 10,371 |
| **VAT Gap** | **1,709** | **1,256** | **1,521** | **1,289** | **1,225** |
| **VAT Gap as % of liability** | **14%** | **11%** | **13%** | **11%** | **11%** |




**Highlights for 2013**

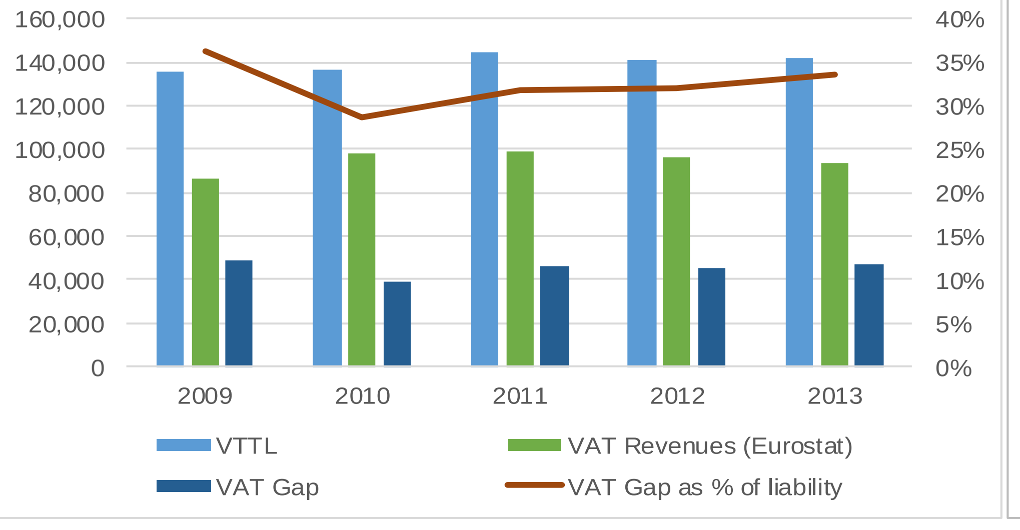
The VAT Gap in Ireland stayed virtually constant in 2013 compared to 2012.

A stagnating economy, with slightly negative real GDP growth and minimal growth of nominal final consumption, resulted in a flat VTTL (+0.8 percent) and equally minimal growth of VAT revenues (+1.5 percent). As a consequence, the VAT Gap in percent of liability remained at 11 percent, a value however below the EU-26 median.

The VAT Regime was not changed in the period in question.

**Table 3.13 Italy: VAT receipts, VTTL, composition of VTTL and Gap, 2009–2013 (EUR million)**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| VTTL | 135,805 | 136,817 | 144,425 | 141,332 | 141,437 |
| Liability on Household Consumption | 93,213 | 95,191 | 101,338 | 100,141 | 99,750 |
| Unrecoverable input liability on Intermediate consumption, Government and NPISH | 22,824 | 22,827 | 23,291 | 22,546 | 23,144 |
| Unrecoverable input liability on GFCF of exempt industries | 15,790 | 15,173 | 15,035 | 14,204 | 14,186 |
| Net Adjustments | 3,977 | 3,626 | 4,761 | 4,441 | 4,357 |
| VAT Revenues (Eurostat) | 86,544 | 97,586 | 98,650 | 96,170 | 93,921 |
| **VAT Gap** | **49,261** | **39,231** | **45,775** | **45,162** | **47,516** |
| **VAT Gap as % of liability** | **36%** | **29%** | **32%** | **32%** | **34%** |
| Pro-Memoria: VAT Gap Including Net Refunds | 42,993 | 40,137 | 46,673 | 43,338 | 43,902 |
| Pro-Memoria: VAT Gap Including Net Refunds, % | 32% | 29% | 32% | 31% | 31% |



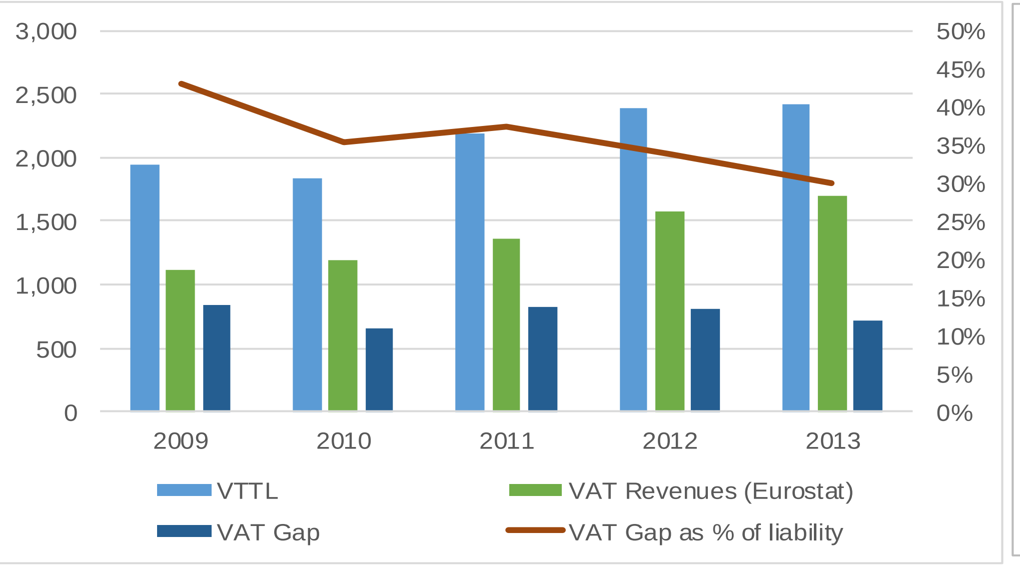

**Highlights for 2013**

Italy's VAT Gap rose somewhat during 2013, and remains at a very high level among the EU-26. As the country experienced another year of recession, and growth of nominal final consumption was also negative, the total VTTL rose marginally on account of a VAT rate increase (see table 2.2). Despite the rate increase, Eurostat revenues declined, thus leading to an increase of the gap to 34 percent.

Adjusting Eurostat-reported revenues for the changes in outstanding stocks of net reimbursement claims (to better approximate accrued revenues, as discussed in Box 2.1) yields a somewhat more stable picture. As taxpayers have accelerated requests for reimbursements, that has impacted revenue collection. Purging this element yelds a substantially unchanged Gap at 31 percent.

**Table 3.14 Latvia: VAT receipts, VTTL, composition of VTTL and Gap, 2009–2013 (EUR million)**

| | **2009** | **2010** | **2011** | **2012** | **2013** |
|---|---|---|---|---|---|
| VTTL | 1,946 | 1,841 | 2,189 | 2,391 | 2,414 |
| Liability on Household Consumption | 1,355 | 1,342 | 1,581 | 1,726 | 1,772 |
| Unrecoverable input liability on Intermediate consumption, Government and NPISH | 340 | 333 | 398 | 422 | 430 |
| Unrecoverable input liability on GFCF of exempt industries | 235 | 151 | 196 | 223 | 192 |
| Net Adjustments | 16 | 16 | 14 | 20 | 20 |
| VAT Revenues (Eurostat) | 1,109 | 1,192 | 1,368 | 1,583 | 1,693 |
| **VAT Gap** | **837** | **649** | **821** | **808** | **721** |
| **VAT Gap as % of liability** | **43%** | **35%** | **37%** | **34%** | **30%** |




**Highlights for 2013**

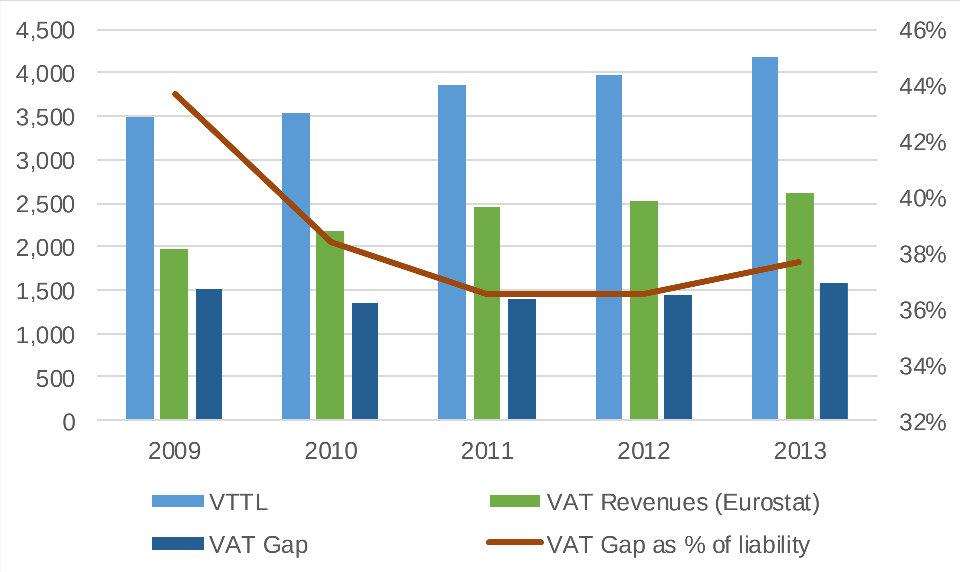
Latvia marked a considerable reduction in its (high) VAT Gap during 2013, in a context of generally good economic performances.

The VTTL rose only moderately (1 percent), despite robust growth in final consumption, on account of the full phasing in of the 2012 reduction in VAT rates. On the other hand, revenues saw another strong growth (+7.0 percent), hence the decline in the Gap to 30 percent.

The VAT regime was not substantially modified during the period under consideration.

**Table 3.15 Lithuania: VAT receipts, VTTL, composition of VTTL and Gap, 2009–2013 (EUR million)**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| VTTL | 3,480 | 3,539 | 3,848 | 3,985 | 4,192 |
| Liability on Household Consumption | 2,696 | 2,779 | 3,045 | 3,219 | 3,436 |
| Unrecoverable input liability on Intermediate consumption, Government and NPISH | 418 | 442 | 419 | 407 | 392 |
| Unrecoverable input liability on GFCF of exempt industries | 366 | 307 | 368 | 331 | 347 |
| Net Adjustments | -1 | 10 | 16 | 14 | 18 |
| VAT Revenues (Eurostat) | 1,961 | 2,180 | 2,444 | 2,521 | 2,611 |
| **VAT Gap** | **1,519** | **1,358** | **1,404** | **1,450** | **1,580** |
| **VAT Gap as % of liability** | **44%** | **38%** | **36%** | **37%** | **38%** |




**Highlights for 2013**

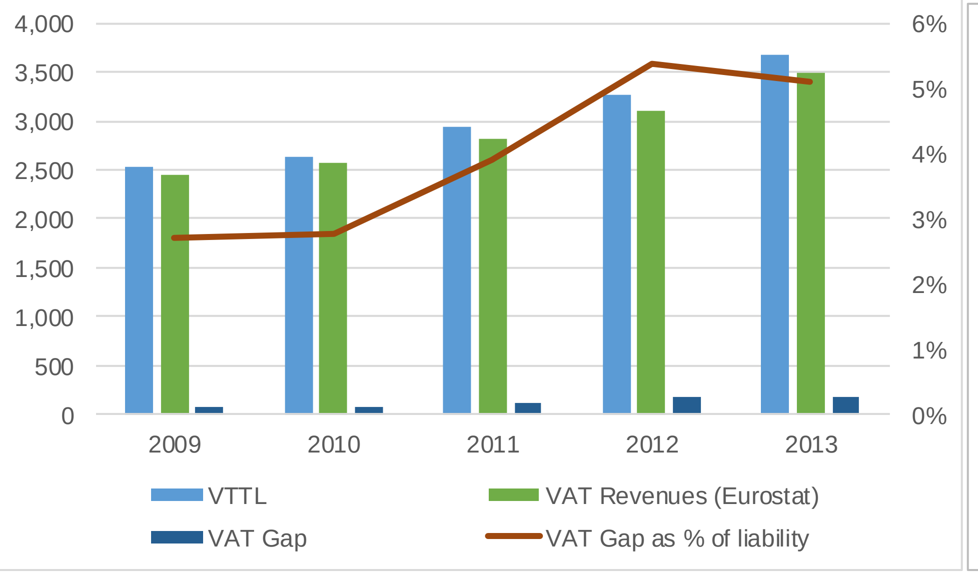
Lithuania's VAT Gap in 2013 remained one of the highest in the EU-26 Member Countries surveyed in this report.

The estimated VTTLgrew by 5.6 percent, in line with the nominal growth in final consumption. Revenue growth, despite a robust overall real GDP increase, was more moderate at 3.6 percent. As a result, the VAT Gap rose to 38 percent.

No changes were made to the VAT regime during the period under consideration.

**Table 3.16 Luxembourg: VAT receipts, VTTL, composition of VTTL and Gap, 2009–2013 (EUR million)**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| VTTL | 2,525 | 2,635 | 2,939 | 3,270 | 3,672 |
| Liability on Household Consumption | 958 | 1,010 | 1,094 | 1,127 | 1,166 |
| Unrecoverable input liability on Intermediate consumption, Government and NPISH | 544 | 548 | 586 | 615 | 657 |
| Unrecoverable input liability on GFCF of exempt industries | 282 | 283 | 291 | 298 | 288 |
| Net Adjustments | 741 | 794 | 968 | 1,228 | 1,561 |
| VAT Revenues (Eurostat) | 2,457 | 2,562 | 2,824 | 3,093 | 3,485 |
| **VAT Gap** | **68** | **73** | **115** | **176** | **187** |
| **VAT Gap as % of liability** | **3%** | **3%** | **4%** | **5%** | **5%** |




**Highlights for 2013**

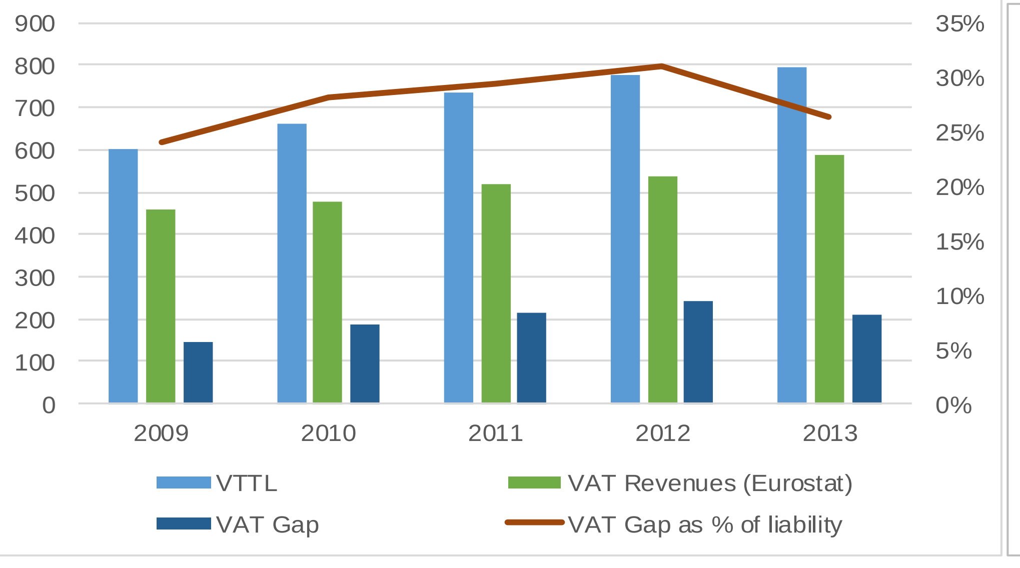
The VAT Gap for Luxembourg held constant at 5 percent of liability in 2013.

Whereas domestic sources of liability reflected the limited recovery in the pace of economic activity, the growth of VTTL was dominated, as in previous years, by other sources of income, including e-commerce, petrol trade and other items, which rose by an estimated 27 percent, continuing a trend observed in the recent past. With revenues consequently showing a strong performance (+12.6 percent), the overall gap remained constant at 5 percent of VTTL.

No changes to the VAT regime were registered during the year.

**Table 3.17 Malta: VAT receipts, VTTL, composition of VTTL and Gap, 2009–2013 (EUR million)**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| VTTL | 601 | 664 | 736 | 777 | 796 |
| Liability on Household Consumption | 351 | 374 | 393 | 420 | 438 |
| Unrecoverable input liability on Intermediate consumption, Government and NPISH | 222 | 253 | 305 | 315 | 316 |
| Unrecoverable input liability on GFCF of exempt industries | 26 | 30 | 37 | 39 | 37 |
| Net Adjustments | 2 | 6 | 2 | 3 | 4 |
| VAT Revenues (Eurostat) | 457 | 477 | 520 | 536 | 586 |
| **VAT Gap** | **144** | **186** | **216** | **241** | **210** |
| **VAT Gap as % of liability** | **24%** | **28%** | **29%** | **31%** | **26%** |




**Highlights for 2013**

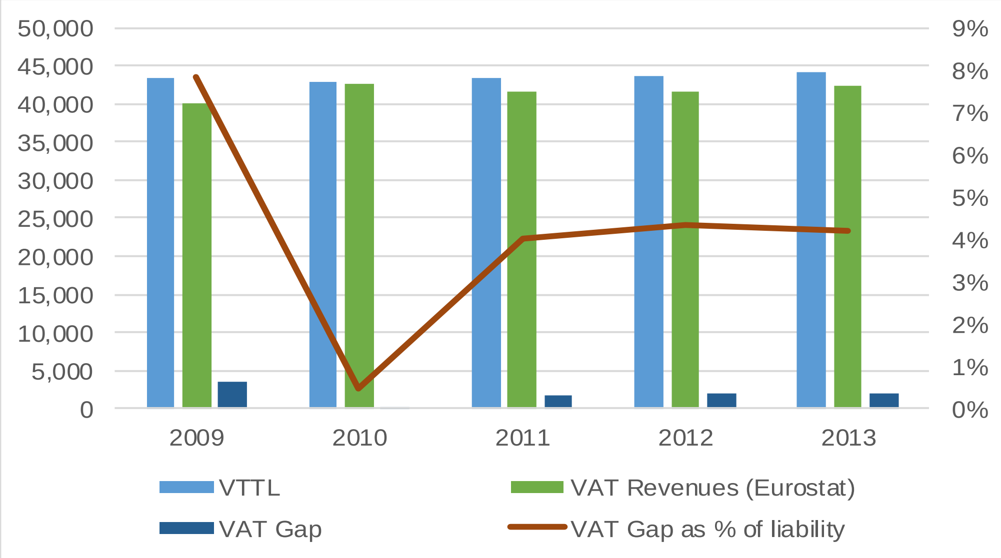
A strong revenue performance (possibly helped by a tax amnesty) contributed to a substantial reduction of the VAT Gap in Malta in 2013.

While the VTTL rose modestly on account of slow performance of exempted industries, revenues showed a remarkable 9.3 percent increase, thus leading the VAT gap to decline from 31 to 26 percent of total liability.

No substantial changes to the VAT regime were implemented in 2013 in Malta.

**Table 3.18 Netherlands: VAT receipts, VTTL, composition of VTTL and Gap, 2009–2013 (EUR million)**

| | **2009** | **2010** | **2011** | **2012** | **2013** |
|---|---|---|---|---|---|
| VTTL | 43,504 | 42,855 | 43,359 | 43,598 | 44,276 |
| Liability on Household Consumption | 22,398 | 22,769 | 23,122 | 23,719 | 24,793 |
| Unrecoverable input liability on Intermediate consumption, Government and NPISH | 11,156 | 11,020 | 10,805 | 11,217 | 11,284 |
| Unrecoverable input liability on GFCF of exempt industries | 9,312 | 8,400 | 8,750 | 7,992 | 7,502 |
| Net Adjustments | 637 | 666 | 683 | 671 | 696 |
| VAT Revenues (Eurostat) | 40,086 | 42,654 | 41,610 | 41,699 | 42,424 |
| **VAT Gap** | **3,418** | **201** | **1,749** | **1,899** | **1,852** |
| **VAT Gap as % of liability** | **8%** | **0%** | **4%** | **4%** | **4%** |




**Highlights for 2013**

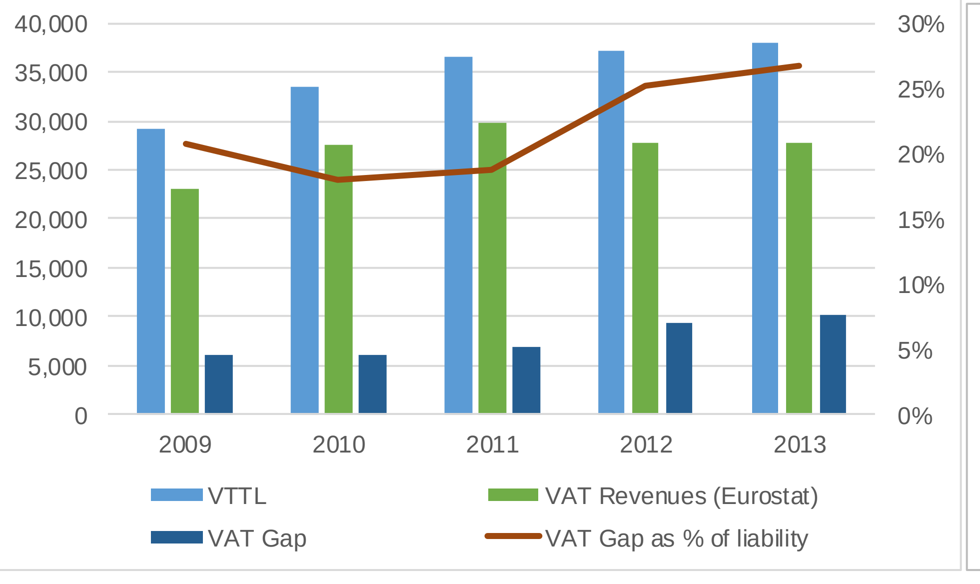
The Netherlands recorded one of the lowest VAT Gap in the EU-26 Member States in 2013.

The estimated VTTL rose slightly (1.5 percent), on account of the carryover from the 2012 increase in the VAT rates. Despite GDP contracting for the second year in a row, the authorities were able to increase VAT collections by 1.7 percent. As a result, the estimated VAT Gap fell marginally in absolute terms, and stayed at 4 percent of VTTL.

No other changes to the VAT regime were instrumented in 2013.

**Table 3.19 Poland: VAT receipts, VTTL, composition of VTTL and Gap, 2009–2013 (EUR million)**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| VTTL | 29,094 | 33,517 | 36,602 | 37,175 | 37,911 |
| Liability on Household Consumption | 19,139 | 21,881 | 24,014 | 25,015 | 25,764 |
| Unrecoverable input liability on Intermediate consumption, Government and NPISH | 5,729 | 6,667 | 7,026 | 7,049 | 7,369 |
| Unrecoverable input liability on GFCF of exempt industries | 3,612 | 4,242 | 4,585 | 4,098 | 3,771 |
| Net Adjustments | 614 | 726 | 977 | 1,013 | 1,007 |
| VAT Revenues (Eurostat) | 23,056 | 27,466 | 29,764 | 27,783 | 27,780 |
| **VAT Gap** | **6,038** | **6,051** | **6,837** | **9,391** | **10,131** |
| **VAT Gap as % of liability** | **21%** | **18%** | **19%** | **25%** | **27%** |




**Highlights for 2013**

Poland has continued to struggle with its capacity to collect VAT at a pace compatible with the pace of economic growth.

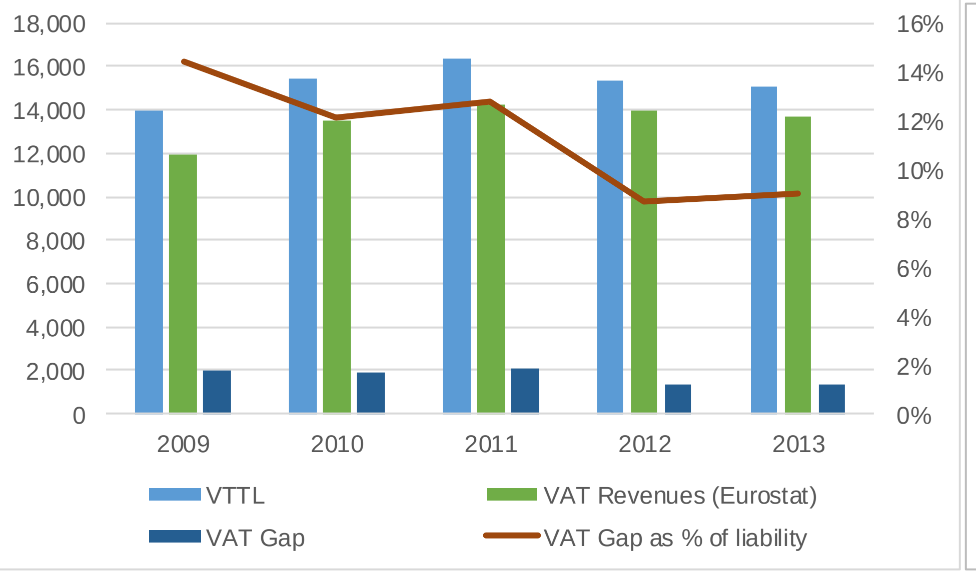
With real GDP and nominal final consumption registering modest increments (1.6 and 2 percent, respectively), the VTTL rose by 2 percent, but collections declined slightly in Euro terms.

As a result, the VAT Gap rose by 2 percentage points to 27%, placing Poland in the upper quintile of the EU-26 Member States by this performance.

No changes were made to the VAT Regime in 2013.

**Table 3.20 Portugal: VAT receipts, VTTL, composition of VTTL and Gap, 2009–2013 (EUR million)**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| VTTL | 13,993 | 15,392 | 16,359 | 15,330 | 15,068 |
| Liability on Household Consumption | 9,499 | 10,404 | 11,169 | 10,738 | 10,583 |
| Unrecoverable input liability on Intermediate consumption, Government and NPISH | 2,893 | 3,094 | 3,173 | 3,040 | 3,063 |
| Unrecoverable input liability on GFCF of exempt industries | 1,293 | 1,485 | 1,653 | 1,190 | 1,085 |
| Net Adjustments | 308 | 409 | 363 | 361 | 337 |
| VAT Revenues (Eurostat) | 11,971 | 13,527 | 14,265 | 13,995 | 13,710 |
| **VAT Gap** | **2,022** | **1,865** | **2,094** | **1,335** | **1,358** |
| **VAT Gap as % of liability** | **14%** | **12%** | **13%** | **9%** | **9%** |




**Highlights for 2013**

The VAT Gap for Portugal was virtually unchanged between 2012 and 2013.

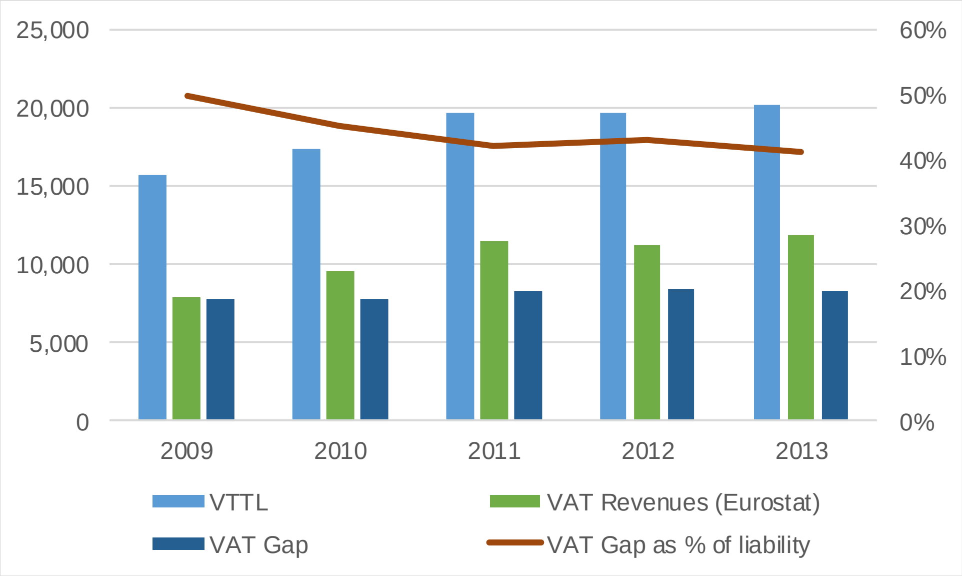
As the economy continued in a recession, and nominal final consumption growth was negative, the VTTL declined by some 1.7 percent.

Revenues also declined by some 2 percent, and as a result the overall Gap increased marginally in absolute terms, but remained at the level of 9 percent as in 2012.

No changes were made to the VAT system during the year.

**Table 3.21 Romania: VAT receipts, VTTL, composition of VTTL and Gap, 2009–2013 (EUR million)**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| VTTL | 15,651 | 17,297 | 19,662 | 19,634 | 20,209 |
| Liability on Household Consumption | 8,758 | 10,749 | 12,456 | 12,296 | 12,947 |
| Unrecoverable input liability on Intermediate consumption, Government and NPISH | 2,764 | 2,446 | 2,834 | 2,651 | 2,815 |
| Unrecoverable input liability on GFCF of exempt industries | 3,754 | 3,567 | 3,696 | 4,045 | 3,922 |
| Net Adjustments | 375 | 535 | 677 | 641 | 525 |
| VAT Revenues (Eurostat) | 7,852 | 9,494 | 11,412 | 11,212 | 11,913 |
| **VAT Gap** | **7,799** | **7,803** | **8,251** | **8,422** | **8,296** |
| **VAT Gap as % of liability** | **50%** | **45%** | **42%** | **43%** | **41%** |




**Highlights for 2013**

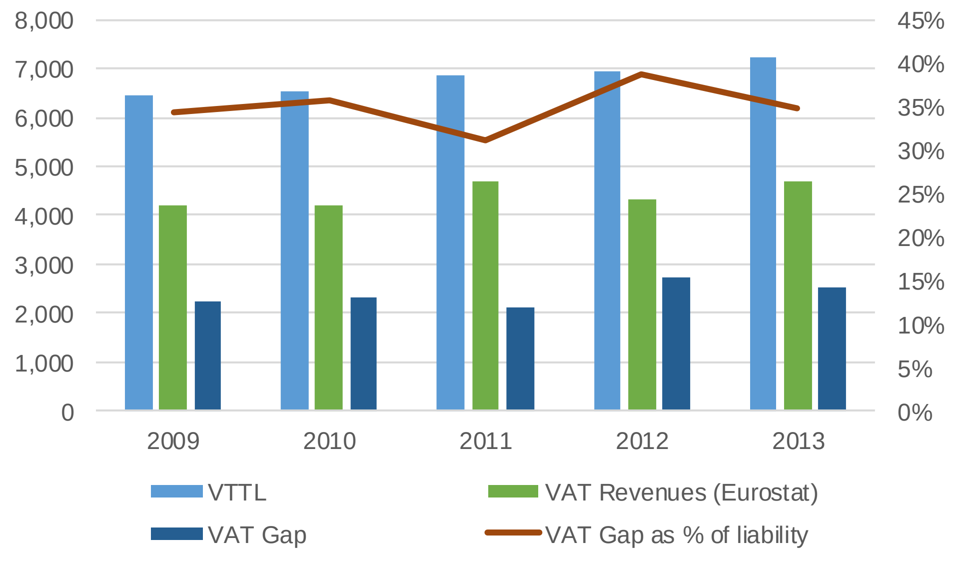
Romania's VAT gap declined by two percentage points in 2013, capping a five-year trend that has lowered the non-compliance from the high of 2009 (50 percent).

The 2013 result is in line with economic fundamentals. Romania registered one of the strongest GDP growth rates in the EU (+3.5 percent), and VAT revenues rose by a strong 6.3 percent (in Euro terms).
The VTTL rose more slowly than nominal final consumption, hence the reduction in the VAT Gap from 43 to 41 percent. This remains the highest value of the Gap in the EU-26 Member States.

No changes were made to the VAT system during this period.

**Table 3.22 Slovakia: VAT receipts, VTTL, composition of VTTL and Gap, 2009–2013 (EUR million)**

| | **2009** | **2010** | **2011** | **2012** | **2013** |
|---|---|---|---|---|---|
| VTTL | 6,438 | 6,516 | 6,844 | 6,963 | 7,209 |
| Liability on Household Consumption | 4,606 | 4,756 | 5,070 | 5,243 | 5,385 |
| Unrecoverable input liability on Intermediate consumption, Government and NPISH | 1,133 | 1,104 | 1,162 | 1,181 | 1,205 |
| Unrecoverable input liability on GFCF of exempt industries | 703 | 670 | 607 | 628 | 620 |
| Net Adjustments | -4 | -14 | 5 | 2 | -2 |
| VAT Revenues (Eurostat) | 4,221 | 4,182 | 4,711 | 4,328 | 4,696 |
| **VAT Gap** | **2,217** | **2,334** | **2,133** | **2,726** | **2,513** |
| **VAT Gap as % of liability** | **34%** | **36%** | **31%** | **39%** | **35%** |




**Highlights for 2013**

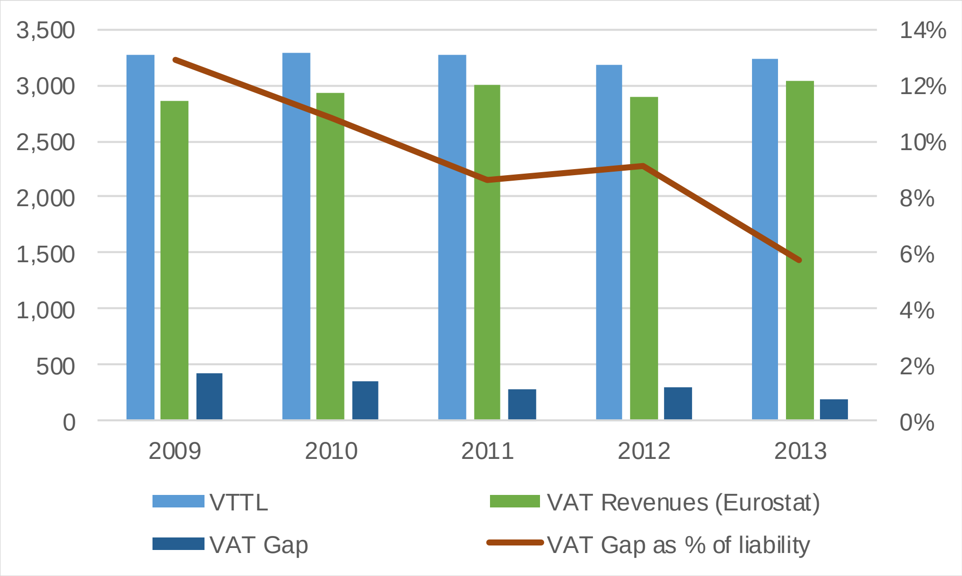
The VAT Gap in Slovakia in 2013 saw an important reduction from the extremely high value reached in 2012. Overall economic conditions were not particularly strong, with GDP growth positive but cut in half, and a very slow growth of nominal final consumption.

The VTTL rose by 2.2 percent, while revenues had a considerably more robust performance, at 8.5 percent growth. As a result, the VAT Gap declined by 4 percentage points, but, at 35%, it places Slovakia in the top tier of Member States in the EU-26 by this indicator.

No major changes to the VAT regime were registered during this period.

**Table 3.23 Slovenia: VAT receipts, VTTL, composition of VTTL and Gap, 2009–2013 (EUR million)**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| VTTL | 3,272 | 3,282 | 3,279 | 3,174 | 3,232 |
| Liability on Household Consumption | 2,176 | 2,257 | 2,309 | 2,243 | 2,280 |
| Unrecoverable input liability on Intermediate consumption, Government and NPISH | 527 | 542 | 533 | 520 | 520 |
| Unrecoverable input liability on GFCF of exempt industries | 453 | 376 | 322 | 309 | 328 |
| Net Adjustments | 116 | 107 | 115 | 108 | 103 |
| VAT Revenues (Eurostat) | 2,851 | 2,926 | 2,996 | 2,889 | 3,045 |
| **VAT Gap** | **421** | **356** | **283** | **291** | **186** |
| **VAT Gap as % of liability** | **13%** | **11%** | **9%** | **9%** | **6%** |




**Highlights for 2013**

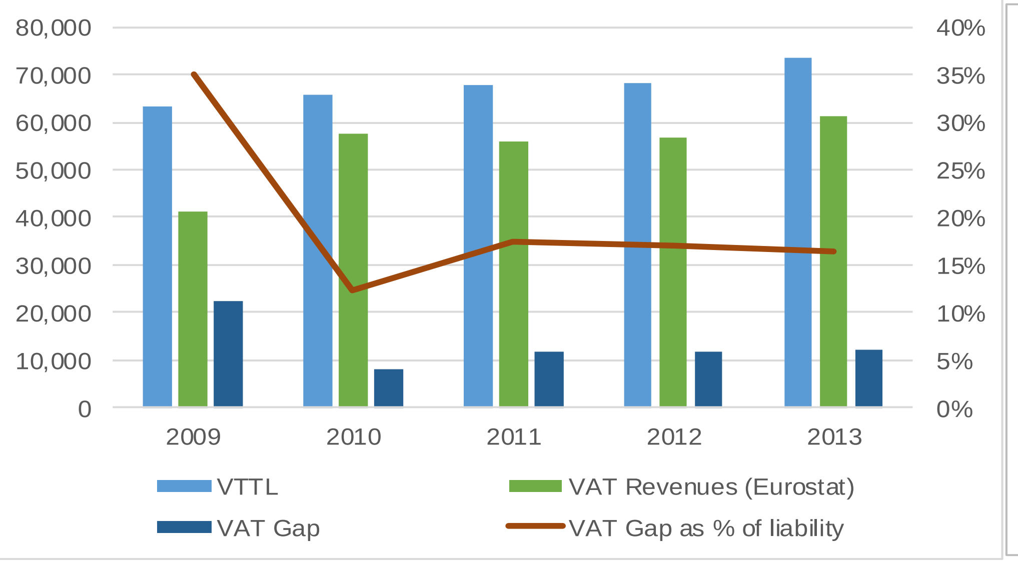
Thanks to a good revenue performance, Slovenia was able to reduce its VAT Gap by one-third over the course of 2013.

VAT revenues rose by 5.4 percent, thanks in large part to the increase by one percentage point in the Standard and Reduced rates, and despite the fact that the economy saw a contraction for the second year in a row.

A greater efficiency of collection is shown by the fact that the VTTL rose by less than 1 percent, thus leading to the substantial reduction in the Gap (from 9 to 6 percent). This favorable trend has reduced the Gap by over half since 2009.

**Table 3.24 Spain: VAT receipts, VTTL, composition of VTTL and Gap, 2009–2013 (EUR million)**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| VTTL | 63,214 | 65,796 | 67,677 | 68,262 | 73,444 |
| Liability on Household Consumption | 41,533 | 44,472 | 47,244 | 49,751 | 54,937 |
| Unrecoverable input liability on Intermediate consumption, Government and NPISH | 12,233 | 11,768 | 12,037 | 12,404 | 13,444 |
| Unrecoverable input liability on GFCF of exempt industries | 8,493 | 8,596 | 7,425 | 5,127 | 4,061 |
| Net Adjustments | 955 | 959 | 971 | 979 | 1,003 |
| VAT Revenues (Eurostat) | 41,045 | 57,649 | 55,904 | 56,652 | 61,350 |
| **VAT Gap** | **22,169** | **8,147** | **11,773** | **11,610** | **12,094** |
| **VAT Gap as % of liability** | **35%** | **12%** | **17%** | **17%** | **16%** |
| Pro-Memoria: VAT Gap Including Net Refunds | 8,858 | 7,674 | 10,715 | 10,574 | 10,742 |
| Pro-Memoria: VAT Gap Including Net Refunds, % | 14% | 12% | 16% | 15.5% | 14.6% |



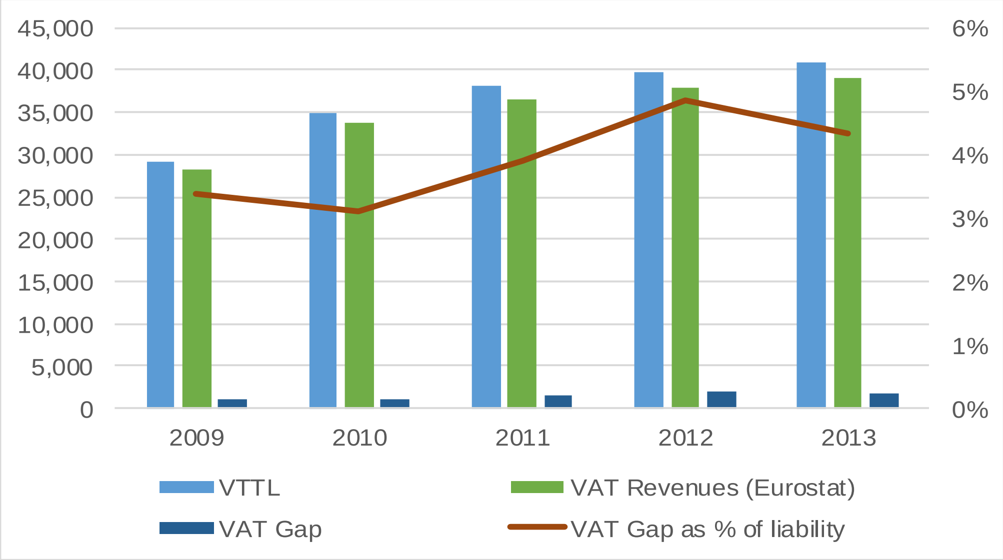

**Highlights for 2013**

The VAT Gap in Spain decreased during 2013 on the basis of revenue data reported to Eurostat. With the economy in a continuing recession, and growth of nominal final consumption also negative, the VTTL grew strongly (+7.6 percent) on account of full effect of the VAT rate increase introduced in late 2012. Revenues rose somewhat more (8.3 percent), thus leading to a decrease in the Gap to 16 percent. Adjusting revenues for the continuing reduction in the stock of claims for refunds that has been ongoing since 2009, in order to better approximate accrued revenues (see Box 2.1), the picture is essentially similar, with a very slight *reduction* in the Gap (which also has a lower level), from 15.5 to 14.6 percent.

These estimates correct the VTTL for the difference between national accounting and tax conventions in the construction sector (Box 2.1).

**Table 3.25 Sweden: VAT receipts, VTTL, composition of VTTL and Gap, 2009–2013 (EUR million)**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| VTTL | 29,188 | 34,908 | 38,123 | 39,762 | 40,867 |
| Liability on Household Consumption | 15,806 | 18,823 | 20,343 | 21,098 | 21,803 |
| Unrecoverable input liability on Intermediate consumption, Government and NPISH | 8,573 | 10,101 | 10,936 | 11,571 | 11,994 |
| Unrecoverable input liability on GFCF of exempt industries | 4,230 | 5,297 | 6,055 | 6,489 | 6,442 |
| Net Adjustments | 578 | 687 | 790 | 603 | 628 |
| VAT Revenues (Eurostat) | 28,199 | 33,825 | 36,631 | 37,834 | 39,091 |
| **VAT Gap** | **989** | **1,082** | **1,492** | **1,928** | **1,776** |
| **VAT Gap as % of liability** | **3%** | **3%** | **4%** | **5%** | **4%** |




**Highlights for 2013**

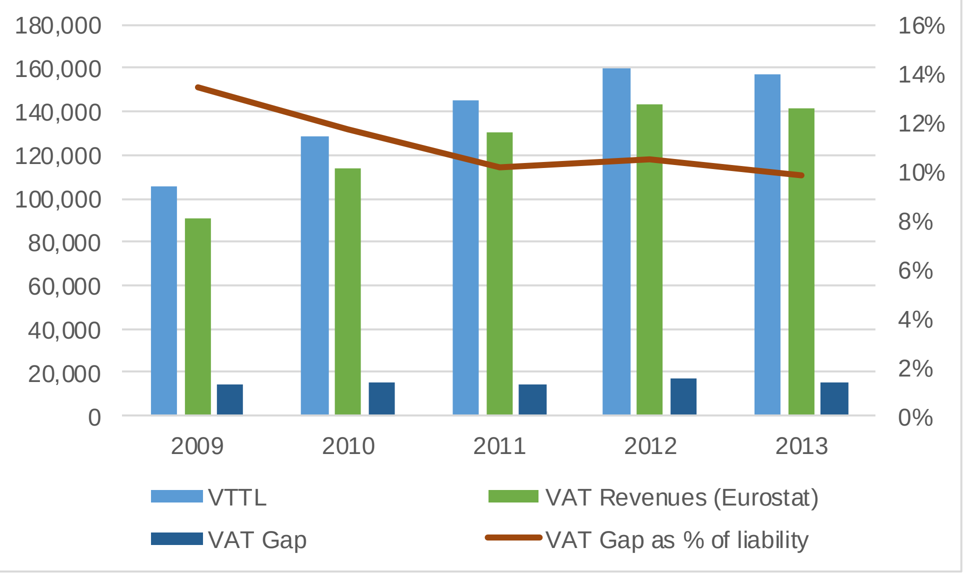
The VAT Gap in Sweden declined in the course of 2013, to one of the lowest levels of the EU-26 countries.

With the economy experiencing a mild recovery, and nominal final consumption growing by some 2.2 percent, the VTTL rose by some 2 percent, and VAT revenues registered even stronger growth (2.7 percent), thus leading to a decline in the Gap in absolute and relative terms, to 4 percent of liability.

No changes were made to the VAT regime during 2013.

**Table 3.26 United Kingdom: VAT receipts, VTTL, composition of VTTL and Gap, 2009–2013 (EUR million)**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| VTTL | 105,393 | 128,822 | 145,410 | 159,695 | 157,099 |
| Liability on Household Consumption | 66,953 | 82,615 | 94,035 | 103,683 | 103,776 |
| Unrecoverable input liability on Intermediate consumption, Government and NPISH | 28,532 | 35,434 | 39,464 | 42,053 | 40,034 |
| Unrecoverable input liability on GFCF of exempt industries | 8,499 | 9,475 | 9,884 | 10,901 | 10,497 |
| Net Adjustments | 1,408 | 1,298 | 2,027 | 3,058 | 2,791 |
| VAT Revenues (Eurostat) | 91,229 | 113,687 | 130,679 | 142,943 | 141,668 |
| **VAT Gap** | **14,163** | **15,135** | **14,731** | **16,752** | **15,431** |
| **VAT Gap as % of liability** | **13%** | **12%** | **10%** | **10%** | **10%** |




**Highlights for 2013**

The VAT Gap in the United Kingdom remained stable as a percentage of VTTL during 2013.

With nominal final consumption growing by a healthy 3.6 percent (and overall real GDP growth at 1.7 percent) the VTTL (in pound terms) rose by 3 percent. Revenue growth was also buoyant at 3.8 percent, leading to a reduction of the gap in pound terms, and stability in percentage terms at 10 percent.

The VAT regime was not substantially changed during 2013.

## Appendix A – Derivation of Policy Gaps

In this appendix, we define the concepts used in Section 2.2 (Policy Gaps), and discuss some of the methodological choices made.

### VRR, Notional Ideal Revenue and Policy Gap

We start from the definition of the VAT Revenue Ratio (VRR), as in OECD 2014:

VRR = (Actual Revenue) / (Notional Ideal Revenue)

where the Notional Ideal Revenue is defined as the standard rate of VAT times the aggregate net consumption of the household, non-profit, and government sectors, as recorded in the national accounts.

This is shown in the following identity:

VRR = [(Actual Revenues)/VTTL]*(VTTL/Notional Ideal Revenue)
= [1-VAT Gap]*[1-Policy Gap]
where
Policy Gap = (Notional Ideal Revenue – VTTL)/Notional Ideal Revenue

Here the Policy Gap is defined as one minus the ratio of the "legal" tax liability (the VTTL) to an ideal tax liability without reduced rates or exemptions. The Policy Gap can then be obtained with the following formula:

Policy Gap = [(1-VRR) – VAT Gap]/[1 – VAT Gap].

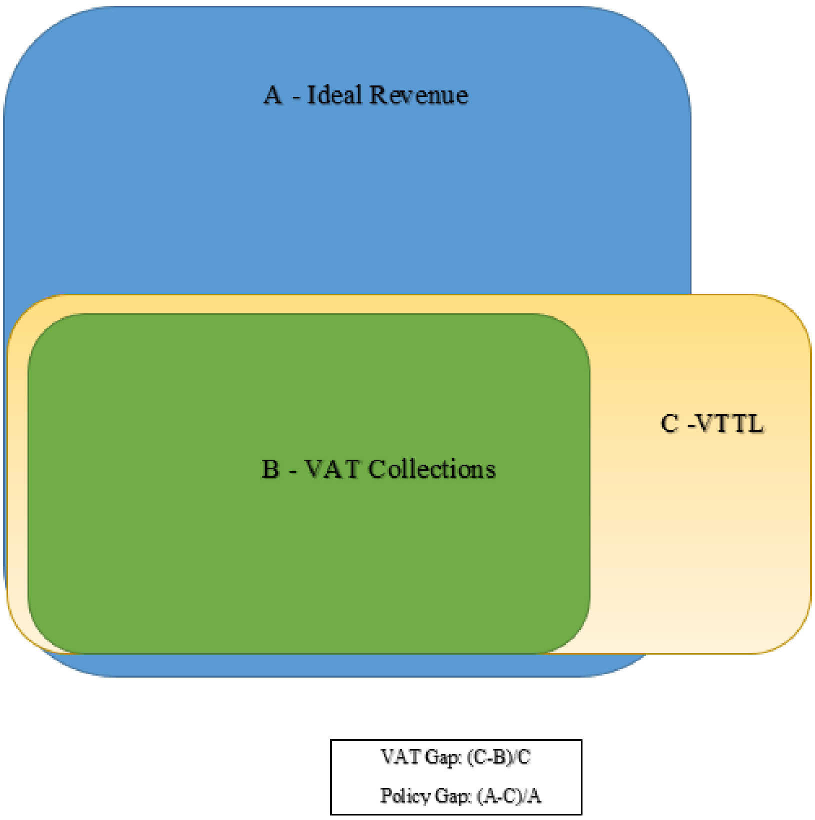
Crucial for the calculation of the VRR is the notion of "ideal base". National accounts for most countries report final consumption on a gross (i.e., VAT-inclusive) basis. Of the EU-26, only Lithuania reports pre-VAT values for the use tables. For the other countries, net consumption is estimated on the basis of gross consumption recorded in the use tables, from which VAT revenues (minus the share of VTTL resulting from GFCF liability of exempt sectors) are subtracted[10].

The interdependence among the various concepts presented is shown in Figure A.1[11].

[10] This methodology differs from that of OECD (2014), which instead subtracts all VAT revenues from final consumption. We argue that the VAT collected on GFCF of exempt sectors in not passed-on to final consumer, as it does not enter directly the production of final goods.

[11] Many thanks to E. Hutton of the IMF for inspiration. In fig. A.1, the VTTL has a component outside the Ideal Revenue, in that taxation of GFCF of exempt sectors is not part of the Ideal Revenue (by construction) but it is part of the VTTL.

**Figure A.1 - Policy Gap, VAT Collections and VAT Gap**




## Exemption Gaps and Rate Gaps

In this section we supplement the definition of Policy Gap by defining and discussing its two components, the Rate Gap and the Exemption Gap, which capture the loss in VAT liability due to the application of reduced rates, and the loss in liability due to the implementation of exemptions.

The Rate Gap is defined as the difference between the VTTL and what would obtain in a counterfactual situation, in which the standard rate, instead of the reduced, parking, and zero rates, is applied to final consumption. Thus, the Rate Gap captures the loss in revenue that the legislator in a particular country incurs into by adopting multiple VAT rates instead of a single standard rate.

The Exemption gap is defined as the difference between the VTTL and what would obtain in a counterfactual situation, in which the standard rate is applied to exempt products and services, and these goods and services are given the right to deduct VAT on inputs.[12] Thus, the Exemption Gap captures the amount of revenue that might be lost on account of exempted goods and services. Note that the Exemption Gap is composed of the loss in the VAT on value added of exempt sectors, *minus* the VAT on their inputs, *minus* the VAT on GFCF inputs for these sectors. Thus, in principle, the Exemption Gap might be positive or negative (if the particular sector had negative value added, or if it had large GFCF expenditures relative to final consumption).

In algebraic terms, we have the following:

**Definitions:**

$T_i^{*,E} = \frac{VTTL_i^{*,E}}{C_i}$ – effective rate for group $i$ of products in case standard rate instead of zero rate, parking rate and reduced rates is applied (for final consumption)

$VTTL_i^{*,E}$ – liability from **final consumption** of group $i$ of products in case standard rate instead of zero rate, parking rate and reduced rates is applied**,** actual liability from **intermediate consumption, gfcf and net adjustments**

$T_i^{*,R} = \frac{VTTL_i^{*,R}}{C_i}$ – effective rate for group $i$ of products in case exempt products within the group are taxed at standard rate

$VTTL_i^{*,R}$ – liability from **final consumption** of group $i$ when exempt products within the group are taxed at standard rate

**Policy gap:**

$$1 - P = \left(\frac{\sum_{i=1}^{N} T_i C_i}{\tau_s \sum_{i=1}^{N} C_i}\right)\left(\frac{\sum_{i=1}^{N} T_i^* C_i}{\sum_{i=1}^{N} T_i C_i}\right) = \left(\frac{\sum_{i=1}^{N} T_i^* C_i}{\tau_s \sum_{i=1}^{N} C_i}\right)$$

**Exemption gap:**

$$1 - P_E = \left(\frac{\sum_{i=1}^{N} T_i C_i}{\tau_s \sum_{i=1}^{N} C_i}\right)\left(\frac{\sum_{i=1}^{N} T_i^{*,E} C_i}{\sum_{i=1}^{N} T_i C_i}\right) = \left(\frac{\sum_{i=1}^{N} T_i^{*,E} C_i}{\tau_s \sum_{i=1}^{N} C_i}\right)$$

**Rate gap:**

[12] The additive decomposition of the Policy gap into the Exemption and Rate gap presented in this report differs from that in Keen (2013). Keen (2013) defines the Rate gap as the loss from applying reduced and zero rates to the final consumption liability, measured as a percentage of the Notional Ideal Revenue. The Exemption gap measures unrecovered VAT accumulated in the production process as a percentage, on the contrary, of final consumption liability. Due to these definitions, the Policy gap can be split multiplicatively into gaps attributable to reduced rates and exemptions. Since the numerator of the "[1 - Rate gap]" and denominator of the "[1 - Exemption gap]" are equal, multiplication of these two components yields – VAT revenue as a percentage Notional Ideal Revenue, which equals "[1 - Policy gap]".

$$1 - P_R = \left(\frac{\sum_{i=1}^{N} T_i C_i}{\tau_s \sum_{i=1}^{N} C_i}\right)\left(\frac{\sum_{i=1}^{N} T_i^{*,R} C_i}{\sum_{i=1}^{N} T_i C_i}\right) = \left(\frac{\sum_{i=1}^{N} T_i^{*,R} C_i}{\tau_s \sum_{i=1}^{N} C_i}\right)$$

By definition we have:

$$\begin{aligned}\tau_s \sum_{i=1}^{N} C_i &= \sum_{i=1}^{N} T_i^{*} C_i + \left(\tau_s \sum_{i=1}^{N} C_i - \sum_{i=1}^{N} T_i^{*} C_i\right)\\ &= \sum_{i=1}^{N} T_i^{*} C_i + \left(\tau_s \sum_{i=1}^{N} C_i - \sum_{i=1}^{N} T_i^{*,R} C_i\right) + \left(\tau_s \sum_{i=1}^{N} C_i - \sum_{i=1}^{N} T_i^{*,E} C_i\right)\end{aligned}$$

Thus:

$$\begin{aligned}P = 1 - \left(\frac{\sum_{i=1}^{N} T_i^{*} C_i}{\tau_s \sum_{i=1}^{N} C_i}\right) = \left(\frac{\tau_s \sum_{i=1}^{N} C_i - \sum_{i=1}^{N} T_i^{*} C_i}{\tau_s \sum_{i=1}^{N} C_i}\right) = \left(\frac{2\tau_s \sum_{i=1}^{N} C_i - \sum_{i=1}^{N} T_i^{*,E} C_i - \sum_{i=1}^{N} T_i^{*,R} C_i}{\tau_s \sum_{i=1}^{N} C_i}\right)\\ = P_R + P_E\end{aligned}$$

# Appendix B - Statistical Appendix

**Table B.1 – VTTL (Euro millions)**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| Austria | 24,447 | 25,681 | 26,838 | 27,629 | 28,170 |
| Belgium | 27,150 | 28,473 | 29,255 | 30,272 | 30,412 |
| Bulgaria | 4,208 | 4,229 | 4,434 | 4,697 | 4,560 |
| Czech Republic | 12,636 | 13,991 | 14,122 | 14,883 | 15,070 |
| Denmark | 24,390 | 25,107 | 25,916 | 26,563 | 26,850 |
| Estonia | 1,357 | 1,413 | 1,550 | 1,740 | 1,873 |
| Finland | 15,673 | 16,691 | 17,955 | 18,524 | 19,660 |
| France | 149,824 | 147,739 | 151,118 | 157,360 | 158,510 |
| Germany | 196,095 | 199,283 | 212,245 | 216,984 | 221,878 |
| Greece | 22,453 | 22,885 | 24,181 | 20,595 | 19,090 |
| Hungary | 10,244 | 11,102 | 11,066 | 11,963 | 12,003 |
| Ireland | 12,034 | 11,324 | 11,276 | 11,508 | 11,596 |
| Italy | 135,805 | 136,817 | 144,425 | 141,332 | 141,437 |
| Latvia | 1,946 | 1,841 | 2,189 | 2,391 | 2,414 |
| Lithuania | 3,480 | 3,539 | 3,848 | 3,971 | 4,192 |
| Luxembourg | 2,525 | 2,635 | 2,939 | 3,269 | 3,672 |
| Malta | 601 | 664 | 736 | 777 | 796 |
| Netherlands | 43,504 | 42,855 | 43,359 | 43,598 | 44,276 |
| Poland | 29,094 | 33,517 | 36,602 | 37,175 | 37,911 |
| Portugal | 13,993 | 15,392 | 16,359 | 15,330 | 15,068 |
| Romania | 15,651 | 17,297 | 19,662 | 19,634 | 20,209 |
| Slovakia | 6,438 | 6,516 | 6,844 | 7,054 | 7,209 |
| Slovenia | 3,272 | 3,282 | 3,279 | 3,180 | 3,232 |
| Spain | 63,214 | 65,796 | 67,677 | 68,262 | 73,444 |
| Sweden | 29,188 | 34,908 | 38,123 | 39,762 | 40,867 |
| United Kingdom | 105,393 | 128,822 | 145,410 | 159,695 | 157,099 |
| EU-26 | 954,614 | 1,001,797 | 1,061,409 | 1,088,147 | 1,101,498 |
| Source: Own Calculations | | | | | |

**Table B.2 – Household VAT Liability (Euro millions)**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| Austria | 16,280 | 17,230 | 17,980 | 18,524 | 18,986 |
| Belgium | 15,763 | 16,281 | 16,847 | 17,240 | 17,656 |
| Bulgaria | 3,016 | 3,177 | 3,351 | 3,664 | 3,529 |
| Czech Republic | 7,509 | 8,428 | 8,659 | 9,304 | 9,531 |
| Denmark | 13,716 | 14,271 | 14,549 | 14,961 | 15,108 |
| Estonia | 925 | 989 | 1,067 | 1,163 | 1,257 |
| Finland | 8,961 | 9,243 | 9,859 | 10,265 | 10,953 |
| France | 90,889 | 92,700 | 95,147 | 98,891 | 99,718 |
| Germany | 124,984 | 124,549 | 132,667 | 135,841 | 139,315 |
| Greece | 14,763 | 16,033 | 18,031 | 15,607 | 14,571 |
| Hungary | 6,834 | 7,468 | 7,676 | 8,180 | 8,127 |
| Ireland | 7,026 | 6,922 | 6,923 | 7,266 | 7,294 |
| Italy | 93,213 | 95,191 | 101,338 | 100,141 | 99,750 |
| Latvia | 1,355 | 1,342 | 1,581 | 1,726 | 1,772 |
| Lithuania | 2,696 | 2,779 | 3,045 | 3,219 | 3,436 |
| Luxembourg | 958 | 1,010 | 1,094 | 1,127 | 1,166 |
| Malta | 351 | 374 | 393 | 420 | 438 |
| Netherlands | 22,398 | 22,769 | 23,122 | 23,719 | 24,793 |
| Poland | 19,139 | 21,881 | 24,014 | 25,015 | 25,764 |
| Portugal | 9,499 | 10,404 | 11,169 | 10,738 | 10,583 |
| Romania | 8,758 | 10,749 | 12,456 | 12,296 | 12,947 |
| Slovakia | 4,606 | 4,756 | 5,070 | 5,243 | 5,385 |
| Slovenia | 2,176 | 2,257 | 2,309 | 2,243 | 2,280 |
| Spain | 41,533 | 44,472 | 47,244 | 49,751 | 54,937 |
| Sweden | 15,806 | 18,823 | 20,343 | 21,098 | 21,803 |
| United Kingdom | 66,953 | 82,615 | 94,035 | 103,683 | 103,776 |
| EU-26 | 600,108 | 636,710 | 679,966 | 701,324 | 714,875 |

Source: Own Calculations

**Table B.3 – Intermediate Consumption VAT Liability (Euro millions)**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| Austria | 4,751 | 4,795 | 4,900 | 5,067 | 5,184 |
| Belgium | 6,057 | 6,593 | 7,053 | 7,198 | 7,467 |
| Bulgaria | 652 | 579 | 613 | 575 | 588 |
| Czech Republic | 3,246 | 3,692 | 3,809 | 3,869 | 3,954 |
| Denmark | 6,861 | 7,117 | 7,310 | 7,620 | 7,745 |
| Estonia | 215 | 230 | 258 | 287 | 308 |
| Finland | 3,987 | 4,198 | 4,514 | 4,730 | 4,991 |
| France | 25,204 | 25,863 | 25,692 | 26,859 | 27,234 |
| Germany | 42,269 | 43,786 | 45,569 | 46,789 | 47,971 |
| Greece | 2,570 | 2,379 | 2,113 | 1,868 | 1,761 |
| Hungary | 2,075 | 2,263 | 2,220 | 2,279 | 2,283 |
| Ireland | 2,710 | 2,654 | 2,641 | 2,719 | 2,787 |
| Italy | 22,824 | 22,827 | 23,291 | 22,546 | 23,144 |
| Latvia | 340 | 333 | 398 | 422 | 430 |
| Lithuania | 418 | 442 | 419 | 407 | 392 |
| Luxembourg | 544 | 548 | 586 | 615 | 657 |
| Malta | 222 | 253 | 305 | 315 | 316 |
| Netherlands | 11,156 | 11,020 | 10,805 | 11,217 | 11,284 |
| Poland | 5,729 | 6,667 | 7,026 | 7,049 | 7,369 |
| Portugal | 2,893 | 3,094 | 3,173 | 3,040 | 3,063 |
| Romania | 2,764 | 2,446 | 2,834 | 2,651 | 2,815 |
| Slovakia | 1,133 | 1,104 | 1,162 | 1,181 | 1,205 |
| Slovenia | 527 | 542 | 533 | 520 | 520 |
| Spain | 12,233 | 11,768 | 12,037 | 12,404 | 13,444 |
| Sweden | 8,573 | 10,101 | 10,936 | 11,571 | 11,994 |
| United Kingdom | 28,532 | 35,434 | 39,464 | 42,053 | 40,034 |
| EU-26 | 198,487 | 210,727 | 219,663 | 225,852 | 228,942 |

Source: Own Calculations. This includes unrecoverable VAT liability of exempt industries, general government and NPISHs

**Table B.4 – GFCF VAT Liability (Euro millions)**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| Austria | 2,191 | 2,387 | 2,477 | 2,568 | 2,586 |
| Belgium | 4,039 | 4,126 | 4,007 | 4,262 | 4,173 |
| Bulgaria | 459 | 422 | 399 | 397 | 384 |
| Czech Republic | 1,654 | 1,793 | 1,574 | 1,632 | 1,502 |
| Denmark | 3,139 | 3,022 | 3,292 | 3,178 | 3,179 |
| Estonia | 208 | 186 | 214 | 280 | 299 |
| Finland | 2,251 | 2,729 | 3,037 | 3,063 | 3,175 |
| France | 30,186 | 25,142 | 26,577 | 27,772 | 27,636 |
| Germany | 27,413 | 29,400 | 32,277 | 32,602 | 32,830 |
| Greece | 4,745 | 4,058 | 3,494 | 2,717 | 2,358 |
| Hungary | 1,278 | 1,292 | 1,074 | 1,269 | 1,410 |
| Ireland | 2,045 | 1,518 | 1,471 | 1,279 | 1,279 |
| Italy | 15,790 | 15,173 | 15,035 | 14,204 | 14,186 |
| Latvia | 235 | 151 | 196 | 223 | 192 |
| Lithuania | 366 | 307 | 368 | 331 | 347 |
| Luxembourg | 282 | 283 | 291 | 298 | 288 |
| Malta | 26 | 30 | 37 | 39 | 37 |
| Netherlands | 9,312 | 8,400 | 8,750 | 7,992 | 7,502 |
| Poland | 3,612 | 4,242 | 4,585 | 4,098 | 3,771 |
| Portugal | 1,293 | 1,485 | 1,653 | 1,190 | 1,085 |
| Romania | 3,754 | 3,567 | 3,696 | 4,045 | 3,922 |
| Slovakia | 703 | 670 | 607 | 628 | 620 |
| Slovenia | 453 | 376 | 322 | 309 | 328 |
| Spain | 8,493 | 8,596 | 7,425 | 5,127 | 4,061 |
| Sweden | 4,230 | 5,297 | 6,055 | 6,489 | 6,442 |
| United Kingdom | 8,499 | 9,475 | 9,884 | 10,901 | 10,497 |
| EU-26 | 136,657 | 134,126 | 138,797 | 136,895 | 134,088 |

Source: Own Calculations. This includes unrecoverable VAT liability on investments of exempt sectors, incl. General Govt. and NPISHs

**Table B.5 – VAT Revenues (Euro millions)**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| Austria | 22,158 | 22,735 | 23,447 | 24,563 | 24,953 |
| Belgium | 23,600 | 25,230 | 26,019 | 26,896 | 27,226 |
| Bulgaria | 3,156 | 3,299 | 3,362 | 3,828 | 3,775 |
| Czech Republic | 9,784 | 10,420 | 11,246 | 11,377 | 11,694 |
| Denmark | 22,499 | 23,040 | 23,682 | 24,296 | 24,360 |
| Estonia | 1,224 | 1,257 | 1,363 | 1,508 | 1,558 |
| Finland | 15,176 | 15,533 | 17,315 | 17,987 | 18,848 |
| France | 130,303 | 135,578 | 140,552 | 142,526 | 144,414 |
| Germany | 177,701 | 180,213 | 189,910 | 194,034 | 197,005 |
| Greece | 14,876 | 15,958 | 15,021 | 13,712 | 12,593 |
| Hungary | 7,820 | 8,442 | 8,516 | 9,084 | 9,073 |
| Ireland | 10,325 | 10,067 | 9,755 | 10,219 | 10,371 |
| Italy | 86,544 | 97,586 | 98,650 | 96,170 | 93,921 |
| Latvia | 1,109 | 1,192 | 1,367 | 1,582 | 1,693 |
| Lithuania | 1,961 | 2,180 | 2,444 | 2,521 | 2,611 |
| Luxembourg | 2,457 | 2,562 | 2,824 | 3,093 | 3,485 |
| Malta | 457 | 477 | 520 | 536 | 586 |
| Netherlands | 40,086 | 42,654 | 41,610 | 41,699 | 42,424 |
| Poland | 23,056 | 27,466 | 29,764 | 27,783 | 27,780 |
| Portugal | 11,971 | 13,527 | 14,265 | 13,995 | 13,710 |
| Romania | 7,852 | 9,494 | 11,412 | 11,212 | 11,913 |
| Slovakia | 4,221 | 4,182 | 4,711 | 4,328 | 4,696 |
| Slovenia | 2,851 | 2,926 | 2,996 | 2,889 | 3,045 |
| Spain | 41,045 | 57,649 | 55,904 | 56,652 | 61,350 |
| Sweden | 28,199 | 33,825 | 36,631 | 37,834 | 39,091 |
| United Kingdom | 91,229 | 113,687 | 130,679 | 142,943 | 141,668 |
| EU-26 | 781,660 | 861,179 | 903,965 | 923,267 | 933,843 |

Source: Eurostat

**Table B.6 – VAT Gap (Euro millions)**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| Austria | 2,289 | 2,945 | 3,392 | 3,066 | 3,217 |
| Belgium | 3,549 | 3,243 | 3,236 | 3,376 | 3,186 |
| Bulgaria | 1,052 | 930 | 1,072 | 869 | 785 |
| Czech Republic | 2,852 | 3,571 | 2,876 | 3,506 | 3,375 |
| Denmark | 1,892 | 2,067 | 2,234 | 2,267 | 2,489 |
| Estonia | 133 | 156 | 187 | 232 | 315 |
| Finland | 497 | 1,158 | 640 | 537 | 812 |
| France | 19,521 | 12,161 | 10,566 | 14,834 | 14,096 |
| Germany | 18,394 | 19,070 | 22,335 | 22,950 | 24,873 |
| Greece | 7,577 | 6,927 | 9,160 | 6,883 | 6,497 |
| Hungary | 2,424 | 2,660 | 2,550 | 2,879 | 2,930 |
| Ireland | 1,709 | 1,256 | 1,521 | 1,289 | 1,225 |
| Italy | 49,260 | 39,230 | 45,775 | 45,163 | 47,516 |
| Latvia | 836 | 649 | 821 | 808 | 720 |
| Lithuania | 1,519 | 1,358 | 1,404 | 1,450 | 1,580 |
| Luxembourg | 68 | 73 | 115 | 176 | 187 |
| Malta | 144 | 186 | 216 | 241 | 210 |
| Netherlands | 3,418 | 201 | 1,749 | 1,899 | 1,852 |
| Poland | 6,038 | 6,051 | 6,837 | 9,391 | 10,131 |
| Portugal | 2,022 | 1,865 | 2,094 | 1,335 | 1,358 |
| Romania | 7,799 | 7,803 | 8,251 | 8,422 | 8,296 |
| Slovakia | 2,217 | 2,334 | 2,133 | 2,726 | 2,513 |
| Slovenia | 421 | 356 | 283 | 291 | 186 |
| Spain | 22,169 | 8,147 | 11,773 | 11,610 | 12,094 |
| Sweden | 989 | 1,082 | 1,492 | 1,928 | 1,776 |
| United Kingdom | 14,163 | 15,135 | 14,731 | 16,752 | 15,431 |
| EU-26 | 172,954 | 140,617 | 157,444 | 164,879 | 167,654 |
| Source: Own Calculations | | | | | |

**Table B.7 – VAT Gap (percent of VTTL)**

| | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|
| Austria | 9.4 | 11.5 | 12.6 | 11.1 | 11.4 |
| Belgium | 13.1 | 11.4 | 11.1 | 11.2 | 10.5 |
| Bulgaria | 25.0 | 22.0 | 24.2 | 18.5 | 17.2 |
| Czech Republic | 22.6 | 25.5 | 20.4 | 23.6 | 22.4 |
| Denmark | 7.8 | 8.2 | 8.6 | 8.5 | 9.3 |
| Estonia | 9.8 | 11.0 | 12.1 | 13.3 | 16.8 |
| Finland | 3.2 | 6.9 | 3.6 | 2.9 | 4.1 |
| France | 13.0 | 8.2 | 7.0 | 9.4 | 8.9 |
| Germany | 9.4 | 9.6 | 10.5 | 10.6 | 11.2 |
| Greece | 33.7 | 30.3 | 37.9 | 33.4 | 34.0 |
| Hungary | 23.7 | 24.0 | 23.0 | 24.1 | 24.4 |
| Ireland | 14.2 | 11.1 | 13.5 | 11.2 | 10.6 |
| Italy | 36.3 | 28.7 | 31.7 | 32.0 | 33.6 |
| Latvia | 43.0 | 35.2 | 37.5 | 33.8 | 29.8 |
| Lithuania | 43.7 | 38.4 | 36.5 | 36.5 | 37.7 |
| Luxembourg | 2.7 | 2.8 | 3.9 | 5.4 | 5.1 |
| Malta | 24.0 | 28.1 | 29.4 | 31.0 | 26.4 |
| Netherlands | 7.9 | 0.5 | 4.0 | 4.4 | 4.2 |
| Poland | 20.8 | 18.1 | 18.7 | 25.3 | 26.7 |
| Portugal | 14.5 | 12.1 | 12.8 | 8.7 | 9.0 |
| Romania | 49.8 | 45.1 | 42.0 | 42.9 | 41.1 |
| Slovakia | 34.4 | 35.8 | 31.2 | 38.6 | 34.9 |
| Slovenia | 12.9 | 10.8 | 8.6 | 9.1 | 5.8 |
| Spain | 35.1 | 12.4 | 17.4 | 17.0 | 16.5 |
| Sweden | 3.4 | 3.1 | 3.9 | 4.8 | 4.3 |
| United Kingdom | 13.4 | 11.7 | 10.1 | 10.5 | 9.8 |
| EU-26 | 18.1 | 14.0 | 14.8 | 15.2 | 15.2 |
| Source: Own Calculations | | | | | |

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