

Excise Duty Gap on Cigarettes

Maris Juruss¹, Baiba Smite-Roke², Liga Gasune³

^{1,3}Riga Technical University

Kalku st. 1, LV-1658, Riga, Latvia

E-mail. maris.juruss@rtu.lv, liga.gasune@inbox.lv

²State Revenue Service

Talejas st. 1, LV-1978 Riga, Latvia

E-mail. Baiba.Smite-Roke@vid.gov.lv

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The largest part of indirect taxes is excise duty and there are significant losses in tax revenues from illegal trade of such goods as cigarettes due to the fact they are taxed with a very high excise duty burden and therefore there is a very high level of smuggling and illegal trade in all European Union member states. The expansion of the illegal market to the eastern borders of the European Union has been driven by an increase in excise duties on cigarettes, with subsequent price rises. Some of the previous studies were trying to find the best methodology for measuring the tax gap but there were indicated some difficulties and no common approach to estimate excise duty gap on cigarettes in the European Union. The authors are using a top-down methodology to design a methodology how to estimate the excise duty gap on cigarettes. The objective of this article is to present an overview study of tax gap estimations, calculate the excise duty gap on cigarettes in Latvia, discuss the best practice how to limit the tax gap and protect the legal market, as well as develop recommendations for improvement of tax administration. The problem of protecting the legal market by stoppage and reduction of cigarettes smuggling is on the agenda of the European Union.

Keywords: *Excise Duty; Revenues; Tax Gap; Illicit Market; Customs Authorities; Top-Down Methodology.*

Introduction

There have been a number of studies of the value added tax (VAT) gap in the European Union (EU) (Reckon, 2009; Barbone, Bonch-Osmolovskiy & Poniatowski, 2015). However, more significant losses are from the illegal trade with such goods as cigarettes, as they are taxed with a very high excise duty burden and therefore there is very high smuggling and illegal trade in all EU member states which impacts both excise duty and VAT gap.

The expansion of the illegal market to the eastern borders of the EU has been driven by an increase in excise duties on cigarettes, with subsequent price rises. With a desire to save, the consumers search for cheaper ways to get the desired cigarettes, therefore consumers buy cigarettes in the illicit market.

The smuggling is caused by geographical location to neighboring countries where the prices of cigarettes are substantially lower than in the EU. On the agenda of the EU institutions there is a legitimate protection of the cigarette market by reducing smuggling. Smuggling interacts with different types of processes, so tax and customs experts are looking for new and more effective methods to curb the flow of illegal cigarettes. The legal protection of the tobacco market, the limitation of illegal trade, the fight against smuggling, the abolition of illicit manufacturing and the cessation of counterfeit products are the priorities of the tax administration for the coming years.

The total consumption of illegal cigarettes in the EU is about 56.6 billion cigarettes (KPMG, 2015). For example,

in Latvia in 2014 the percentage of illicit cigarette market was 29.3 per cent of the total cigarette consumption, making Latvia a country with the highest proportion of illegal cigarette consumption in the EU (KPMG, 2015). The necessity to increase excise duty was implemented with changes in excise tax legislation, increasing the price of cigarettes on the legal market. As of 1 July 2018, the excise duty on cigarettes in Latvia should be minimum EUR 100 per 1000 cigarettes.

Cigarette smuggling and other forms of illicit trade in tobacco products cause an estimated EUR 10 billion loss to the EU and national budgets every year. It is necessary to estimate the excise duty gap on cigarettes and set an action plan how to reduce it.

The aim of this research is to estimate excise duty gap on cigarettes using top-down methodology and developing recommendations for improving tax administration. The objectives are: overview study of tax gap estimations, by the designed methodology, as a case study, calculate the excise duty gap on cigarettes in Latvia, study the best practice how to limit the tax gap and protect legal market, as well as develop recommendations for improvement of tax administration.

Qualitative analysis of scientific researches and regulations and quantitative data analysis about tax revenues was used as a research methodology.

Literature Review

Most of the developed and developing countries the taxes are a major source of revenue. Therefore, tax evasion

is a worldwide problem. For example, the smuggling activities involving cigarettes have caused a great loss to tax revenues in many countries. Various factors can negative or decreasing affect the amount of excise duty gathering, for example, the tax rate, the fairness of taxes, the penalty rate, the influence of peers and tax agents (Sinnasamy, Bidin & Ismail, 2015).

The tax evasion is a major cause of inefficiency in the market, reducing the ability of the state to raise funds, which in turn has an impact on economic and social policy delivery. (Kasnauskiene & Krimisieraite, 2015).

Mazur and Plumley have argued the tax gap is defined as the difference between the amount of tax imposed by the tax code and the amount that is reported and paid with timely filed returns (Mazur & Plumley, 2007).

A common approach is used to calculate the VAT difference in the EU. It is calculated as the difference between the theoretical VAT liability and VAT collection in any country and any year (in absolute or in percentage terms). The "top-down" methodology developed by Reckon (Reckon, 2009) is used to calculate the theoretical VAT liabilities, which is adjusted if necessary. The methodology used has been supplemented, as reports from several EU Member States authorities have made it possible to improve the accuracy of key parameters (Barbone, Bonch-Osmolovskiy & Poniatowski, 2015).

The VAT difference is not always a VAT fraud, for example, the VAT difference may include VAT that has not been paid as a result of legitimate tax avoidance measures or have been affected by the accuracy and completeness of the data, as the VAT difference is estimated on the basis of national accounts data. It does not take into account taxable activities, which are outside of government accounts. Nor it does include data adjusting the assumptions for VAT differences in cases where VAT has not been collected due to insolvency of companies that resulting from regular business activities. Since precise data can not be obtained, it can not, however, be considered as part of the VAT which is not transferred in relation to VAT fraud. (Reckon, 2009). This should be taken in consideration in defining also excise duty gap.

The largest part of indirect taxes is excise tax and the main problem in the national and international area has become tax fraud. There is a significant difference between declared excise duty and actual excise duty values in any country, in which excise duty is in place (Miskam, Noor, Omar & Aziz, 2013).

Economic stability and public policy can be significantly influenced by the existence of a shadow economy in the country. The choices made and the measures taken may be different as they are not regulated as they are in the official field. It can affect growth prospects as it can endanger social infrastructure. They suffer public finances as the tax base decreases, thus reducing the government's ability to generate revenue. If there is no possibility to obtain official statistics of sufficient quality, policy makers' assessments and recommendations may lead to even greater inaccuracy. Therefore, the size of the informal sector is a challenge that needs to be addressed and an important task is to understand what factors can affect it (Blackburn, Bose & Capasso, 2012).

The illegal sales constituted 11 per cent of all cigarettes sold in 2011 and 10.4 % of the cigarettes were sold illegally in the EU, respectively, which indicates that in more than 5 years no efficient enough methods have been found to reduce this amount (Cooper & Vitt, 2011).

It should be mentioned, that mainly illicit cigarettes are purchased by lower income level earners as high prices have more impact to this group of consumers. Studies shows, that lower income households tend to be less compliant than higher income households (Alm & Borders, 2014).

At least, the complexity of the tax system can be a significant determinant of non-compliance (Morgan-Thomas, 2013).

There is no common approach to estimate excise duty gap on cigarettes in the EU. However, the excise duty gap is regularly measured in many national tax and customs administrations, for example, in the United Kingdom (HM Revenue & Customs, 2013).

The studies show the difficulties to find the best methodology for measuring the tax gap. In order to choose the appropriate methods, the exact subject of the research must be determined, i.e. prohibited, illegal or distorting activity or tax evasion. Similarly, the application of this method should take into account historical and actual data, as the rapidly changing situation and the various factors may affect the results. (Davida & Semerada, 2014).

Methodology

At this article for the design of excise duty gap on cigarettes are used a top-down methodology. Top-down methodologies based on a macro perspective usually employ economy-wide aggregates. Top-down methodologies are based on the assumption that the data source used to calculate tax differences covers the entire tax base. This methodology uses uniform estimates based on data that is independent of the tax administration. (Rubin, 2011) If the tax administration's operational information is planned and potentially contaminated with management issues, this can be particularly beneficial. (Keen, 2013) In general, it is similar to the methodology used by tax and customs authorities in the UK (HM Revenue and Customs 2013), however, it has some specific differences. The methodology includes the following steps (see Table 1).

The results should be corrected by the following factors: legally imported duty not paid cigarettes within private limits, legally purchased cigarettes, but exported by private consumers and other factors as error in calculations. However, due to the limited availability of such information, for correction are used assumption margin of 5 per cent.

The methodology can be used to measure the excise duty gap on cigarettes and therefore to set it as key performance indicator for further activities to reduce illicit trade and duty non-compliance.

Table 1

Steps for Estimation of Excise Duty Gap on Cigarettes

No	Step	Action
1	Total consumption	The Total consumption (C_T) by combining the following information: <ul style="list-style-type: none"> estimates of prevalence (proportion of the population that smokes cigarettes) from the Health Survey; estimates of cigarette consumption per smoker from the Health Survey; data about the adult population; and a correction factor covering under-reporting.
2	Legitimate consumption	Data about the Legitimate consumption (C_L).
3	Illicit consumption	Calculation of the Illicit consumption (C_I) by formula 1. Subtraction from the Total consumption (C_T) the Legitimate consumption (C_L). $C_I = C_T - C_L \quad (1)$
4	Revenue losses	Calculation the Revenue losses (L) by formula 2. Multiplied the Illicit consumption (C_I) by the Excise duty rate (T). $L = C_I \times T \quad (2)$
5	Excise duty revenues	Obtained data about the Excise duty revenues (R).
6	Excise duty gap	Estimated the Excise duty gap (G) by formula 3. Excise duty gap is expressed as per cent of the total potential revenues or from sum of Revenue losses (L) and the Excise duty revenues (R). $G = L / (L + R) \quad (3)$

Author's construction based on UK methodology

Results

For a case study to estimate the excise duty gap on cigarettes in Latvia are used previously described methodology. As the result in 2016 estimated the excise duty gap on cigarettes was 35 per cent.

For case study for estimation of the total amount of consumed cigarettes are used the Survey of Health Behavior among Latvian Adult Population in Latvia (SKPC, 2015). In this survey the combined sampling method was used – a method of stratified random sampling and quota. The sample

was stratified by sex, age, place of residence, city, municipality, region and nationality. Data about the adult population was obtained from Central Statistical Bureau (CSP, 2017).

According to the survey the smoking prevalence is 53.6 per cent among men, 22.3 per cent among women and total 36.3 per cent among all individuals over 15-year-old (see Table 2). Smokers amount are estimate by smoking prevalence on 2014 (last available findings) and adult population on 2016.

Table 2

Estimated Smokers in Latvia (2016)

	Men	Women	Total
Individuals over 15 years	749926	918771	1668697
Smoking prevalence, %	53.6	22.3	36.3
Smokers, total	401960	204886	605737

Source: Created by the authors by the data from CSP (2016) and SKPC (2014)

Used data from the survey about respondents smoking behavior the estimation of total smoke 8081944 cigarettes per day - men in total smoke 5915994 cigarettes each day or 2.159 billion units per year, women smoke 2165950 cigarettes per day or 0.791 billion units per year.

The total consumption of cigarettes (CT) in Latvia is estimated at 2.950 billion units per year.

For the case study about Latvia are used the information provided by the State Revenue Service (SRS, 2016). In 2016 the legitimate consumption (CL) in Latvia was only 1.924 billion cigarettes (see Table 3).

Table 3

Results of Excise Duty Gap on Cigarettes

No	Step	Results
1	Total consumption	2.950 billion cigarettes per year
2	Legitimate consumption	1.924 billion cigarettes per year
3	Illicit consumption	1.026 billion cigarettes
4	Revenue losses	98 million EUR
5	Excise duty revenues	183.8 million EUR
6	Excise duty gap	35 per cent

Autor's construction based on State Revenue Service (SRS, 2016), Central Statistical Bureau (CSP, 2017) data

Discussion

In according to used methodology calculated the excise duty gap on cigarettes, it is estimate to 35 per cent in 2016, but used similar method upon information of 2014 excise

duty gap on cigarettes was 37 per cent. By the year excise duty gap on cigarettes are increase and that shows when the illicit cigarette market are grow.

In other countries are similar problem like Latvia, example, in compliance with The Tobacco Manufacture's

association in the United Kingdom information, then in United Kingdom 2016 survey found that 71 % of smokers had purchased non-UK duty paid products and 20 % are aware of illicit tobacco being sold in their area. (The Tobacco Manufacture's association in the United Kingdom, 2017)

Realized this problem the tax authority need to developing recommendations for improving tax administration.

Experts have studied the factors influencing the illicit cigarette market and have identified several elements essential in the fight against smuggling: understand and monitor the size and nature of the problem, evaluate the main facilitators, balance tax policy and effective tax collection, ensure that regulations work, the penalties are adequate, develop an enforcement strategy, provide adequate financial resources for law enforcement capabilities, address demand by building and strengthening partnerships between national and international agencies, educating and informing the public, cooperating with legitimate players of the industry (International Tax and Investment Center, 2003).

Payment of taxes is the responsibility of citizens who are afraid of possible sanctions that they will suffer if they accept the indifferent attitude to tax payment. The fight against tax evasion is, of course, the first to do with the phenomenon of tax evasion. Avoiding tax can lead to a true escapist gene, passed on from generation to generation, may persist for a long time, with significant negative effects on the economy for many years to come. The increase of penalties must be sufficient enough to eliminate criminal behavior (Lazar, 2013).

Changing taxpayers attitudes is another step towards stopping tax evasion, along with the exponential change of attitude of the tax administration towards taxpayers by developing a partnership between them (Lazar, 2013).

Typically, the tax gap need to be attacked at once in several areas and with a number of sustainable strategies. These strategies could include simplifying tax code, providing taxpayers with quality of services and improving tax compliance through tax withholding and reporting (Tax Gap, 2005).

Sometimes strategies for reducing the tax gap are related to the introduction of tax laws and the improvement of taxpayer services, but there is no clear emphasis on quantifying long-term goals or results. The definition of clear objectives and the assessment of their achievements are in line with the results-oriented management principles. Such a strategic approach to the tax administration will provide a solid basis for reducing the tax gap (Tax Gap, 2005).

As a matter of high priority, the European Commission has imposed a ban on the smuggling of goods, in particular cigarettes from neighboring countries, such as Moldova, Ukraine, Belarus and Russia. The Action Plans developed include a number of actions to implement this task, including, for example, to help detect smuggling, provides installation of the latest generation of technical equipment (scanners, automated identification tools and night vision equipment) at border checkpoints. (TAXUD, 2013).

One of the possible solutions to control illegal market is the development and implementation of Track & Trace

system. (TAXUD, 2014). There has been a discussion about it in Latvia as well (Cabinet of Ministers, 2013). There are two main principles for improving the situation by this system. Firstly, it should be possible to track the distribution of tobacco products and control authorities in order to be able to request and receive relevant information. Secondly, the system provides for the control authorities of the Member States to identify the origin of tobacco products with the introduction of safe, specific, unique and indelible markings, which allows them to track their movements, and to control the flow of tobacco products and their legal status. The introduction of the Track & Trace system is a resource-intensive project and is currently optional for the EU Member States. For example, Lithuania has already launched a pilot project. Individual countries also support Track & Trace system such as Austria, Ireland and the United Kingdom.

Despite the increase in the illegal market and the increase in excise duties, the intended development of the technical resources of the customs authorities gives rise to greater certainty that customs officers will be provided with adequate resources to fight smuggling, thus ensuring the protection of the entire European Union market.

In order to act more proactively and reduce the risks associated with the illicit market, increasing the appropriate collection of taxes, tax and customs authorities should more actively consider new ways of dealing. The taxation and customs should consider developing and using more dog handler services. In order to improve physical control, customs officers should develop training programs, for example, using seized vehicles and experience with detected violations in the learning process.

It is also important to increase the motivation of employees and to evaluate the work of all the control authorities by increasing their salaries, allowances for violations found and introducing other incentives.

Conclusion

The methodology how to estimate excise duty gap on cigarettes on case study, who based on *top-down methodology*, shows that in 2016 there was a significant excise duty gap on cigarettes in Latvia: 35 per cent comparing with estimate excise duty gap on cigarettes in 2014 it reduced by 2 percentage points. Reduce of excise duty gap explained with improvement of tax administration and fight of illegal trade. The methodology can be used to measure excise duty gap on cigarettes and therefore to set it as key performance indicator for further activities to reduce illicit trade and duty non-compliance.

The tax and customs authorities should be more active in considering the new ways of how to reduce the risks associated with illegal market and to charge appropriate taxes, for example, develop dog handler service, set trainings for customs officials in improving physical controls. Moreover, the common action plan should be developed at European Union level, and Track&Trace system shall be introduced in the control of trade of cigarettes.

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