
1st International Conference - Global Ethics - Key of Sustainability (GEKoS) | May 15th, 2020 | Bucharest, Romania

The Relationship between Tax Evasion and Corruption. A Cross-country Examination.

Cristina TIMOFTE (COCA), Dorel MATES, Dan-Andrei COCA, Simona-Maria TANASA (BRINZARU)

<https://doi.org/10.18662/lumproc/gekos2020/18>

How to cite: Timofte (Coca), C., Mates, D., Coca, D.-A., & Tanasa (Brinzaru), S.-M. (2020). The Relationship between Tax Evasion and Corruption. A Cross-country Examination. In A. Grigorescu & V. Radu (vol. ed.), *Lumen Proceedings: Vol. 11. 1st International Conference Global Ethics - Key of Sustainability (GEKoS)* (pp. 173-181). Iasi, Romania: LUMEN Publishing House. <https://doi.org/10.18662/lumproc/gekos2020/18>

© The Authors, LUMEN Conference Center & LUMEN Proceedings.

Selection and peer-review under responsibility of the Organizing Committee of the conference



This is an Open Access article distributed under the terms of the Creative Commons Attribution-Noncommercial 4.0 Unported License, permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited

The Relationship between Tax Evasion and Corruption. A Cross-country Examination.

Cristina TIMOFTE (COCA)^{1*}, Dorel MATES², Dan-Andrei COCA³,
Simona-Maria TANASA (BRINZARU)⁴

Abstract

This article investigates the relationship between tax evasion and corruption, in order to determine if there can be found a significant connection between the two, and in order to test previous research results that found tax evasion as being positively related to corruption. Moreover, the research examines if tax evasion could be predicted based on data regarding corruption. To this extent, theoretical hypothesis on how corruption influences tax evasion were developed and empirically tested. The research was carried on a cross-country data for the 28 European Union's Member States for the period 2012 - 2017 and it used IBM SPSS Statistics 20 in order to analyze and interpret the results. The main finding is that corruption is statistically significantly related to tax evasion and that such relationship is a positive one, as highly corrupt countries also register high levels of tax evasion – as measured by the proxy values used. These findings could be of great use for policymakers all around the world, as a policy against corruption could have major implications on tax evasion and vice versa.

Keywords: *Corruption; European Union; Tax Evasion; VAT gap.*

¹ Ștefan cel Mare University, Suceava, Romania, e-mail: cristinat.coca@gmail.com

² West University, Timisoara, Romania, e-mail: mates.doloro60@yahoo.com

³ Ștefan cel Mare University, Suceava, Romania, e-mail: coca.danandrei@gmail.com

⁴ Ștefan cel Mare University, Suceava, Romania, e-mail: tanasa_simona19@yahoo.com



1. Introduction

Traditionally, the threats, risks and vulnerabilities to the wellbeing and security of the state are evaluated through military concepts, but the current environment requires an extended approach, covering elements of social, political and economical nature.

Corruption and tax evasion [1] are two destructive activities, which often work hand in hand, sapping the state's authority.

According to legal literature [14] tax evasion is „the logic result of the inadvertencies and oversights of an imperfect legislation, of the inefficient means of enforcement and of the lacunose regulations”. The state's lack of foresight when enacting laws is as culpable as those who commit fraud.

One definition for tax evasion is breaking the law knowingly so that one may obtain monetary benefits to the detriment of the general state budget, usually through tax noncompliance [19].

No matter the definition, tax evasion represents, in fact, not fulfilling ones fiscal obligations to the state. Manifesting itself in a limitless domain, tax evasion is as varied as the taxes that are implemented.

It is generally undisputed that theoretically tax evasion has two main forms of display: the legal form (tax avoidance) and the fraudulent/illicit one [5], [6], [11].

Settling the boundaries of this grey area is raising difficulties, but defining lawful and illicit is useful because it enables properly estimating and ascertaining the causes of this phenomenon.

According to The World Bank, corruption reflects „the illegal use of public resources with the aim of personal gain” [17]. On the same note, Transparency International defines corruption „as the abuse of power in order to obtain private benefits” [20].

In our opinion, corruption can be defined as an illegal and immoral use of power, connections and/or of collective or public resources in order to obtain for oneself or someone close undue advantages and/or monetary benefits.

2. Problem Statement

Some previous studies conducted regarding the relationship between tax evasion and corruption found that the latter increases the size of the shadow economy – which is caused mainly by tax evasion.

According to [22], corruption usually occurs alongside other major financial crimes such as tax evasion, embezzlement, money laundering or tax fraud.

Also, according to some authors [7] corruption and the shadow economy –proxy measure for tax evasion – are complements only in the countries that register low incomes.

Previous research [9] has also found that shadow economy and corruption are substitutes and that variability in the latter increases shadow economy.

Other studies (10) [10] show that tax evasion does not influence corruption activities, while the budgetary repercussions of tax evasion induce less corruption.

Moreover, other findings [13] suggests that at an international level, tax compliance is related to bureaucracy (inverse relationship) and to the successful control of corruption (positive relationship). Also, there is suggestive evidence [2] that corruption (bribes) increase where there can be found opportunities for tax evasion activities. Also, more corruption enables the existence of more tax evasion, as some studies concluded [3].

Furthermore, some findings [12] suggest that the perception of corruption is related to the motivation of companies to engage in the earnings' manipulation, especially for those located in emerging countries.

This paper's contribution to the current literature is the issuance of new proofs on the relationship between tax evasion and corruption. By taking a comprehensive theoretical and empirical approach, by using more up-to-date data and information, this research extends on prior studies which tested similar relationships.

3. Research Questions/Aims of the research

In the context described above, this study aims to answer the following research question: Does corruption, as measured by the corruption perception index influences tax evasion at country level? In order to answer it, the following hypotheses will be tested:

- Hypothesis 1. There is neither positive or a negative statistically significant relationship between corruption and tax evasion.
- Hypothesis 2. Tax evasion could be predicted based on data regarding corruption.

4. Research Methods

The research methodology can be structured as follows:

- Determining the proxy measure for the level of tax evasion in the European Union's Member States (including United Kingdom): the VAT Gap (European Commission).

As shown in a great number of works [4] , [15], [18] tax evasion is a phenomenon whose measurement is especially difficult to be made, due to its nature, as it cannot be directly observed. In this context, in this study, a proxy measure is used instead of tax evasion (the VAT gap), as the indirect taxes are considered to be the most significant component of the shadow economy, together with unemployment [16].

- Determining the proxy measure for the level of corruption in the European Union's Member States (including United Kingdom): the Corruption Perceptions Index(Transparency International).

In order to test the hypotheses the perceptions-based indices of corruption from Transparency International were used as mean values for the period 2012 - 2017 for the analysed European Union Member States.

- Establishing the timespan of the research according to data availability: 2012 – 2017;

- Retrieving the necessary data from the following sources:The VAT Gap in the European Union's Member States during 2012 – 2017 from the European Commission [8]; The Corruption Perceptions Index in EU Member States during 2012 – 2017 from Transparency International [21];

- Computing the mean for the VAT Gap and for the CPI for the chosen time period, variables used in order to minimize measurement errors;

Table 1: The VAT Gap mean and CPI mean in European Union's Member States during 2012 – 2017.Source:own processing

No.	Country	VAT gap mean 2012 - 2017	CPI mean 2012 - 2017
1	Austria	8,62	72,67
2	Belgium	11,38	75,83
3	Bulgaria	17,95	41,67
4	Croatia	3,78	48,50
5	Cyprus	5,34	60,83
6	Czech Republic	16,60	52,67
7	Denmark	10,05	90,33
8	Estonia	9,20	68,67

9	Finland	6,41	88,67
10	France	11,45	70,00
11	Germany	10,75	79,83
12	Greece	30,32	42,83
13	Hungary	17,38	51,17
14	Ireland	11,86	72,83
15	Italy	27,20	44,83
16	Latvia	18,53	54,50
17	Lithuania	26,38	58,00
18	Luxembourg	2,14	81,00
19	Malta	15,44	55,83
20	Netherlands	7,96	83,67
21	Poland	22,87	60,50
22	Portugal	13,07	62,67
23	Romania	37,39	45,33
24	Slovakia	29,44	49,17
25	Slovenia	7,40	59,67
26	Spain	6,52	59,50
27	Sweden	3,13	87,50
28	United Kingdom	11,17	78,67

- Performing the linear regression analysis in IBM SPSS Statistics 20, setting as dependent variable the mean VAT gap for the period 2012 – 2017 – as a proxy measure for tax evasion and as independent variable the data regarding the mean of the corruption perceptions index for each of the EU Member States for the same time period;

- Interpreting and illustrating the results;
- Answering the research hypotheses.

5. Findings

In order to verify the type of relationship between tax evasion and corruption, as well as to verify whether tax evasion could be predicted based on data regarding corruption, the linear regression in IBM SPSS Statistics 20 was performed, setting as dependent variable the mean VAT gap as a percentage of VAT Total Tax Liability for the analysed countries for the period 2012 – 2017 – as a proxy measure for tax evasion and as independent variable the data regarding the mean of the corruption perceptions index for

each of the EU Member States for the same time period. The following results were obtained:

Table2: Results of the linear regression analysis in IBM SPSS Statistics, Source: own computation

Model Summary ^b									
Model	R value	R2 value	Adjusted R2	Std. Error	Change (Ch.) Statistics				
					R2 Ch.	F Ch.	df1	df2	Sig. F Ch.
1	,661 ^a	,437	,415	6,9794156	,437	20,171	1	26	,000
a. Predictors: (Constant), CPI 2012 – 2017									
b. Dependent Variable: VAT gap 2012 – 2017									

According to Table 2, there is a high degree of correlation between the two sets of data as the R-value is 0,661. Furthermore, the R2 value indicates that 43,70% of the total variation in the dependent variable (tax evasion), can be explained by the independent variable (corruption perceptions).

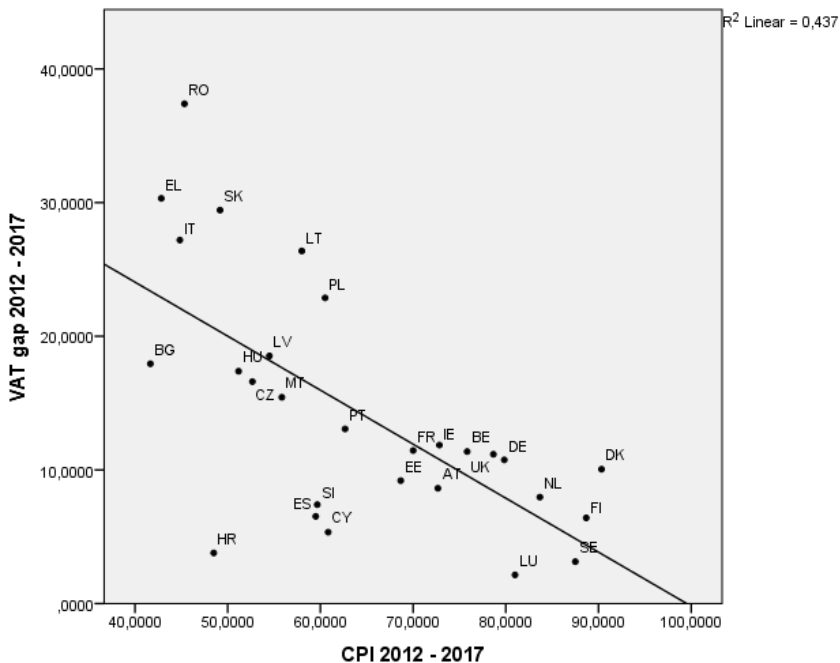


Figure 1. Results of the linear regression analysis in IBM SPSS Statistics. Source: own computation

As shown in Figure 1, on one hand, Luxemburg (2,14) and Sweden (3,13) are the countries with the lowest levels of tax evasion, as measured by the VAT gap mean for 2012 - 2017. As per the corruption perception index mean for 2012 – 2017 Luxemburg registers 81 points and Sweden 87,50, thus situating themselves among the countries with the lowest levels of corruption also.

On the other hand, the highest levels of tax evasion are registered in Romania (37,39) and Greece (30,32), countries that also register low values for the corruption perceptions indexes mean for 2012 – 2017 (Romania – 45,33; Greece – 42,83), thus placing themselves among the most corrupt countries from the dataset along with Bulgaria (41,67).

The lowest levels of corruption as measured by the corruption perception index mean for 2012 – 2017 are registered in Denmark (90,33) and Finland (88,67), countries with quite low levels of tax evasion also (Denmark – 10,05; Finland – 6,41), as measured by the VAT gap mean.

6. Conclusions

In what concerns the tested research hypotheses, it can be concluded that *Hypothesis 1. There is an either positive or a negative statistically significant relationship between corruption and tax evasion*, was validated as tax evasion was found as being positively related to corruption as highly corrupt countries (Greece, Romania) also register high levels of tax evasion – as measured by the proxy values, while clean countries (Finland, Sweden, Luxembourg) register quite low levels of tax evasion.

However, inverse relationship between the analysed phenomena were found as an exception in countries such as Croatia and Spain. In this context, Croatia registered a very low VAT gap mean for 2012 – 2017 (thus a low level of tax evasion) of 3,78, ranking itself in the third position from the 28 countries and a very low level of the corruption perception index mean for 2012 – 2017 (thus a high level of corruption) of 48,50, ranking itself on the 24th position among the 28 analysed countries. Similarly, Spain registered quite low levels of tax evasion (rank 6 – 6,52) and quite high levels of corruption (rank 17 – 59,50).

Hypothesis 2. Tax evasion could be predicted based on data regarding corruption was also validated through the research, as it was found that there is a significant correlation between the two datasets and that 43,70% of the total variation in the dependent variable (tax evasion), can be explained by the independent variable (corruption perceptions index).

Thus, corruption – as measured by the Corruption Perceptions Index from Transparency International was found to be statistically positively related to and a significant determinant of tax evasion, as measured by the proxy – VAT gap extracted from the European Commission’s Eurostat database.

These findings could be of great use for policymakers all around the world, as a policy against corruption could have major implications on tax evasion and vice versa.

Acknowledgement

This work is supported by project POCU 125040, entitled "Development of the tertiary university education to support the economic growth - PROGRESSIO", co-financed by the European Social Fund under the Human Capital Operational Program 2014-2020.

References

- [1] Achim MV. *Corupția și economia subterană. Teorii și studii*. Cluj-Napoca: Presa Universitară Clujană; 2017.
- [2] Alm J, Liu Y, Zhang K. Financial constraints and firm tax evasion. *Int Tax Public Finance*. 2019 Feb 1; 26(1):71–102.
- [3] Alm J, Martinez-Vazquez J, McClellan C. Corruption and firm tax evasion. *Journal of Economic Behavior & Organization*. 2016 Apr; 124:146–63.
- [4] Alm J. Measuring, explaining, and controlling tax evasion: lessons from theory, experiments, and field studies. *Int Tax Public Finance*. 2012 Feb 1;19(1):54–77.
- [5] Anitei NC, Lazar RE. *Evaziunea fiscala intre legalitate si infractiune*. Iași: Editura Lumen; 2013.
- [6] Dinga E. Considerații teoretice privind evaziunea fiscală vs. fraudă fiscală (Theoretical considerations on tax evasion vs. tax fraud). *Studii Financiare - Abordări teoretice și modelare*, București [Internet]. 2008;(4/2008). Available from: ftp://ftp.repec.org/opt/ReDIF/RePEc/vls/vls_pdf/vol12i4p20-50.pdf
- [7] Dreher A, Schneider F. Corruption and the shadow economy: an empirical analysis. *Public Choice*. 2010 Jul;144(1–2):215–38.
- [8] European Commission [Internet]. *Studies and Reports on the VAT Gap in the EU-28 Member States*. Available from: <https://ec.europa.eu/>
- [9] Goel RK, Saunoris JW. Does variability in crimes affect other crimes? The case of international corruption and shadow economy. *Applied Economics*. 2019 Jan 14;51(3): 239–58.
- [10] Goerke L. Bureaucratic corruption and profit tax evasion. *Economics of Governance*. 2008 May;9(2):177–96.

- [11] Grosu V. The Dimension of Tax Evasion in Romania. *Ecoforum Journal*. 2018; 7(2):4.
- [12] Lourenço IC, Rathke A, Santana V, Branco MC. The Effects of Corruption on Earnings Management. 2017; 26.
- [13] Picur RD, Riahi-Belkaoui A. The impact of bureaucracy, corruption and tax compliance. *Review of Accounting and Finance*; 2006. Available from: <https://www.emerald.com/insight/content/doi/10.1108/14757700610668985/full/html>
- [14] Şaguna D. *Drept financiar și fiscal*. București: Ed. All Beck; 2003.
- [15] Schneider F, Buehn A. Estimating the Size of the Shadow Economy: Methods, Problems and Open Questions. *IZA Discussion Paper*. 2016; (9820): 42.
- [16] Schneider F, Raczkowski K, Mróz B. Shadow economy and tax evasion in the EU. *J of Money Laundering Control*. 2015 Jan 5;18(1):34–51.
- [17] The World Bank [Internet]. World Bank. Available from: <https://www.worldbank.org/en/topic/governance/brief/anti-corruption>
- [18] Timofte C, Socoliuc M, Grosu V. Measuring Tax Evasion. *Conceptual Approaches. The USV Annals of Economics and Public Administration*. 2019;Vol 19 1(29).
- [19] Timofte C, Socoliuc M. Tax Evasion – From Its Roots to Its Branches. *Ecoforum Journal*. 2019;8 (1). 6 p.
- [20] Transparency International [Internet]. [cited 2019 Sep 23]. Available from: <https://www.transparency.org/glossary>
- [21] Transparency International. Corruption Perceptions Index 2017 [Internet]. Available from: https://www.transparency.org/news/feature/corruption_perceptions_index_2017.
- [22] World Bank, OECD. Improving Co-operation between Tax Authorities and Anti-Corruption Authorities in Combating Tax Crime and Corruption [Internet]. World Bank; 2018. Available from: <http://elibrary.worldbank.org/doi/book/10.1596/30911>