

Selected economic and legal aspects of the fight against money laundering – impact on enterprises and public administration

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Abstract: This paper evaluates the benefits and the costs of anti-money laundering in the Czech Republic from 2010 to 2016 and it analyses the effectiveness of the AML measures. The third Directive of the European Parliament and of the Council 2005/60/EC on the prevention of the use of the financial system for the purpose of money laundering and terrorist financing set strict measures against money laundering and a wide range of obligations for reporting entities. These measures were criticized mainly by the financial institutions for their high costs and missing empirical evidence about their effectiveness. The thesis analyses the costs and the benefits of the anti-money laundering in the Czech Republic and it also analyses the impact of the implementation of the strict measures pursuant to the directive according to the selected indicators. By combining theoretical findings with a data analysis I reached a conclusion that the fight against money laundering had become more effective after the implementation of the strict measures.

Key-Words: money laundering, fight against money laundering (anti-money laundering), cost-benefit analysis, European directive, financial institutions

1 Introduction

The concept of dirty money has its origins in the United States, the source of money derived from criminal activity during the thirties of the last century was, inter alia, the sale of drugs and money were often physically dirty. Following this was later term "money laundering", thus the process is meant to disguise their origin related to criminal activity (He, 2010). The term money laundering was first officially appeared in print in the United States in connection with the Watergate affair 1973, which will cause outcome was the resignation of then U.S. President Richard Nixon (Bartlett, 2002). In recent years, this concept uses the Czech language rather as colloquial, but equivalent to the Czech concept of money laundering commonly used by the law of we can find in other languages, such as English (money laundering), German (die Geldwäsche) or in French (blanchiment d'argent). The concept of legalization of proceeds from criminal activities to use in the legal systems of some countries,

such as Czech or Slovak Republic (Bank for International Settlements, 2017). The term legalization of proceeds in the Czech Republic, established in Act No. 253/2008 Coll., on measures against money laundering and terrorist financing that addresses the entire issue. The law defined in § 3 (Basic Concepts) legalization of proceeds from crime as "conduct intended to conceal the illicit origin of any economic benefits arising from criminal activities in order to pretend that it is a material benefit acquired in accordance with the law". It is not important whether such conduct occurred in the Czech Republic or abroad (Dvořák, 2010). The meeting is under the Act against the conversion or transfer of property, knowing that the proceeds of crime, for the purpose of concealing or disguising its origin or of assisting any person who is involved in the commission of such activity to evade the legal consequences of their actions, the concealment or disguise of the true nature, source, location, movement of assets or disposal or change of rights with respect to property, knowing that

such property is derived from criminal activity, the acquisition, possession, use or disposal of the property with him, knowing that the proceeds of crime or in a criminal organization. While the Czech legal system defines money laundering activities in the European Union uses the term money laundering (Brandtnerová, 2011), Directive of the European Parliament and of the Council of the European Union considers to be money laundering conversion or transfer of property, knowing that such property is derived from criminal activity or participation in such activity, for the purpose of concealing or disguising the illicit origin of the property or of assisting any person who is involved commission of such activity (Boorman, Ingves, 2001, Ryder, 2012). The meeting is considered to be money laundering, If the business on whose basis the property to be laundered were carried out in the territory of another Member State or in a third countries (Becker, 1974). Legalization of proceeds of crime or money laundering can therefore be loosely defined as smoothing stop illegal conduct, confidentiality of the beneficial owner of income and sake of randomness to use illegally obtained funds as funds obtained from a legal source (FATF, 2001). The most common source of proceeds of crime is drug trafficking, prostitution, human trafficking and arms trafficking, corruption, financial fraud and counterfeiting (Bank for International Settlements, 2017). The main add value of this article is analyses of anti-money laundering activities in the Czech Republic in comparison with some chosen countries.

2 Problem Solution

The paper evaluates the benefits and costs of combating the legalization of crime proceeds in the Czech Republic between 2010 and 2016 and analyzes the effectiveness of AML measures. The third Directive 2005/60 / EC of the European Parliament and of the Council on the prevention of the use of the financial system for the purpose of money laundering and terrorist financing has introduced stringent anti-money laundering measures and a broad range of obligations for obligated persons, and these measures have been criticized in particular by financial institutions for high cost and lack of empirical evidence of their

effectiveness (Countries, 2017). The paper presents an analysis of the costs and benefits of combating money laundering in the Czech Republic, as well as an analysis of the impact of the introduction of stricter measures under the mentioned Directive according to selected indicators. After the combination of theoretical knowledge and data analysis, I came to the conclusion that the fight against money laundering became more effective after the introduction of stricter measures in the Czech Republic. The fight against money laundering has many ways that are intertwined, such as the criminalization of this crime and the involvement of others who are often part of the money laundering process, in the fight against it through administrative regulations and the imposition of fines for failing to fulfill its obligations (EUR-Lex, 2017).

From a theoretical point of view, the basic prerequisite for combating the legalization of proceeds from crime is the rule that illegal and criminal activity must not be a source of property or other benefit. In addition, if the perpetrators of criminal offenses from which there is any property benefit will not be able to legally use this proceeds, their crime will be discontinued.

To describe a possible dependency of Involvements by financial institutions (in particular banks) and criminal proceedings initiated for suspicion of money laundering, we have performed the quantitative analysis of secondary data obtained from the statistic of the Financial analytic office in the Czech Republic (FAO, 2017). The data have been chosen using systematic selection and cover only the period of 2010 - 2017, it means a sufficiently long period. Together 10000 records have been selected and validated. Aim of this work is to study whether the reporting system of financial institutions and the work of law enforcement bodies who can only seize money in the fight against money laundering.. Relationship will be study using regression analyses.

3 Results and discussions

The aim of this work is to answer the question whether the set AML system in the Czech Republic, namely after the implementation of the Third AML Directive, which introduced stricter and more expensive rules especially for financial institutions, had a positive impact on the Czech Republic in the monitored period 2010-2016 company.

Cost benefit analyses

In the case that most of the individual components of benefits and costs cannot be quantified, as already indicated in the studies (see Chapter 4), the specific question will be whether at least some positive effects can be found to "justify" AML costs incurred.

Therefore, not only will it be necessary to assess all the costs and benefits of the period under review but, in the case of efficiency assessments, to look in particular at the improvement of the AML compared to the period before 2010 (Cindori, 2013).

A cost-benefit analysis based on the use of economic principles to assess the impact of public policies will be used to answer the underlying question. This CBA will be made from the point of view of the company as a whole, so it will be necessary to consider what interests and what components will be included in the calculation. When considering costs and benefits, it is necessary to remember other policy options, especially the "zero" option, if AML measures did not exist at all.

This analysis will consist of the following steps: In the first step, it will be necessary to decide what benefits and costs will be counted in the analysis, in the second step to set the list of impacts and to select the indicators to calculate these impacts, thirdly to assign monetary values for individual impacts (this will be possible), fourthly to make an alternative assessment of the effectiveness of AML, to consider, for the fifth time, all the limits that this analysis brings and to interpret the results for the sixth time and to suggest possible recommendations.

The timeframe from 2010 to 2016 is chosen because it is possible to expect from 2010 that the third AML Directive has already been reflected in the legislation and practice, which has brought significant changes to anti-money laundering measures and the associated increased costs of mandatory compliance with legal regulations. Based on the discretion of the CBA variables, I present here the various components of the costs and benefits of AML.

Costs

Legislative activity

This component would include the costs incurred in drafting AML-related laws and their

ongoing amendments (in particular, the work of ministry staff involved in drafting legislation on AML). Unlike Unger and kol.162 but I will sort this item separately in expenses, because in the case of the Czech Republic, this item can be (at least mostly) put directly under the operation of FAU, as one of its main activities (even before 2017) is the legal agenda associated with the preparation of AML regulations.163

Financial Analytic Unit

Each EU country must have a financial intelligence unit to receive suspicious transaction notifications, audits and other activities. In the Czech Republic, he held this position until 2017, the Financial Analysis Department, which was a direct part of the Ministry of Finance of the Czech Republic, now it is Financial analytic office (FAO, 2017).

Bodies involved in criminal proceedings

The ML-related expenditure should include the activity of the police, the prosecution and the judiciary, as bodies involved in criminal proceedings involved in the prosecution and punishment of offenders. It is not possible to separate the spending of these bodies on AML only because they are not separately registered, so these components will be calculated on the basis of an estimate (Bruna, 2017).

The cost of the activity of the Public Prosecutor's Office will be estimated according to the number of prosecuted and suspected natural persons (in proportion to the total number of cases handled) and costs of the court according to the number of defendants + persons who have been prosecuted, since the court plays a large role in the criminal proceedings even before the prosecution is filed by the public prosecutor.

Supervision of compliance with the AML Act for Obligated Persons

This item is difficult to compute, since the administrative oversight of AML is fragmented among many entities, in particular: (i) the FAU whose expenditure is already included under a separate component; (ii) the CNB, which is to be supervised by entities in the financial sector (established pursuant to Czech Act No. 21/1992 Coll., on Banks); (iii) administrative authorities in the case of gaming operators under the gambling law; and (iv) in some cases the Czech Trade Inspection.

Benefits

Penalized financial penalties (repressive)

Benefits in the fight against money laundering will certainly be funds that are selected into the state budget on the basis of a monetary penalty imposed on perpetrators in connection with ML convictions.

Administrative fines for non-compliance with the AML Act

Stamped preventive fines imposed on compulsive persons for non-compliance with AML regulations

Drained resources

An important component of the benefits is the drawn property of the offenders who have acquired crime, mainly because of the reduction in motivation to commit further crimes and their subsequent financing.

Reduction of ML

The main effect of AML should be primarily to reduce the volume of money laundering. Although there is a theoretical support for this inverse relationship, empirical evidence is lacking.

Reduce damage to the economy, reduce risk to the financial sector, and reduce the risk of crime

Analysis of the number of complaints filed and criminal offenses initiated with the impact on the recovery of illegally acquired money

In this part of the paper we will study the relationship between the number of complaints filed and criminal offenses initiated with the impact on the recovery of illegally acquired money (Gujarati, 2004) In other words dependant variable in the analysis is the in how many cases (in %) was criminal offences in the field money laundering based on complaints (reports), mainly from financial units (mostly from bans). Independent variable is numbers of complaints (reports).

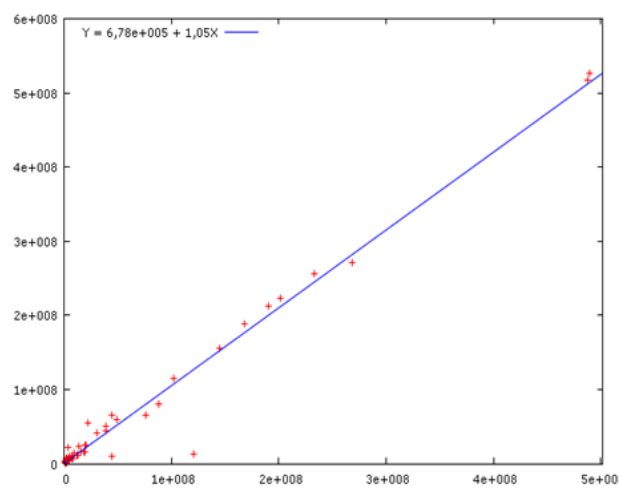
In the beginning an empirical analysis of dependant variable and chosen independent variable is conducted. The first step is to model number of complaints filed and portion of criminal offenses initiated with the impact on the recovery of illegally acquired money as a function of 1 regression using OLS method in Gretl software.

Portion of criminal offences based on reports from financial units = function

We suppose that there will be a positive relationship between variables.

Figure 1 Relationship between the relationship between the number of complaints filed and

criminal offenses initiated with the impact on the recovery of illegally acquired money



Source: own preparation

Figure 1 shows linear relationship between variables. From the picture it is quite clear that linear relationship is suitable for this model (axis X is number of complaints (reports), Y is portion in % of criminal offences).

Using OLS method there is recognized relationship between variables:

Table 1 Model 1 (linear): Dependent variable: number of complaints filed and portion of criminal offenses initiated with the impact on the recovery of illegally acquired money (OLS, using observations 1-120)

	<i>Coefficie</i>	<i>Std. Error</i>	<i>t-</i>	<i>p-</i>
	<i>nt</i>		<i>ratio</i>	<i>value</i>
Const	733272	1.69385e+06	0,43	0,666
Numb er of reports	0.929964	0.0239076	66,8	** 1.20e-095 *

Mean dependent var	52994576	S.D. dependent var	1.02e+08
Sum squared	3.21e+16	S.E.	of 16455484

resid		regression	
R-squared	0.974377	Adjusted squared	R- 0.976059
F(1, 98)	4469.336	P-value(F)	1.21e-96
Log-likelihood	-2165.208	Akaike criterion	4331.416
Schwarz criterion	4335.891	Hannan-Quinn	4442.680

Source: own preparation

From table 1 it can be seen that the higher is number of reports from financial units, the higher is the portion (number) of criminal offences. But from the p-value of the constant can be claim, that constant is not significant (p-value is higher than 0.05). For this reason model is modified into the model without constant. Result can be seen bellow.

Table 2 Model 2 (linear without constant): Dependent variable: Portion of criminal offences started on reports of financial units (liOLS, using observations 1-120)

	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-ratio</i>	<i>p-value</i>
Number of reports	0.932543	0.0122949	85.85	1.32e ⁻¹⁰² ***
Mean dependent var	52996576	S.D. dependent var		1.02e+09
Sum squared resid	3.20e+16	S.E. of regression		of 16399709
R-squared	0.979734	Adjusted squared	R-	0.979734
F(1, 98)	5752.933	P-value(F)		1.3e-102
Log-likelihood	-2163.303	Akaike criterion		4328.607
Schwarz criterion	4331.394	Hannan-Quinn		4329.739

Source: Own preparation

From table 2 it is clear that between these two models the better one is the model 2 –linear model without constant. It has lower value of information criteria and higher value of adjusted R². Also the variables is significant (p-value is much lower than 0.05).

Relationship between variables

From the previous table can be say, than the relationship between number of complaints filed and criminal offenses initiated with the impact on the recovery of illegally acquired:

Portion of criminal offences = 0.9335 * Number of complaints.

Meaning that portion of criminal offences in the field ATML are initiated in 93 % based on complaints (reporting based on law, especially from banks).

Classical assumptions

The estimation created through regression produced a linear relationship between the variables. However, performing a regression does not automatically give a reliable relationship between variables. Seven classical assumptions of well specified model must be fulfilled. The model must be tested on all classical assumptions. Firstly it will be test on correct specification. Because model is linear it can be tested by Lagrange Multiplier (LM) test of linearity (Wooldridge, 2009, Jurčík, 2014).

Table 3 LM test

LM test: results	p-value
Polynomic form	0.531718
Logarithmic form	0.68871

Source: Own preparation

From the both results of LM tests it is obvious that function form of the model is OK and model is linear - logarithmic (both p-values are higher than 0.05, H₀: that the relationship is linear fail to be rejected. Model is linear. Another used test was Ramsey’s RESET test for detection of omitted variable in the model or incorrect specification of the model. It’s with p-value was 0.776 from which it is clear that null hypotheses that model is correctly specified failed to be rejected and model is correctly

specified. More ways to verify correct model specification are adjusted coefficient of determination (R^2_{adj}) and Information criteria. Results of those tests were presented in the Model 2 (table 2), where can be seen that 97.97 % of variability was explained by regression model to the total variability which is great success.

Classical assumption number 1 which says that regression model is linear in parameters, it is correctly specified and it has an additive error term was confirmed. Another classical assumption is correlation. Existence of serial correlation implies that the error term from one time period depends on error term from other time periods. But because data are cross sectional, correlation cannot appear in the model. By the classical assumption number V error term has constant variance which is requirement for homoskedasticity of the error term. Homoskedasticity was tested using White test. Test resulted with p-value 0.860629. P-values is greater than alpha (0.05), not rejection of the null hypothesis, there is no heteroskedasticity in the model. Errors are homoskedastic. Assumption number V is fulfilled. Classical assumption VI refers about multicollinearity which can be detected by Variance Inflation Factors, $VIF(\beta_j)$. But because in our model only one independent variable stayed, there can be no multicollinearity. Normal distribution of stochastic error is classical assumption VII. There are many ways to verify normality of the error term. One of commonly used statistical test is Chi-square test of goodness of fit. Its p-value was higher than 0.05, failure of H_0 rejection. Classical assumption number seven was fulfilled.

4 Conclusion

It follows from the above that the fight against money laundering brings its results. This follows from the basic idea developed by Gary Becker (Becker, 1974) in his article "Crime and Punishment". Here that the perpetrator commits a crime if the benefit of this action is greater than if he had obtained this benefit by other means. An important tool for deterring society from committing crimes is, in addition to the traditional custodial sentence, financial punishment and, in particular, the forfeiture of property and property. It is precisely punishments related to the confiscation of property especially in this area of crime as perpetrators as a serious deterrent. The cost benefit analysis was successful, expenses are approx. 3 bill. CZK (1 EURO is about 26 CZK) from period 2010 – 2016 and benefits (3 unknown parameters) and

benefits 2,8 bill. CZK (5 unknown parameters). the parameters listed above were quantitated (Harvey, 2008, Jurčík, 2013).

The subject of the practical part was to analyze the effectiveness of AML in the Czech Republic between 2010 and 2016 (after the implementation of the third AML Directive, FAO, 2017) using a cost-benefit analysis based on the use of economic principles to assess the impact of public policies. The aim of this study was to answer the question whether the set AML system in the Czech Republic in the period 2010-2016 had a positive impact on the company and whether AML costs are justifiable. The answer is positive.

Portion of criminal offences started on reports of financial units is in 93 % cases.

It means that this law duties for financial units is working and it is important tools against money laundering.

These relationships were also tested. All tests which were used concluded that classical assumptions of well specified model were fulfilled.

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