

University of Twente
School of Management and Governance

MASTER THESIS PROJECT

**Independence of the Central Bank and Monetary Policy: Implications for the
National Bank of Ukraine**

by Olena Danylenko
Student number 1026941
MSc-Public Administration, track Policy and Governance

Graduation Committee:

Dr. Piet de Vries
Dr. Ringo Ossewaarde

Supervisors:

Dr. Piet de Vries
Dr. Ringo Ossewaarde

Enschede 2010

Preface

This thesis is prepared as a result of the studies Master's degree programme in Public Administration (2009-2010) at the School of Management and Governance, University of Twente. This study was undertaken with the financial support through the MTEC scholarship and I wish to take this opportunity to express my gratitude to the Dutch Ministry of Foreign Affairs.

Further I would like to express my sincere gratitude to my supervisors Dr. P. de Vries and Dr. R. Ossewaarde for their support and guidance on every step of the research, valuable advice and great co-operation.

Finally, I would like to thank to the staff of the School of Management and Governance for their assistance and positive attitude.

*August 20, 2010, Enschede
Olena Danylenko*

Abstract

The central bank independence has been one of the central problems discussed in the literature on public policy economics. The concept of an independent central bank was recognized as a “good practice” that contributes to the better control of inflation and most countries try to improve the independence of their central banks in order to maintain stability. The central bank independence is more often analyzed together with its accountability. In the literature CBI is considered as an objection to the Central bank accountability. At the same time, accountability is viewed as an important complementary tool for the CBI.

The potential problems for the CB can be revealed in the dimension of NBU-government relations. The politicians tend to exercise pressure on NBU in order to secure their interests. In this context conflicting goals of the CBs in the dimension of fiscal-monetary authorities' relations can be viewed as important determinants of the CBI. The external credibility pressure via open economy and relations with the international financial institutions (in particular, IMF) can serve as another determining factor of the enhancement of the CBI.

The paper, basing on the theoretical assumptions on the CBI and central bank accountability, aims to compare the actual and legal dimensions of the NBU's independence, highlight the main challenges that the NBU is facing conducting its monetary policy, and identify the main determinants that are at stake for the NBU's independence. On the basis of conducted analysis, the paper explains the potential problems for NBU's actual independence and provides recommendations for the possible lines of reformations of the institutional settings that would enhance NBU's independence and effectiveness of the monetary policy.

Key words: *Central bank independence, accountability, monetary policy, inflation, the National Bank of Ukraine*

Table of Content

Chapter 1. Introduction.....	6
1.1. Background of the problem	6
1.2. Research questions	8
1.3. Relevance of the thesis	9
1.4. Structure of the thesis	10
Chapter 2. Theoretical framework.....	12
2.1. The CBI concept: economic and political aspects.....	13
2.1.1. Definitions of the CBI.....	13
2.1.2. Theoretical views on CBI	17
2.1.3. Accountability and transparency of central banks versus CBI.....	20
2.2. Economic theory perspective: monetary versus fiscal policy	22
2.3. The CBI from the perspective of the institutional theory.....	24
2.3.1. Institutions as “rules of the game”	24
2.3.2. Neo-institutional theory: Impact of Globalization on the CBI.....	26
2.4. Conclusions to the Chapter 2.....	27
Chapter 3. Research Methodology	29
3.1. Research strategy.....	29
3.2. Data Collection	29
3.3. Analysis of the data	32
3.4. Conclusions to the Chapter 3.....	36
Chapter 4. Independence of the NBU and its monetary policy	37
4.1. Monetary policy of the NBU	37
4.2. Assessing the independence of the NBU.....	40
4.3. Determinants of NBU's independence.....	47
4.4. Monetary policy versus NBU's Independence: what should be done?.....	53
Chapter 5. Conclusions.....	56
References	60
Appendices	63

List of Abbreviations

CB/CBs	– Central bank/ Central banks
CBI	– Central bank's independence
CIS	– Commonwealth of Independent States
CMU	– Cabinet of Ministers of Ukraine
CPI	– Consumer price Index
ECB	– European Central Bank
EMU	– Economic and Monetary Union
GDP	– Gross domestic product
GMT	– CBI index of Grilli, Masciandaro & Tabellini
LOLR	– lender-of-last-resort
LVAW	– Cukierman index of the CBI
MCI	– Modified Cukierman Index of the CBI
NBU	– National bank of Ukraine
UAH	– Ukrainian Hryvna (national currency of Ukraine)
UNDP	– United Nations Development Programme
USSR	– Union of Soviet Socialist Republics
VR	– Verkhovna Rada of Ukraine (Parliament)

List of Figures

Figure 1. Comparison of projected and actual inflation.....	39
Figure 2. Comparison of projected and actual exchange rate.....	40
Figure 3. Inflation 1991-1999.....	48
Figure 4. Trade openness of Ukraine.....	49

List of Tables

Table 1. Definitions of the CBI in the literature.....	14
Table 2. Summary of CBI classification	16
Table 3. Data gathering process	30
Table 4. Data sources.....	31
Table 5. Template table: Indices LVAW and CMI	34
Table 6. Template table: actual political independence of the NBU.....	35
Table 7. Independence of the NBU: MCI and LVAW	42
Table 8. Turnover of the NBU's Governors as an indicator of the actual NBU's independence...	44

List of Appendices

Appendix 1. Selected Ukrainian legislative documents and policy papers.....	63
Appendix 2. Cukierman and the “Modified Cukierman” Indices	65
Appendix 3. Four levels of institutional analysis	70
Appendix 4. Full list of NBU's functions according to the Law on NBU (1999).....	71

Chapter 1. Introduction

1.1. Background of the problem

It is generally supported that the independence of the central bank is a key condition to ensure the price stability because it helps to avoid financial manipulations for political purposes. This is connected with the fact that if a bank is politically dependent on the government, the government can force the bank to “print money” in order to cover the budget deficit, which in turn will result in inflation. During the time of political instability or political campaigns before elections it is likely that the government will pressure the central bank to soften monetary policy in order to show better results of the economic growth (Petryk & Melnyk, 2009). In turn, the central bank independence (CBI) is considered to be one of the “institutional devices” to maintain price stability (S. Eijffinger & Haan, 1996, p. 1), which is usually set up as the ultimate goal of the monetary policy.

The question of the CBI is highly relevant for Ukraine. Starting transition to market economy after gaining its independence in 1991, Ukraine went through a periods of hyper inflation and experienced ‘Russian financial crisis’ of 1998. Expansion of money supply is usually seen as a main source of high inflation rates in transition economies (Trunin, Kniazev, & Satdarov, 2010). The reason for it is a limited opportunity for domestic borrowing to cover substantial budget deficits, which leads to financing by monetary tools (money emission and buying off the governmental bonds). In this situation the CBI would serve to prevent monetary expansion.

At the stage of formation of Ukraine as a new state (1991) the NBU actually did not have the goal and financial independence. Monetary policy and NBU's budget had to be approved by the Verkhovna Rada of Ukraine. The most important improvement of the position of the NBU was implemented in 1999 when the Law on the National Bank of Ukraine came into force. This Law has secured formal independence of NBU. However, in the research on the CBI legal independence of NBU is assessed as average (Schwödiauer, Komarov, & Akimova, 2006) or below average (Cukierman, Miller, & Neyapti, 2002). Compared to other transformational economies the independence of the NBU is also viewed on the lower level than in other CIS countries (Trunin, et al., 2010). Such estimations raise the questions of what are the actual constraints of NBU's independence and which legal settings need to be improved in order to limit political influence on the NBU.

Accountability in general and accountability of central banks is viewed as “a symbol of good governance”. The Code of Good Practices on Transparency in Monetary and Financial Policies (IMF, 1999) among four broad categories of good practices distinguishes “accountability and assurances of integrity by the central bank and financial agencies”. This approach points out that accountability of central banks and transparency of their policies enhances the effectiveness of monetary and financial policies. For the NBU this question remains open even though the NBU regularly publishes reports, policy papers and analytic materials. Still, the important aspect – understanding of the principles of monetary policy and consequently the trust to the NBU –

remains one of the priority areas that are to be improved. As a fact to support this idea it is possible to refer to the recent precedent of civil complaint to the court on financial responsibility of the NBU for the devaluation of UAH¹. The petitioner makes his claims on the basis that the NBU has not fulfilled its constitutional goal, namely ensuring the stability of the national currency (declared exchange rate), which in turn resulted in increase of payments for the petitioner's loans (as the loan was in USD). In turn, the NBU did not agree on the claim as it (NBU) is not obliged to peg UAH to any of foreign currencies. However, this precedent could serve as one of the "alerts" for the NBU (1) to improve regulation of banking sector in terms of giving loans for households in foreign currency, (2) to invest more in clarifying its goals and monetary policy principles to the public. It is also worth to add that goal clarification and precise (numerical) goal definition is crucial for Ukraine for the reason of lack of trust to the Ukrainian currency. The level of "dollarization" of society remains a serious problem.

In the light of the financial crisis in 2008 there is a growing recognition that the policies of the government and the Central Bank should be consistent and supplement each other. However, for Ukraine having high level of inflation (22,3% in 2008 and 12,3% in 2009²) "printing" money in order to support social policies and economic growth during the financial crisis would not benefit the economy as it could be for developed countries with low level of inflation (not more than 3%). Therefore, the priority of monetary policy should be put on ensuring low inflation, which in turn requires increasing the independence of the NBU. In addition the clarification and precision of the NBU's objectives is needed as NBU's main objective is "to ensure the monetary unit stability"

The consequences of the financial crisis of 2008 are another challenge for the NBU's independence. The economic recession and need for of the government to finance its expenses, especially in the light of presidential elections of 2010 have resulted in controversial provisions of the Law on Budget of Ukraine for 2009, which contradicted the legal provisions on NBU's independence and were removed from the mentioned Law later on this basis. Also, the financial crisis of 2008 brought Ukraine to the position of borrowing from IMF in order to tackle the consequences of financial crisis on Ukrainian economy, which was accompanied by a number of recommendations from IMF including decreasing the state budget deficit and increasing the independence of the central bank.

The importance of the institutional development of the Ukrainian financial sector especially under conditions of European integration vector of Ukraine is also recognized and correspondingly enhanced through the European cooperation projects. Namely, from February 2010 launched the European funded 'Twinning Project' for the National Bank of Ukraine (NBU) with twinning partners Deutsche Bundesbank and the National Bank of Poland³. The project's title is "Strengthening the National Bank of Ukraine Potential through the Approximation to EU Standards of Central Banking". This project is viewed as an "institutional building tool" and has

¹ According to the materials of the Information Agency "GOLOS.UA" / <http://www.golosua.com/ekonomika/2010/03/22/na-nbu-podali-do-sudu-cherez-obval-grivni>.

² According to the State Committee of Statistics./ <http://www.ukrstat.gov.ua/>

³ The European Commission. /

http://ec.europa.eu/delegations/ukraine/press_corner/all_news/news/2010/09_02_2010_2_en.htm.

the broad aim to strengthen the institutional framework of the NBU and “to enhance the capacity of the NBU to act as Ukraine’s central bank”. Among more particular expected outcomes are more efficient communication system, planning system basing on the best European practices and improvement and adaptation of the legislative base⁴.

Basing on the above said, it is possible to argue that independence of the NBU is an important aspect of the institutional transformations that Ukraine faces today. This brings us to the questions of how independent the NBU is, which institutions actually contribute to its independence and which should be reinforced in order to benefit the economy of Ukraine. These are the main questions that will be raised in this thesis.

1.2. Research questions

The CBI concept present a comprehensive picture of the institutional framework for the CB functioning. The questions of political pressure, goal setting, policy formulation, operational (instrument) independence and accountability are raised. For the NBU the relevance of these issues is crucial. As it was shown in the introduction part, relatively "young" NBU gaining its legal independence only in 1999, faces a number of challenges today. Among them we can name the lack of trust from the public to the national currency, consequences of the financial crisis of 2009, lack of NBU's monetary transparency, the recent attempts to finance government expenditures, etc. All this raises the question of what are the constraints of NBU's actual and legal independence?

The central issue for the CBI is the question of definition of goals and principles of monetary policy and their co-ordination with the strategy of economic and social development of a country. There are opposite views on this issue. On the one hand, the NBU can be a subject to government pressures to "soften" its monetary policy for the sake of higher employment and growth rates. On the other hand, it is impossible not to cooperate completely for the government and NBU as there is (1) an information asymmetry between NBU and government; and (2) need for the balance of control and accountability between the government and the NBU. At this point, it becomes important (1) how the CBI is connected to the deliberation, formulation and implementation of monetary policy; (2) how the dominance of the monetary policy over the fiscal policy helps to design a sound monetary policy; (3) which institutional settings are needed to reinforce the independence of the NBU and its ability to attain monetary policy goals; and (4) how to keep the NBU accountable without limitations of its independence. Therefore, the main research question is *‘Which institutional settings are required for the independence of the NBU and its monetary policy?’*

In order to answer the main research question it is important to have an overview of the actual monetary policy of Ukraine as well as the main principles of its formulation. In addition, it reflects the actual independence of the NBU in the economic dimension, namely actual goal

⁴ The official web-site of the Twinning project in Ukraine. / http://twinning.com.ua/index.php?option=com_content&task=view&id=1131&Itemid=330.

setting mechanism. The first specific research question serves its purpose and is formulated as following: *‘What is the NBU’s monetary policy goal?’*

The further step in our research will concern the assessment of the NBU’s independence. It is important to define how what are the NBU’s formal relations with the executive and legislative bodies, how autonomous from the political power is the NBU in setting the main goal of the monetary policy and choosing instruments for its implementation. The theoretical framework on the problem of the CBI gives us a profound base and methodological approach on the complex assessment of central bank’s independence. The CBI is generally studied in two connected dimensions: (1) legal and actual CBI; and (2) economic and political independence. While legal CBI embraces the formal aspects Of CBI in terms of appointment procedures, policy formulation and relation to the government in terms of lending obligations and financial autonomy of the CB, the actual independence reveal the possible constraints that occur in these spheres. The other important aspect which falls into dimension of the NBU’s independence is its accountability. Accountability also reveals the relations of the CB and the government. However, the focus of these relations is on the responsibility of the CB to the government and, indirectly, to the public. It is important for the CBI that monetary policy making is complimented by the accountability of the central bank to policy actors. Therefore, the second sub-question is consequently formulated: *‘To what extent is the NBU an independent central bank?’*

Our approach to the research of the CBI is based on the theoretical assumption that the level of actual CBI is defined in the context of institutional development as well as external credibility pressure which follows from the institutional theory. The economic theory underlines the relationship of monetary and fiscal authorities as another determinant of the actual CBI. Therefore, the third sub-question serves to explain how the above mentioned issues affect NBU's actual independence. The third sub-question therefore is: *What are the determinants of the NBU's independence?*

The final stage of our research will be devoted to formulation of recommendations for the NBU's independence reinforcement. The answers for the previous research questions serve as a base for the comparison of the NBU’s legal independence with the actual practice and its constraints. The main NBU’s objective according to the legal provisions is to ensure the stability of the currency unit. In practice it is resulted for the NBU having objectives of insuring internal stability of currency unit (inflation) and external (exchange rate). However, in the recent years the NBU has declared transition to the inflation targeting as its perspective main objective. The ability of the CB to pursue this objective is tightly related to the CBI. The NBU, having the main objective of ensuring low inflation, needs institutional changes in the light of the current the challenges for the NBU’s independence (fiscal-monetary authority’s relations, high level of inflation, dollarization of the economy, etc.). The fourth question therefore is formulated as: *‘What should be reformed in the institutional settings of the NBU to attain its goal?’*

1.3. Relevance of the thesis

The scientific problem of the independence of central banks and its counter relation to the accountability of central banks is widely discussed. In Europe the ECB being one of the symbols

of the EU success has the basic value its independence. A number of studies are devoted to the analysis of the relationship between the central bank autonomy and monetary policy (Arnone, Laurens, Segalotto, & Sommer, 2007; Cukierman, 2008; S. Eijffinger & Haan, 1996; Haan de, Masciandaro, & Quintyn, 2008; Siklos, 2008; Walsh, 1993). Some research contains empirical tests that prove negative correlation between the central bank's independence and monetary policy (Grilli, Masciandaro, & Tabellini, 1991). The main conclusion from these empirical studies is that the CBI contributes to the low inflation in the long-run. In the short run the government having the goals of high employment and economic growth can influence the NBU to monetize the budget deficit, which results in higher inflation in the long-run. In contrast, the CB having the main objective of ensuring low inflation should be independent to avoid the constraints of fiscal-monetary authorities' relations.

In Ukraine monetary policy and its deliberation is also extensively studied by Ukrainian scholars Grytsenko A. and Krychevska T. (Grytsenko & Krychevska, 2005), Petryk, O. I., and Melnyk, K. K. (Petryk & Melnyk, 2009), etc. The problem of the independence of the National bank of Ukraine is discussed in these works as an important precondition for the improvement of monetary policy making process.

It is important to mention here a research with the support of UNDP Ukraine, which united experts from Otto-von-Guericke University Magdeburg and Bureau of Economic and Social Technology (BEST) (Schwödiauer, et al., 2006). The research resulted in the comprehensive paper discussing different dimensions of the NBU independence, accountability and transparency of monetary policy as well as a set of recommendations for changes of Ukrainian legislation. This paper focuses on assessment of the legal dimension of NBU's independence basing on the Law on NBU. It also covers only the period 1999-2005 and during and after 2005 there were a number of important changes. In turn, our research presents the analysis of NBU's legal and actual independence basing on the recent legislative changes (up to July 2010). In addition, in our research we compare the legal aspects of NBU's independence with the actual practice and identify the main constraints for the NBU's actual independence. The thesis is based on the theory on the CBI, economic theory and institutional theory. The institutional development of NBU, public and financial opposition to inflation, relations of fiscal and monetary authorities as well as external credibility pressure is analyzed in the context of both strengthening and challenging of the actual political and economic independence of the NBU.

1.4. Structure of the thesis

The logic of the paper is developed as follows. First, the introduction part gives insight into the practical perspective of the NBU's independence. A short background of the NBU's independence development is given and a number of challenging issues for the CBI are discussed. The formulation of the research problem and the main and specific sub-questions help to structure the thesis and choose the theory for the research.

The second chapter serves as the theoretical ground for answering main and specific research questions. A thorough analysis of literature concerning the CBI as it will serve as a base for assessing the independence of the NBU in the fourth chapter. Here, we analyze the literature on

the CBI, its definition, theoretical arguments in favor of increasing the CBI and assessment methodologies. This part is complemented by the theoretical discussion on the accountability of the CB as an important aspect along with the CBI of the CB's governance. The theoretical assumptions on the CBI structure in two dimensions – first, legal and actual independence, and, second, political and economical independence – create a base for the analysis of the NBU's independence in terms of its actual independence in terms of goal-setting and legal political (appointment procedures) and economical independence (lending obligations, financial autonomy). The institutional theory is discussed in the context of how the historical institutional development and external credibility pressures (via open economy, trade networks, relations with international financial organizations) predetermine the construction of the CBI for a particular country. In addition the economic theory gives a valuable insight of the fiscal-monetary authorities relations, which are important for the CBI. These theoretical assumptions are the base for the discussion of the main determinants of the NBU's independence.

The third chapter provides research methodology that is used. Namely, it specifies the research strategy, gives reasoning for the time frame of the study, data selection and methodology for data analysis.

The fourth chapter contains the results of the analysis. The logic of this chapter is moving from the analysis of the actual monetary policy of Ukraine in terms of goals and their credibility, analysis of the independence of the NBU in legal dimension, explanation of the main determinants of strengthening of NBU's independence, to the identification of possible constraints and their solutions. First, the paper gives an overview of the monetary policy of Ukraine for the period 2000-2009 focusing on the main problems of the goal setting and policy formulation. Second, we assess the NBU's independence basing on the methodology presented in the literature. The criteria for the assessment include main dimensions: political independence (appointment and dismissal of the CB's governors, turnover of CB's governors, policy objective, etc.) economic independence (policy formulation and instruments) and accountability. Further, the research goes into discussion of the determinants of the NBU's independence. The history of NBU's creation, public and financial opposition to inflation are discussed in the context of reasoning the granting NBU its independence. The openness of Ukrainian economy and IMF loans present the external credibility pressure for the strengthening of NBU's independence. In addition the discussed interrelation of fiscal and monetary authorities serves to identify the constraints for the NBU's independence. The chapter ends with the discussion of the main institutional constraints for the NBU's independence and possible ways of their solution.

The fifth chapter presents the conclusions where we summarize the answers for the research questions. The research provides the recommendations for improvement of the institutional setting which are relevant under given NBU's goal.

Chapter 2. Theoretical framework

Researchers all over the world admit the increase in the CBI of many countries⁵. They connect it to different reasons: with the necessity of central banks to maintain price stability, establishment of the ECB, process of market transformations in the post-soviet countries, and finally, to the broad process of globalization. Nevertheless, the institutional tool of CBI has its benefits and is implemented in different countries to different extents. However, the basic common elements of the CBI can be identified and tools for its (CBI) assessments are developed in the literature. These and other issues are in the focus of this chapter and serve as a base for the research methodology. The logic of this chapter is developed as follows.

First of all, referring to our research questions about the goal of the NBU and the level of the NBU's independence, it is important to discuss the main definitions of the CBI as well as approaches to the CBI assessment. The actual goals of the NBU as well as the approach of its formulation are relevant for the actual NBU's independence. At the same time, the level economic and political independence asserted to the NBU in the legislation serves as important precondition to the actual NBU's independence. The theory provides a comprehensive study of the CBI along two lines of the CBI classification: (1) legal (formal) and actual independence; (2) political and economic independence. These classifications are interrelated as both legal and actual independence have political and economical elements of independence. The economic aspects of independence include financial independence and instrument independence. The political aspects of independence include the policy objective setting, appointment procedures of the CB's governors, decision-making and accountability. The concept of accountability is also discussed in detail in the separate section. The accountability is discussed in the literature as one of the objection to the CBI. However, CBI should be complemented by the accountability and transparency of the monetary policy. Thus, as a part of CBI, accountability is seen in the political independence dimension as it reflects the relationship between the CB and the government.

In addition, it is important to define why the CBI is important and what are the benefits of this institution for Ukraine given the certain goal of the NBU – ensuring the stability of the currency unit (both internal stability (inflation, and external stability (exchange rate)). Therefore, the chapter presents the main theoretical assumptions that determine importance of the CBI: public choice theory, fiscal constraints and the time inconsistency problem. The agency theory is discussed in terms of regulation of the central bank (as an agent) and the government (as a principal) by means of contracts. The main benefits of the CBI are summarized and objections are defined.

Further, our third research sub-question requires understanding of which determinants contribute to granting and development of the NBU's independence. The economic and

⁵ (Cukierman, et al., 2002; Cukierman, Webb, & Neyapti, 1992; Eijffinger & Haan, 1996; Polillo & Guillen, 2005; Schwödiauer, et al., December 2006)

institutional theories give a valuable insight in this respect. The economic theory perspective to CBI analysis is focused of the interaction of fiscal and monetary authorities as the main cause of problem when tackling the inflation by the independent CB. The monetary and fiscal theories of inflation are discussed in this context. The neo-institutional theory gives the possibility to discuss the main determinants of the CBI, namely, path-dependency in the institution development, international coercive pressures via foreign trade and investment and cross-national international influences via network structures.

The chapter ends with the conclusions that contain implications for the methodological part of the thesis.

2.1. The CBI concept: economic and political aspects

2.1.1. Definitions of the CBI

There is no uniform definition of the CBI. Generally two main dimensions of the CBI are distinguished – economic and political independence. This line is present in the most of studies and moreover serves as the base for the further assessment methodologies (Alesina & Summers, 1993; Cukierman, Web, & Neyapti, 1992; Grilli, et al., 1991).

The distinction between *legal* (also referred to as *formal*) and *actual* independence is based on the assumption that actual independence of the CB can differ from the independence that the CB is given by the law due to informal arrangements between the bank and other parts of government, the personality of key individuals in the bank and the (rest of the) government, etc. (Cukierman, et al., 1992). Certainly, legal independence is an important base for the actual independence. However, “many central bank laws are highly incomplete and leave a lot of room for interpretation” (Cukierman, et al., 1992, p. 361), which results in the difference of the legally granted independence and the one that the CB has in practice.

The distinction between *political* and *economic* independence of the CB concerns spheres of influence of the government on the CB. If political dimension of the CBI concerns relations of the legislative and executive branches of power and the CB in terms of appointment procedures of the CB’s officials, the economic dimension of the CBI mostly reveals the relations between fiscal and monetary authorities in terms of lending obligations to the government. More precisely, the main features of *political independence* include clear procedure for appointing members of the governing body, President of the Central Bank and formalized criteria for selecting candidates; guaranteed protection leadership of the Central Bank from dismissal; no requirements for Government's approval of the CB’s decisions. *The economic independence* presumes that the CB doesn’t have the obligation to finance government spending and provide loans as well as experience minimum or no intervention from the government in decision-making on monetary policy.

In order to clarify the different definitions of the CBI in the literature and their overlapping we summarized different classifications of the CBI them in a table below.

Table 1. Definitions of the CBI in the literature

<i>Literature</i>	<i>CBI</i>	<i>Main categories that define the CBI</i>
Grilli, Masciandaro and Tabellini (Grilli, et al., 1991)	Political	Appointment procedures Approval of CB's decisions by the government Legal binding of the CB by monetary policy objectives
	Economic	Lending obligations of the CB to the government Freedom to choose policy instruments
Eijffinger and Haan (S. Eijffinger & Haan, 1996)	Personnel	Influence the government has in appointment procedures
	Financial	Lending procedures (obligations) to the government
	Policy independence	Autonomy of the CB in the formulation (goal independence) and execution of monetary policy (instrumental independence)
Smaghi (Smaghi, 2008)	Functional	Freedom to choose policy instruments
	Institutional	Independence from the government
	Personal	Appointment procedures
	Financial	Financial freedom (own capital)
Cukierman, Web and Neyapti (Cukierman, et al., 1992)	Legal (formal) independence	Legal provisions concerning appointment procedures, objectives setting, lending obligations to the government, etc.
	Actual (effective) independence	TOR

In the line of political and economic independence division, the CBI is also viewed as having three main pillars, namely personnel, financial and policy independence (S. Eijffinger & Haan, 1996). CBI can be considered having personnel independence when it is exempted from the governmental direct involvement and pressure concerning appointment and dismissal procedures of the CB's Governor and Board. Financial independence of the CB assumes that government cannot force the CB to finance government's expenditure either through additional emission or through the direct loans. Policy independence refers to the sole responsibility of the CB in formulation and implementation of the monetary policy. In this respect the two different elements of policy independence are identified: independence of the CB in setting the goal and independence in choosing instruments in order to pursue the goal.

Smaghi while analyzing the independence of the ECB distinguishes four categories of central bank independence: functional, institutional, personal and financial independence and analyze them from the given legal provisions and practices (Smaghi, 2008). Functional independence here with the instrumental independence as defined by Eijffinger and Haan and refers to the freedom of the CB to set its policy instrument with the aim of achieving its objective. Institutional independence is understood by the author broadly and viewed as independence of the CB as an institution from the government. The understanding of personal independence here coincides with the above discussed personnel independence. In contrast, the financial independence is viewed by Smaghi in terms of financial freedom of the CB. In other words the CB should be ensured with proper financial means to function.

The challenge for the assessment of the CBI basing on legal provisions comes from the inconsistency of formal and actual independence as "distance between theory and practice is not

always short” (Smaghi, 2008, p. 446). Smaghi argues that legal provisions are necessary, but not sufficient, to ensure central bank independence” (Smaghi, 2008, p. 447) and shows that even the ECB, which was created with the premise of being ‘the most independent central bank’, faces the challenges for its independence in all four dimensions (functional, institutional, personal and financial independence).

Following this line of arguments, Siklos defines the CBI “not as a single index measure but rather as a multidimensional set of characteristics” (Siklos, 2008, p. 805) and identify the combination of *de jure* and *de facto* characteristics that most benefit the central bank’s role in ensuring low inflation, namely the mandate of the central bank for the single objective, the decision-making process used in conducting monetary policy, the degree of legislated autonomy, transparent appointment procedures. As *de facto* components of the CBI Siklos points out the economic freedom, the type of exchange rate regime, the clarity and numerical expression of the monetary policy target and a proxy for the credibility of monetary policy.

The complexity of the category of the CBI can be also seen through the methods of its assessment. There has been developed a number of complex indices that reflect different dimensions and elements of the CBI. Further we discuss the most commonly used measurements of the CBI.

The basic principle of most measurements is identification of a set of elements of CBI and its coding. The elements as a rule include legal (formal) determinant as they can be easily revealed and do not usually require interpretation. However, some values do not always exclude a certain level of subjectivism because the assessment of the CBI is based on several sources of legislation, which may not correspond.

The most widely used indices are the index developed by Cukierman (known also as LVAW index) (Cukierman, et al., 1992) and index developed by Grilli, Masciandaro and Tabellini (GMT) (Grilli, et al., 1991). LVAW index consists of four main categories, namely appointment and dismissal of central bank authorities, independence for policy formulation, central bank objectives, and central bank lending and overall covers 16 characteristics of CBI. Each score is assigned a number from 0 to 1, followed by the aggregation procedure. In the result overall score is derived, which lies in interval from 0 to 1.

Grilli, Masciandaro and Tabellini distinguish between political and economic independence of the CB. Therefore, the GMT is divided in two sub-sections - political and economic independence. Each of the elements gets the score 0 / 1. Overall score is calculated by summing all scores. Score of political independence within GMT-index is based on such criteria as appointment procedure of the CB’s Governor and the Board of Directors, approval of NBU’s decisions by the government, legal binding of the CB by monetary policy objectives, etc. The economic independence of the CB within the GMT-index is mainly based on assessment of lending obligations of the CB to the government as well as its freedom to choose policy instruments.

Our interest also attracted the Modified Cukierman index, which was suggested by Jácome and Vázquez (Jácome & Vázquez, 2005). Analyzing the CBI in Latin American countries they suggested some improvements of the Cukierman index. The Modified Cukierman Index (MCI) is based on four structural criteria of Cukierman index. However, there are some minor and major differences. The first category of LVAW ‘Central bank CEO’ concerns exclusively the appointment procedures of the CB Governor. In contrast, the MCI includes also procedures for the entire Board of Directors. The criterion for the estimation of the independence in this dimension is also different – its aim to underline that the independence from the political cycle. In other words, the criterion is the overlapping the term of Board with the Presidential term. The section of LVAW ‘Policy formulation’ is also reformulated. The elements of assessment of exchange rate policy and the central banks’ role in approving public sector debt are added. The other important modification is the adding the criterion of accountability as well as some changes in assessment of economic autonomy (in terms of lending to government).

All these indices are based on the assessment of legal provisions, which is the reflection of formal independence. Cukierman also suggests another indicator that might show the state of the actual (or effective) independence – TOR – a turnover of the central bank’s governors (Cukierman, et al., 1992). Another way to assess actual independence are the questionnaires or check-lists (for example, QVAW, that is also developed by Cukierman) that reflect the actual practices like formal and informal numerical expression of the goals, overlapping of the office terms of the CB’s governor and political authorities, etc. This reflects the weak points of the legal measures of the CBI as the legal provisions cannot grasp the informal institutional arrangements between the governmental authorities and the CB. Therefore, the combination of both would help to maximize the precision of the measurements. In our analysis we use LVAW, CMI and TOR, which are discussed in more detail in methodological part of the thesis.

The theoretical concepts of the CBI definition discussed above serve as a base for our analysis of the NBU’s independence. However, it should be noted that some of the definitions of the CBI overlap. Thus, we see the necessity to summarize different classifications / definitions of the CBI the following table.

Table 2. Summary of CBI classification

Legal independence (<i>also referred as</i> Formal independence / de jure independence)		
<i>Political independence</i>		<i>Economic independence</i>
Personnel independence	Institutional independence	Financial independence
Accountability	Policy independence: Goal independence	Policy independence: Functional independence / instrument independence
Actual independence (<i>also referred as</i> Effective independence / de facto independence)		
<i>Political independence</i> (TOR)		<i>Economic independence</i> (Economic freedom, the type of exchange rate regime, etc.)

2.1.2. Theoretical views on CBI

The main grounds about the importance of the CBI for improvement of monetary policy in the long run are laid in a number of theoretical assumptions, including public choice theory, time-inconsistency problem and the fiscal deficit problem. They mainly present economic arguments for the rationales of the CBI. Besides, institutional and political rationales influencing the CBI are the question of “optimal contract” (principal-agent theory), the need for technocrats and external credibility hypothesis (neo-institutional theory).

Public choice theory argument is based on the assumption that monetary authorities (CBs) are under considerable political pressure to behave in accordance with government’s preferences and objectives⁶ (Bandura, Mendoza, & Sidikou-Sow, 2006; S. Eijffinger & Haan, 1996). Under this condition, the CBI would contribute to less political influences. The connected argument is laid by Sargent and Wallace (1981) (Sargent & Wallace, 1981), which relates to the *interaction of fiscal and monetary authorities* and possible pressure that the fiscal authorities might execute in order to cover the budget deficit by the additional creation of money. This aspect is discussed in detail further in the thesis (section 2.2). The next argument is connected with the *time-inconsistency problem* of monetary policy. In other words, monetary authorities can be unable to follow the optimal long-term plan over time. The theory is based on the assumption that governments generally have tendency to opt for high employment. In the situation, when the long-term target inflation rate is set the government have still strong incentive to inflate under the pressure of electorate (Bandura, et al., 2006). And, eventually, the long-term policy appears to be time inconsistent.

The other argument for granting the CBs independence suggests that monetary policy has a complicated nature and therefore, technocrats should be in power for decision-making⁷ (Bandura, et al., 2006). Referring to the *external credibility* as an argument in favor of the CBI, the authors assume that CBI is granted in order to gain credibility and good reputation to international financial actors (Polillo & Guillen, 2005).

The principal-agent theory refers to the regulation of the central bank (as an agent) and the government (as a principal) by means of contracts. In this respect Eijffinger and Haan (1996) refers to structuring the contract between the CB and the government as a way “to overcome the incentive problems of monetary policy” (S. Eijffinger & Haan, 1996, p. 10). Oritani (2010) applying the agency theory to central banks identifies two main distinguishing features of the principal-agent relationship of a central bank: (1) existence of multiple principals and (2) CB’s status as an independent agency (Oritani, 2010, p. 18). These features limit the possibility of using the measures to overcome the problems of the relations ‘CB-government’. Among commonly used (1) contract design, (2) monitoring and reporting, (3) screening and selection, and (4) institutional checks (mutual checks by multiple agents), only the first two measures are available. The contract with explicit inflation target makes the CB accountable for meeting this

⁶ The theory was developed by Buchanan and Wagner (1977).

⁷ Referred to Johnson (Johnson, Juliet. 2006. “Postcommunist Central Banks: A Democratic Deficit?” *Journal of Democracy* 17 (1): 90-103).

target and as a result, for the monetary policy itself. Monitoring and reporting refers to the practice of accountability of the CBs which is discussed further in this chapter.

The above mentioned theoretical views give the possibility to summarize the main *arguments in favor of the CBI* as follows:

1. The first and foremost argument in favour of the CBI is that high CBI helps to reduce inflationary pressures. The lack of CBI can lead to political manipulation and monetary expansion, respectively, increasing volatility of inflation. This situation is more likely to appear during political campaigns before elections, when governments tend to secure better economic growth and reduce unemployment in the short-term perspective in order to show better results. The stimulation of consumption is accompanied by pressure on the CB to mitigate monetary policy.

In order to explain possible reasons for inflationary pressures Cukierman (Cukierman, 1992) points to several basic reasons for monetary expansion: the government's tendency to support high employment, government revenue, the positive balance of payments balance and ensure financial stability. The government's willingness to increase employment may be accompanied with increase in public spending, which in the medium-term period lead to inflation.

The government can also use benefits of inflation. Financing its liabilities via additional monetary emission leads to inflation. At the same time, inflation also reduces the net present value of debt payments, which reduces real government spending on interest payments and the payment of principal debt. In circumstances when the government has limitations to attract other taxes to increase its income or when there are no other options to have a loan to cover budget deficit, governments might use this mechanism.

The need to maintain a positive balance of balance of payments (especially current account) also may make governments to opt to devalue currency in order to stimulate export. However, currency devaluation can transmit inflation in two ways: (1) through increase in import prices of consumer goods; (2) through increase in prices of intermediary goods that are imported and used for the domestically produced consumer goods. This is a typical situation for countries that specialise in export of raw materials and low technological goods and has a need to import technology (Ukraine falls in this category).

The aim of the government to ensure financial stability can also cause inflationary pressures. The current financial crisis shows that a lot of countries opted to tackle the consequences of financial crises by increasing public expenditure or “buying off” problematic companies and banks. This, together with economic recession and consequently lower levels of economic activities and tax incomes can cause budget deficits and further need to finance it via monetary emission.

2. Central bank independence can also have another role, which is also connected with reputation and the image of healthy economic environment and low inflation. In this way a central bank can be a guarantee to foreign investors that their investments will not lose their value over time (Polillo & Guillen, 2005).

3. Following this line of arguments, CBI helps reduce uncertainty in making economic decisions, avoid information asymmetry, which contributes to the stability of the financial system and promotes economic growth in the long run. The same way CBI contributes to higher stability and predictability of monetary policy. This in turn helps to reduce inflationary expectations and promotes public confidence in monetary policy.

Given the above mentioned benefits of the CBI, the concept (of the CBI) is not free from objections. The most common *objections to the CBI* are the accountability of the CB and coordination of policies in the context of conflict between fiscal and monetary policy (summarized in (S. Eijffinger & Haan, 1996).

From the point of view of some authors accountability is a trade-off of the CBI (Sibert, 2009). This view is connected with the premise that “(i)n a democracy, it is only acceptable to delegate power to an independent institution if that institution has *legitimacy*” (Sibert, 2009). In turn, in order to have legitimacy the independent institution must be formally accountable. However, the independence limits the instruments of the accountability and control over its fulfillment. In contrast, monetary policy conducted by the CB has its specifics and direct involvement of politicians can be harmful. Eijffinger and Haan point out that even an independent CB is accountable in many ways which result from the CBI – objective setting, precision of target specification, appointment procedures, etc. Therefore, accountability can be seen not as a trade off but rather as a part of CBI. The question of accountability and CBI is further elaborated in the next section of the paper.

The other objection of CBI is connected with the conflicts of fiscal and monetary policies. These conflicts arise in case when the government and the CB have different goals. This aspect of the CBI is discussed in more detail in further in the thesis (section 2.2) and focus on the interaction of monetary and fiscal authorities.

Determinants of CBI

Eijffinger & Haan have categorized determinants of CBI basing on a number empirical works. The determinants combine economic and political aspects and include: the equilibrium or natural rate of unemployment; the stock of government debt; political instability; the supervision of financial institutions; financial opposition to inflation; public opposition to inflation (S. Eijffinger & Haan, 1996, pp. 41-53). Other determinants categorized in the literature include, besides the above mentioned, openness of the economy and political system arrangements (Schwödiauer, et al., 2006 p. 11). These determinants were empirically tested and some of the results show no or limited support for the significance of them for the CBI (like rate of unemployment and government debt). However, such determinants as financial opposition to inflation, public opposition to inflation and openness of the economy can serve as good explanation of why the CBI is granted, why should it be improved and how it is connected to the monetary policy goals.

2.1.3. Accountability and transparency of central banks versus CBI

Accountability and transparency are tightly connected to central bank independence as together they comprise "the three pillars of central bank governance" (Ahsan, Skully, & Wickramanayake, 2006, p. 48). Accountability in general and accountability of central banks is viewed as "a symbol of good governance" in The Code of Good Practices on Transparency in Monetary and Financial Policies (IMF, 1999) among four broad categories of good practices distinguishes "accountability and assurances of integrity by the central bank and financial agencies". This approach points out that accountability of central banks and transparency of their policies enhances the effectiveness of monetary and financial policies. Accountability is the key concept of contemporary governance and is often viewed as a trade-off to the CBI (Sibert, 2009) or one of the objections to the CBI (S. Eijffinger & Haan, 1996). The main reason behind it that it is difficult for an independent central bank to remain accountable. However, the concept of accountability is not contradicting to the concept of the CBI but rather complementing it. There is a growing belief that in order to "preserve a democratic monetary policy decision - making central bank independence must be accompanied by strong accountability mechanism and procedures" (Schwödiauer, et al., 2006). In addition, accountability is also viewed as a pillar of political independence (for example: (Bandura, et al., 2006; Jácome & Vázquez, 2005).

According to Senznick "legitimacy tends to restrain authority and hold it accountable..." (Selznick, 1994, p. 289). It is possible to say that accountability here is viewed as the result of involvement of interest groups into policy making. However, the special position of central banks as they are responsible for monetary policy, which is done on macro-level.

It is important to mention here the work of Bovens on public accountability, which gives a comprehensive picture on the concept of accountability. He underlines that the concept has steadily evolved from the simple image of accountability as connected to bookkeeping to accountability with "strong promises of fair and equitable governance" (Bovens, 2005). It should be pointed out that this work refers mainly to the public dimension of accountability, which is viewed as openness or accessibility to citizens. Generally, accountability can be defined as "A is accountable to B when A is obliged to inform B about A's (past or future) actions and decisions, to justify them, and to suffer punishment in the case of eventual misconduct" (cited in Sibert, 2009, p. 1).

Accountability of central banks together with their transparency and openness are viewed as important prerequisite to "safeguard the democratic legitimacy of independent central banks" (Geraats, 2002, pp. F532-F533). Such view implies that a monetary policy is like other economic policies should be also determined by democratically elected representatives. However, this means a "too direct involvement of politicians with monetary policy" (S. Eijffinger & Haan, 1996, p. 15). In practice, the population via elections delegates its interests to the deputies and president, who, in turn appoint government officials. This implies that the CB should be directly accountable to the legislative and/or executive powers and indirectly to the public. In addition, the status of a central bank as an independent agency brings specific features for accountability of CBs and decision-making process. On the other hand, "(n)o central bank can be totally

independent in the sense that it does not have to report to anyone”. In other words, the CB needs to be accountable especially what concerns its responsibility to fulfill its objectives.

Accountability of the central bank can be more generally divided in two broad groups: (1) the accountability to the general public and (2) accountability to democratically legitimated institutions – mostly the parliament (Schwödiauer, et al., 2006 p. 12). If to refer to the typology of accountability presented in by Bovens, it is important to underline that due to specific position of central banks and their functions, some aspects of accountability might be initially limited by their status of independence. In this context, accountability of the CBs is tightly related to their independence as it reflects the relations of the CB to the governmental institutions. In this line of argument Eijffinger and Hoerberichts distinguish three main features that are important for the central bank accountability (S. C. W. Eijffinger & Hoerberichts, 2000, p. 2):

1. explicit definition and ranking of objectives of monetary policy;
2. transparency of actual monetary policy;
3. who bears final responsibility with respect to monetary policy.

Sibert distinguishes two types of accountability: formal and substantive (Sibert, 2009). Formal accountability as applied to central banks means the public should be given relevant information about the CB's, goals, principles of monetary policy, actions and decision-making process. This should be complemented by the ability of a central bank to explain and justify its actions. Substantive accountability is viewed as possibility to reward or impose sanctions on the central basing on the results of its policy (good/bad performance).

Transparency is a very important element of accountability (Haan & Eijffinger, 2000). Transparency is of high value for central banks because “the public's understanding of current and future policies is critical for the effectiveness of policy” (Haan de , Eijffinger, & Rybinski, 2007, p. 2). Accountability becomes limited without transparency because there is simply difficulty to obtain relevant information n order to judge the performance of the central bank. In this context, transparency is connected to the communication of monetary policy to public. A number of theoretical and empirical works has been conducted in this area, which underline the importance of communication of central banks. Two main reasons for it are defined: (1) communication can influence expectations, which result in improvements of the effectiveness of monetary policy, (2) policy transparency can lead to greater predictability of central bank actions, which, reduces the uncertainty in financial markets (Haan de , et al., 2007). In addition, transparency and accountability can justify and increase support for independence by introducing a system of “checks and balances” to the CBI (Lefort, 2006). For this reason, transparency should be enhanced through the law that would prescribe certain procedures for communicating monetary policy to public.

2.2. Economic theory perspective: monetary versus fiscal policy

Interaction of government and CB is an important determinant for the CBI. In the context of the relationship of fiscal and monetary authorities there is a strong belief that “(t)he more independent central bank is, the less the monetary authorities can be forced to finance deficits by creating money” (S. Eijffinger & Haan, 1996, p. 5). The argument for it is that under conditions of fiscal policy domination, monetary authorities are not able to influence budget deficit and might be forced to finance this deficit by creating money. This, in turn, result in inflation. In contrast, if the monetary policy is dominant, the fiscal authorities having no other option for financing the deficit (government bonds or external loans) will reduce the deficit.

The study fiscal and monetary policy relationship deals with the problems of budget deficits and public debt. At present, the range of issues is actively discussed in the EU in the context of the interaction of the single monetary policy and fiscal policy. The independence of the ECB has been always seen as a key issue for its successful management of the EMU and conducting single monetary policy. The success of the single monetary policy of the ECB relies on the convergence between countries. The Maastricht Treaty defined four criteria that countries must meet in order to join the euro zone. Maastricht (or Convergence) criteria include a high degree of sound public finances (a budget deficit of less than 3% of their GDP, a debt ratio of less than 60% of GDP), a stable exchange rate, price stability, low and stable long-term interest rates (close to the EU average). These criteria are designed to ensure monetary policy dominance and minimize the pressure of deficits and debts on monetary policy. In addition, the national central bank of the country should be politically independent from the government. After joining the euro zone countries are expected to continue “sound public finances” trend and do not exceed a budget deficit of 3% of their GDP, a debt ratio of 60% of GDP. These requirements are enhanced by the 1997 Stability and Growth Pact, which assume sanctions for violations of the 3% deficit rule. However, because of the financial crisis some of the countries have broken the rule (for example, Greece with the budget deficit of 13 % in 2009⁸). The problem for monetary policy of the EMU is connected to the fact that inflation in most countries is connected with the problems in fiscal sphere. And for the ECB, such fiscal problems in the EMU countries cause difficulty to ensure the price stability.

The problems of interaction between fiscal and monetary policy are based on two basic considerations. First, the policies of the government and central bank are interrelated through the budget constraint of the public sector. The two most common source of financing government budget deficits are (1) new government borrowing and (2) income from the emission of money (Pekarsky, 2006). Second, the government and the CB might have different objectives. The government is more concerned with the employment and growth, while the main objective of the CB should be the price stability.

Typically, the theoretical analysis of interaction of fiscal and monetary policy goes into study of the choice between inflation and unemployment in the short term (Phillips curve). The task here is to optimize different objectives of society, government and central bank. However, as inflation

⁸ According to the data from: <http://www.athensnews.gr/articles/13363/08/11/2009/23112>.

is in the centre of discussion of fiscal and monetary policy interaction, we limit our theoretical discussion to the theories of inflation that are relevant for our research in the context of the interaction of monetary and fiscal policies, namely, the monetary theory of inflation and fiscal theory of inflation.

The *monetary theory of inflation* can be reflected in the saying of Milton Friedman: "Inflation is always and everywhere a monetary phenomenon in the sense that it is and can be produced only by a more rapid increase in the quantity of money than in output" (Friedman, 1970). From the traditional monetarist perspective the monetary base growth determines processes of inflation. This goes along with the definition the phenomenon of inflation as declining of purchasing power of existing money because of the additional emission of new financial obligations of the state.

This perspective takes into consideration only monetary policy as the determinant for inflation. However, the CB is in the position of dealing with the fiscal policy of the government. The problem arises naturally if to refer to the fact that one of the sources the budget deficit financing is emission of money. In this regard, monetary policy is to be considered not in isolation but in the context of the interaction of fiscal and monetary policies. This view is reflected in the *fiscal theory of inflation*. The theory assumes that the price level is determined by the budgetary policies of the fiscal authority (Carlstrom & Fuerst, 2000).

The ground for the fiscal theory of inflation were laid in the work of T. Sargent and N. Wallace (Sargent & Wallace, 1981). The theoretical results assumed that the price level is directly related to the size of the budget deficit. T. Sargent and N. Wallace (1981) pay special attention to the situation when the CB considers the fiscal policy of the government for granted. In other words, the model observes the dominance of the fiscal authorities. This model reflects the position of J. Keynes who views the monetary policy as an indirect and less effective tool for stabilizing the economy, than fiscal policy (Grekov, 2009). In this case monetary policy should be adjusted to the fiscal policy in order to ensure the money supply for the governmental expenditures.

The main theoretical assumption T. Sargent and N. Wallace (1981) is that given the present fiscal policy, tightening monetary policy (reducing the monetary base growth) can lead to low inflation in the short term only at the cost of inflation in the future. More precisely, if in terms of the current fiscal policy, the monetary authorities refuse to finance the budget deficit, than the state's debt-to-GDP ratio will grow at "an unsustainable rate", which requires "ever-increasing real rates of interest on government debt" and this, consequently, implies inflation (Carlstrom & Fuerst, 2000). As a result, either monetary or fiscal policy should be changed. In this respect, T. Sargent and N. Wallace (1981) discuss two main "coordination schemes" of monetary and fiscal policy: (1) dominance of the fiscal policy over the monetary one; and (2) dominance of the monetary policy over the fiscal one. In terms of the first scheme, the monetary authority eventually will be forced to adjust its policy in order to avoid the default, in the second – the fiscal authority will be the one to change its policy and reduce the budget deficit.

In the "coordination scheme", when fiscal policy has dominative position over the monetary one, the fiscal authority independently sets its budgets with all current and future deficits and

surpluses. This way the fiscal authority determines the amount of revenue that must be raised through bond sales and seignorage (revenue from money creation). In this case the CB has a dependent role – it faces the constraints imposed by the demand for government bonds. If public demand does not cover government bonds, the CB is facing the need to cover this discrepancy by seignorage. In the result, the CB should ensure that the new money base, sufficient to cover the budget deficit (including seignorage and alternative source of financing – new government borrowings). In this case the inflation is determined by the fiscal policy. T. Sargent and N. Wallace state that “(..) such a monetary authority might still be able to control inflation permanently, it is less powerful (..)” (Sargent & Wallace, 1981) than in the situation when the monetary authority has a dominant position.

The other scheme of monetary and fiscal policy coordination concerns the situation when monetary policy dominates fiscal policy. In this situation the monetary authority (the CB) independently sets the monetary policy including the growth of the monetary base. In this way the amount of seignorage (meaning additional money issue) is also determined by the CB. In this case, monetary policy is independent of the needs of financing the deficit, and the government is forced to adjust the budget deficit accordingly. In this case, “the monetary authority can permanently control inflation” (Sargent & Wallace, 1981).

Basing on the above said, it is possible to say that CBI contributes to the domination of monetary policy and control over inflation. Therefore, in the long term period the main purpose of harmonization of monetary and fiscal policy is to achieve stable economic growth by controlling inflation and keeping the budget deficit at a level, when there is no risk for direct monetization of the deficit by the central bank.

2.3. The CBI from the perspective of the institutional theory

"Institutions cannot absolutely prevent an undesirable outcome, nor ensure a desirable one, but the way that they allocate decision-making authority within the public sector makes some policy outcomes more probable and others less likely. An important example of this principle concerns the balance of authority between the central bank and the executive and legislative branches of government." (Cukierman, et al., 1992, p. 353).

2.3.1. Institutions as “rules of the game”

From the institutional perspective policy analysis treats institutions as the institutional structure that is necessary for fulfilment political and economic objectives. However, institutions usually involve a great diversity of rules, norms, relations and situations that it is hardly possible to refer to any standardised procedure for institutional analysis. In this section, we limit discussion of institutional theory to the presentation of the general view on institutions and neo-institutional approach to the CBI. This serves as a basis for our further analysis of institutional determinants of the NBU's independence.

Institutionalism presents a widely used approach in economic, political and other sciences. It unites a number of concepts that have a common feature of study of economic processes in close relation to social, legal, political and other processes. The problem of trust, norms and relationships is in the center of the institutional approach.

Application of institutional theory to explanation of a CBI is relevant as a central bank (1) is an institution, (2) operates according to legal settings, (3) has complex relations with the institutional environment. All these norms, relations and interactions determine "the rules of the game" for the CB. In addition, CB is in the position to create institutions that determine the legal "frames" of the banking sphere.

North has shown that: (1) institutions bring to the economic life of constraints in the form of the rules and procedures, the conduct of economic entities, and (2) their important role lays in reducing uncertainty by establishing a stable framework between economic actors (North, 1990). In this respect, "institutions both constrain and enable behavior" (Hodgson, 2006, p. 2).

The institutional theory distinguishes between institutions and organizations. Institutions are "the rules of the game" and organizations are "the players". North distinguishes between economic, political and educational organizations. Political organizations include political parties, legislatures, regulatory bodies (North, 2005, p. 22).

Institutions are defined as "rules of the game", "the humanly devised constraints that structure political, economic and social interaction" (North, 1990, p. 3). North distinguishes three main components that comprise the system of institutions, namely:

1. Formal rules (laws, constitutions, and property rights).
2. Informal constraints (sanctions, taboos, customs, traditions and codes of conduct).
3. Enforcement mechanisms to ensure compliance (courts, police).

The CB and CBI have a complex institutional structure in terms of formal and informal rules. Williamson provides an analytical framework for the institutional analysis of such structures and defines four levels of institutions-norms in which actors function (Williamson, 2000). All four levels are interrelated and impose constraints on each other. The first level refers to the set of informal norms. The second level deals with the formal rules. The third level consists of governance structures that are based on contractual relations and principal-agent relation in particular. The last fourth level discusses the economic activities and incentives. This level mostly refers to the deals with household-level incentives. The detailed graph presenting Williamson's approach is provided in Appendix 3.

Institutional theory also gives several explanations to the fact that institutions (as norms, rules) change and develop. General view is based on the assumption of rational choice of institutions-norms and their construction. Alternative explanation assumes path-dependency. Path dependency for the institutions is compared to development of standards in technology since

both are based on the high value of adaptation to some general practice (a technique or rules). Therefore, deviations from widely used norms and standards become too expensive.

North describing the process of economic change put special emphasis on the system of beliefs: "The dominant beliefs - those of political and economic entrepreneurs in a position to make policies - produce over time an elaborate structure of institutions - both formal rules and informal norms that determines economic/political performance" (North, 2005, p. 25). This statement points out to two important ideas of institutional theory. First, that institutions form a kind of "model", "institutional matrix" of behaviour and, second that institutional changes are based on path-dependency.

2.3.2. Neo-institutional theory: Impact of Globalization on the CBI

"Economic and financial globalization undermine the state's capacity to act and regulate" (Polillo & Guillen, 2005, p. 3) – this statement reflects one of the growing concerns of the impact of the globalization on the nation-states. It also relates to the central banks. The activities central banks are dealing with, has acquired a global nature, while the central banks are institutions with instruments aimed on the domestic market.

In respect of influence of the globalization on the CBI, Polillo and Guillen points out to two channels of the effects: (1) international coercive pressures that affect countries, including their dependency on foreign trade, investment, and multilateral lending; and (2) cross-national international influences that operate through the network of bilateral trade ties in the forms of cohesion and role-equivalence effects (Polillo & Guillen, 2005, pp. 15-16).

The international coercion implies that the CBs tend to adopt such formal practices (institutions) as the CBI because of the dependency of the countries on the international markets and the pressure to harmonize institutions accordingly to the international practice. The symbol of strong currency and independent central bank thus are viewed as a "prestige in the world". Openness in trade is not the only factor for the need of such practice as the CBI. Foreign direct investment can also benefit from the internationally reputable central bank as providing more predictable economic environment.

As another type of coercive pressure Polillo and Guillen point out to the IMF impact via its lending agreements. Countries borrowing money from the IMF commit themselves "to implement institutional reforms are called "conditionality terms" (Polillo & Guillen, 2005, p. 18). These conditions include but are not limited to the improvement of budgetary institutions and independence of central banks.

The other channel of globalization influence on the diffusion of the CBI is connected to the network ties between countries, which through trade and production ties facilitate the coercion of institutions and formal practices.

The line of coercive pressure from the IMF can be criticized as imposing certain practices (as CBI) on the countries with completely different institutional environments as in the developed

countries is inappropriate. One can recall the criticism of the Washington consensus by J. Stiglitz in this respect (Stiglitz, 2002). The Washington consensus relied on macroeconomic stabilization (low inflation and control of the budget deficit), opening domestic markets to foreign investment and the free movement of capital. Countries (post-Soviet countries, countries of Latin America, etc.) receiving loans from IMF were supposed strictly to follow to these recommendations. However, in reality, the institutional environments of these countries were not ready to such changes. In other words liberalization, opening markets and privatization turned to have negative effects because the institutional environment lacked the institutions of contract and completion.

As argued by J. Stiglitz, macroeconomic policy should not be focused just on controlling inflation and fiscal deficits. In his view what is important is the availability of reliable financial markets, which can be reached by the development of an appropriate regulatory system, rather than financial liberalization. CBI can be also subject to a criticism as it is a part of the liberal concept. However, even though we support the view that each institutional change should be “forced from outside” or just copied from the international practice, improvement of the actual CBI can be beneficial for the country given that it is adjusted to the certain domestic conditions of each country. It should be noted that CBI contributes not only to the more effective monetary policy especially in terms of controlling inflation, but also to the trust of the public. The question is not simply in the ensuring the low inflation (which cannot be the uniformed ‘recipe’ as it was in terms of Washington Consensus) but providing stability and predictable inflation expectations, which contributes to the sustainability of the monetary policy in particular and macroeconomic policy in general. This, in terms of already liberalized markets, open economy and high dollarization in the transition countries, is important precondition for the reliable financial markets in transition countries.

2.4. Conclusions to the Chapter 2

The theory on CBI provides the sound base for answering our research question. Understanding the main rationales behind granting the CBI allows us to formulate the importance of the NBU’s independence as a way to reduce inflationary pressures. The main assumption behind the CBI is that it will allow the CB to focus exclusively on inflation targeting without paying attention to the conflicting goals of the government such as high employment and economic growth rates. This assumption is particularly relevant for the first research sub-question ‘*What is the NBU’s monetary policy goal?*’

Discussion of the multiple definitions and classifications allow us to define a focus of our research in two connected dimensions. First, the distinction between legal (formal) and actual independence predetermines the combination of normative and positive approaches in our analysis. The actual dimension of CBI treats CBI through the prism of actual monetary policy regime, the clarity of monetary targets expression and credibility of monetary policy. This approach is applied for answering of the first research sub-question ‘*What is the NBU’s monetary policy goal?*’.

The legal dimension of CBI reveals formal grounds of NBU's independence. Two dimensions – economic and political – explain the complex structure of the CB and government relations in appointment of CB's leaders, policy formulation, goal setting mechanism; CB's lending obligations and accountability. This theoretical approach provides a base for answering the second sub-question '*To what extent is the NBU an independent central bank?*'.

Separately institutional theory provides the explanation of how institutional development and external credibility pressure via trade networks and relations with international financial organisations predetermine the development of the CBI in particular country. Apart the economic theory put emphasis on the fiscal-monetary authorities' conflict as a determining factor of the independent monetary policy. It provides the proposition to explain institutional development of the NBU and the external credibility pressure in order to answer the third sub-question '*What should be reformed in the institutional settings of the NBU to attain its goal?*'

The normative, "ideal" view on CBI is the base for our recommendations of the improvements of the NBU's independence in the forth sub-question '*What should be reformed in the institutional settings of the NBU to attain its goal?*'. Elements of the agency theory explain how to overcome the incentive problems of monetary policy by means of clear contracts and accountability, which can also be applied for answering this last research sub-question.

Chapter 3. Research Methodology

3.1. Research strategy

Referring to the main purposes of social research (exploring, describing, explaining) (Babbie, 2010, p. 19) the proposed research would combine describing and explaining. Likewise, Punch underlines the importance of description-explanation distinction (Punch, 2006, p. 33). First, the description part will provide the overview of the basic concepts of the central bank's independence. In addition, accountability as important element of CB's governance is discussed in close relation to CBI. Second, the explanatory part discusses which elements of the NBU's institutional environment determine the NBU's independence and which should be improved correspondingly to the goal of monetary policy.

Case study and time frame of the study

The design of a country's central bank is unique and tightly connected to the whole political and economical system of the country. Therefore, the limitation to the study to one central bank – the National Bank of Ukraine – gives opportunity to explain how particular institutional system is affecting the independence of central bank and in the result – monetary policy design.

The study is limited to the period of 2000 till 2010. This is applied to the analysis of monetary policy and NBU's independence. The main two reasons for the limitations of the study within this time frame is connected to (1) the need to limit the amount of information; (2) adoption in 1999 the Law on the National Bank of Ukraine, which actually put main grounds for the legal independence of NBU.

It is also possible to identify two sub-periods within these 10 years: (1) from 2000 to 2004 and (2) from 2005 to 2010. The reason for it is connected to the significance of the political changes of the year 2004 as well as a number of serious reformations that followed in the year 2005 affecting the system of coordination between government and NBU, economic and financial environment settings, etc.

3.2. Data Collection

Given the specifics of the research area – monetary policy and CBI – the data for our analysis is limited to the secondary sources.

Statistical (quantitative) data relevant to our analysis is obtained from official sources:

- The State Committee of Statistics (database): data on inflation rates, exchange rates, public debt.
- NBU' statistical database: The balance of payments: data on foreign debt, openness of the economy.

Qualitative data for the analysis of the NBU's independence and monetary policy is obtained from:

- Legislation concerning financial regulation and NBU.
- Policy papers of NBU on the monetary policy for the period 2005-2010.
- NBU's official publications (reports, journals, analytical material, etc.).
- Government policy papers and laws, in particular, the Memorandum on economic and financial policy and budget laws.

Next, we elaborate the process of data gathering for each of the specific research questions. The process includes the identification of the theoretical concepts relevant for answering of the research questions, their specific items, and the data that will explain the variables. Below, we present data gathering process in a table.

Table 3. Data gathering process

Research question	Theoretical concept	Concept elements	Key qualitative data	Key quantitative data
<i>1. What is the NBU's monetary policy goal?</i>	Actual economic CBI: - monetary policy regime - the clarity and numerical expression of the monetary policy target - credibility of monetary policy	- monetary policy principles - monetary policy goal - credibility (effectiveness) of monetary policy as a comparison of monetary targets with actual indices	- regulations on monetary policy principles - regulations on the monetary policy goal formulation	- target inflation and exchange rate - actual inflation and exchange rate
<i>2. 'To what extent is the NBU an independent central bank?'</i>	Legal CBI: - political independence - economic independence Actual political independence	- appointment procedures of CB's Governor and Council members - policy formulation - CB's lending obligations - CB's accountability -TOR	- legislative norms on NBU's executives appointment, policy formulation, lending obligations and accountability - data on appointment and dismissal of NBU's Governor	
<i>3. What are the determinants of the NBU's independence?</i>	Institutional theory: - historical development of institutions - external credibility pressure Economic theory: - interaction of fiscal and monetary authorities	- evolution of CB - financial opposition to inflation - public opposition to inflation - openness of the economy - interrelation of fiscal and monetary policy - IMF loans' conditions	- NBU's history - Budget Law - official statement-obligation by the government concerning IMF loans	- data on the inflation rates 1991-1999 - data on export and import volumes - budget deficit

4. <i>‘What should be reformed in the institutional settings of the NBU to attain its goal?’</i>	Actual versus Legal independence Agency theory: contracting and accountability	based on the analysis of the data made in terms of the first three research questions
--	---	---

It should be noted that the fourth research question combines normative and positive approach to analysis. In other words, the theoretical assumptions of the theory of what is the best practice of the CBI will be applied to the actual situation of NBU's independence with its positive and negative features. Therefore, the answer on the question of *‘What should be reformed in the institutional settings of the NBU to attain its goal?’* is based on the analysis of the data for the previous research questions. Thus, no additional data is collected.

Consequently we have chosen a number of data sources for the analysis, which are summarized in the table below.

Table 4. Data sources

Research question	Data	Data Sources
1. <i>What is the NBU's monetary policy goal?</i>	regulations on monetary policy principles	Resolution on the content, the procedure of the development of the Basic principles of the monetary policy and control of its implementation
	regulations on the monetary policy goal formulation	
	target inflation and exchange rate	Basic principles of monetary policy for 2010 Basic principles of monetary policy for 2009 Basic principles of monetary policy for 2008 Basic principles of monetary policy for 2007 Basic principles of monetary policy for 2006 Basic principles of monetary policy for 2005 Basic principles of monetary policy for 2004 Basic principles of monetary policy for 2003 Basic principles of monetary policy for 2002
	actual inflation and exchange rate	The State Committee of Statistics database
2. <i>To what extent is the NBU an independent central bank?</i>	legislative norms on NBU's executives appointment, policy formulation, lending obligations and accountability	Law of Ukraine on the National Bank of Ukraine Law of Ukraine on Banks and Banking Law of Ukraine On amendment to the legislation of Ukraine for improvement of legal regulation of international cooperation on fighting financing terrorism Law On amendment of some legislative acts of Ukraine regarding the activities of the National Bank Resolution On refinancing and providing by National Bank of Ukraine loans to Banks of Ukraine in order to

		stimulate crediting of economy of Ukraine for the period of recovery till pre-crisis indicators Resolution on the content, the procedure of the development of the Basic principles of the monetary policy and control of its implementation
	data on appointment and dismissal of NBU's Governor	Official web-site of the NBU
3. What are the determinants of the NBU's independence?	NBU's history	Official web-site of the NBU, publications
	Budget Law	Law of Ukraine on the State budget of Ukraine for 2010 Law of Ukraine on the State Budget of Ukraine for 2009
	data on the inflation rates 1991-1999	The State Committee of Statistics database
	data on export and import volumes	The State Committee of Statistics database
	GDP	The State Committee of Statistics database
	budget deficit	Law of Ukraine on the State budget of Ukraine for 2010 (Appendix –Budget of Ukraine for 2010) Law of Ukraine on the State Budget of Ukraine for 2009 (Appendix –Budget of Ukraine for 2010)
	official statement-obligation by the government concerning IMF loans amendments to the legislation	Memorandum on economic and financial policy Law On amendment of some legislative acts of Ukraine regarding the activities of the National Bank

3.3. Analysis of the data

In this part we will discuss the methodological tools used for the analysis of the data for each of the particular research sub-questions.

1. The specific research question ***‘What is the NBU’s monetary policy goal?’*** is based on the positive approach to analysis and focused on the analysis of monetary policy principles of the NBU and constraints of goal setting approach by the NBU. The analysis reflects the actual economic independence of the NBU and is focused on the following elements:

- Analysis of NBU's monetary policy goal and principles of monetary policy formulation.
- Consistency of the projected goals and pursued goals, which reflects the credibility of NBU’s objective setting.

The analysis of NBU’s monetary policy goal and principles of monetary policy formulation is based on Resolution on the content, the procedure of the development of the Basic principles of the monetary policy and control of its implementation and Basic principles of monetary policy for the years 2002-2010. The policy papers for 2000 and 2001 are not available. These

documents reveal the following issues of the monetary policy of Ukraine: (1) who is responsible for monetary policy formulation; (2) what are the principles of monetary policy setting; (3) how the monetary objectives are formulated; (4) which parameters of the monetary policy objectives are defined; (5) what is the numerical expression of the monetary policy objectives.

In addition we analyze the credibility of monetary policy objectives by the comparison of target monetary policy objectives with the actually reached objectives. The following two policy objectives are analyzed: (1) internal stability of currency expressed through the comparison of the numerical goal (projection) of the inflation (as Consumer Price Index) for the following year and the actual inflation (CPI) that was experienced; (2) external stability of currency is expressed through the comparison of the numerical goal (projection) of the exchange rate for the following year and the actual exchange rate that was experienced. The graphs are used to present these data.

2. 'To what extent is the NBU an independent central bank?' The answer for the question is based on theory on CBI that distinguishes between legal and actual dimension of NBU's independence. The focus of the analysis of the data for this research question on both the legal and actual dimensions. The methodology of the CBI assessment is presented in the literature in the form of CBI indices. They include: (1) LVAW index (known also as Cukierman index) (Cukierman, et al., 1992); (2) Modified Cukierman index developed by Jácome & Vázquez (Jácome & Vázquez, 2005); (3) TOR index (Cukierman, et al., 1992).

LVAW index as well as MCI index assesses legal independence of the CB. LVAW index consists of four clusters of categories:

1. The appointment, dismissal, and term of office of the chief executive officer of the bank—usually the governor.
2. The policy formulation cluster, which concerns the resolution of conflicts between the executive branch and the central bank over monetary policy and the participation of the central bank in the budget process.
3. The objectives of the central bank.
4. Limitations on the ability of the central bank to lend to the public sector (Cukierman, et al., 1992, pp. 356-357).

Each of the clusters consists of several legal variables, which are given numerical coding from 0 to 1, meaning that the lowest level of independence is 0, and the highest one is 1. For example, for the variable "objectives" (is at the same time a cluster as this variable is treated separately) the highest level of independence is given when "price stability is the major or only objective in the charter, and the central bank has the final word in case of conflict with other government objectives" and the lowest level – when "stated objectives do not include price stability". The total number of variables for all clusters is 16. Then all variables are aggregated using the defined weights into one index.

The MCI index is chosen together with the LVAW index for the reason that it includes besides main elements of LVAW such criterion as accountability and transparency. The other benefit of it is more comprehensive assessment of political and economic independence. The technique of MCI is similar to LVAW. The structure of MCI besides above mentioned four clusters of LVAW include also a cluster of accountability of CBs. Full description of variables, weights and numerical coding of LVAW and MCI are presented in Appendix 2.

The other index we use is TOR – turnover of the CB's governors. This index assesses the actual independence of the CB. The reason for using this index is that legal independence gives possibility to conclude the formal dimension of independence. In practice, actual independence can be lower as legislation can be interpreted in a different way. In addition, a lot depends on informal procedures and rules applied in the country. And given a number of traditions and informal procedures, the personality of a CB's Governor becomes important when it comes to the decision-making. For this reason, the TOR index gives possibility to say how politically independent the CB is from the government in the reality. TOR index is expressed as a number of changes of the Governor per year, and calculated as a relation of the number of changes to the number of years in the studied period. It is also worth to make a comparison between actual political independence of NBU in different periods. Therefore, we distinguish 3 periods: (1) the period from Ukraine's independence (1991) till 2009; (2) period from the adoption of the Law on NBU (1999) till 2004 when a number of amendments to the Law were made; and (2) the period from 2004 till 2009, which reflects the current situation.

The results of the analysis of the data basing on the above described indices are presented in a table form. The template tables are provided below.

Table 5. Template table: Indices LVAW and CMI

CBI criteria LVAW	Score	Max. score	CBI criteria CMI	Score	Max score
<i>Central Bank CEO</i>		0,20	<i>Central Bank Board</i>		0,20
Term of office of CEO		0,25	Term of Governor office		0,20
Who appoints the CEO		0,25	Who appoints the Governor		0,20
Provisions for dismissal of CEO		0,25	Appointment and term of Board		0,20
CEO allowed to hold another office in government		0,25	Dismissal of Governor and Board		0,25
			CEO allowed to hold another office in government		0,10
<i>Central Bank objectives</i>		0,15	<i>Central Bank objectives</i>		0,15
Price stability		1	Price stability		1
<i>Policy formulation</i>		0,15	<i>Policy formulation</i>		0,15
Who formulates monetary policy		0,25	Who formulates monetary policy		0,50
Government directives and resolution of Conflicts		0,50	Conflict resolution		0,30
Central Bank given active role in formulation of government's budget		0,25	Central Bank and public debt		0,20
<i>Central Bank lending</i>		0,50	<i>Central Bank lending</i>		0,40
Limitations on advances		0,30	Limitations on advances		0,15
Limitations on securitized lending		0,20	Loans to government		0,30

Who decides control of terms of lending to government		0,20	Beneficiaries of financing		0,10
Beneficiaries of Central Bank lending		0,10	Who decides terms of lending		0,10
Type of limits when they exist		0,05	Interest rates in advances or lending		0,10
Maturity of loans		0,05	LOLR		0,15
Restrictions on interest rates		0,05	Financial autonomy		0,10
Prohibition on Central Bank lending in primary market to Government		0,05			
			Accountability		0,10
			Accountability norms		0,75
			Transparency		0,25
Total LVAW		1	Total MCI		1

Table 6. Template table: actual political independence of the NBU

Index/ Period	1991-2009	2000-2004	2005-2009
TOR index			

3. The answer for the question '*What are the determinants of the NBU's independence?*' we base on the main provisions of the institutional theory and economic theory. First, we analyze the institutional development of the NBU and discuss the main features of the Soviet banking system that has laid the grounds for the establishment of the NBU. The specific features of the relations of the State USSR bank with the government are pointed. The period after the establishment of the NBU (1991) is characterized by high inflation rates, 2 core financial crises (of 1992-1993 and 1998) and the actual practice of the NBU financing the governmental expenditures. This laid down grounds for financial and public opposition to inflation. Their effects on NBU's independence are discussed. In the analysis we use the data on the inflation rates for the period 1991-1999 to show the levels of inflation in Ukraine prior to gaining by NBU its independence in 1999. The graphical tool for data presentation is used.

The further research goes into analysis of external credibly pressure on the NBU's independence. The openness of Ukrainian economy and conditions of IMF loans are studied in terms of revealing the main preconditions for strengthening of NBU's independence. The data on openness of the economy include the export and import flows in relation to GDP as well as the overall trade turnover to GDP. These data is presented in a graph.

The IMF conditions and recommendations that accompany the loans that were approved for Ukraine in 2008 and in 2010 are analyzed on the basis of the Memorandum of economic and financial policy. The real impact of this Memorandum can be proved by the recent amendments to the Law on NBU, which gives us possibility to conclude the actual effect of IMF loans on the strengthening of NBU's independence.

4. The answer for the question '*What should be reformed in the institutional setting of the NBU to attain its goal?*' is based on the previous three questions and concludes the important elements in the NBU's independence that should be reinforced. In this part we identify the main

constraints of the actual NBU's independence comparing to the legal independence. The main constraints for the monetary policy in this respect are identified and possible solutions are suggested.

3.4. Conclusions to the Chapter 3

The chapter delivered the strategy and methodological approach for answering the posed research questions. The time limitation of the study is defined as a period from 2000 to 2010 (July). In the analysis we use the secondary data, obtained from the legislative and policy documents and NBU's official publications. In addition, we support our analysis with the statistical data collected from the official sources, namely the State Committee of Statistics database and the NBU's statistical database.

On the basis of defined core elements of the theory the data sources are selected and the data analysis approach is explained. First, in order to define the NBU's goal we analyze the regulations on monetary policy principles and monetary policy goal formulation. In order to show how the policy formulation and objectives setting reflects the actual outcomes of the monetary policy we use the data on target and actual inflation and exchange rate. Second, in order to define the level of NBU's independence we use the legislative documents (Law on the NBU, etc.) and data on appointment and dismissal of the NBU's Governors. The data will be analyzed using the selected from the literature on the CBI indices (namely, LVAW, MCI and TOR). Third, the answer for the third research sub-question about the determinants of the NBU's independence will imply the analysis of the NBU's history, Budget Law, official statements of the government concerning IMF loans and data on export and import, GDP and budget deficit. Finally, the recommendations of the reformation of the NBU's institutional settings will be based on the results of the previously analyzed data.

Chapter 4. Independence of the NBU and its monetary policy

This part of the thesis is devoted to the analysis of the actual and legal independence of the NBU, as well as explanation of the main determinants of the development of NBU's independence and its constraints. In this chapter the answers for the four research sub-questions are provided. The goal of the NBU's policy is discussed in terms of NBU's actual independence. The questions of the goal formulation and actual implementation of the monetary policy are raised. Further, the analysis goes in assessment of NBU's independence basing on three main indices: LVAW, MCI and TOR. On the basis of main categories that define legal and actual independence a focus on the specific elements relevant for NBU's independence is made. Special attention is given to the explanation of the difference of the NBU's legal and actual independence in the political dimension. Next, we explain the determinants of NBU's independence basing on the economic and institutional theories. In this part, we explain how the institutional development of the NBU and external credibility pressures via trade openness and IMF recommendations played their role in the formulation and reinforcement of the NBU's independence. Finally, we formulate main lines of possible improvements of the NBU's independence.

4.1. Monetary policy of the NBU

Monetary policy design and implementation are legally under sole responsibility of the NBU. Even the legal framework for the design of "Basic principles of monetary policy" for each year are designed by the NBU and approved by the NBU's Council⁹. However, the functions of NBU are provided in Law. The main function is defined as "stability of monetary unit of Ukraine" (the full list of NBU's functions can be found in Appendix 4). It should be pointed out that current legal legislation on the NBU does not specify the category of 'stability' that is the actual goal of the NBU's monetary policy. Nor it does specify the numerical (quantitative) target of the goal. Therefore, it creates difficulty to assess the successfulness or the effectiveness of the monetary policy that is conducted by the NBU. This situation also creates independence for NBU in choosing the parameters or criteria that are used in the reports on the implemented monetary policy. In this respect, Grytsenko and Krychevska (2005) point out to controversy and problems of the legislation, which puts NBU to solve them informally (Grytsenko & Krychevska, 2005, p. 9). As one of the problems they discuss the projected parameters that are used in the formulation of the monetary policy. The problem lays in the fact that in order to achieve one on them the NBU needs to change others.

According to Law on NBU (1999) basic principles of monetary policy are defined as "a complex of indicators of the financial sphere, enabling the NBU to use instruments of monetary policy and exercise money control and provide financing for the economy in order to ensure stability of the monetary unit of Ukraine as a precondition for economic growth and sustaining high employment".

⁹ See the Resolution on the content, the procedure of the development of the Basic principles of the monetary policy and control of its implementation, The National Bank of Ukraine (2006).

According to the mentioned 'Resolution on the content, the procedure of the development of the Basic principles of the monetary policy and control of its implementation' the NBU's paper on the basic principles of monetary policy should contain:

- a brief review of macroeconomic, fiscal and monetary situation in Ukraine in the past and current years, as well as problems that occur in the development of economic and social spheres;
- expected changes in foreign economic situation and their impact on monetary and foreign exchange markets;
- assessment of impacts of policy measures on the developed basic principles of monetary policy as well as on economic development and price dynamics;
- basic parameters of monetary policy for the following year and the next 3 years.

The basic parameters of currency stability that are used and specified in the NBU's policy paper 'Basic principles of monetary policy' are inflation rate (as internal substance of currency stability) and exchange rate (as external substance of currency stability). The parameters of the monetary volume and monetary base are also used for the policy formulation but are not considered as the main targets in contrast to exchange rate and inflation. However, in the policy these parameters paper in numerical form are specified only for the following year. In addition, NBU leaves the right for itself to revise projections of these parameters in case of "changes in macroeconomic and financial environment"¹⁰. Furthermore, in the policy papers on monetary policy for 2009 and 2010 it is stated that numerical meaning of exchange rate for these years are intentionally not provided. The reasoning presented is connected with "the conditions of significant volatility and exchange rate dynamics" as well as "external factors that are out of the influence of the National Bank"¹¹. We see it as adding the uncertainty to the monetary policy of NBU. However, it should be noted that from 2009 NBU has prioritised the inflation targeting objective, even though this priority has not been yet formalised in the legislature.

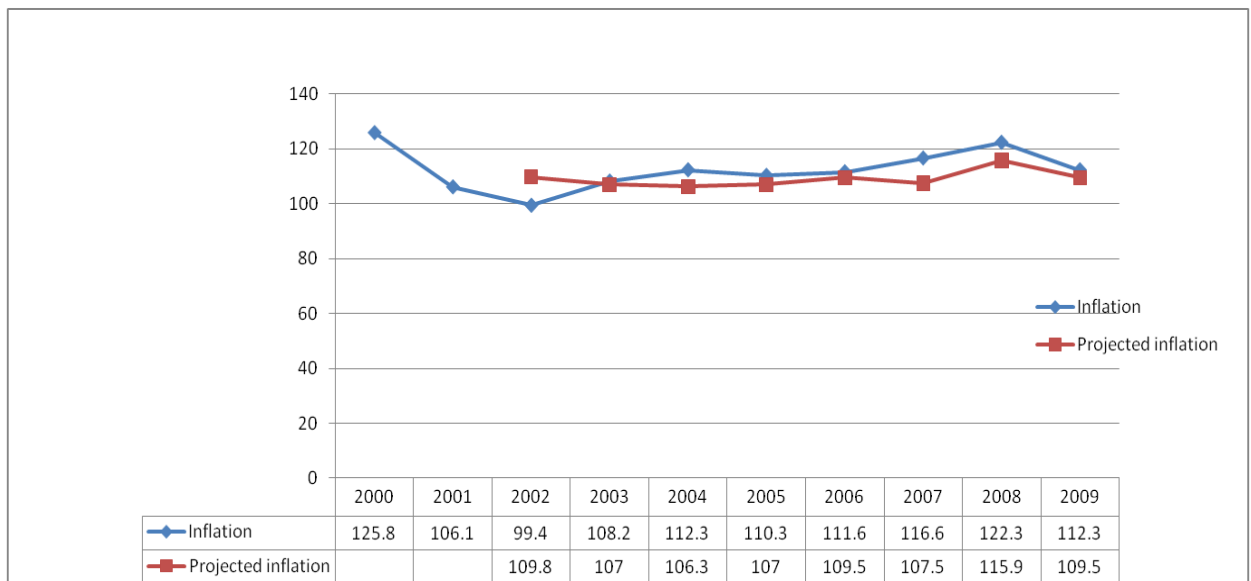
Concerning the external dimension of currency stability (exchange rate) it is possible to say that since 2008 the approach of the NBU has changed. If before the NBU defined the projected exchange rate "corridor", the policy for the 2009 shifted to not only keeping the exchange rate within certain limits, but also use of "controlled" floating exchange rate regime (as a transition term to free floating exchange rate). This means increasing flexibility in exchange rate through the expansion of the potential range of fluctuations. In result, one can assume that the exchange rate will lose its status of monetary policy goal and the internal stability of the currency may become the only policy goal.

Further, we provide an overview of the NBU's monetary policy since 2000 and its effectiveness in terms of goals. The effectiveness (credibility of monetary policy) is presented here as the consistency of the NBU's goals and the actual situation in two dimensions: (1) internal stability

¹⁰ This note is made in almost all policy papers on "Basic principles of monetary policy..."

¹¹ See Basic principles of monetary policy for 2010. The National Bank of Ukraine (2009). Retrieved from http://www.bank.gov.ua/Rada_NBU/OsnovZasad-2010.pdf; Basic principles of monetary policy for 2009. The National Bank of Ukraine (2008). Retrieved from http://www.bank.gov.ua/Rada_NBU/OsnovZasad-2009.pdf.

of currency expressed through the comparison of the numerical goal (projection) of the inflation (as Consumer Price Index) for the following year and the actual inflation (CPI) that was experienced; (2) external stability of currency is expressed through the comparison of the numerical goal (projection) of the exchange rate for the following year and the actual exchange rate that was experienced. The figures below serve as a visual presentation of these data. On the content analysis of NBU's policy papers we summarise the monetary policy goals for the period 2002-2009. Here, we limit our analysis to this time frame as the policy papers for 2000 and 2001 are not available. In the basic principles of monetary policy in recent years defined its intentions in the mid-term perspective to shift to the regime based on price stabilization (2002-2009). For this purpose, NBU is concentrating its efforts to create together with the Government macroeconomic, financial, institutional base for the transition to a new regime.



* The inflation rate is reflected via the Consumer price Index (CPI), which is calculated using the method of 'chained' measurements.

Figure 1. Comparison of projected and actual inflation¹².

¹² The inflation rate is reflected via the Consumer price Index (CPI), which is calculated using the method of 'chained' measurements (not the base period), meaning that the price level is compared to the preceding period. The State Committee of Statistics is using the following formula:
$$I_{T/(T-1)} = \frac{\sum_1^n I_{tT/0(T-2)}}{\sum_1^n I_{t(T-1)/0(T-2)}} \times 100\%$$
, where n is a number of months of the period; $I_{tT/0(T-2)}$ - price index of the months of the current period; $I_{t/(T-1)}$ - price index of the months of the preceding period. The methodological explanation is obtained from <http://www.ukrstat.gov.ua/operativ/operativ2007/ct/isc/posibnyk.pdf>.

The data for the projected inflation rate is obtained from the "Basic principles of monetary policy 2002-2009. The policy papers for 2000-2001 are not available. For the years 2003-2006 the projected inflation is specified as a 'corridor'. In our analysis we use the highest margin as a value of the projected inflation. The data on the inflation rate are obtained from the State Committee of Statistics database: <http://www.ukrstat.gov.ua>.

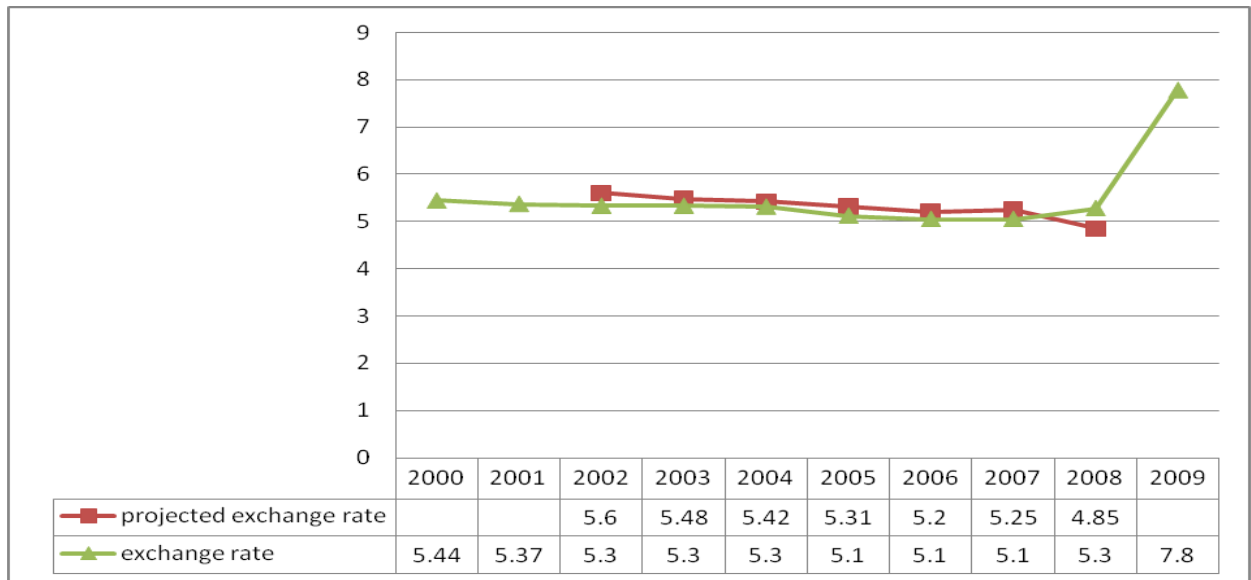


Figure 2. Comparison of projected and actual exchange rate¹³.

Basing on the figures it is possible to conclude that (given the available data for the period) NBU managed to realize the goal of external stability of the currency and even for the period 2002-2007 the exchange rate was below the projected rates. In 2008 the exchange rate went slightly higher than the projected one. In 2009 the situation has radically changed resulting in significant currency depreciation. This situation can be explained by the conditions of financial crisis and inability of the NBU to sustain the exchange rate.

Another situation can be observed with the inflation. The projected inflation is generally lower than the actual one, which means that the NBU has not managed fully to reach the goal of internal stability of the national currency. The years 2007 and 2008 are distinguishable for the highest discrepancy between projected and actual inflation.

4.2. Assessing the independence of the NBU

The year 1999 is a crucial point in development of the independence of the NBU as this year a Law of NBU is adopted that specified most legal provisions that are needed for the NBU's legal independence. The other crucial point can be identified in 2004-2005, which marked a series of changes relevant for both legal and actual independence of the NBU. It is possible to distinguish political, economic and legal dimensions of these changes.

Political dimension. The presidential elections of 2004 (known as 'Orange Revolution') brought significant changes into political environment of Ukraine as well as marked development of new goals of economic and social development of Ukraine. This is relevant to the functioning of NBU as the President of Ukraine and Verhovna Rada of Ukraine (Parliament) appoints members

¹³ The exchange rate is expressed as: 1 USD equals certain amount of UAH. The data for the projected exchange rate is obtained from the "Basic principles of monetary policy 2002-2009. The policy papers for 2000-2001 are not available. The projected exchange rate for 2009 is not specified in the policy paper. The data on the exchange rate are obtained from the Statistics database of the national Bank of Ukraine: http://www.bank.gov.ua/Fin_ryn/of_kurs.htm.

of the Council of NBU – the governing body of NBU. The other aspect of political dimension is the geopolitical strategy that was clearly defined in 2005 as the EU integration and adopted through the EU/Ukraine action plan (2005).

Economic and financial dimension. In 2005 NBU introduced fixed exchange rate of hryvna (UAH) towards USD on the level 5,05 UAH/ 1 USD, which existed till 2008. It should be added that in 2004-2005 the significant liberalization of financial markets took place mainly due to inflow of short-term financial resources, most of which were used for increasing of long- and short-term loans for households and small business. Such changes also had significant effect on export-import operations in terms of changes of their structures and volumes. The financial crisis of 2008 with the following economic recession of 2009-2010 brings together special conditions under which the independence of the central bank is critically needed in order to secure the low inflation rates.

The legal dimension. According to the Constitution of Ukraine and Law of Ukraine on the National Bank of Ukraine the main function of NBU is to secure the stability of Ukrainian national currency “hryvna” (UAH). In addition, NBU’s is to fulfill a number of connected functions: development and implementation of monetary policy of Ukraine, conduct analysis and forecasting of balance of payments of Ukraine, etc. According to amendments to the Law of Ukraine on the National Bank of Ukraine in 2005 (Law № 3163-IV), the NBU gained rights to formulate legislative projects concerning the legal regulation of questions connected with NBU’s ability to fulfill its functions and to present them to the President of Ukraine and to the Cabinet of Ministers of Ukraine. Some amendments were also made and are planned to be implemented in order to strengthen the independence of the NBU according to the recommendations of the IMF and in terms of the European funded ‘Twinning Project’, which was launched in February 2010.

Further, the analysis of the NBU’s legal independence is provided, basing on two main indices: LVAW and MCI. In addition, TOR index is used as a base for actual NBU's independence analysis. Below the results are presented in the form of table followed by identification and elaboration of those elements of NBU’s independence that have the profound impact on the NBU’s independence. Basing on the measurements we elaborate further below elements of the NBU's independence.

Political independence

Appointment procedures and terms of office are those criteria that define political independence of the NBU. In addition, the objective setting is relevant for the political independence as it reflects if the CB has the final authority in goal setting and prioritizing and if there are any conflicting goals with the government like high employment or economic growth.

1. Appointment procedures

A sequence of changes started from the change of the Prime-Minister of Ukraine of 5 times since 2005, a number of changes of ministers as well as members of the NBU Council. The political

independence of the NBU especially what is concerned the appointment procedures could be viewed as rather low. The president elections of 2004 (known as Orange Revolution) brought together with democratic changes some tensions between political parties and as a result in the Verkhovna Rada (Parliament), which was accompanied by frequent changes of key governmental officials. The last president elections of 2010 also had impact on the NBU Council (main governing body): by the Decree of the President Yanukovich in April 2010 6 of 15 Council members were replaced¹⁴. This is one of the reasons of our choice of MCI as it considers not only the position of the Governor of the CB, but also the members of the Council.

Table 7. Independence of the NBU: MCI and LVAW

CBI criteria LVAW	Score	Max. score	CBI criteria CMI	Score	Max score
Central Bank CEO	0,11	0,20	Central Bank Board	0,054	0,20
Term of office of CEO	0,13	0,25	Term of Governor office	0,07	0,20
Who appoints the CEO	0,13	0,25	Who appoints the Governor	0	0,20
Provisions for dismissal of CEO	0,04	0,25	Appointment and term of Board	0,10	0,20
CEO allowed to hold another office in government	0,25	0,25	Dismissal of Governor and Board	0	0,25
			CEO allowed to hold another office in government	0,10	0,10
Central Bank objectives	0,09	0,15	Central Bank objectives	0,112	0,15
Price stability	0,60	1	Price stability	0,75	1
Policy formulation	0,113	0,15	Policy formulation	0,12	0,15
Who formulates monetary policy	0,25	0,25	Who formulates monetary policy	0,50	0,50
Government directives and resolution of Conflicts	0,50	0,50	Conflict resolution	0,30	0,30
Central Bank given active role in formulation of government's budget	0	0,25	Central Bank and public debt	0	0,20
Central Bank lending	0,427	0,50	Central Bank lending	0,293	0,40
Limitations on advances	0,30	0,30	Limitations on advances	0,15	0,15
Limitations on securitized lending	0,20	0,20	Loans to government	0,30	0,30
Who decides control of terms of lending to government	0,20	0,20	Beneficiaries of financing	0,07	0,10
Beneficiaries of Central Bank lending	0,07	0,10	Who decides terms of lending	0	0,10
Type of limits when they exist	0,05	0,05	Interest rates in advances or lending	0,05	0,10
Maturity of loans	0,016	0,05	LOLR	0,034	0,15
Restrictions on interest rates	0,038	0,05	Financial autonomy	0,10	0,10
Prohibition on Central Bank lending in primary market to Government	0,05	0,05			
			Accountability	0,10	0,10
			Accountability norms	0,75	0,75
			Transparency	0,25	0,25
Total LVAW	0,73	1	Total MCI	0,567	1

¹⁴ President's decree No. 545 of April 16 / Official web-site of the President of Ukraine. / <http://www.president.gov.ua/documents/11080.html>.

It can be seen from the table, according both LVAW and CMI, this dimension of NBU's independence remains on the moderate level. As of the Law on NBU of the June 2010, the term of office of NBU's executives is equal for 5 years, which resulted for the score 0.50, which then was weighted upon the coefficient of the relevance 0.25. In a result NBU scored in this criterion 0.13. The maximum possible score that can be reached in this criterion is 0.25, which is given when the Governor is appointed for 8 years or more. When the Governor and members of the Governing Council of the CB are appointed for more than 8 years it excludes the possibility of political cycles effect, when the new government and the President that change every 5 years change the CB's leaders that are favorable for them.

The next central question for NBU's political independence is who appoints NBU's CEO. According to the legislation, the Governor of the NBU is appointed by the President of Ukraine and the Member's of the Council by the Parliament and by the President. The best practice for the CBI is however, when these persons are appointed by the CB's Board. Therefore, in this criterion the NBU also scored low – only 0.13 out of 0.25 possible.

Dismissal procedures also determine the political independence as the NBU's leaders can be subject to pressure of dismissal when they do not follow the government policies' preferences. The NBU's Governor and Members of the Council can be exposed to such pressure as the legislation assumes the termination of their office for policy reasons. According to the Law "powers of the appointed Council of the National Bank shall be early terminated in case of vote of no confidence from the President of Ukraine or from the Parliament of Ukraine resulted from the performance of the Basic Principles of the Monetary Policy which appeared to fail the stability of the monetary unit of Ukraine by the overall end-year results. In such case, both the President and the Parliament should dismiss their representatives and appoint the new staff of the Council of the National Bank."¹⁵. In contrast, the highest score in the index can be achieved when there are no provisions for dismissal in the legislation or the reasons lay in non-policy sphere (incapability or violation of Law).

It is worth also to note that the Governor of the NBU since 2004 remains the same – Volodymyr Stelmakh and was not replaced after the President elections of 2010. The current Governor of the NBU Stelmakh was also in 2009 under pressure of the dismissal from the Government and former Prime-Minister of Ukraine Tymoshenko on the claim that he is responsible for currency depreciation and not collaboration with the Government on tackling the consequences of financial crisis in Ukraine. However, even though the Parliament has voted for his dismissal in January, the Constitutional Court withdraw this decision on the basis that parliament could not dismiss the NBU head without the president's consent¹⁶. This precedent can be viewed as a way of political pressure and a serious obstacle for political independence of the NBU.

The only condition for political independence of the NBU is that NBU's Governor and Council members are not allowed to hold another office in the government or be a leaders of political parties.

¹⁵ Law on NBU, 1999.

¹⁶ http://www.jamestown.org/single/?no_cache=1&tx_ttnews%5Btt_news%5D=34718.

It is also relevant to make the assessment of actual independence on the basis of TOR index. It reflects the turnover of CB's governments and assumes that the higher turnover means lower actual independence. We make this analysis in this part of assessment of political independence as these two dimensions are tightly connected.

Table 8. Turnover of the NBU's Governors as an indicator of the actual NBU's independence

Index/ Period	1991-2009	2000-2004	2005-2009
TOR index	0.32	0.6	0

From the time of Ukraine's independence (1991) the NBU has 6 governors, which means 6 changes in 19 years (TOR=0.32). This level of TOR is considered relatively high as one can expect it to be between 0.2-0.25, because the electoral cycle is 4-5 years (Cukierman, et al., 1992, p. 363) and changes of the CB's governors might follow the change of the government or president. Here, it is also worth to make a comparison of the difference of the actual independence for the two studied periods: (1) 2000-2004; (2) 2005-2009. In the period 2000-2004 the NBU changed three Governors with the current Governor appointed in 2004. This means the turnover rate is very high - 0.6. In the period 2005-2009 none of the replacements of the Governor were made (TOR=0).

It should be pointed out, however, that the current governor of the NBU is in office since 2004 and was not replaced even after presidential elections (the controversy of this situation was already discussed above). It can be assumed that this fact is positive in terms of CBI as longer term of the governor in the office could contribute to the strengthening of his reputation and, thus, contribute to his power to resist government and insist on the longer-term monetary policy goals, namely low inflation targets.

2. Policy objective

According to Schwödiauer, G., Komarov, V., & Akimova, I. the first and one of the most important flaws of the Ukrainian legislation is that "price stability is not unambiguously the NBU primary goal" (Schwödiauer, et al., 2006 p. 18). Indeed, the price stability is only one of the goals. Therefore, the score in this criterion is only 0.6 out of 1 given, when the price stability is the only goal, and in case of conflict with the government the CB has a final authority

According to the Constitution and the Law on NBU, NBU is to ensure the stability of Ukraine's monetary unit. It is worth to say, that the following paragraph in Law says that "*To carry out its main function, the National Bank shall foster stability of the banking system and, within its competence, the price stability*". In this sense the Law does not give the possibility to say that there might be conflicting goals of full employment and/or economic growth. Moreover, such formulation of NBU's goal in the legislation does not exclusively mean goal 'dependence' of NBU. Eijffinger & Haan argue that assignment of multiple goals or broad definition of a goal actually makes a central bank independent in this respect (S. Eijffinger & Haan, 1996, p. 2). In

this case, NBU is independent to specify what the NBU views as a base for “stability of monetary unit” and can opt for price stability as one of the primary objectives to ensure the stability of monetary unit. Moreover these two goals are not conflicting. Therefore, we do not agree that such legislative formulation undermines NBU’s goal independence.

However, the effective or actual goal independence of the NBU would have a different premise. The NBU has a sole responsibility in formulating and implementing monetary policy. Each year it formulates the main principles of monetary policy for the next year. The monetary principles developed for this year actually presume close cooperation of the NBU with government in matters of coordination of monetary and fiscal policies. Also, the NBU will work actively with the government in the development of the financial sector and ensure stability of the financial system. Further details of monetary principles and decision-making process of monetary policy will be discussed in the further section of the paper. However, even now it is possible to conclude that the legal independence of NBU in respect to goals and instruments is higher than the actual (effective) independence.

Economic independence

Economic independence is defined basing on who formulated the policy, the relations of the CB with the government in terms of obligation for lending and financial autonomy.

1. Policy formulation

Policy formulation reflects if the CB is independent in choosing the instruments for reaching its goal. In this respect NBU is independent as it is given the legal authority to formulate the policy (score 0.25 out of 0.25). Even more – the formal provision that regulate policy formulation are developed by the NBU itself (Resolution on the content, the procedure of the development of the Basic principles of the monetary policy and control of its implementation). However, the NBU is not given an active role in formulation of government’s budget (score 0 out of 1).

2. Central Bank’s lending

Formally lending to the government for financing budget deficit is limited by the Law on NBU and NBU has high scores in most of the criteria that define CB’s independence in lending obligations to the government. The LVAW and CMI are similar in their criteria except for the LOLR (lender-of-last-resort) functions of the CB. The Law on NBU formalizes that NBU serves as LOLR. This has its reflection in the score – (0.03 out of 0.15). The highest rate is granted when there are no provisions of emergency lending or there are time or conditions limitations. The Law on NBU states that the NBU can serve as LOLR but is not obliged. However, there are no provisions on the conditions.

Even though direct lending to government is prohibited by Law, financing budget deficit especially by means of monetary emission remains a problem. In addition, the anti-crisis policy had international support in the form of IMF loan, part of which was directed to financing state budget deficit. According to the requirements of the IMF the NBU’s obligation to buy

government bonds from banks had to be dropped¹⁷ as it would require from the NBU to “print” more money and it would put in danger the stability of Ukrainian economy and subsequently its ability to pay-off the current loans from the IMF.

3. Financial autonomy

The CMI also allow us to make conclusions about financial independence (autonomy) (as it is defined by Smaghi (Smaghi, 2008)). The Law (679-XIV) is in favor of the NBU’s financial independence: the NBU uses its own financial resources according to the NBU’s budget¹⁸ and in some cases – from the budget of Ukraine. Therefore the score for financial autonomy is 0.1 out of 0.1. However, the NBU is not free to use the Bank’s profit – it is allocated to the government budget.

Accountability and transparency

MCI also gives us the possibility to estimate NBU’s accountability as apart of NBU’s independence. The NBU enjoys high level of legal provisions what concerned accountability and transparency. The score of NBU for its accountability is the highest possible (1 out of 1). The relationship of the NBU with Cabinet of Ministers of Ukraine, President and VR are described in the Law on NBU. The set of instruments according to the Law include:

- reports on the activities of the NBU to the President VR twice a year with extensive description of the situation in the monetary sphere;
- each year NBU informs VR about monetary policy developed by NBU for the next year and for a longer period of 3-5 years;
- NBU is obliged to provide quarterly information to the President, Cabinet of Ministers of Ukraine and VR’s Committee on Finance and Banking on operations of banks’ refinancing, interventions in the inter-bank foreign exchange market, transactions in the stock market, etc.
- the report on budgetary revenues and expenditures of the NBU.

The transparency is also ranked at the highest value the NBU is to disclose the detailed financial statements with certification of an independent auditor.

The controversial side of such high accountability to government can also mean a certain extent of monitoring of NBU’s policy by government, which under circumstances of existing low political independence can result in the pressure from government to change the policy. The other controversial side that can that can undermine actual accountability of the NBU is rather low level of ‘output’ legitimacy. What we mean here is that the basic principles of monetary policy that are formulated for the following year¹⁹ and are available to public, rather broadly specify the goal and objectives of monetary policy, which makes it difficult to understand by

¹⁷ http://www.jamestown.org/single/?no_cache=1&tx_ttnews%5Btt_news%5D=34718

¹⁸ Here, we refer to the budget of NBU – official calculation of its expenditures and incomes for the following year

¹⁹ Basic principles of monetary policy for 2010, NBU.

public and, moreover, to estimate the effectiveness of the monetary policy. This, in turn, results in low accountability to public. The same way it may leave the space for the government to manoeuvre when reasoning the dismissal of the governor or members of the council on the grounds of 'non-fulfilment of the monetary policy goal'.

4.3. Determinants of NBU's independence

Institutional determinants of NBU's independence: the NBU in a retrospective view

Central Bank is an institute and forms the basis for centralized regulation of monetary sphere. Institutions and their interaction form the specific institutional structure that should be regarded as a set of institutions that create mechanisms for NBU's actions and interaction with the government. According to the institutional theory the historical development of the institution is subject to path-dependency and, therefore, the actual construction of the NBU and its independence should be studied therefore in the context of its historical development. In this respect, Petryk (2007) points out that the period before Ukraine proclaimed its independence and the process of collapse of the Soviet economic and banking system put grounds for the processes which took place in Ukraine in the period following the official establishment of the NBU (Petryk, 2007, p. 2).

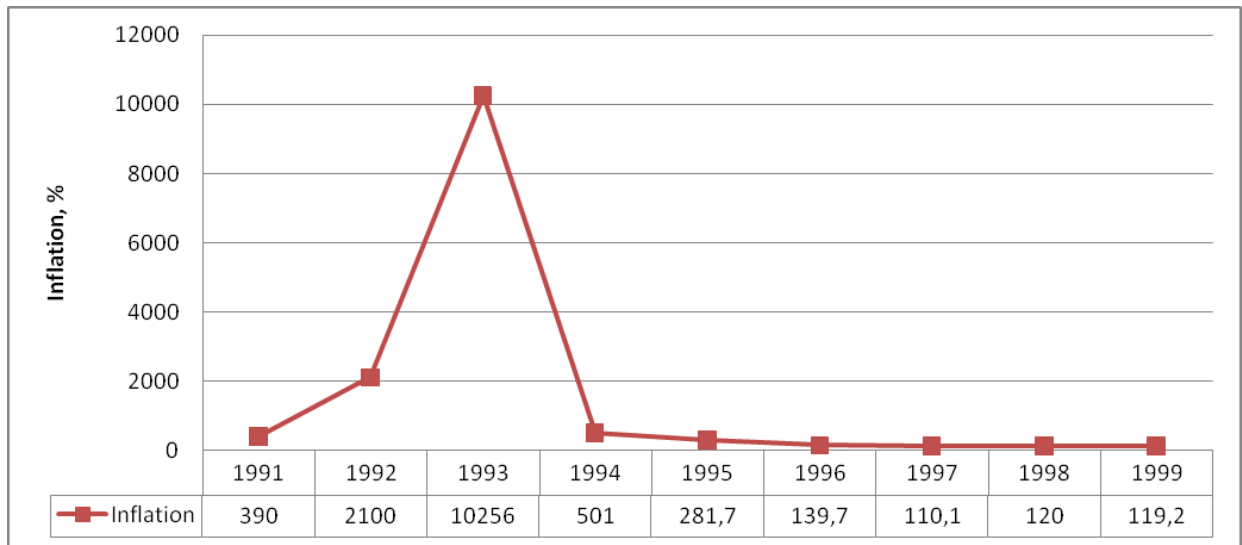
The specific features of the Soviet banking system are: (1) banking system was a part of the planning system and (2) banks did not function as financial intermediaries. According to their main function, the banks can be called "controllers in the planned economy" (Petryk, 2007). The centralized plan determined credit flows according to the 'plans' of production of goods and services. The independence of the central bank was not presumed. In contrast, the USSR State Bank acted under fiscal dominance and was to ensure the government needs for expenditure. Before the reforms of 1987–88 the USSR State Bank served as both central bank and as a commercial bank having the function to credit enterprises. In 1987–88 the two-level banking system was introduced when the specialized banks were formed and given the functions of commercial banks.

The NBU was established on the basis of the Republican branch of the USSR State Bank in 1991 after Ukraine gained independence. The period 1992-1994 was distinguishing for the hyperinflation when at some point the inflation reached 10,000% (* The inflation rate is reflected via the Consumer price Index (CPI), which is calculated using the method of 'chained' measurements.

Figure 3). The main reasons for are defined as (1) inefficiency of tax system, when revenues did not cover the expenditures; and (2) as a consequence – financing the budget deficit by seigniorage. Referring to the situation of those years Petryk (2007) points out that "(p)rices increased much faster than the central bank printed money" (Petryk, 2007, p. 4).

A number of measures were taken by the NBU to fight the hyperinflation and 1996 with the introduction of the new currency in "hryvna" inflation was decreased to 40%. By the end of 1998 the inflation reached just 7%. The financial crisis in Russia of 2008 brought another period of

high inflation for Ukraine. However, the period following it is characterized by the important reform of the NBU, namely the adoption of the Law on NBU.



* The inflation rate is reflected via the Consumer price Index (CPI), which is calculated using the method of 'chained' measurements.

Figure 3. Inflation 1991-1999²⁰.

The legal norms that determine the NBU's independence at the moment are laid down in such main legislative documents as the Law of Ukraine on NBU (1999) and Resolution on the content, the procedure of the development of the Basic principles of the monetary policy and control of its implementation. Among the recent legislative document that considerably contributes to the independence of the NBU is the Law On amendment of some legislative acts of Ukraine regarding the activities of the National Bank.

Financial Opposition to Inflation

The main concept behind financial opposition to inflation as a determining factor for the CBI is based on the assumption that "monetary policy is driven by a coalition of political interests in society" as CBs are more likely to conduct strong anti-inflationary actions only in case of coalition support for these actions (S. Eijffinger & Haan, 1996, p. 49). According to this theoretical view, this situation is more likely for the industrial countries. Ukraine cannot be considered from this perspective. However, if to refer to the year of 1999 when the basis for the NBU's independence was built, it is worth to say that there was a strong support for the financial system stabilization and the CBI was one of the instruments. This support was built due to the two substantive periods of "inflationary crises".

The hyperinflation 1992-1994 brought devastating consequences for the Ukrainian economy. Just for the period 1992-1993 the inflation accounted for more than 10000% meaning that the

²⁰ The data obtained from the State Committee of Statistics. Available at <http://www.ukrstat.gov.ua/>.

prices raised in 100 times. The financial crisis in Russia in the August 1998 brought resulted in another period of high inflation almost till the end of 1999. Therefore, it is possible to conclude, that at the time of the adoption of the Law on NBU granting NBU independence, the strong financial opposition to inflation was formed, and this could be one of the factors that this Law was adopted and came into force in a short period of time.

Public opposition to inflation

Public opposition to inflation is considered as a determinant of the NBU's independence as "central-bank independence is strongly associated with society's fundamental support for the objective of price stability" and for the countries with the experience of long terms of past inflation this becomes a reason for strong support of the CBI (S. Eijffinger & Haan, 1996). For Ukraine, this is relevant due two experienced hyper-inflation periods that were discussed above.

It should be noted that Ukraine (as all post-Soviet countries) can be also characterized by a high degree of dollarization associated with mistrust to national currencies, which can serve as an indicator of public mistrust to the national currency for the reasons of both high inflation and high possibility of currency devaluation. The level of dollarization in post-soviet countries is one of the highest among all developing countries (Reinhart, Rogoff, & Savastano, 2003, p. 82). In addition, in Ukraine dollarization covers not only asserts assets (savings) but also liabilities (loans). Overall household liabilities to banks consist of loans in foreign currency by almost 66%²¹.

Openness of the economy

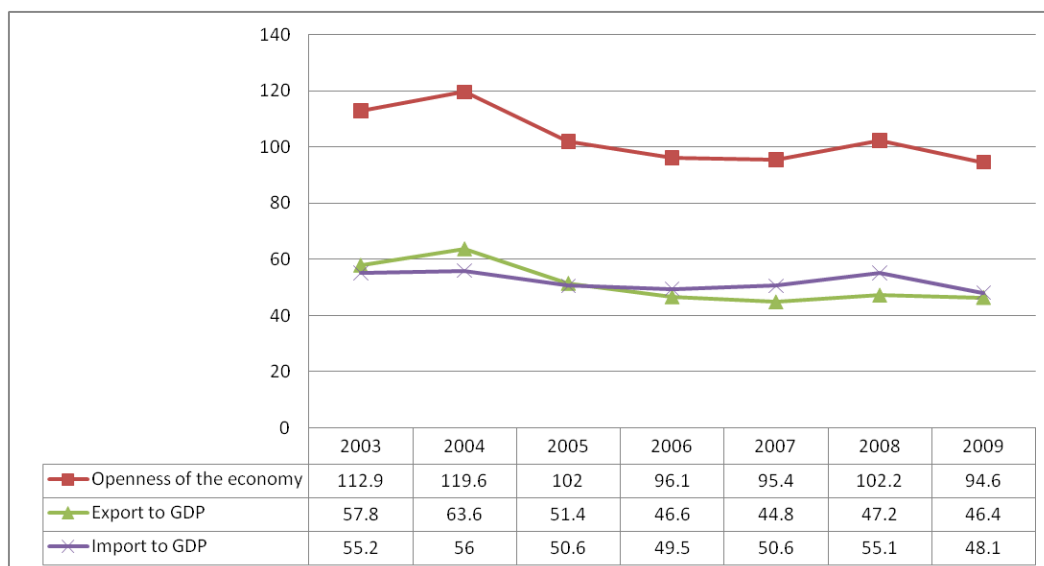


Figure 4. Trade openness of Ukraine²²

²¹ Basing on the data of NBU: http://www.bank.gov.ua/Statist/electronic%20bulletin/e1_bul_102008.pdf.

²² Basing on the balance of payments: "On the Balance of Payments and External Debt 2009", NBU. Retrieved from http://www.bank.gov.ua/Publication/econom/BALANS/PB_2009.pdf.

According to the theoretical assumption an open economy requires an independent CB (Schwödiauer, et al., 2006 p. 11). The line of reasoning includes the connection of the CBI and low inflation. In addition the arguments also include the external credibility pressure that the CBs are exposed due to the extensive trade and foreign investment ties. This is relevant for Ukraine as it has high level of openness of the economy especially in terms of trade. Below, the graph shows the dynamics of trade openness of Ukraine for the period 2003-2009. Trade openness is calculated as a relation of trade turnover to the GDP (%).

IMF loans and CBI

IMF offers the Ukrainian authorities among other stabilization measures to increase the independence of the NBU. These recommendations are produced in line with the IMF loans of 2009-2010. The Memorandum of economic and financial policy²³ provides the response of Ukrainian government in the form of the given obligations to fulfil the recommendations. First of all the main objective of the NBU should be determined at the legislative level as ensuring price stability, while the secondary objective should be formulated as financial stability.

At the same time, the Memorandum presumes reforming of the NBU's Council in a supervisory body, which will be composed by people who have no conflict of interest and people without political and business ties.

The Memorandum also suggests that interest rates are to become the main instrument of monetary policy. It is also expected the increase of transparency and accountability of the NBU. The related measures include publications of the NBU's Board meetings that concern decisions of the interest rate changes, as well as economic reasons that lay behind these decisions.

The role of this Memorandum and IMF conditional loans for the strengthening of the independence of the NBU can be proved by the recent changes to the legislation that were made in July 2010. According to the Law 'On amending some legislative acts of Ukraine regarding the activities of the National Bank' the important changes and clarifications for the NBU's independence include:

1. Improvement of political independence of the NBU. The term of the Governor as well as the Members of the NBU's Council is prolonged to 7 years. In addition, both the Governor and the Member of the NBU's Council cannot be appointed if he (1) is or was a head of public authorities (a minimum one year should pass from the moment of termination), (2) is a political party's leader or leader of the legal entity (except for NBU), (3) owns any numbers of shares of a legal entity. In addition the Governor should terminate his membership in the political parties.
2. Strengthening of the economic independence of the NBU. National Bank has no right to grant loans directly or indirectly via governmental institutions to finance the expenditures of the state budget of Ukraine. Also the NBU is restricted to buy shares or bonds emitted by the CMU, governmental institutions or any legal entities that are in state property.

²³ Memorandum on economic and financial policy. Retrieved from http://www.bank.gov.ua/Publication/others/Memorandum_23072009ukr.pdf.

In July 2010 IMF approved the new loan of 15.15 billion USD for Ukraine. In connection to the loan the IMF has identified the main tasks for the Ukrainian authorities: the consolidation of public finances, restoring the stability of the banking system and the development of meaningful monetary policy. To achieve a number of institutional changes are planned, including reform of tax policy and spending policy, pension reform and reform in the energy sector and measures to strengthen the independence of the NBU. The fiscal stability is to be ensured by reducing the public deficit to 3.5% of GDP in 2011 and 2.5% in 2012, and reducing public debt below 35% by 2015²⁴.

According to the theory IMF loans can be one of the determinants of the CBI because of the external credibility hypothesis (Polillo & Guillen, 2005). Applying this hypothesis to Ukraine, it is possible to conclude that this is partially true. After receiving the approval of the recent loan (July 2010) international rating agency Standard & Poor's upgraded the long-term rating of Ukraine under obligations in foreign currency.²⁵ Experts believe the IMF loan increases the chances of a policy for stable economic development, reduces vulnerability Ukraine on external influences. It should be noted that the 'conditions' of the loan include among others strengthening of the NBU's independence and improvement of budget policy.

In addition, the IMF loan decrease the risk of the pressure from the fiscal authorities on the NBU as the loan is going to be partially used for the covering of the budget deficit. This way, the first tranche of a new loan of the IMF of \$ 1.89 billion USD is going to be partially used for this purpose (1 billion USD, with the rest 890 million transferred to the foreign currency reserves of the NBU)²⁶. Under the terms of the loan Ukraine will use not more than 2 billion USD of the total sum of 15 billion USD to cover budget deficit in 2010²⁷.

Budget deficit and relations fiscal and monetary authorities

The theoretical assumption concerning the conflict of fiscal and monetary authority is connected to the belief that conflicts arise when the independent central bank controls monetary policy while the government controls fiscal policy (S. Eijffinger & Haan, 1996, p. 17). In this situation the goals of the government and the central bank may contradict each other. While the goal-independent CB is concentrated on ensuring price stability, government have a set of goals including growth and employment. Central bank may cooperate or not cooperate with the government concerning fulfilment of these goals.

In the case of NBU it can be concluded that the NBU have tight cooperation connections with the government. Support of government's economic policy is the secondary objective. Even ensuring currency stability (external and internal) is seen by the NBU is viewed by the NBU as

²⁴ According to <http://economics.unian.net/ukr/detail/54601>.

²⁵ The long-term rating of Ukraine under obligations in foreign currency at a level - to 'B plus' from 'B'. Long-term local currency rating upgraded to 'BB minus' from 'B plus'. According to <http://ua.for-ua.com/ukraine/2010/07/30/092918.html>.

²⁶ According to the statement of the Vice Prime Minister Sergei Tigipko available at <http://tsn.ua/groschi/ukrayina-vzhe-otrimala-pershу-chastinu-kreditu-mvf.html>.

²⁷ According to <http://economics.unian.net/ukr/detail/54601>.

"a basis for achieving sustainable economic development, maintain employment and real income" (Basic principles...2009).

The particular example of the fiscal-monetary authority is connected with Law of Ukraine on State Budget for 2009, where the independence NBU was limited by the obligation of the NBU to monetize the budget deficit. This, in turn, could result in accelerating inflation. Under this the Ministry of Finance was allowed to issue additional government bonds over planned volumes, which the NBU was obliged, buy in the three days term. The experts saw this situation as undermining not only the NBU's independence but also to leading to substantive promotion "inflationary spiral" (Petryk & Melnyk, 2009).

These provisions of the Law on State Budget 2009 were viewed as those that contradict the Law on the NBU and undermine the NBU's ability to fully carry out its basic function - to ensure currency stability. At the same time, it should be noted that the NBU had commitments under the Memorandum on economic and financial policy, signed by the Governor of the NBU together with the President of Ukraine and Prime Minister, This Memorandum was prepared as the assurance of future reforms for the IMF in terms of the loan from the IMF. The commitments among others include strengthening of the NBU's independence, ensuring compliance to the monetary objectives (projected parameters).

It should be noted that the positive side of the conflict is that it was resolved in favour of the NBU and its independence – the contradicting provisions of the Law on State Budget 2009 were removed from the Law. Therefore, the situation of positive conflict resolution for the NBU can be regarded as positive in terms of actual independence of the NBU.

However, NBU's policy paper 'Basic principles of monetary policy for 2010' contains a paragraph that can mean tight cooperation of the NBU with fiscal authorities. It states that "NBU will maintain close cooperation with the Government in matters of coordination of monetary and fiscal policies, including part of the impact of issue of domestic commitments on money market". This actually can mean a limitation of actual instrument independence of the NBU.

The Budget for the year 2010 increased three times the size of state investment, including basic infrastructure spending planned for Euro 2012 projects, energy efficiency and building roads as well as increase in social spending. The experts note that the budget is based on realistic macroeconomic indicators²⁸. However, the budget revenue is also estimated as being too optimistic, first of all because it predicts revenue growth up to 36% comparing to 2009. In this respect, experts predict that the actual budget deficit in 2010 will range ranging from 12% to 16% of GDP depending on the ability of government to collect taxes²⁹. This might pose a pressure for the NBU to create money in case if the governmental bond will not be covered. In addition, the Budget Law 2010 allows the CMU to change the budget without prior approval by parliament, which creates uncertainty about the real volume of governmental spending and budget deficit.

²⁸ Inside Ukraine. No.8, May 2010, Available at http://www.icps.com.ua/publications/inside_ukraine.html.

²⁹ Inside Ukraine. No.8, May 2010, Available at http://www.icps.com.ua/publications/inside_ukraine.html.

4.4. Monetary policy versus NBU's Independence: what should be done?

“[...] normative political economy would ask the question of how, given the existing political constraints, societies can be led to best achieve specific economic objectives. This includes not only how to “overcome” political constraints within the existing institutional framework, but also the design of political institutions to better achieve economic objectives.” (Drazen, 2000, p. 7).

This section is developed as follows. First, we summarize the raised concerns in the dimension monetary policy – NBU's independence. And second, we provide the overview of main issues that are important for the solution of the mentioned problems which are basis of our recommendations.

The analysis of the monetary policy formulation along with the NBU's independence gives us the possibility to define the following inconsistencies:

1. The institutional aspect of who is responsible for price stability is not clear – legally NBU bears responsibility for the ensuring price stability only in terms of its competences. However, its main function – ensuring stability of the currency unit is specified by the NBU itself. The parameters are regularly revised, which makes it difficult to determine criteria for the assessment of the NBU's success in reaching its monetary policy goals. This has also negative impact on the political independence of the NBU (due to the existing procedure of appointment-dismissal of the Governor and the council members of the NBU).
2. The openness of the Ukrainian economy brings importance of the exchange rate as one of the main NBU's objectives. It should be noted that the positive effect of the ongoing prioritizing the inflation as the main objective requires elimination of the political independence constraints for the NBU (here, as constraints we refer to the previously discussed dismissal procedures).
3. Low actual political independence as shown by the high turnover rate of the Governing Council Members.
4. The lack of trust by the public is accompanied by the high inflation expectations and dollarization of assets and liabilities of households. Given the high level of accountability which can be concluded by the legal provisions, the mistrust can be explained besides political and economical factors by the lack of explanation and precise definition of goals.

The reformations of the institutional framework in the following spheres are needed in order to achieve the best balance of the NBU's independence and monetary policy making:

Communication

One of the important elements of the strategy of reaching the monetary policy objectives is communication strategy. “Building greater trust by credibly communicating a long-term inflation objective may lead to less inflation persistence, since there is a strong belief that inflation will return to its target level” (Haan de , et al., 2007). In other words, communication of the monetary policy to public affects first of all the inflationary expectations of the public, which makes the process of inflation targets projections easier. The need of trust is especially relevant due to high dollarization of the economy that can be an obstacle for transition to the inflation targeting regime (this transition is stated as the priority in NBU's policy papers).

Accountability as important part of independence

Improvement of accountability can help the NBU to be transparent and to maintain credibility. It is especially relevant given high level of dollarization of Ukrainian society and lack of trust to the UAH and to the NBU's policy in general. In addition, regular reports not only to the government but as well to the media and can serve as protection possible external political pressure. It should be noted that NBU enjoys a high level of accountability at least on the formal level. However, it should be complimented by the actual accountability. What becomes crucially important is the question of credibility of monetary objectives. Taking into account that the analysis has shown that NBU initially has high target inflation rates but still do not always meet them. This kind of accountability can be created only over time by NBU setting real numerical targets and reaching them.

Goal independence and goal clarity

Goal independence is of crucial importance for the NBU. In some countries the CB does not have independence in choosing objectives of monetary policy. They are defined by the government. Lack of goal independence does not lead to undesirable consequences only in case when goals of the government (economic growth) and CB (price stability) do not contradict each other. The particular recommendation in this respect concerns 'Resolution on the content, the procedure of the development of the Basic principles of the monetary policy and control of its implementation'. At the moment, this resolution is developed by the NBU. Our suggestion would be the revision of this document with the precise specification of the following elements: (1) objective formulation and its numerical definition for one year and a longer period of 3-4 years; (2) clear criteria for the assessment of the implementation of the monetary policy objective. This document can be approved just by the NBU's Council or by the NBU and the VR.

Policy coordination

Ukrainian government supports the view of the NBU's monetary policy and state's economic policy coordination. Such a view is expressed indirectly in publications of government officials (for example, in the article of the former minister of economy of Ukraine (Danylyshyn, 2009), in the book edited by the Governor of NBU (Stelmakh, 2009)). However, the recent legislature

that was adopted in response to IMF loans strictly limits the pressure from the fiscal authorities on the monetary policy. By these provisions monetary policy dominance is recognized.

In general, economic policy coordination is seen as one of the major arguments to CBI (S. Eijffinger & Haan, 1996).³⁰ The argumentation is mainly based on the controversy of objectives of monetary and fiscal policies. However, as the international practice on CBs governance shows such coordination can be implemented without undermining the CBI. In contrast, policy coordination can be achieved without close contact if relations are governed by clear roles and responsibilities (BIS, 2009). This goes closely with the line of the main basis of principal-agent relations. An important point for the successful (with minimum agency problems) principal-agent relations is a clear "contract" meaning clear roles and responsibilities for CB. However, the policy coordination based on the communication, consultations and exchange of information would rarely be neutral for the CBI if the conditions of political, goal and instrument independence are not fulfilled. Therefore, actual implementation of the legislative provisions should be the base for the prospective policy coordination.

³⁰ Accountability is often determined as another important objection to CBI. However, we support the view that accountability and CBI can complement each other as they are both elements of CB's governance.

Chapter 5. Conclusions

The chapter serves to embrace the integrity of the research, moving from the formulated research problem to the main results of the research in terms of four sub-questions, giving the answer on the main research question.

The problem of targeting inflation and ensuring sustainable economic growth based on low inflation is a driving factor of increasing of the CBI worldwide. Ukraine is not the exception. CB's ability to implement its monetary policy effectively depends on its independence from the government. For Ukraine the NBU's independence provides the solutions of the challenges that it is facing, namely increase of trust in the NBU and its monetary policy, providing price and financial stability. Therefore, we search for the answer of the main research question '*Which institutional settings are required for the independence of the NBU and its monetary policy?*' In order to answer this question we focus our research on the study of the actual and legal NBU's independence, monetary policy goal formulation and its credibility, main constraints and driving forces of NBU's independence for the institutional change.

The practice of monetary policy subordination to the state's economic policy during Soviet times has been affecting Ukrainian monetary policy after the independence of Ukraine in 1991 in 1992-1993 and worsening the situation of 1992-1993 when the state expenditures were covered by creation of money. The high inflation rates and the financial crises of 1992-1993 and 1998 formed a strong financial and public opposition to inflation and concluded with the adoption in 1999 the Law on the NBU which laid down the grounds for the NBU's independence. However, the NBU is still experiencing challenges to its formal independence. First, the multiplicity of goals and functions among which are external (exchange rate) and internal (inflation) stability of the monetary unit, and financial stability undermines the credibility of the NBU and its monetary policy as the single objective is not prioritised. Second, the lack of understanding by public the monetary policy principles and the lack of trust to the Ukrainian currency in particular and to the monetary policy in general only contribute the high inflationary expectations. Third, the consequences of financial crisis of 2008 brought downturn in Ukrainian economy, which resulted in decrease of economic activities and consequently growing of the state budget deficit. Forth, the attempts of government to use monetary means ('printing' money) of financing its budget deficit still take place. All this creates constraints of the NBU's actual independence and effectiveness of its monetary policy.

The NBU recently has put emphasis on transition to ensuring price stability as a main objective of its monetary policy. However, this main objective has been not yet formalized. Moreover, the long term definition of inflation rates remains not clear. This, together of NBU's inability to pursue declared targets of inflation (even though they are set up on high level – more than 10%), pose the problem of NBU's credibility. Consequently, the actual independence of the NBU in this respect can be questioned even though the NBU has the sole responsibility and legal freedom to formulate its objectives and design the monetary policy respectively. The question of trust is particularly important here, as inflation expectations under conditions of the absence of

trust that the NBU can reach its targets are high. This creates a 'vicious circle' when the NBU by not reaching its goals contributes to the high inflation expectations, which in turn result in actual high inflation and difficulties for the NBU to reach its target.

The main conclusion on the NBU's independence is that the legal provisions secure relatively high independence of the NBU in matters of economic independence. What concerns the political dimension – the situation is rather more complicated and even with a sound base for formal political independence the NBU still can be under pressure of government or favouring government especially in terms of short-term monetary policy. The concern of goal independence is mainly based on this line of reasoning. The long term goal of price stability can be ensured via political strength of the NBU. The monetary – fiscal authority conflict, public expectations, and financial crisis, of course, may increase the need and favouring for NBU's and government's policies coordination.

Following the neo-institutional theory assumptions about the external credibility pressures it possible to conclude that openness of the Ukrainian economy together via network ties and high degree of international trade flows creates the external pressure for the NBU to strengthen its independence. High dollarization of economy in terms of assets and liabilities among households along with high degree of Ukrainian economy openness raises the importance of exchange rate stability (external stability). As internal (low inflation) and external currency stability (exchange rate), NBU's goal and instrumental independence is relevant for two reasons: (1) raising trust for the currency among households; (2) positive influence on economic agents' inflation and exchange rate fluctuations expectations both on internal and external markets. Inflation expectations have direct influence on inflation rate, while exchange rate fluctuations influence indirectly via hedging currency risks by economic agents (higher prices), which also eventually result in higher inflation.

This year significant positive changes for NBU's independence can be observed. They originate from the external credibility pressure in terms of IMF loans that were approved for Ukraine in 2009 and 2010. The political independence of the NBU was strengthened by means of granting the longer terms of office of the NBU's Governor and Council members – 7 years. This reduces the possibility of political cycles, when the new government and/or President elected every 5 years would change their appointees. The restrictions for the NBU's Governor and Council members for not being associated with the public authorities, political parties or business entities limit the possibility that NBU's executives will follow in their decisions the interests of the government, political parties or interested business groups. The economic independence of the NBU was strengthened in terms of loan obligations to the government. According to the fiscal theory of inflation the fiscal authority's dominance would inevitably lead to high inflation. The premise of the theory is that the monetary authorities would be forced to finance the budget deficit by money emission if the governmental bonds cannot be absorbed by the public. Under new provisions the NBU has no right to grant loans directly or indirectly for the purpose of financing the state budget deficit. Therefore, this constraint of fiscal-monetary authorities' relations is resolved in favor of the NBU. In this situation, NBU will define the growth of the monetary base and the fiscal authorities will be forced to adjust its policy accordingly.

The question of political independence is partially solved by the amendments to the legislation that were made in July 2010, however, the dismissal procedures of NBU's executives can still have negative influence on the actual NBU's independence.

Basing on the above said, it can be concluded that the level of the legal dimension of NBU's independence is quite high and a lot of improvements has been made in the legislation in 2010. These recent improvements are mainly a result of 'the external credibility pressure' of the IMF followed by its loans of 2008 and 2010. Even though the mentioned loans proved to have positive impact on NBU's independence, there are concerns of the general negative impact of these loans on the Ukrainian economy in the long run. As the loans eventually should be paid off, the actual use of the IMF loans is at stake. In other words, the loan should be used for economic reforms rather than for the covering the budget deficit.

The main concern that remains and follows from our comparison of the actual and legal independence prior to the mentioned amendments to the Law on the NBU is that the legal independence asserted to the NBU might not correspond to the actual practice. Given the intention of the NBU to prioritize the objective of ensuring internal stability of the currency unit (inflation), the question is what has to be done in order to make the legal provisions on the NBU's independence "to work" and what still need to be improved in order to strengthen the NBU's position in following its main objective. In addition, NBU's independence both economic and political does not exclude cooperation with the government. It is particularly important to reduce the information asymmetry between the government bodies and the NBU in terms of formulation their policies and forecasting outcomes. NBU's ability to follow its objectives is tightly connected with the availability of the realistic data on the budget revenues and spending.

In this respect, we suggest the following lines of the institutional settings reforms that can improve the position of the NBU in following its objectives and strengthening its actual independence.

First of all, the actual political independence of the NBU could be strengthened by the clarification of the provisions of dismissal, which would limit the termination of the office of the NBU's Council Members on non-policy grounds. This would consequently strengthen the position of the NBU to execute its monetary policy objective especially what concerns long-term targets.

Second, the monetary objective clarity and credibility is the key precondition for the trust to the NBU and its monetary policy. Even though the NBU has prioritized the objective of price stability, clear objective formulation in the legislation and definite criteria for the assessment of the implementation of the monetary policy objective would contribute to the NBU's credibility. Therefore, the formalization of the price stability as a main objective of NBU's policy is needed. This could be done via amendments to the Law on NBU and/ or Resolution on the content, the procedure of the development of the Basic principles of the monetary policy and control of its implementation. The particular measures should include besides the precise formulation in the

legislation the NBU's priority objective numerical definition of the targets for the short and long term perspective. The clear criteria for the assessment of the implementation of the monetary policy objective should be also specified. This can solve the problem of the responsibility of the NBU's policy and will hold the NBU accountable to government and public.

Finally, the communication strategy of the NBU should be clearly formulated in terms of timing, content and consistency. The reason for it is need for increase of trust from the public to NBU and monetary policy. Improvement of accountability in terms of better communication with governmental bodies and public will contribute to the ability of the NBU to project inflation targets with more precision. The particular measures include the regular practice of public explanations of NBU's decisions about the main principles of the formulated monetary policy and the revisions of the inflation targets. The consistency of the communication strategy implies that the statements concerning monetary objectives (especially, numerical definitions of the projected inflation and exchange rate) by NBU's officials are consistent with one another and with the monetary policy.

References

- Ahsan, A., Skully, M., & Wickramanayake, J. (2006). Determinants of central bank independence and governance: Problems and policy implications. *I(1)*, 47-67
- Alesina, A., & Summers, L. H. (1993). Central Bank Independence and Macroeconomic Performance: Some Comparative Evidence. *Journal of Money, Credit and Banking*, 25(2), 151-162.
- Arnone, M., Laurens, B. J., Segalotto, J.-F., & Sommer, M. (2007). Central Bank Autonomy: Lessons from Global Trends. *IMF Working Paper, WP/07/88*.
- Babbie, E. (2010). *The Practice of Social Research* (12th ed.). CA: Wadsworth, Cengage Learning.
- Bandura, R., Mendoza, R., & Sidikou-Sow, B. (2006). *Central Bank Independence and Accountability: A Literature Review*. New York: Office of Development Studies, United Nations Development Programme.
- BIS (2009). Issues in the Governance of Central Banks. A report from the Central Bank Governance Group. Retrieved from <http://www.bis.org/publ/othp04.pdf>
- Bovens, M. (2005). Public Accountability. In E. Ferlie, L. Lynne & C. Pollitt (Eds.), *The Oxford Handbook of Public Management*. Oxford: Oxford University Press.
- Carlstrom, C. T., & Fuerst, T. S. (2000). The Fiscal Theory of the Price Level. *Economic Review*, (Q1), 22-32. Retrieved from <http://clevelandfed.org/research/review/>
- Cukierman, A. (1992). *Central Bank Strategy, Credibility, and Autonomy*. Cambridge: MIT Press.
- Cukierman, A. (2008). Central bank independence and monetary policymaking institutions -- Past, present and future. *European Journal of Political Economy*, 24(4), 722-736.
- Cukierman, A., Miller, G. P., & Neyapti, B. (2002). Central bank reform, liberalization and inflation in transition economies--an international perspective. *Journal of Monetary Economics*, 49(2), 237-264.
- Cukierman, A., Web, S. B., & Neyapti, B. (1992). Measuring the Independence of Central Banks and Its Effect on Policy Outcomes. *World Bank Economic Review*, 6(3), 353-398.
- Danylyshyn, B. (2009). The government and the National Bank: searching for the common strategy (Данилишин Б. Уряд і Національний Банк: у пошуках спільної стратегії). Retrieved from http://me.kmu.gov.ua/control/uk/publish/printable_article?art_id=141029
- Drazen, A. (2000). *Political Economy in Macroeconomics*. Princeton, New Jersey: Princeton University Press.
- Eijffinger, S., & Haan, J. d. (1996). The Political Economy of Central-Bank Independence. Retrieved from <http://econpapers.repec.org/RePEc:fth:prnfi:19>
- Eijffinger, S. C. W., & Hoeberichts, M. M. (2000). *Central Bank accountability and transparency : theory and some evidence*: Deutsche Bundesbank, Research Centre.
- Friedman, M. (1970). *The counter-revolution in monetary theory* London: Wincott memorial lecture, Institute of Economic Affairs
- Geraats, P. M. (2002). Central Bank Transparency. *The Economic Journal*, 112(483), F532-F565.
- Grekov, I. (2009). Historical aspects and modern lines in development of the monetary policy theory. *Management of public and economic systems*, 2, 1-27.
- Grilli, V., Masciandaro, D., & Tabellini, G. (1991). Political and Monetary Institutions and Public Financial Policies in the Industrial Countries *Economic Policy*, 13, 341-392.
- Grytsenko, A., & Krychevska, T. (2005). Monetary Strategy: the way to the effective monetary policy. The necessity and preconditions monetary strategy deliberation as a form of central banks communication. (Гриценко А., Кричевська Т. Монетарна стратегія: шлях до ефективної грошово-кредитної політики. Стаття перша. Необхідність і

- передумови формування монетарної стратегії як форми комунікації центральних банків). *Herald of the National Bank of Ukraine (in Ukrainian)*(11), 8-18.
- Haan de , J., Eijffinger, S. C. W., & Rybinski, K. (2007). Central bank transparency and central bank communication: Editorial introduction. *European Journal of Political Economy*, 23(1), 1-8.
- Haan de, J., Masciandaro, D., & Quintyn, M. (2008). Does central bank independence still matter? *European Journal of Political Economy*, 24(4), 717-721.
- Haan, J. d., & Eijffinger, S. C. W. (2000). The Democratic Accountability of the European Central Bank: A Comment on Two Fairy-tales. *Journal of Common Market Studies*, 38(3), 393-407.
- Hodgson, G. M. (2006). What Are Institutions? *Journal of Economic Issues*, XL(1), 1-25.
- IMF (1999). Code of Good Practices on Transparency in Monetary and Financial Policies: Declaration of Principles. Retrieved from <http://www.imf.org/external/np/mae/mft/code/index.htm>
- Jácome, L. I., & Vázquez, F. (2005). Any Link Between Legal Central Bank Independence and Inflation? Evidence from Latin America and the Caribbean *IMF Working Paper*, 05/75.
- Lefort, D. (2006). Transparency and accountability of central banks. Retrieved from <http://www.cemla.org/pdf/legales/leg-06-lefort.pdf>
- North, D. C. (1990). *Institutions, Institutional Change, and Economic Performance*. Cambridge: Cambridge University Press.
- North, D. C. (2005). Institutions and the Performance of Economies Over Time (pp. 21-30).
- Oritani, Y. (2010). Public governance of central banks: an approach from new institutional economics. *BIS Working Papers No 299*. Retrieved from <http://www.bis.org/publ/work299.pdf?noframes=1>
- Pekarsky, S. E. (2006). Interaction of fiscal and monetary policy and sustainability of the government debt, from [new.hse.ru/sites/.../facul/.../Диссертация%20\(Пекарский\).pdf](http://new.hse.ru/sites/.../facul/.../Диссертация%20(Пекарский).pdf)
- Petryk, O. (2007). History of monetary development in Ukraine. *Herald of the National Bank of Ukraine (in Ukrainian)*, 1(131), 2-16.
- Petryk, O., & Melnyk, K. K. (2009). Independence of the Central bank as a Key Precondition for Successful Inflation targeting (Петрик О.І., Мельник К.К. Незалежність центрального банку як ключова передумова успішної реалізації режиму інфляційного таргетування. // Проблеми та перспективи розвитку банківської системи України) *Problems and Perspectives of Development of Bank System of Ukraine. Journal of Scientific Articles*. Retrieved from http://www.nbu.gov.ua/Portal/soc_gum/pprbsu/texts/2009_26/26.1.13.pdf
- Polillo, S., & Guillen, Mauro B F. (2005). Globalization Pressures and the State: The Worldwide Spread of Central Bank Independence. *American Journal of Sociology*, 110(6), 1764-1802.
- Punch, K. F. (2006). *Developing effective research proposals* (Second ed.). London: Sage Publications.
- Reinhart, C., Rogoff, K., & Savastano, M. (2003). Addicted to Dollars *NBER Working Paper*. Retrieved from <http://www.nber.org/papers/w10015.pdf>
- Sargent, T. J., & Wallace, N. (1981). Some Unpleasant Monetarist Arithmetic *Federal Reserve Bank of Minneapolis. Quarterly Review*, Fall, 1-17.
- Schwödiauer, G., Komarov, V., & Akimova, I. (2006). Central Bank Independence, Accountability and Transparency: The Case of Ukraine *FEMM Working Paper Series*, 30.
- Selznick, P. (1994). The Moral Commonwealth *Social Theory and the Promise of Community* (pp. 289 - 310). Berkeley: University of California Press.
- Sibert, A. (2009). Accountability and the ECB. Retrieved from <http://www.europarl.europa.eu/activities/committees/studies.do?language=EN>

- Siklos, P. L. (2008). No single definition of central bank independence is right for all countries. *European Journal of Political Economy*, 24(4), 802-816.
- Smaghi, L. B. (2008). Central Bank Independence in the EU: From Theory to Practice. *European Law Journal*, 14(4), 446–460.
- Stelmakh, V. S. (Ed.). (2009). *Monetary policy of NBU: current state and perspective changes*. Kiev: Center of Scientific Research of National Bank of Ukraine.
- Stiglitz, J. E. (2002). *Globalization and its discontents*. New York W. W. Norton.
- Trunin, P. V., Kniazev, D. A., & Satdarov, A. M. (2010). *Analysis of independence of the central banks of the Russian Federation, the CIS and East European countries*. (Трунин П.В., Князев Д.А., Сатдаров А.М. Анализ независимости центральных банков РФ, стран СНГ и Восточной Европы / Трунин П.В., Князев Д.А., Сатдаров А.М.. - М. : ИЭПП, 2010. - 76 с.) (Vol. 133P). Moscow: Institute of Transitional Economics.
- Walsh, C. E. (1993). Central bank strategies, credibility, and independence : A review essay. *Journal of Monetary Economics*, 32(2), 287-302.
- Williamson, O. (2000). The new institutional economics: taking stock, looking ahead. *Journal of Economic Literature* XXXVIII 595-613.

Appendices

Appendix 1. Selected Ukrainian legislative documents and policy papers

- Basic principles of monetary policy for 2002. The National Bank of Ukraine (2001). Retrieved from http://www.bank.gov.ua/Rada_NBU/OsnovZasad-2002.pdf.
- Basic principles of monetary policy for 2003. The National Bank of Ukraine (2002). Retrieved from http://www.bank.gov.ua/Rada_NBU/OsnovZasad-2003.pdf.
- Basic principles of monetary policy for 2004. The National Bank of Ukraine (2003). Retrieved from http://www.bank.gov.ua/Rada_NBU/OsnovZasad-2004.pdf.
- Basic principles of monetary policy for 2005. The National Bank of Ukraine (2004). Retrieved from http://www.bank.gov.ua/Rada_NBU/OsnovZasad-2005.pdf.
- Basic principles of monetary policy for 2006. The National Bank of Ukraine (2005). Retrieved from http://www.bank.gov.ua/Rada_NBU/OsnovZasad-2006.pdf.
- Basic principles of monetary policy for 2007. The National Bank of Ukraine (2006). Retrieved from http://www.bank.gov.ua/Rada_NBU/OsnovZasad-2007.pdf.
- Basic principles of monetary policy for 2008. The National Bank of Ukraine (2007). Retrieved from http://www.bank.gov.ua/Rada_NBU/OsnovZasad-2008.pdf.
- Basic principles of monetary policy for 2009. The National Bank of Ukraine (2008). Retrieved from http://www.bank.gov.ua/Rada_NBU/OsnovZasad-2009.pdf.
- Basic principles of monetary policy for 2010. The National Bank of Ukraine (2009). Retrieved from http://www.bank.gov.ua/Rada_NBU/OsnovZasad-2010.pdf.
- Law of Ukraine On amendment to the legislation of Ukraine for improvement of legal regulation of international cooperation on fighting financing terrorism № 3163-IV (Закон України Про внесення змін до деяких законів України щодо удосконалення правового регулювання міжнародного співробітництва у сфері запобігання фінансуванню тероризму від 01.12.2005 . Відомості Верховної Ради України від 24.03.2006 – 2006 р., № 12, стор. 486, стаття 100). Retrieved from <http://zakon1.rada.gov.ua/cgi-bin/laws/main.cgi?nreg=3163-15>.
- Law of Ukraine on Banks and Banking (Закон України «Про банки і банківську діяльність». // Відомості Верховної Ради України. – 2001. - № 5-6. – ст. 30. (2001). Law of Ukraine on Banks and Banking (2001). Retrieved from <http://zakon1.rada.gov.ua/cgi-bin/laws/main.cgi?nreg=2121-14>.

Law of Ukraine on the National Bank of Ukraine (679-XIV) (Закон України «Про Національний банк України». // Відомості Верховної Ради України. – 1999. - № 29. – ст. 238). (1999). (679-XIV). Retrieved from <http://zakon1.rada.gov.ua/cgi-bin/laws/main.cgi?nreg=679-14>.

Law On amendment of some legislative acts of Ukraine regarding the activities of the National Bank. No. 2478-VI from 09.07.2010 . Retrieved from <http://zakon1.rada.gov.ua/cgi-bin/laws/main.cgi?nreg=2478-17>

Resolution On refinancing and providing by National Bank of Ukraine loans to Banks of Ukraine in order to stimulate crediting of economy of Ukraine for the period of recovery till pre-crisis indicators. NBU / No 47 from 4 February 2010. Retrieved from http://www.bank.gov.ua/B_zakon/Acts/2010/04022010_47.pdf.

Resolution on the content, the procedure of the development of the Basic principles of the monetary policy and control of its implementation, The National Bank of Ukraine (2006).

Memorandum on economic and financial policy. Retrieved from http://www.bank.gov.ua/Publication/others/Memorandum_23072009ukr.pdf.

Law of Ukraine on the State budget of Ukraine for 2010. Retrieved from <http://zakon1.rada.gov.ua/cgi-bin/laws/main.cgi?nreg=2154-17&p=1270380782883767>

Law on the State program of economic and social development of Ukraine for 2010. Retrieved from http://gska2.rada.gov.ua/pls/zweb_n/webproc4_1?pf3511=37456

Appendix 2. Cukierman and the “Modified Cukierman” Indices

Cukierman Index	Values	“Modified Cukierman” Index	Values
Criteria (weights)		Criteria (weights)	
Central Bank CEO (0.20)		Central Bank Board (0.20)	
<i>1. Term of office of CEO (0.25)</i>		<i>1. Term of office of Governor(0.20)</i>	
- Equal or more than 8 years	1	- More than presidential period	1
- 6 years or more but less than 8 years	0.75	- The period does not coincide	0.67
- Equal to 5 years	0.50	- Same period as the executive branch	0.33
- Equal to 4 years	0.25	- Less than executive branch or not specified in the law	0
- Less than 4 years	0		
<i>2. Who appoints the CEO (0.25)</i>		<i>2. Who appoints the Governor (0.20)</i>	
- The Central Bank Board	1	- Double process (Executive/Legislative), or through the Central Bank Board if also appointed in a double process, or for longer or overlapped periods with respect to the executive branch	1
- Council composed by executive and legislative branch and Central Bank Board	0.75		
- By legislative branch	0.50		
- By executive branch	0.25		
- By one or two members of executive branch	0	- The executive branch directly or through the Central Bank Board, when this is directly appointed by the executive branch	0
<i>3. Provisions for dismissal of CEO (0.25)</i>		<i>3. Appointment and term of office rest of the Board (0.20)</i>	
- No provision	1	- More than presidential period or for a non-defined period	1
- Only for non-policy reasons (e.g., incapability, or violation of law)	0.83		
- At a discretion of Central Bank Board	0.67		
- For policy reasons at legislative branch’s discretion	0.50	- For the same period as the President of the Republic with overlap	0.75
- At legislative branch’s discretion	0.33	- Double process for the same period	0.50
- For policy reasons at executive branch’s discretion	0.17	- Executive and private sector appoint the majority of directors for same period or less	0.25
- At executive branch’s discretion	0	- Executive branch appoints the majority for the same period or less	0
<i>4. CEO allowed to hold another office in government (0.25)</i>		<i>4. Dismissal of Board members (0.30)</i>	
- Prohibited by law	1	- Double process approved by the Senate or by a qualified majority and for violations codified in legislation	1
- Not allowed unless authorized by executive branch	0.5		
- No prohibition for holding another office	0	- By an independent Central Bank Board	0.75
		- Double process with simple majority, based on policy decisions or due to subjective reasons	0.50
		-By executive branch or subordinated Central Bank Board due to legal reasons	0.25
		-By executive branch or subordinated Central Bank Board due to policy or subjective reasons, or no legal provision	0
		<i>5. CEO allowed to hold another office in government (0.10)</i>	
		- Prohibited by law	1
		- Not allowed unless authorized by executive branch	0.5

		- No prohibition for holding another office	0
Central Bank objectives (0.15)		Central Bank objectives (0.15)	
<i>5. Central Bank objectives</i>		<i>6. Fundamental objective (1.00)</i>	
- Price stability is the only or major goal, and in case of conflict with government, the Central Bank has final authority	1	- Price stability is the single or primary objective	1
		- Price stability together with non-conflicting objectives but without priority	0.75
- Price stability is the only goal	0.8		
- Price stability along with other objectives that do not seem to conflict with the former	0.6	- Price stability plus others goals including stability of financial system that may conflict with the former, without priority	0.50
- Price stability along with other objectives of potentially conflicting goals (e.g., full employment)	0.4	- Price stability together with objective of economic growth / economic development with no priority	0.25
- Central Bank charter does not contain any objective	0.2	- Objectives do not include price stability	0
-Some goals appear in the charter but price stability is not one of them	0		
Policy formulation (0.15)		Policy formulation (0.15)	
<i>6. Who formulates monetary policy (0.25)</i>		<i>7. Who formulates monetary policy (0.50)</i>	
- Central Bank has the legal authority	1	- Central Bank has the legal authority	1
- Central Bank participates together with government	0.67	- Executive branch holds the final decision on exchange rate policy	0.67
- Central Bank in an advisory capacity	0.33	- Central Bank participates on monetary policy formulation in an advisory capacity or faces legal limitations on monetary instruments or interest rates	0.33
- Government alone formulates monetary policy	0		
<i>7. Government directives and resolution of conflicts (0.50)</i>		- Government formulates monetary policy alone	0
- Central Bank given final authority over issues defined in the law as objectives	1	<i>8. Government directives and resolution of conflicts (0.30)</i>	
- Government has final authority over issues not clearly defined as Central Bank goals	0.8	- Central Bank given final authority over issues defined in the law as objectives	1
- Final decision up to a council whose members are from the Central Bank, executive branch, and legislative branch	0.6	- Government has final authority over issues not clearly defined as Central Bank goals	0.8
- Legislative branch has final authority	0.4		
- Executive branch has final authority, but subject to due process and possible protest by Central Bank	0.2	- Final decision up to a council whose members are from the Central Bank, executive branch, and legislative branch	0.6
- Executive branch has unconditional	0	- Legislative branch has final authority	0.4

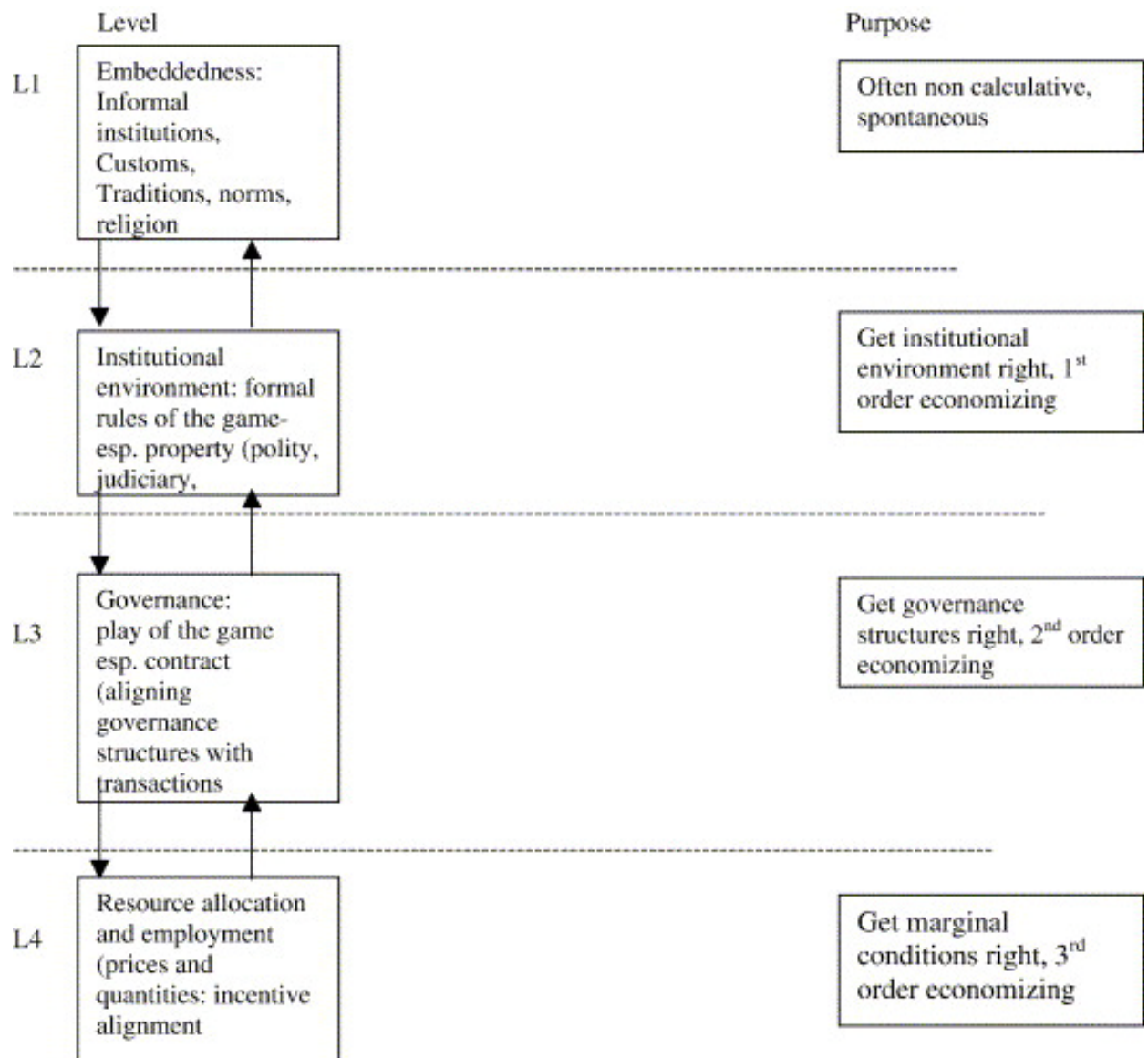
		- Executive branch has final authority, but subject to due process and possible protest by Central Bank	0.2
8. Central Bank given active role in formulation of government's budget (0.25)		- Executive branch has unconditional authority over policy	0
- Yes	1		
- No	0		
		9. Central Bank involvement in debt approval (0.20)	
		- Approves government debt	1
		- Legally required to provide opinion on technical aspects	0.5
		- No involvement at all	0
Central Bank lending (0.50)		Central Bank lending (0.40)	
9. Limitations on advances (0.30)		10. Limitations on advances (0.15)	
- Advances to government prohibited	1	- Advances to government prohibited	1
- Permitted but subject to limits in terms of absolute cash amounts or relative limits (government revenues)	0.67	- Limited by small percentage of government revenues or by monetary program	0.67
- Permitted subject to relatively accommodative limits (more than 15 percent of government revenues)	0.33	- Allowed under lax limits (more than 15 percent of government revenues)	0.33
		- Allowed without limits	0
- No legal limitations on advances. Subject to negotiations with government	0		
		11. Lending to Government (0.30)	
10. Limitations on securitized lending (0.20)		- Not allowed	1
- The same as in 9		- In the secondary market with restricted limits	0.75
		- In the secondary market with lax or without limits	0.50
11. Who decides control of terms of lending to government (0.20)		- In the primary market with limits or approved by Central Bank Board with a qualified majority	0.25
- Central bank controls terms and conditions	1		
- Terms of lending specified in law, or Central Bank given legal authority to set conditions	0.67		
		- In the primary market without limits	0
- Law leaves decision to negotiations between the Central Bank and government	0.33	12. Who decides financing conditions to government (0.10)	
- Executive branch alone decides and imposes to the Central Bank	0	- Central Bank defines terms and conditions	1
		- Defined by law	0.67
12. Beneficiaries of Central Bank lending (0.10)		- The law allows negotiations between government and Central Bank	0.33
- Only central government	1	- Executive decides independently	0
- Central and state governments, as well as further political subdivisions	0.67	13. Beneficiaries of Central Bank financing (0.10)	

	0.33		
- Also public enterprises can borrow		- Only the government	1
- Central Bank can lend to all of the above and to the private sector	0	- Government plus local governments	0.67
<i>13. Type of limits when they exist (0.05)</i>		- All of the above plus public enterprises	0.33
		- All of the above and to the private sector	0
- As an absolute cash amount	1	<i>14. Interest rates in advances or lending (0.10)</i>	
- As a percentage of Central Bank capital or other liabilities	0.67	- At market rates	1
- As a percentage of government revenues	0.33	- Interest rates not specified in law	0.5
- As a percentage of government expenditure	0	- At below market rates	0
<i>14. Maturity of loans (0.05)</i>		<i>15. LOLR (0.15)</i>	
- Limited to a maximum of 6 months	1	- For liquidity purposes with limitations (up to 180 days or up to banks' equity), or no legal provision for emergency lending.	1
- Limited to a maximum of 1 year	0.67	- For liquidity at conditions defined by the central bank	0.75
- Limited to a maximum of more than one year	0.33	- Provisions for constructive ambiguity or rediscount of commercial bank loans	0.5
- No legal upper bounds	0		
<i>15. Restrictions on interest rates (0.05)</i>		- Open assistance to cope with solvency problems	0.25
- Must be at market rate	1	- To finance bank restructuring and/or paying deposit insurance	0
- On loans to government can not be lower than a certain floor	0.75	<i>16. Financial autonomy (0.10)</i>	
- Interest rate on Central Bank loans can not exceed a certain ceiling	0.50	- Government should maintain central capital integrity	1
- No explicit legal provisions regarding interest rate in Central Bank loans	0.25		0.67
- No interest rate charge on government's borrowing from Central Bank	0	- Government is legally allowed to capitalize the central bank	
		- The law does not allow the government to capitalize the central bank	0.33
<i>16. Prohibition on Central Bank lending in primary market to Government (0.05)</i>		- The Central Bank conducts quasi-fiscal operations.	0
- Prohibition from buying government securities in primary market	1	Accountability (0.10)	
- No prohibition	0		
		<i>17. Accountability of Central Banks (0.75)</i>	
		- Reports to executive branch and informs at least annually to Congress	1
		- Reports to the executive once a year and submits an annual report to Congress	0.75
		- Annual report to the executive. Informs to the executive branch whenever fundamental disequilibria emerge, or reports through the media without specific periodicity	0.50
		- Issues annual report at specific time	0.25
		- Distributes an annual report without establishing particular period of time for it	0
		<i>18. Central Bank transparency (0.25)</i>	

	- Discloses detailed financial statements at least once a year with a certification of an independent auditor	1
	- Discloses consolidated financial statements at least once a year with seal of the Banking Superintendent or other public sector authority	0.75
	- Discloses financial statements at least once a year, certified by an internal auditor	0.50
	- Publishes partial financial statements	0.25
	- Does not publish financial statements or the law authorizes the central bank to deviate from international accounting standards	0

Source: (Jácome & Vázquez, 2005)

Appendix 3. Four levels of institutional analysis



Source: based on (Williamson, 2000, p. 597).

Appendix 4. Full list of NBU's functions according to the Law on NBU (1999)

Main Function

According to the Constitution of Ukraine, the main function of the National Bank is to ensure the stability of Ukraine's monetary unit.

To carry out its major function, the National Bank shall foster the stability of the banking system and within its competence, the price stability.

Other Functions

The National Bank shall carry out the following functions:

1. to determine and pursue the monetary policy in accordance with the General Principles of the Monetary Policy developed by the Council of the National Bank of Ukraine;
2. to issue the national currency of Ukraine on a monopoly basis and to organize its circulation;
3. to act as the last-instance creditor for banks and to organize the refinancing system;
4. to establish the rules of conducting banking transactions, accounting and reporting, protection of the information, funds and property for the banks;
5. to organize and to provide the methodological support to the system of the monetary, crediting and banking statistical information and the statistics of the balance of payments;
6. to determine the system, procedure and modes of payments, including those between banks;
7. to determine the areas of the development of modern electronic banking technologies, to establish, co-ordinate and control the creation of electronic means of payment, payment system, banking automation and the banking information protection facilities;
8. to exercise the banking regulation and supervision;
9. to keep a Register of banks, to license banking business and transactions, if provided for by the laws;
10. to keep the official Register of identification numbers of issuers of payment cards of domestic payment systems;
11. to exercise the inspection certification of auditors for conducting audit of banks, temporary administrators and liquidators of a bank;
12. to compile, analyze and forecast the balance of payments;
13. to represent Ukraine's interests in central banks of other states, international banks and other crediting institutions, where the cooperation takes place at the level of central banks;
14. to exercise the currency regulation with the competence to be defined by a special law, to determine the procedure of effecting payments in the foreign currency, to organize and exercise the currency control over the commercial banks and other credit institutions which are in possession of a National Bank's license for the transactions with currency values;
15. to ensure the accumulation and custody of the gold and currency reserves and the conduction of transactions with them and the banking metals;
16. to analyze the status of the monetary, crediting, financial, pricing and currency relations;
17. to organize the collection and transportation of bank notes, coins and other values; to grant licenses for collection and transportation of bank notes, coins and other values;
18. to implement the national policy of the protection of state secrets within the system of the National Bank;
19. to take part in the training of personnel for Ukraine's banking system;
20. to define functioning characteristics of the banking system of Ukraine in case of martial law or a specific period, to exercise preparedness activity of the National Bank of Ukraine' system;
21. to exercise other functions in the monetary and crediting sphere within its competence defined by the law.