

Has the legal Independence of the Central Bank of Iraq Improved?

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This paper assesses the degree to which the Central Bank of Iraq (CBI) continues to possess its legal independence since 1976. Our paper follows a historical series of the laws of the (CBI) and respective amendments from 1976 to 2019. The paper examines the independence of the (CBI) in line with previous studies conducted by Fouad, Fayed, and Emam (2019), Jacome and Vazquez (2005 and 2008), Jacome (2001), Cukierman, Webb, and Neyapti (1992), Cukierman (1992) and Grilli, Masciandaro, and Tabellini (1991). It is found that the degree of legal independence of the (CBI) has increased from 3.5 for the first period (1976-2004) to 8.1 for the second period (2004-2019). It is also observed that the amended (CBI) Law 56 of 2004 contains some legal gaps for which certain suggestions are made.

Key words: *De jure central bank independence, legal central bank independence.*

Introduction

The purpose of this paper is to measure the degree of legal independence of the (CBI) from the year 1976 to 2019. The paper presents a series of events of up to forty-three years to highlight the history of the laws of the (CBI) and its amendments. The evaluation of the degree of legal independence is performed by considering the amendments to the constitution that took place during the period under review. Prime emphasis is placed on reforms in the legal indicators of independence and accountability. The forty-three year period is divided into two parts. The first period represents a twenty-eight year period from 1976 to 2004 before the introduction of economic reforms. The first period is characterised by a socialist economic system. The second period of fifteen years pertains to post economic reforms (2004-2019) where the system is based on the free market, and a further separation of the monetary and fiscal authorities was established.

The assessment of the degree of legal independence index of the (CBI) is based on the following reasons:

1. Iraq is a developing country that has emerged as a democratic state in the year 2003 leading to amendments in its constitution and change in its political and legal system. Therefore, there is a great need to reconsider or amend the central bank law that was laid down in the year 2003. It has become crucial to make the necessary amendments to the law for more clarity so that the (CBI) can improve its degree of legal independence. Arnone and Romelli (2013), and Polillo and Guillen (2005) stress that adopting a legal text that guarantees the independence of the central bank reduces inflationary expectations.
2. The emerging democratic transition experience assumes that the new Iraqi governments are elected and therefore respect the new laws. This fact alone has provided enough motivation to emphasise the legal aspect of the independence of the (CBI). The legal independence index of Cukierman et al. (1992) dictates that the legislator has the legal power to grant a degree of independence to the central bank concerning legal texts written in the law of the central bank and the legal characteristics mentioned in the law.
3. Articles and legal texts remain the primary reference on issues of conflict resolution and accountability between the legislative and executive authorities on one hand, and the monetary authority represented by the governor and the board of directors on the other hand. Laurens and Piedra (1998) argue that in the absence of legal independence of the central bank and lack of clear goals for price stability and policy conflicts with the government, it is very likely that the central bank may face political pressures and may emphasise only the short-term considerations and goals. For this reason, clear legal arrangements must be made to resolve disputes between the central bank and the government in power, in times when government officials violate laws in the emerging democratic experiment concerning the goals of price stability and government borrowing from the central bank (Mishkin, 1999). This gives an argument to governors and the central bank board to advocate or demand a more independent central bank law.

Our research methodology in the field of legal independence of central banks involves a comparison of the most recent developments related to the introduction of different updates with regards to legal criterion, variables, and characteristics that have matured and modernised as found by different researchers such as Fouad, Fayed and Emam (2019), Jacome and Vazquez (2008), Jacome and Jacques (2005), Jacome (2001), Lybek (1999), Briault, Haldane and King (1996), Eijffinger and Schaling (1993), Cukierman, Webb, and Neyapti (1992), Cukierman (1992), and Grilli, Masciandaro, and Tabellini (1991).

Based on the contributions by these authors, our paper includes analysis of provisions relating to the appointment of both the central bank's governor, and its board of directors as well as conflict resolution mechanisms, possibilities of reappointment of board of directors, exchange

rate policy, the authority to act as lender of the last resort, direct and indirect credit to government, financial independence, accountability, and transparency.

Literature Review

Bade and Parkin (1982) pioneered the design and introduced a four scale quantitative index for twelve industrial countries based on political independence to examine and assess the legal independence of the central bank. They pointed out that the central banks that depend upon government intervention cannot function and operate independently and have no power or authority to appoint its board members. Nonetheless if there are no government officials on the board of the central bank, it reflects that the central bank is independent of the government intervention and political pressures.

Alicina and Summers (1993) have criticised the work and findings reported by Bade and Parkin (1982), as the latter authors ignore some institutional changes when measuring and classifying their central bank samples. To take these changes into account, Alicina and Summers (1993) added a new standard to determine whether the central bank is required to absorb the excess supply of short term market liquidity and the issues of treasury bills or not.

Grilli, Masciandaro, and Tabellini (1991) have divided the independence of the central bank into economic independence and political independence. Economic independence is strongly determined by the amount of money the government decides to borrow from the central bank, as well as the nature of the monetary instruments that are controlled by the central bank on behalf of the whole economy and the government in power. Political independence is reflected by three factors; the autonomous procedures of central banks for appointing the board of directors, the relationship between the government and the board of directors, and the responsibilities of the central bank.

Cukierman, Webb, and Neyapti (1992) developed an index to assess the legal independence of central banks in industrial and developing countries. Such an index is divided into four parts:

- 1- Governor independence,
- 2- Independence of objectives,
- 3- Independence of policy formulation, and
- 4- Credit to the government.

Uzonwanne (2011) critically evaluated the study findings of Cukierman et al (1992), reporting that the measures used by the latter can be statistically significant for industrial countries but not for developing countries. This is because government agencies and government officials in developing countries place less emphasis on their commitment to the rule of law, while the



government agencies and government officials in industrial countries place a greater emphasis on their commitment to the rule of law and respect the same on a high priority basis. Nevertheless Bezhoska (2017) explains that the indices of Cukierman et al (1992) have been modified many times to reflect the different characteristics of some economies, such as transition economies.

Briault, Haldane, and King (1996) added indicators related to transparency, accountability, and the last resort for lending to their research analysis. They conducted a detailed survey of fourteen OECD countries based on their accountability index which focuses on monetary policy. They found that there seemed to be some trade-off between a large degree of central bank independence and accountability.

Eijffinger and Schaling (1993) developed the dimensions that were already employed and utilised by Grilli et al. (1991) and Bade and Parkin (1988) to measure the independence of the central bank. This was done by introducing a new standard that relates to the concept of dual authority, consequently the formulation of policy is divided between monetary and fiscal authorities. They also appointed different weights for different criteria. In his research work, Lybek (1999) made improvements to the Central Bank's legal independence and accountability index. This index was applied to fourteen countries from 1995 to 1997. The index was designed to include all aspects of the central bank's legal independence as defined by the International Monetary Fund index.

Jacome (2001) also designed the index of central bank legal independence and accountability. He conducted his paper during the nineties to investigate central bank independence in a group of Latin American countries. Jacome index is more comprehensive as it includes indicators of political and economic independence that were covered by Grilli et al. (1991) and Cukierman et al. (1992), but with certain improvements and modifications. This particular index includes dimensions of financial independence, accountability, and transparency as determined by the modified International Monetary Fund index as well as the lender of last resort as a major indicator.

By applying the indexes introduced by Dvorsky (2000), Cukierman (1992) and Grilli et al. (1991) has also studied the legal independence of central banks for five of the transition economies. He concludes that the legal independence of central banks has increased in all of these countries under review. By using the index introduced by Maliszewski (2000), Grilli et al. (1991) has investigated the legal independence of 20 transition economies by considering indicators divided into legal, political, and economic independence. Maliszewski (2000) has found that the average legal independence is higher for all the central banks in the sample. While the central bank independence exerts downward pressure on inflation only after

containing the shock of price liberalisation, it is not a substitute for other elements of economic reform programs.

Jácome and Vázquez (2005) have studied central bank laws in twenty-four countries in Latin American and the Caribbean region during the 1990s by further improving the indexes of Cukierman et al. (2002) and Grilli et al. (1991). They conclude that reforms of the central bank's laws were applied in Latin America and the Caribbean but not in the countries of the Central African Republic. As a result, most central banks in Latin America and the Caribbean have higher legal and operational independence and political independence, while central banks in the Central African Republic remain dependent on government influence.

Dvorsky (2007 and 2004) tested the legal independence of eight countries in south-eastern Europe in the areas of institutional, personal, functional, and financial independence before they joined the European Union. This is because countries that join the European Union must amend the central bank's independence legislation by the date of accession. The paper finds that the level of legal independence in these countries corresponds to the level of their integration into the European Union.

Bogoev (2007) studies the degree of independence of the central bank in nine Southeast European countries using the indicators of Jacome and Vazquez (2005), Cukierman et al. (1992), Grilli et al. (1991), as well as a modified version of the index introduced by Cukierman et al. (1992). Bogoev (2007) concludes there is a high degree of legal independence in the central banks of the countries considered in the study.

Mishkin (2007) notes a legislative trend to grant independence to some central banks during the 1990s. According to the Maastricht Treaty, which created the euro system, the European Central Bank was made the most legally independent bank in the world. According to Cukierman (2008), the independence of European Central Banks increased during the 1990s as a condition for joining the European Union, and compliance with the Maastricht Treaty. Jacome and Vazquez (2008) expanded the index introduced by Cukierman, Miller and Neyapti (2002) in three different aspects; appointment and dismissal of the board of directors, legal provisions for policy formulation, and the ability of the central bank to lend the public sector (Siklos, 2008).

Jankoski (2010) finds a high level of legal independence of the National Bank of Republic of Macedonia (NBRM) by applying indices of Eijffinger and Schaling (1993), Cukierman et al. (1992), Grilli, Masciandaro, and Tabellini (1991), and Bade and Parkin (1988).

Mishkin (2011) suggests an institutional commitment to price stability as laid down in central bank law. The commitment of politicians to price stability signifies that it will be difficult for

them to put pressure on monetary policy to impose expansionary policies, the stability of prices is a prevailing goal, and that the government's policy must be better aligned with the central bank's policy.

Garriga and Rodriguez (2020) measure the independence of central banks with data on legal central bank independence from Garriga (2016), indicating that the de jure index is an appropriate indicator of central bank independence for three reasons. First, through studying the effect of a policy on a key outcome variable like inflation, a legal measure of central bank independence is a good indicator of the extent to which countries followed such policy advice. Second, de jure indices emphasise specific claims contained in central bank statutes and thus, are less biased by the presence of possible subjective judgments. Third, there is no better measure of central bank independence for a research study. On one hand, other de jure measures are not free from criticism from Klomp and De Haan (2010) and De Haan and Kooi (2000). Furthermore, Acemoglu et al. (2008) argue that Cukierman et al.'s (1992) index is the most commonly used de jure central bank independence index. The legal central bank independence index from Garriga (2016) uses Cukierman et al.'s (1992) criteria to code variables. Garriga's dataset covers one hundred and fifty-nine non-OECD countries from 1970 to 2012.

Data and Methodology

For data collection from multiple sources, the authors have relied on two main laws of the (CBI) and their amendments during the study period 1976-2019. The first consideration is the (CBI) Law 64 of 1976. This law underwent ten amendments. The second consideration is the (CBI) Law 56 of 2004. This law has been subjected to three amendments.

The paper studies the Iraqi constitution 1970 and the constitution of the Republic of Iraq 2005 as a reference because these two are the country's supreme law.

The index that our paper adopts is divided into ten main variables where each variable is divided into a set of criteria (32 criteria): the governor (5 criteria), central bank board (6 criteria), objectives (1 criterion), policy formulation (3 criteria), limitations on credit to government (8 criteria), the lender of last resort (1 criterion), financial independence (3 criteria), accountability (3 criteria), transparency (1 criterion), and foreign exchange policy (1 criterion). Then each criterion is divided into alternative legal characteristics related to it, the number of which differs from one criterion to another. Each set of legal characteristics is coded from 1 to 0, where 1 indicates the highest degree of independence, and 0 indicates the lowest degree of independence.

Our paper adds five legal characteristics;

- The first within the criterion (who appoints the governor?) The characteristic has been modified to (appointment is made by the legislative and executive branches),
- The second within the criterion of (who appoints the central bank board?), a characteristic has been added (there is no article in the law),
- The third within the criterion (limits on central bank credit), a characteristic has been added (there is no article in the law),
- The fourth within the criterion of (the lender of last resort), a characteristic has been added (there is no article in the law),
- The fifth within the criterion of (external monitoring), and a characteristic was added (there is no article in the law).

Accordingly, the weights of the legal characteristics were changed due to the change in their number.

The legal independence index is calculated in two stages. In the first stage, a value for each variable is calculated by the following equation:

$$\text{Degree of independence of any variable} = \sum_{i=1}^n \left(\frac{1}{n} \times \text{Score for Criteria}_i \right)$$

Where n represents the number of criteria included in the variable, and I represent each criterion, and therefore, the value of each variable is from 1 to 0.

In the second stage, the degree of total legal independence index is measured, as the degrees obtained by each of the ten variables are grouped and is calculated by the following equation:

$$\text{Aggregate value of the legal index} = \sum_{j=1}^{10} \text{Score for Variable}_j$$

Where j represents each of the ten variables in the index, so the degree of legal independence of the Central Bank ranges from 10 (the highest degree of independence) to 0 (the lowest degree of independence).

For analytical purposes, the legal indicators for the independence of the central bank were divided into five main groups; clarity objectives, economic independence, political independence, financial independence, and accountability and transparency, while each of these indicators was divided into sub-variables. These indicators are obtained by summing the associated sub-variables.

Degree of legal independence of the (CBI)

As shown in table (1), legal indicators for the independence of the (CBI) were divided into five indicators, and each of these indicators is subdivided into a set of variables.

The researchers have found that the degree of legal independence of the (CBI) is 3.5 for the period 1976-2004. That was accompanied by the deterioration of macroeconomic variables, especially inflation, as a result of the economic embargo after the second Gulf War in 1991. Dagher and Ashour (2014) have demonstrated that Iraq witnessed a significant expansion in the money supply growth, reaching 176% in 1994. The years 1991-2003 were also characterised by the government's dominance of monetary policy, and the rule of time-inconsistency model between inflation and unemployment, as indicated by Barro and Gordon (1983) and Kydland and Prescott (1977) who has revealed that governments facing a trade-off between inflation and unemployment tend to choose higher-than-optimal inflation rates.

Table 1: Indicators and variables of legal independence of the (CBI) 1976-2019

Indications	variables	Law of 1976 and its amendments	Law of 2004 and its amendments
Clarity Objectives	Price Stability Objective	0.5	0.75
Political Independence	Governor	0.17	0.60
	Central Bank Board	0.18	0.59
		0.35	1.19
Economic Independence	Policy Formulation	0.31	1
	Foreign Exchange Policy	0.50	1
	Limitations on Credit to Government	0.35	0.69
	Lender of Last Resort Function	0	0.67
		1.16	3.36
Financial Independence	Financial Independence	1	1
Accountability and Transparency	Accountability	0.49	1
	Transparency	0	1
		0.49	2



Degree of legal independence		3.5	8.3
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Source: Authors' calculation

During the period 2004-2019, the legal independence of the (CBI) reached a degree of 8.3 from 3.5. This progress occurred due to the change in the constitution of the Republic of Iraq, and the adoption of the (CBI) Law 56 of 2004 and its amendments, as part of a package of economic reforms that established a new monetary system, after changing the Iraqi regime in 2003. Rogoff (1985) demonstrated that this inflationary bias can be reduced by delegating monetary policy to an independent and conservative central bank. This explains the basis for the legal reform of the (CBI), according to the 2004 law. Based on Table 1 and Appendix 1, an overview of these five indicators is given as follows:

I - Clarity objectives: In the 1976 law, the bank mentions conflicting goals that include stabilising the Iraqi currency, contributions to economic growth, and raising the standard of living. While the 2004 law mentions price stability as a primary goal, while maintaining a stable financial system comes as a secondary goal. This indicates the prevalence of the goal of price stability with other compatible goals, which reduces policy conflicts and facilitates conflict resolution.

II - Political Independence: Table (1) reflects the rise in political independence by rule of law; also, the sub-variables of this independence have improved over time. In the 1976 law, the central bank governor and the board of directors are appointed in one step by the president. There are no legal provisions regarding dismissal. The law also permits the presence of government members in the bank, the governor is appointed for the same term as the electoral cycle. This gives the indicator a weak degree of independence.

According to 2004 law, the governor and the board of directors are appointed with dual authority by the legislative and executive branches, but without nomination by the board of directors. The same reference is found in the Iraqi constitution of 2005, where Article 61 indicates that approval to appoint special grade holders falls within the competence of the Council of Representatives, with a nomination by the Council of Ministers. The bank law clearly defines cases of dismissal of the governor and the board directors by a competent court for reasons not related to policy. The law also dictates that the governor and council are not allowed to take any position other than their jobs in the (CBI). Bringing improvements to this indicator is important because it reduces the potential sources of conflicts of interest. The 2004 law does not specify the appointment of the Board of Directors which reduces the degree of independence in this indicator.

III - Economic Independence: Referring to the table (1), we find that the overall indicator of economic independence has improved, and its sub-variables have increased in scores.

According to the law of 1976, formulation of the policy was not the responsibility of the central bank alone. Rather, it was shared between the central bank and the Council of Ministers. In the event of a conflict the government is referred to , and the exchange rate is referred to the Minister of Finance in the event of a dispute between the monetary authority and the government. As per the 2004 law, the legislation has made significant progress giving the (CBI) the authority to formulate and implement monetary policy, including foreign exchange policy. The bank does not need instructions from any government agency, and no party seeks to improperly influence any member of any decision-making body of the (CBI).

Concerning limitations on credit to government, the 1976 law allows the bank to grant the government a short-term advance to cover a temporary deficit in the public budget. As for the 2004 law, it provides restrictions that protect the central bank from government pressure and separate the monetary and fiscal policies, thereby strengthening the independence of the central bank. The law refers to the prohibition of the provision of advances and direct lending to the government. The law also permits the (CBI) to purchase government securities, provided that purchases of these securities are limited to the secondary market only, and that the purchase is made within the framework of open market operations.

There was no legal provision related to the function of the last resort for lending in Law 1976. As for the 2004 law, it is permitted for the (CBI) in exceptional circumstances and under the terms and conditions determined by it to be the last resort for lending to a licensed bank.

IV - Financial Independence: the financial independence record of the (CBI) was high during the period under review as the capital is fully owned by the central bank. Both laws indicate that the capital is owned by the State and not the Government. The law sets clear rules for the relationship between the central bank and the government in handling losses and profits of the central bank.

V - Accountability and Transparency: The overall indicator of accountability and transparency improved legally, enhancing the credibility of monetary policy. The 1976 law did not highlight, in any of its articles, the issue of accountability. As for Law 2004, it gets a high degree of accountability, as it is stated that the legislature in Iraq is authorised to supervise the central bank. The financial statements of the (CBI) are subject to review and financial auditing following the international standards for review and financial auditing at least once every year.



In the 1976 law, there is no legal article on the publication of monetary policy. As for the 2004 law, it refers to the publication of annual data on the financial position and a report on the operations of the (CBI) during the past fiscal year.

Conclusions

The analysis of the laws of the (CBI) and the Iraqi constitutions for the period 1976-2019 shows that for nearly twenty-eight years, the (CBI) did not have sufficient legal mandate, as it achieved a low degree of legal independence of 3.5. The legal independence of the CBI after 2003 significantly improved in all criteria, which led to an increase in the degree of legal independence to 8.3 for the period 2004-2019. This progress occurred because of the legislation of a new constitution for the Republic of Iraq in 2005 and the adoption of a new law for the CBI No. 56 in 2004, as part of a package of economic reforms that established a new monetary system, after changing the regime in Iraq in 2003.

The paper adds five legal characteristics to the (CBI) legal independence index. The paper represents an addition in the field of legal independence studies in Iraq, due to the limitations of previous studies that dealt with this research aspect in Iraq.

The paper offers suggestions to fill the gaps in the amended (CBI) Law 56 of 2004, which presents challenges in the following legal areas: double veto arrangement for the appointment of the governor, the authority to appoint the central bank board, the possibilities of reappointment for the governor and the central bank board, defined legal limits on central bank credit, and the maturity of loans.

ANNEX 1

The degree of legal independence of the (CBI) (1976- 2004) (2004-2019)

Variable	Criteria	Legal Characteristics	1976-2004			2004-2019		
			Weights	Degree of legal characteristics	Degree of legal independence	Weights	Degree of legal characteristics	Degree of legal independence
1-Objective(s)	Price stability objective	Price stability is mentioned as only or primary goal of the law.	1		0.50	1		0.75
		Price stability is mentioned as one goal with other compatible goals, without giving priority (i.e. financial stability).	0.75			0.75		
		Price stability is mentioned along with other conflicting goals (i.e. full employment) without priority.	0.50	0.50		0.50		
		Charter does not include any provision related to goals.	0.25			0.25		
		The stated goals do not include price stability.	0			0		
		Total (1)					0.50	
2-Policy Formulation	Who formulates monetary policy?	Central bank alone.	1		0.25	1	1	0.33
		Both central bank and government.	0.75	0.75		0.75		
		Central bank participates with government, but has little impact.	0.50			0.50		
		Central bank only advises the government.	0.25			0.25		
		Government alone.	0			0		
	Who has the final authority in	Central bank has the final authority over issues clearly defined in the law (like central bank objectives).	1		0.06	1	1	0.33

	conflict resolution?	Central bank is independent in achieving its goal, but the law does not contain any provision concerning conflict resolution.	0.83			0	.83	
		The final decision is up to the central bank's board of directors, executives, and legislatures (may also include the president) but in a transparent manner.	0.67			0	.67	
		The final decision is up to the legislatures.	0.50			0	.50	
		Government has the final authority on policy issues not clearly defined in the central bank law.	0.33			0	.33	
		Government has the final authority on all policy issues but subject to due process and possible protest by the central bank.	0.17	0.17		0	.17	
		Government has unconditional authority over policy issues.	0			0		
	There is an overriding clause in the charter	Government is prohibited from exceeding the central bank.	1		0	1	1	0.33
		Allowed under strict rules (in exceptional cases for a limited period after approval of parliament).	0.50			0	.50	
		Unconditional override possible according to the government's discretion.	0	0		0		
	Total (2)					0.31		1
3- Governor	Who appoints the governor	Double veto arrangement, whereby the central bank board nominates and the legislature or the president appoints.	1		0.066	1	0.1	
		Exclusively by the central bank board of directors.	0.83			0.83		
		By a council composed of members of board, legislatures and executives.	0.67			0		.67
		By the legislative and executive branches.	0.50			0		.50
		Exclusively by the president.	0.33	0.33		0		

					3		
					3		
	Exclusively by the executive branch collectively (i.e. the cabinet).	0.17			0		
	Exclusively by some members of the executive branch.	0			0		
Dismissal	Allowed only for reasons not related to policy (i.e. incapability or breach of law or misconduct) by rule of court or independent tribunal.	1		0	1	1	0.2
	Allowed only for reasons not related to policy (i.e. incapability or breach of law or misconduct) after the approval of both the nominator and the appointer in a two-step process.	0.83			0		
	Allowed at the discretion of the board of directors.	0.67			0		
	Allowed at the discretion of the legislature.	0.50			0		
	Allowed at the discretion of the president.	0.33			0		
	Allowed at the discretion of the government for policy reasons.	0.17			0		
	Unconditional dismissal is permitted at the discretion of the government or charter does not include dismissal clause.	0	0		0		
	Incompatibility clause	Governor is prohibited from holding any other office in government, while in office.	1		0	1	1
Governor is not allowed to hold any other office in government unless authorised by the executive branch.		0.50			0		
Charter does not prohibit governor from holding other office in government, while in office.		0	0		0		
Terms of office	Exceed the election cycle (i.e. over 5 years).	1		0.1	1		0.1

		Same as the elections cycle.	0.5 0	0.50		0 . 5 0	0.50	
		Less than the election cycle or at the discretion of appointer.	0			0		
	Reappointment possibilities	Not allowed.	1		0	1		0
		Only one reappointment is possible (in addition to the first appointment).	0.6 7			0 . 6 7		
		Charter does not include any provision concerning reappointment.	0.3 3			0 . 3 3		
		Charter permits reappointment with no limits.	0	0		0	0	
Total (3)					0.17			0.6
4-Central Bank Board	Who appoints the central bank board	Double veto arrangement, in which, central bank governor is nominates and the president or the legislature is appoints.	1		0.1	1		0
		Exclusively by the legislature.	0. 80			0 . 8 0		
		Exclusively by the President.	0. 60	0.60		0 . 6 0		
		Exclusively by the executive branch collectively (i.e. cabinet).	0. 40			0 . 4 0		
		Exclusively by some members of the Executive Authority.	0. 20			0 . 2 0		
		There is no provision in the law.	0			0	0	
Dismissal of any board member		Allowed only for reasons not related to policy (i.e. incapability or breach of law or misconduct) by rule of court or independent tribunal.	1		0	1	1	0.17
		Allowed only for reasons not related to policy (i.e. incapability or breach of law or misconduct) after the approval of both the nominator and the appointer in a two-step process.	0. 83			0 . 8 3		
		Allowed at the discretion of the central bank board of directors.	0. 67			0 .		

					6		
					7		
	Allowed at the discretion of the legislature.	0.50			0		
	Allowed at the discretion of the president.	0.33			.50		
	Allowed at the discretion of the government for policy reasons.	0.17			0		
	Unconditional dismissal is permitted at the discretion of the government or charter does not include dismissal clause.	0	0		.33		
					0		
					.17		
					0		
Incompatibility clause	Board members are prohibited from holding any other office in government, while in office.	1		0	1	1	0.17
	Board members are not allowed holding any other office in government, unless authorised by the executive branch.	0.50			0		
	Charter does not prohibit board members from holding other office in government, while in office.	0	0		0		
Composition of central bank board	No representation of government or private sector (except for the Minister of Finance without the right to vote).	1		0.08	1	1	0.17
	Direct government participation with voting rights.	0.50	0.50		0		
	Direct government participation with voting rights.	0			0		
Terms of office	Exceeds the election cycle (i.e. over 5 years).	1		0	1		0.08
	Same election cycle.	0.50			0	0.50	
	Less than the election cycle or at the discretion of the appointer.	0	0		0		
Reappointment possibilities	Not allowed.	1		0	1		0
	Only one reappointment is possible (in addition to the first appointment).	0.67			0		
					.67		

		Charter does not include any provision concerning reappointment.	0.33			0.33		
		Charter permits reappointment with no limits.	0	0		0	0	
Total (4)					0.18			0.59
5-Limitations on credit to government	Limitations on advances (non-securitised lending)	Advances to government are prohibited.	1		0.08	1	1	0.125
		Advances to government are permitted with explicit strict limits (specific cash amount or up to 15% of government revenues over the previous 3 years).	0.67	0.67		0.67		
		Advances to government are permitted with accommodative limits (can exceed 15% of government revenues over the previous 3 years or a fraction of government expenditures).	0.33			0.33		
		Charter does not specify any legal limits, (i.e. subject to negotiations between central bank and government).	0			0		
	Limitations on securitised lending	Securitised lending to government is prohibited.	1		0.04	1	1	0.125
		Securitised lending is permitted with explicit strict limits (a specific cash amount or up to 15% of government revenues over the previous 3 years) securitised by negotiable government securities.	0.67			0.67		
		Securitised lending is permitted with accommodative limits (can exceed 15% of government revenues over the previous 3 years or a fraction from government expenditures) securitised by government securities.	0.33	0.33		0.33		
		Charter does not specify any legal limits, (i.e. subject to negotiations between central bank and government).	0			0		
Limitations on Indirect Credit	Indirect credit to government is prohibited.	1		0	1		0.0625	
	No limitations on secondary market, but limits are imposed on overdraft from public banks.	0.50			0.50			

	No limitations on indirect credit.	0	0		0		
Potential borrowers from the central bank	Only central government.	1			0	1	1
	Central and state government as well as political subdivisions.	0.67				0	
	Central and state government, political subdivisions and public enterprises.	0.33				0	
	All the public sector and the private sector.	0	0			0	
Limits on central bank credit defined in	Absolute cash amount.	1			0	1	
	Percentage of central bank's demand liabilities or capital.	0.75				0	
	Percentage of government revenues.	0.50				0	
	Percentage of government expenditures.	0.25				0	
	There is no provision in the law.	0	0			0	0
Maturity of loans	Within 6 months	1			0.04	1	
	Within 1 year.	0.67				0	
	More than 1 year.	0.33	0.33			0	
	No legal upper bounds on maturity of loans.	0				0	0
Interest rates on loans	Interest rates are market rate.	1			0.06	1	1
	Interest rates cannot be lower than a certain floor.	0.75				0	
	Interest rates cannot exceed a certain ceiling.	0.50	0.50			0	
	Charter does not include any explicit legal provisions concerning interest rates (i.e. it	0.25				0	
					5		0.125

		is determined by the central bank).						
		Charter stipulates no interest charge on government borrowing.	0			0		
	Central bank's participation in the primary market for government securities	Central bank is legally prohibited from participating in the primary market for government securities.	1	1	0.125	1	1	0.125
		Central bank is not prohibited, yet, its activity in the primary market is discretionary.	0.50			0.50		
		Charter does not include any clause concerning the participation of central bank in the primary market for government securities.	0			0		
Total (5)					0.35			0.69
6-Lender of Last Resort Function	Lender of Last Resort Function	Central bank provides legally regulated emergency loans, with limits to the amounts.	1		0	1		0.67
		Central bank provides legally regulated emergency loans, without limits to the amounts.	0.67			0.67		
		Central bank applies discretionary policy for emergency loans.	0.33			0.33		
		There is no provision in the charter.	0	0		0		
Total (6)					0			0.67
7-Financial independence	Ownership of central bank equity capital	Capital of the central bank is owned by the central bank.	1	1	0.33	1	1	0.33
		Government owns less than half of the central bank capital.	0.75			0.75		
		Government owns more than half of the central bank capital.	0.50			0.50		
		Government owns all the central bank capital.	0.25			0.25		
	Private sector owns the central bank capital.	0			0			
Who determines	Central bank board alone determines the internal budget	1	1	0.33	1	1	0.33	

	the central bank's internal budget	or with the approval of the legislature or the president.						
		Only the legislature or the president determines the internal budget of the central bank.	0.67			0.67		
		Only the executive branch determines the internal budget of the central bank.	0.33			0.33		
		The charter does not specify who determines the internal budget of the central bank.	0			0		
	Potential central bank's loss coverage	Losses are covered by general reserves, special reserves, or by revaluation account and other internal funds.	1	1	0.33	1	1	0.33
		Losses are covered only by general reserves, and the rest from the state budget.	0.50			0.50		
		Losses are covered only by the state budget.	0			0		
Total (7)					1		1	
8-Accountability	External monitoring	Central bank shall appear before the legislature.	1		0	1	1	0.33
		Central bank shall appear before the president.	0.67			0.67		
		Central bank shall appear before the government.	0.33			0.33		
		There is no provision in the law.	0	0		0		
	Audit of financial statements	Independent external auditor or audit committee in addition to the auditor-general of the government audits the annual financial statement that is in conformity with international standards.	1		0.166	1	1	0.33
		Only the auditor-general of the government audits the annual financial statement.	0.50	0.50		0.50		
Annual financial statements are submitted to the supervisor of the central bank without a formal requirement for auditing (only internal audit).		0			0			

	Disclosure of the central bank's financial statements	Central bank is legally obliged to publish its periodic financial statements along with more frequent summary of balance sheet information.	1	1	0.33	1	1	0.33
		Central bank is legally obliged to publish its financial statements only once a year.	0.50			0.50		
		There is no explicit provision in the charter that requires the disclosure of financial statements.	0			0		
Total (8)					0.49			1
9- Transparency	Publishing of reports on monetary policy and inflation reports	Central bank is legally required to publish periodic reports (annual, semi-annual, and monthly) about monetary operations, inflation reports and any information needed.	1		0	1	1	1
		Central bank is legally required to publish only annual reports.	0.50			0.50		
		Central bank is not legally obligated to publish any information.	0	0		0		
Total (9)					0			1
10- Foreign Exchange Policy	Who formulates and implements exchange rate policy	Only central bank.	1			1	1	1
		Central bank along with government.	0.50	0.50		0.50		
		Government alone.	0			0		
Total (10)					0.50			1
Degree of legal independence					3.5			8.3

Source: Authors' calculations, based on indexes of Grilli, Masciandaro, and Tabellini (1991), Cukierman (1992), Cukierman, Webb, and Neyapti (1992), Jacome (2001), Jacome and Vazquez (2005 and 2008), Fouad, Fayed, and Emam (2019).

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