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The Degree of Legal Independence of the Mediterranean Central Banks: International Comparison and Macroeconomic Implications

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Abstract

The aim of the present paper is to assess the degree of central bank legal independence enjoyed by the central banks of the south shore of the Mediterranean Sea, which belong to the Euro-Mediterranean Partnership and to shed some light on the macroeconomic outcomes of different degrees of independence. To this end a methodology used by the International Monetary Fund, here slightly modified to better suit the characteristics of the central banks in the area, is introduced and applied.

The main findings of the present work are as follows: i) as regards legal independence, the Mediterranean countries show a diverse picture, sometimes far from the common wisdom; ii) legal independence does not always appear in line with the *de facto* situation; iii) Cyprus and Malta (that recently joined the European Union), as well as Turkey, that has been recognized a candidate country status, do not always show the best degrees of legal/actual independence and iv) many central banks of the area have recently amended their Statutes with a view to achieving more independence, as the issue has a key role in the modernization of the economies and a priority status in the implementation of a comprehensive and effective set of political and economic reforms.

Keywords

central bank independence; independence assessment; macroeconomic performance

Introduction[*]

Central bank independence has been a widely explored field of research for industrialized countries since the seminal work of Alesina (1988). During the first half of the 1990s other prominent works (see paragraph 1) contributed to better qualify the concept of independence in the aim to provide an adequate taxonomy of the phenomenon and to explore the alleged relation between central bank independence and macroeconomic performance.

Nonetheless, not surprisingly, the analysis of the state of the art of central bank independence has been not extensive for developing and emerging economies, since recent years. Two recent contributions of the IMF propose a simplified methodology to assess the *de jure* independence in some developing regions. As far as today, an assessment of the degree of legal independence for the central banks of the countries of the south shore of the Mediterranean Sea does not exist in the literature.

To limit the analysis to the *de jure* independence presents both advantages and shortcomings. The first, rather obvious, advantage, is that one has to base the evaluation only on legal documents, without considering any political or institutional arrangement (usually informal and complex) or any actual procedure or practice not clearly set by the law. In other words, one can be factual and limit the informative set to few and easily available notices. Another advantage is that one can consider only well established and legally enforced rules, that are likely to prevail against informal procedures in case of serious conflicts between different institutional bodies.

Moreover, what the law states is likely to became actual, even if not fully yet implemented, once appropriate enforcement mechanisms are set up. In a way, the examination of the central bank law, to the extent in which the local authorities are committed to their fulfilment, can help to determine the perspective status of central bank independence.

On the other hand, there may also be the case, as for instance for Israel in the Mediterranean region, in which established practice can give guidance for legislative authorities in preparing future laws. However, this is probably an exception which it is not likely to happen in transition economies.

Obviously, there is also an evident disadvantage in considering only the central bank charters: it does not allow catching the current status of independence and this may result in a misperception of the actual framework in which monetary policy is currently conducted. It is also true that any consolidated informal institutional agreement is likely to become, sooner or later, a law, when politically and institutionally validated (with a possible temporal delay that depends on the institutional framework). All in all, the legal approach should be considered a suitable one.

The aim of the present paper is to assess the degree of central bank *de jure* independence enjoyed by the central banks of the south shore of the Mediterranean Sea, which belong to the Euro-Mediterranean Partnership[1] and to shed some light on the macroeconomic outcome of different degrees of independence. The remainder of the paper is organized as follows: paragraph 1 briefly reviews the literature on central bank independence, paragraph 2 describes the approach followed by this study, paragraph 3 shows the results, paragraph 4 shed some light on the macroeconomic impact of central bank independence in the region and paragraph 5 concludes.

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[*] The author wish to thank the participants of the Eighth Mediterranean Social and Political Research Meeting, organised by the Robert Schuman Centre for Advanced Studies and held in Montecatini Terme on 21-25 March 2007, for the useful comments and stimulating discussion. The usual disclaimers apply.

1 Though Libya has only an observer status. The analysis excludes Syria, because the relative central bank law was not available.

1. A Brief Survey of the Literature on Central Bank Independence

A comprehensive review of the large body of literature on central bank independence is beyond the aim of the present work. It is anyway worth noting here that several empirical studies of industrialized economies provide evidence that increased central bank autonomy is positively correlated with lower average inflation (see, for example, Grilli et al. 1991, or Cukierman 1992). Since 1970, during the post Bretton Woods period, the industrialized countries, which accorded greater legal autonomy to their central banks, also experienced lower average inflation, while this seem not to have affected negatively average real growth. However, the correlation between legal autonomy and lower inflation did not appear, at least until the end of the ‘90s, to be empirically significant in developing countries. Nonetheless, some more recent studies have introduced new variables in the empirical studies and the results have not always been so clear-cut (see, for example, Campillo & Miron 1997, or De Haan & Koi 2000). For a brief but complete survey of studies regarding industrialized countries, also interesting for the homogeneous comparison of different indicators and for the innovative multivariate methodology presented by the authors, see de Haan et al. (2002). For a more comprehensive review of the literature, with some insight also on developing countries, see Gutiérrez (2003).

The remainder of this section will deal with some recent works focused on emerging markets economies. Lybek (1999) initially set the stage for an indicator of central bank *de jure* independence suitable for emerging economies. His study deals with countries of the former Soviet Union in the period 1995-1997. As regards the index used, it embodies most of the elements found in other similar indexes, but, in addition, it is specifically tailored to suit the guidelines followed by the Monetary and Exchange Affairs Department and the Legal Department of the International Monetary Fund when they provide technical assistance.

Gutiérrez (2003) argues that the alleged lack of correlation between legal central bank independence and inflation in emerging economies may depend on the lower level of enforcement of the law in these countries with respect to industrialized ones and, thus, considers only the provisions embodied in the legal documents of the highest rank (Constitutions), finding evidence of the fact that those countries in Latin American and the Caribbean that entrench the independence of central bank in their constitutional charters exhibit a better inflation performance. The index of legal independence employed is basically the same as in Lybek (1999), with slight modification in the evaluation score scales.

Dvorsky (2000) measures the degree of legal and actual central bank independence in five Central and Eastern European transition economies (namely, the Czech Republic, Hungary, Poland, Slovakia and Slovenia) using the Cuckierman (1992) and the Grilli, Masciandaro and Tabellini (1991) indices for legal independence and the *turn over rat*e of central bank governors to proxy the degree of actual central bank independence. The main conclusion of the paper is that, together with central bank independence, other requirements were needed (as structural reforms and a proper coordination of fiscal and monetary policies) to effectively fight inflation in those countries, join the European Union and, in a more distant future, adopt the euro as a currency.

De Haan and Sturm (2001) analyze whether central bank independence affects inflation in an extensive set of developing countries, based on the central bank turnover rate of the governors and extending their study to the 1990s. They find that, in general, central bank independence does not appear significant in explaining inflation when controlling for a various inflation-related variables, apart from the case of very high-inflation countries.

Beblavy (2003) uses a different approach to central bank independence, presenting the result of a questionnaire survey proposed personally by the author to the deputy governors of the Czech Republic, Hungary, Poland and Slovakia to assess which were, according to the profession, amongst the various criteria proposed by the literature, the ones on which central bank independence should most properly rely. As a control sample the author uses the analogous information provided for industrialized countries by the literature (see Masciandaro e Spinelli, 1994). The main results are that central bankers from both groups agree strongly on the importance of two aspects of central bank independence: goal independence and freedom to implement these goals (together with the freedom to determine terms and limit of the eventual credit granted to the government).

2. The Methodology and Brief Regional Overview

2.1. The methodology

The methodology followed in the present work is derived from Gutiérrez (2003), who heavily drew on the simplified approach to assess central bank independence in emerging market economies originally proposed by Lybek (1999). According to this method, only the legal situation is taken into account, without any consideration of the general monetary policy framework as determined by (informal) agreements and common practices.

The methodology evaluates central bank independence along five dimensions: *Central bank objectives*, *Policy formulation*, *Political autonomy*, *Economic autonomy* and *Accountability*. Each dimension presents a different number of sub-dimensions (i.e.: two in the case of Central bank objectives and Accountability, four in the case of Policy formulation and Economic autonomy, seven in the case of Political autonomy). Each sub-dimension presents an evaluation scale of three to five degrees to each of which a score ranging from -1 (higher degree of dependence) to 1 (higher degree of independence) is associated. Aggregation of scores by dimension is made summing up partial scores.

As referred before, there are two possible versions of the IMF methodology, one as in Lybek (1999), the other one as in Gutiérrez (2003). Basically the two methodologies coincide, apart from the scale of the scores. The second one appears to be more suitable since it allows for negative evaluations on single aspects of independence, and thus seems to present a higher discriminatory power.

Some slight modifications of the Gutiérrez analysis benchmarks have been necessary to suit the methodology to the Mediterranean countries. These modifications have been kept to a minimum, in order to preserve the comparability of the results of the present analysis with other studies. A comprehensive description of the revisited methodology is reported in Appendix 1. It is worth noting that the present study does not consider, as Gutierrez (2003) does, the constitutions, as the practice of embodying central bank provisions in constitutions is not present in the Mediterranean region. Instead, ordinary laws have been considered. Obviously, the fact that the independence of the central banks of the region considered in the present study is enshrined in a law or even a decree and not in the constitution does not safeguard these provisions to the same extent from frequent legislative reforms. In order to reduce the analyst-sensitivity of the results, the evaluation of legal independence along the criteria for each country has been sometimes re-scaled by subtracting from it the relative average value. In these cases (all except the Total results in fig. 1 and 2, which are absolute values) the results should be intended on a comparative basis instead of on an absolute one.

As any other index to measure independence, the one used in the present study can be considered subjective. Indeed, Mangano (1998) claimed that an important “subjectivity” bias, deriving from an interpretation bias, existed when comparing the results of the most commonly used indicators (those of Grilli, Masciandaro & Tabellini (1991), and Cukierman (1992)). Actually, the assertion of subjectivity when building an index is definitely difficult to reject.

The legal basis that have been used, that reflect the major legal developments in the area, are summarized in Table 1.

Table 1 - Legal central bank provisions in the Barcelona process countries

Country	CENTRAL BANKS LAWS
Algeria	Ordonnnance relative a la Monnaie et au Crédit, n° 03-11, 26 august 2003
Cyprus	The Central Bank of Cyprus Law of 2002 (N. 138(I) 2002)
Egypt	Presidential Decree No. 64 of the Year 2004 Promulgating the Statute of the Central Bank of Egypt, based on Law of the Central Bank, the Banking Sector and Money, promulgated by Law No. 88 of 2003
Israel	Bank of Israel Law, 5714-1954, effective from December 1954
Jordan	Law No. 23 of 1971, Law of the Central Bank of Jordan, as amended by Laws No. 37 of 1989, 14 of 1991, No. 10 of 1992, No. 16 of 1992
Lebanon	Code of Money and Credit, promulgated by Legislative Decree N° 13513 of August 1, 1963
Libya	Law No. 8 of 1425(M) */ 1996 and Law No. (1) of 1993 Concerning the Banking, Currency & Credit
Malta	Central Bank of Malta Act, Chapter 204, Act XXXI of 1967, as amended by Acts: X and XXIX of 1968, XVII and XX of 1971, XXIV of 1972, XIX and LVIII of 1974; Legal Notice 148 of 1975; and Acts: XX of 1981, XIII of 1983, XXXVIII of 1986, XI of 1988, XIV and XXVI of 1994, XXIV of 1995, IX and XVI of 1997, XVIIof 2002 and III of 2004.
Morocco	Statues of Bank Al-Maghrib, Dahir N° 1.59.233 du 23 hija 1378 (30 juin 1959). Also Dahir bearing law N° 1-93-147 of July 6th, 1993 relating to the activity of Credit Institutions and their control.
Palestinean Authority	Law of 16th. December, 1997
Tunisia	Law N° 58-90, 19 September 1958 establishing the Central Bank of Tunisia
Turkey	Law on the Central Bank of the Republic of Turkey, No. 1211, Date of Acceptance: January 14, 1970, as amended by Law No. 4651 of April 25, 2001

2.2. Brief Regional Overview

Some Mediterranean countries have experienced in recent years, or are still going through, legal developments in central bank laws. Generally these developments have led to an improvement of the *de jure* independence. In some cases (Malta, Cyprus and Turkey) the reforms were related to the EU accession process. In some others, they can be seen in the wider framework of a move towards structural reform and financial system liberalization and modernization. Morocco is likely to adopt soon a new legislation on central banking activity that has been largely announced but on which the authors still lack details, even if the general outlook of the new law can be considered officially acquired. Egypt has very recently modified the statute of the central bank. A relevant exception in this move towards greater independence regards Algeria, where the legal framework has changed (2001 and 2003), enhancing to some extent the influence of the government on the activities of the central bank.

Finally, it is worth noting that there are several features of the Mediterranean region, some common to the region as a whole, and some others specific to a country, that may be useful to better understand the results of the study. The diversity within the region is important, since this set of countries brings together the Maghreb-Masrhek ones with Israel, Malta, Cyprus and Turkey, which feature different characteristics.

1. The recent economic history of the Maghreb-Masrek countries, for example, influences undoubtedly the degree of independence of its central banks; most of the countries in the region had adopted centrally-directed economic models, in which the official sector had a very

important participation in the economy. Therefore, a transition towards a market-oriented and private-sector led economy has been undertaken –and it is still in process- in the past years, with structural reforms being pursued - deregulation, liberalization, promotion of competition etc. Specifically concerning the financial sector, reforms have aimed at increasing central bank independence, privatization, liberalization in interest rates, etc. Thus, the move towards central bank independence has to be framed in this context, in which the private sector is starting to retrench itself from heavy interferences from the public sector, but the process is still ongoing.

2. The accession of Malta and Cyprus to the EU in May 2004 contributed undoubtedly to the modification of their Central Bank laws to achieve more independence. Indeed, during the convergence process both the ECB and the European Commission have guided these countries towards the modification of their statutes to achieve full compliance with those of the ECB. The same applies, though under a different process since the accession procedure is not so advanced, to the case of Turkey.
3. Israel is probably the only country that cannot be classified into any of the above mentioned blocks. As a developed country, its Central Bank would be expected to be very independent, though this is not the case in legal terms.
4. At the same time, exchange rate regimes also matter; if central banks are really independent but the country has an open capital account and a fixed exchange regime, in practice it would be very difficult for the central bank to actively pursue its main objectives independently (i.e. the so-called “impossible trinity”). Furthermore, with a currency board, for example, there is not much room for a national independent monetary policy. Thus, we have reviewed the exchange rate regimes of the region, and made sure that there are no such cases in the region. Some countries in the region have evolved towards a more flexible exchange rate, in line with developments in a wide range of other countries. The exchange rate regime of the countries considered (excluding Malta and Cyprus due to their accession status and Palestine[2]) is as follows:
    - **Soft pegs**: Jordan, Lebanon, Morocco;
    - **Exchange rate bands**: Israel (free floating *de facto*: exchange rate band around 50%);
    - **Managed floating exchange rates**: Algeria, Tunisia, Egypt (though officially classified as floating);
    - **Independently floating exchange rate:** Turkey.

The following section examines the results in the light of the above mentioned peculiarities.

3. Results

The preliminary application of the methodology to the 12 Mediterranean countries considered (excluding Syria and including Libya), led to the results exposed in Appendix 1 and graphically displayed in fig.1. The ranking of countries is determined by their degree of independence.

While some of the results are intuitively understandable, other ones are probably different from what one could figure out on the basis of experiences and expectations, a difference which may also reflect the fact that *de facto* independence is sometimes far away from what merely legal consideration would imply. A notable example of this is the case of Israel in which the *de facto* independence is

2 Palestine is a rather peculiar case as it currently lacks a national currency: in the *status quo* three different currencies are used: the new Israeli *shekel*, the Jordanian *dinar* (used more in the West Bank than in Gaza) and the US dollar, with the former being used for most transaction, especially retail ones, and the latter two used mostly for saving deposits and for same durable good transactions. Against this background, the more likely development seem to be the creation of a new Palestinian currency anchored, either under a currency board or under a fixed but adjustable parity, to the shekel, the dinar and the dollar and/or the euro.

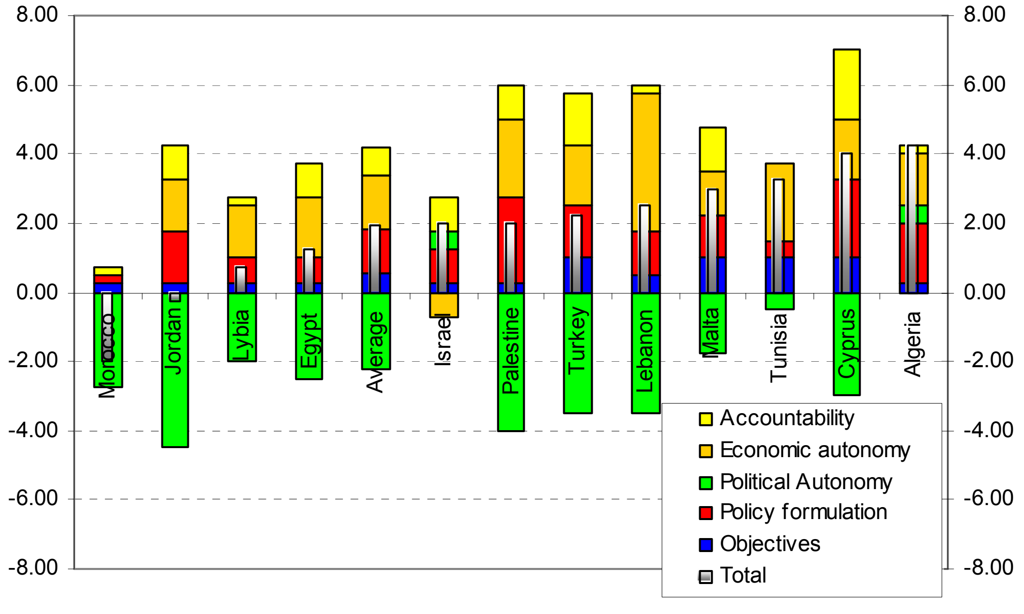
much greater than the *de jure* independence, which is just the opposite of the case of the Palestine Monetary Authority, whose *de jure* independence is much greater than the factual one – except for the political autonomy criteria – mainly due to the delicate socio-political situation and to the fact that Palestine does not issue its own currency.

According to the figures, the new EU member States, Cyprus and Malta, rank among the first places. Tunisia also seems to have a very independent law, while the case of Algeria is an anomaly that derives from the use of the methodology, as explained below. Morocco ranks in the last position, which explains why it is in the process of modifying its central bank law to make the Bank Al-Maghrib more independent. As for the second worst result, Jordan, this is due mainly to the strong governmental involvement in the appointment and dismissal of the governor and members of the Board.

Apart from considerations on the measured level of independence, the graph also displays an important characteristic of any law: its internal coherence. In fact, a given level of independence might be less effective when some highly positive components face some other significantly negative ones compared to the case in which all the components are coherently positive. With this respect the case of Algeria shows, perhaps surprisingly, a good example of a coherently balanced law, despite the recent modification aimed to reduce the independence of the central bank and the methodological caveats that will be put forward below.

As the Gutierrez methodology does not coincide with the one used by the Eurosystem to assess the compliance with the Treaty, we also propose a weighted version of the index, in which the weights for the criteria have been assigned, according to the importance given to them in the compliance assessment[3] pursued by the European Central Bank (ECB) with respect to accession countries. The results are shown in fig. 2.

Fig. 1 – Assessment of Central Bank Independence



3 The weights, individually ranging from 0.2 to 1, are the following: Economic policy: 1; Financial system: 0..2; Monetary policy: 1; Foreign exchange policy 0.6; Coordination: 1; Resolution: 0.8; Appointment of Governor: 1; Term of the Governor: 1; Dismissal of Governor: 1; Government representation: 0.8; Appointment of Board Members: 1; Terms of Board Members: 1; Dismissal of Board Members: 1; Credit to the Government: 1; Quasi-fiscal activities: 0.4; Monetary instruments: 1; Solvency: 1; Publication of statements: 0.2; Audit: 0.8.

A paradoxical consideration is that, once we consider the ECB-criteria weighted indicator, the ranking of Cyprus and, to a larger extent, Turkey decrease, notwithstanding the efforts undertaken by these countries to implement the *aquis communitaire*.

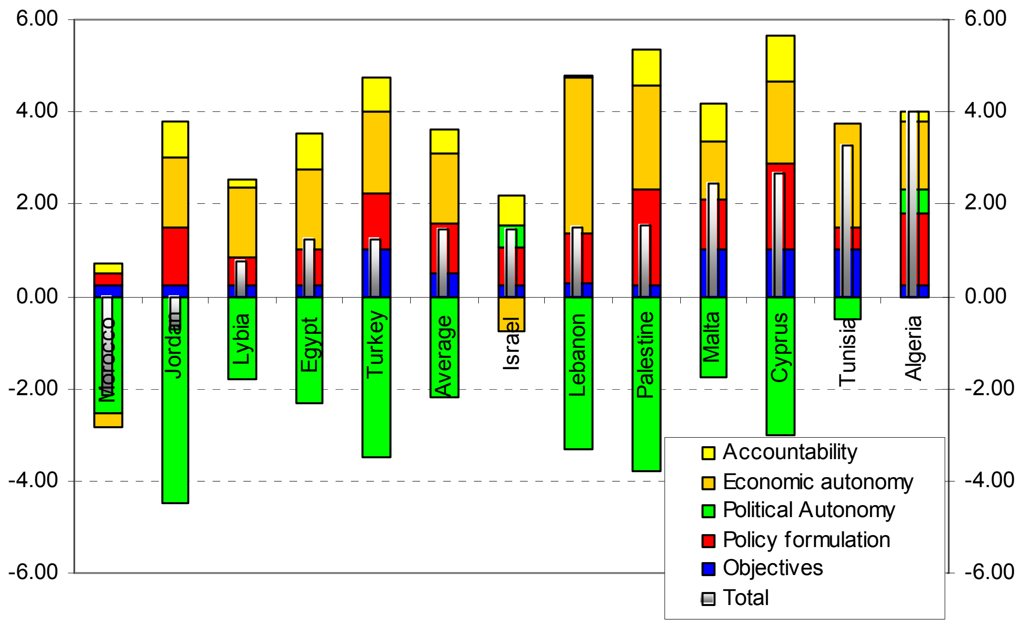
This result seems surprising, as these two countries have been considered complying with the EU criteria. The reason behind the difference is of methodological nature and concerns the political criteria, or "personal independence" in the ECB terminology, in several aspects:

- Concerning the term of office of the Governor and the Board, the ECB criteria establish a minimum term of office of 5 years as acceptable, whether for Guitérrez (2003) the benchmark is established through the comparison of the term with that of the appointing body (it should be longer).
- Concerning the competent authority to appoint the Governor and Board members, the ECB criteria do not establish who such authority should be, while according to Gutiérrez (2003) it should not be the Executive alone or the Executive must not have a predominant role.

As a result, Turkey and Cyprus can be in full compliance with these ECB criteria and at the same time do not reach so satisfactory results according to the Gutiérrez methodology.

Fig. 2 – Assessment of CB Independence (Weighted)

(Absolute values)

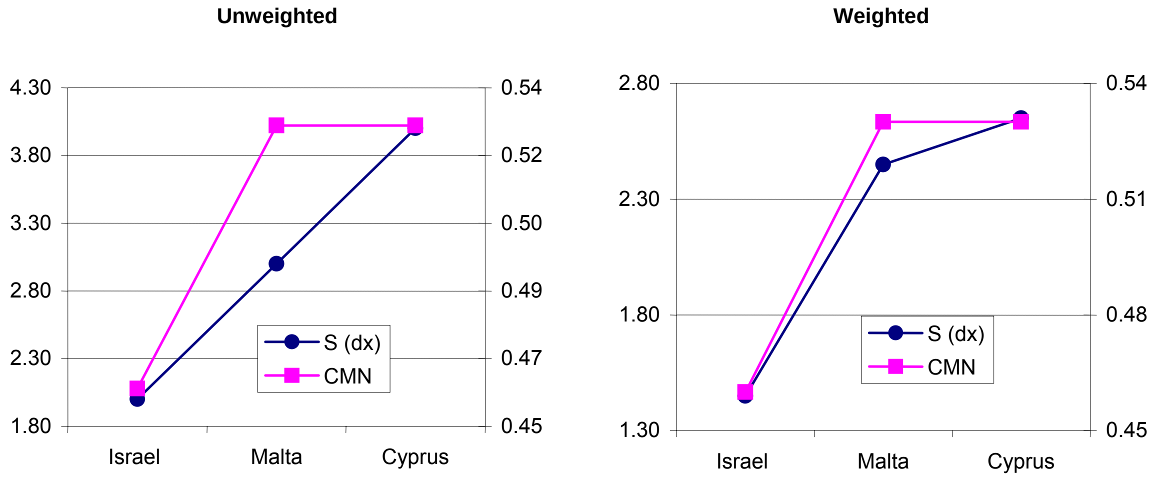


Source: our calculations

On the other hand, if we consider the three countries for which one both have the Cuckierman, Webb and Neyapti (CWN) indicator, updated to 2001, and the score developed in the present study (in the following S), namely Cyprus, Malta and Israel, the weighted version of the latter seems, apart from a scale factor, to present more similarity with the former (see fig. 3).

Fig. 3 – Comparison between *CWN* and *S* (Cyprus, Malta and Israel)

(Absolute values)



Source: our calculations

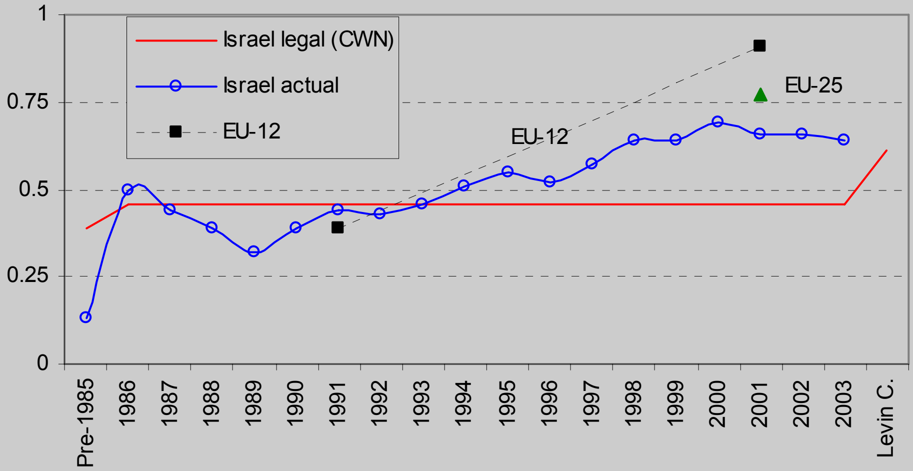
In the remainder of this paragraph, the results of the assessment for each dimension of evaluation are presented and briefly commented (for details on the methodology applied, see Appendix 2).

As already mentioned, differently from fig. 1 and 2 , this further section of the paper presents the scores in terms of difference from the respective average, to emphasize the comparative dimension of the analysis.

Box 1: Central Bank Independence in Israel

The degree of actual independence that the central bank of Israel enjoys is higher than what the law would suggest. A suitable measure of central bank independence is the weighted index used in Cuckierman, Webb and Neyapti (CWN, 1992). The index features a normalised average of 16 characteristics ranging from 0 (lower independence) to 1 (highest independence). More recently, Cuckierman analysed the degree of actual independence enjoyed by the Bank of Israel year by year, as well as the legal score in the original charter of 1954, after the relevant amendment of 1985 and after the implementation of the modifications proposed in 1988 by the Levin Committee (Chart 3). The Committee was composed of independent experts appointed by the Israeli Prime Minister in 1987 to issue recommendations aimed to align the central bank statute to the best international practice. The Committee recommended, among other things, that price stability be set as the overriding goal for monetary policy.

Chart 3: Israel – Legal vs. Actual Independence



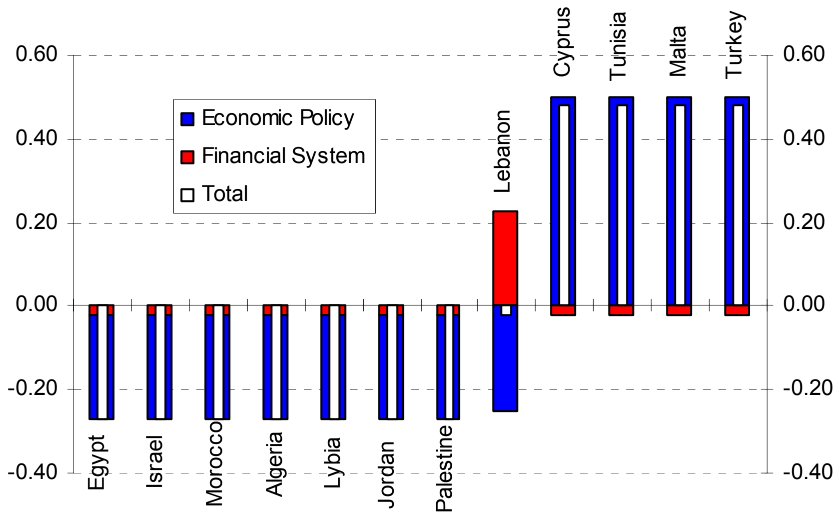
Source: Our calculations based on data from Cuckierman

The issue of the independence of the central bank of Israel also came to the attention of the European Central Bank (ECB), which was requested to evaluate an amendment proposed by the Ministry of Finance (Draft Bank of Israel Law, amendment No. 20, 5762-2002), in the context of the Association Agreement between the EU and Israel. The ECB assessment stated that the Bank of Israel Law and the amendment proposed would have been basically inconsistent with the EU Treaty and the ESCB Statute. Also the IMF, in its 2004 Article IV Consultation, highlighted the need to amend the law to "reflect international best practice regarding monetary policy objectives and procedures, along the lines of the recommendations of the Levin Committee".

In 2005, after years of unsuccessful attempts, a proposed new Bank of Israel law was finally drafted by the government. Parliamentary approval is still pending and is expected shortly after the elections. Key principles of the proposed new law include the creation of a monetary committee responsible for interest rate decisions; the formation of a management board responsible for oversight of administrative matters and the establishment of price stability as a primary policy objective. The proposed law should finally reconcile de facto and de jure central bank independence and fulfil the recommendations of the Levin Committee.

Fig. 4 – Legal Central Bank Independence: Objectives

(difference from average)



Source: our calculations

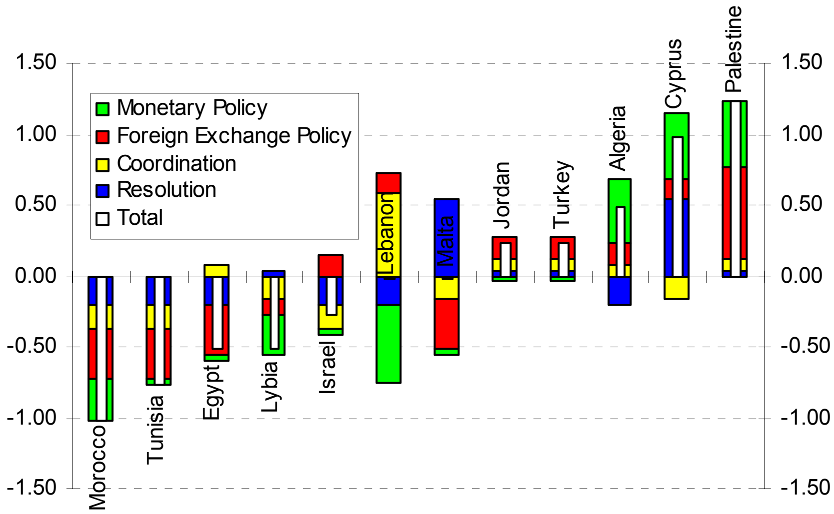
Central bank objectives – This dimension of the evaluation analyses the situation concerning economic policy and the financial system. As for economic policy, it is very near to the ECB definition of independence (that basically coincide with the fact that price stability is the overriding goal for monetary policy). The component relative to the financial system is based on the rationale that when the law attributes to an independent authority the supervision of the financial intermediaries, the autonomy of the central bank as regards the conduct of monetary policy is higher, because the monetary authority is not committed to different goals, potentially conflicting. Accordingly, the countries that recently joined the European Union (Malta, and Cyprus) as well as the candidate country of the area, Turkey, present the higher degree of autonomy, together with a Maghreb country, Tunisia, while all the other countries show an unsatisfactory independence as regards the determination of the objectives of monetary policy (fig. 4). This is also the ranking in total terms, since the second objective does not really discriminate among countries, with the notable exception of Lebanon.

The second aspect, the financial system, analyses if supervision is explicitly delegated to an autonomous agency, granting a better mark if this is the case. Nonetheless, it is not universally accepted that the fact that supervision is separated from the Central Bank is necessary for independence or better on effectiveness grounds[4]. Indeed, the ECB criteria on independence refers to this issue in the financial independence provisions, to state that the decisions made by supervisory authorities within the CB but through an independent decision-making the central bank should not endanger the finances of the Central as a whole.

4 See, for example, Peek, Rosengren and Tootell (1999). “Is Bank Supervision Central To Central Banking?”.

Fig. 5 – Legal Central Bank Independence: Policy Formulation

(values compared to the average)



Source: our calculations

In fact in the present study this criteria does not tell us much, since all countries are ranked equally, because most of them are in charge of supervision themselves, or do not make a reference to the issue. The exception is Lebanon, who has established an independent Banking Control Commission. I considered this Commission could not be regarded as an "autonomous government agency" since its budget must be ratified by the Higher Banking Council, whose chairman is the Central Bank governor, and thus this conditioned financing could interfere with the conduct of its functions.

This is the reason why in total terms, Lebanon is around the average, but when adopting the "weighted criteria" according to the ECB independence assessment this exception diminishes in importance.

Policy formulation – Apart from the fact that long run price stability should be regarded as the prominent objective for monetary policy, an important component of central bank independence is the capacity to formulate concrete policies independently from the government. From this perspective, this criteria analyses the situation regarding monetary policy, foreign exchange policy, coordination in the establishment of policies and resolution of conflicts.

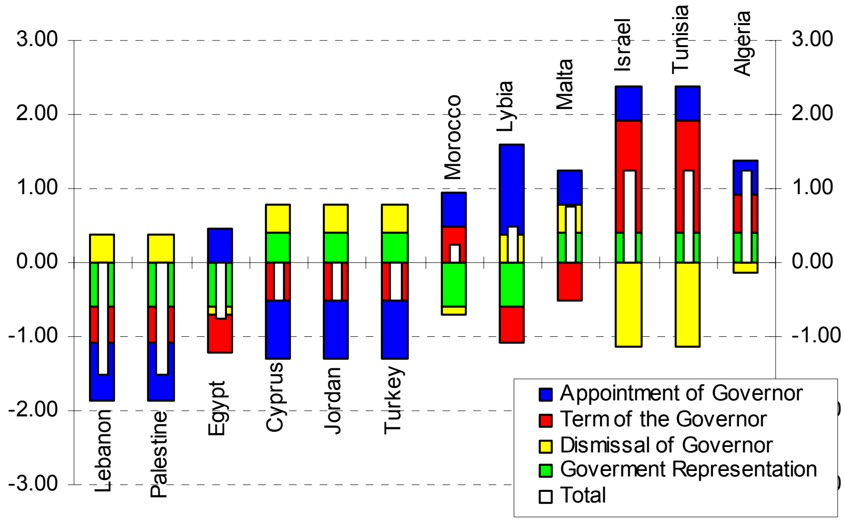
On global terms, Cyprus and Turkey show a satisfactory independence level, while Malta is slightly below the average, even if joining the European Union is likely to further insulate the implementation of monetary policy from excessive governmental pressures. Algeria and Jordan show as well a comparatively high degree of independence in policy formulation, while the legislation of the other countries seems to be more binding on this issue (see fig. 5). Palestine gets here a surprisingly high mark, but this fact is explained by a good law which sets clearly the Palestine Monetary Authority (PMA) responsibility in the conduct of the monetary and exchange rate policy, which is obviously not matched by reality; the PMA does not issue its own currency, so obviously we are referring here to a merely legal and not de facto autonomy.

Concerning the specific objective of Monetary Policy, there are subtle differences in the wording used by each Central Bank Law which hide differences in the degree of power of the Central Bank: the ranking goes from "outline" the monetary policy (Lebanon), to "shape" it (Israel), to "give its opinion" (Morocco).

Political autonomy – Political autonomy is the dimension that in this study presents the more ample range of scores, also due to the fact that it is the sum of two components: one relative to the position of the governor, the other one to the position of the other members of the board (figs. 6 and 7).

Fig. 6 – Legal Central Bank Independence: Political Autonomy (Governor)

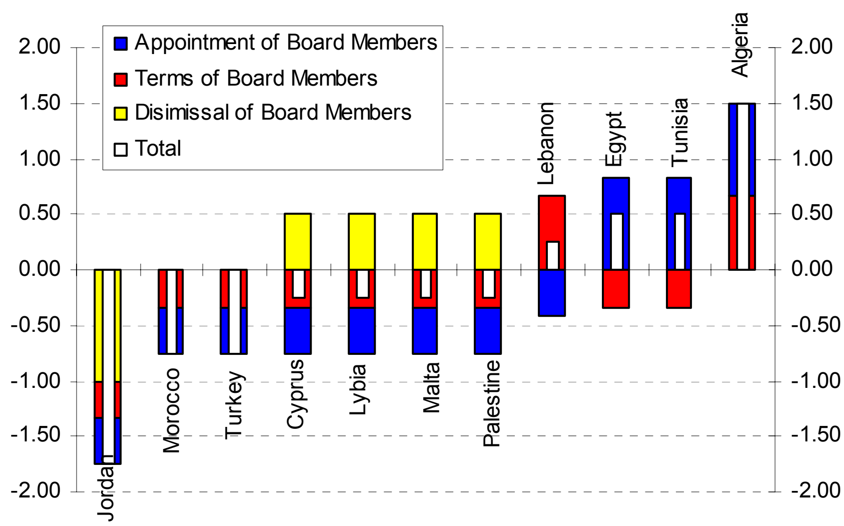
(difference from average)



Source: our calculations

Fig. 7 – Legal Central Bank Independence: Political Autonomy (Board)

(difference from average)



Source: our calculations

As shown in previous fig. 1 and 2, the political autonomy is the only dimension that is globally negative for all countries, with the only notably exception of Algeria. The case of Algeria, nonetheless, could be nuanced taking into consideration that the fact that there is not a reference in the law to the term of office of the governor and vice-governors, and no reference to the grounds for dismissal plays in favour of Algeria because of the scores applied; I have evaluated these aspects with a "0", which mean that there is no legal reference in the law, while most other countries have negative scores on these issues. Nonetheless, since the articles mentioning the fixed term of office for the Governor and vice-governors were expressly deleted from the law in a reform that took place in 2001, we could consider here that the deletion in fact grants powers to the Executive to freely dismiss the governor and Board members at any time, and that their term is shorter or equal to that of the Executive, so the assessment when taking into consideration the legal background should be negative.

At the same time, EU members and the candidate country do not rank very high in this aspect, which reflects the methodological difference between the ECB criteria and the Gutiérrez ones concerning the term of office of the governor and Board of Governors and their appointments.

Israel has not been included in Fig. 7 since it is the only Central Bank in the region which does not have a Board of Governors, nor a Monetary Policy Committee.

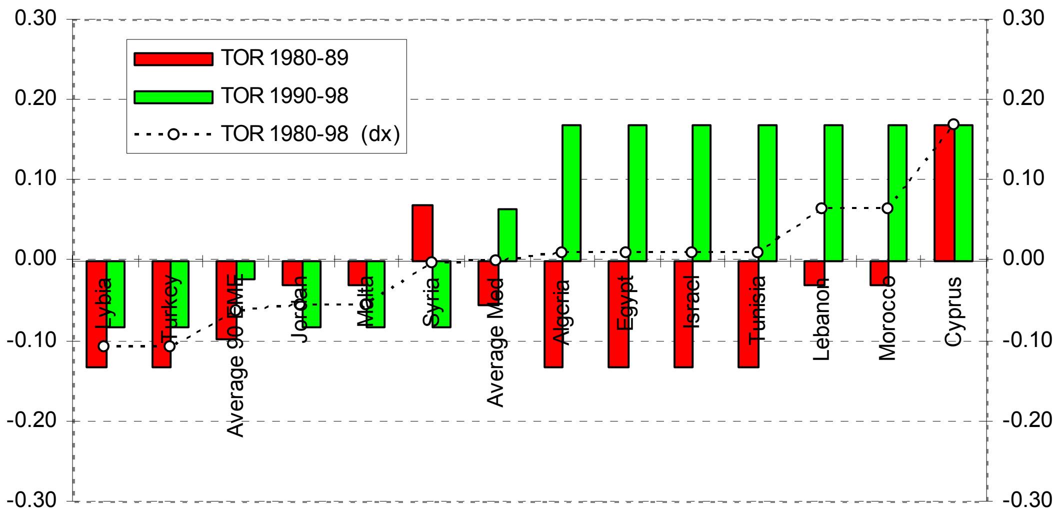
As stressed before, legal indices of central bank independence are often incomplete and noisy indicators as laws are not able to specify explicitly the distributions of powers between the central banks and the political authorities under all contingencies (and, even when the laws are quite explicit, actual practices may deviate from them). Cuckierman (1992), for example, argues that legal independence measures may be a better proxy of effective independence in industrial countries than in emerging market economies. Thus, as an alternative, Cuckierman (1992) and Cuckierman et al. (1992) used as a proxy of (actual) central bank political independence in the '80s the actual average term of office of the governor, assuming that, at least above some threshold, the longer this term is, the higher is the independence of the central bank from politicians. Following this line of thinking, de Haan and Sturm (2001) built an extensive data set of the *turnover rate* (TOR)[5] of governors for 90 emerging market economies during the 1980s and the 1990s.

Fig 8 plots a TOR-based indicator (TOR_{av},- TOR_{n}), namely the difference between the average TOR in the Mediterranean region and the TOR in each of the 12 Mediterranean countries considered in this study, as well as in the 90 emerging economies as a whole. By construction, positive values of this index correspond to higher political independence and vice versa. Besides the values for the entire period considered by de Haan and Sturm (2001), values for the two sub-periods 1980-1989 and 1990-1998 are also reported. Countries are ordered, in ascendant order, following the value of the respective TOR-based indicator for the period 1980-1998. It is clear from fig. 8 that the overall figures for the Mediterranean region are better, in terms of central bank independence, compared to the whole sample of emerging economies (only Libya and Turkey show average figures worse than the average of the 90 emerging countries). While most of the countries have experienced an improvement of the degree of independence of the central bank from politics (that has been important in countries such as Algeria, Egypt, Israel and Tunisia), for Jordan, Malta and Syria, the opposite holds.

5 This variable is equal to the average number of changes of governors per year, or , in other words, to the reciprocal of the average term of appointment)

Fig. 8 – Turnover Rate Of Governors (1980-1998)

(difference from average)

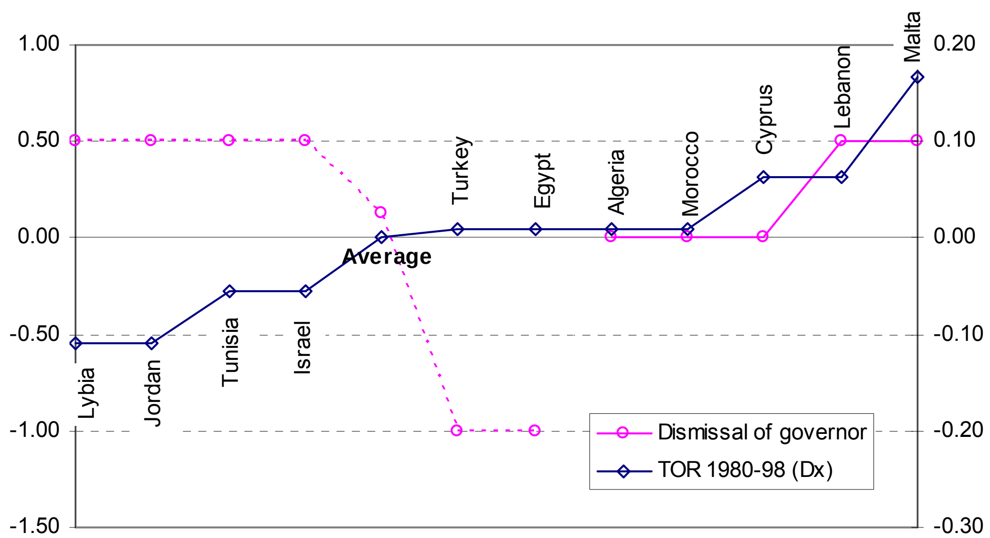


Source: our calculations on data reported in de Haan and Sturm (2001)

Furthermore, the TOR can be helpful to evaluate if there is a correlation between the indicator of legal political independence shown in figs. 6 and 7 and a measure of the actual degree of political independence, than can be proxied by the TOR-based indicator. Fig. 9 plots the dismissal of governor component of the political independence indicator, as well as the TOR-based 1980-96 indicator.

Fig. 9 – Legal Vs. Actual (TOR) Political Autonomy (Dismissal Of Governor)

(average values)



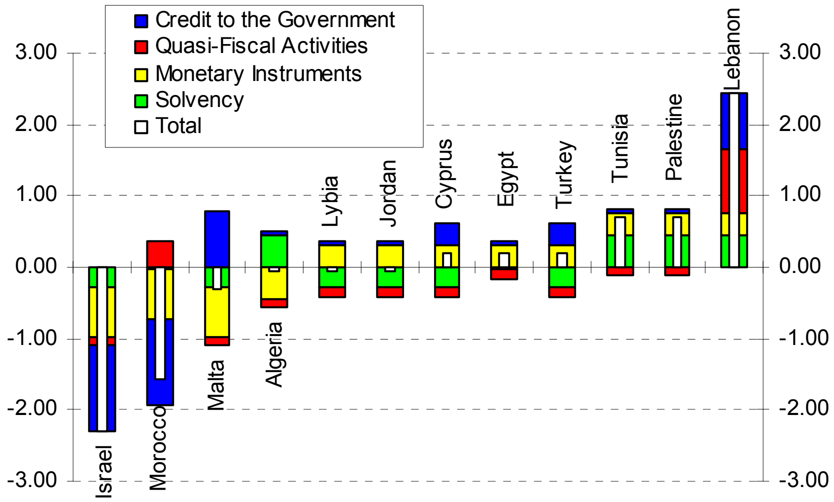
Source: our calculations

It is worth noting that the countries considered can be clearly split in two sub samples: Algeria, Morocco, Cyprus, Lebanon and Malta present a positive correlation between the turn over of the governor and the relative legal provisions, while the other countries show a negative correlation. In particular Libya, Jordan, Tunisia and Israel show a turnover rate of governor comparatively higher that the one that would have been implied by the legal framework, while the opposite holds for Turkey and Egypt.

Economic autonomy – As regards the economic autonomy attributed by law (which basically coincide with the owning of a dedicated capital, the independence of judgment in financing the government and the possibility to freely operate on the capital markets by the central banks) the Mediterranean sample is nearly equally spit in two sub-samples. Lebanon, Palestine, Tunisia, Turkey, Egypt and Cyprus seem to enjoy the highest level of economic independence, while Jordan, Libya, Malta, and, to a larger extent, Morocco and Israel present a level of legal economic independent below the average (fig. 10). Nonetheless, the situation in Morocco in this regard is about to change according to the new law which is being elaborated.

Fig. 10 – Legal Central Bank Independence: Economic Autonomy

(difference from average)



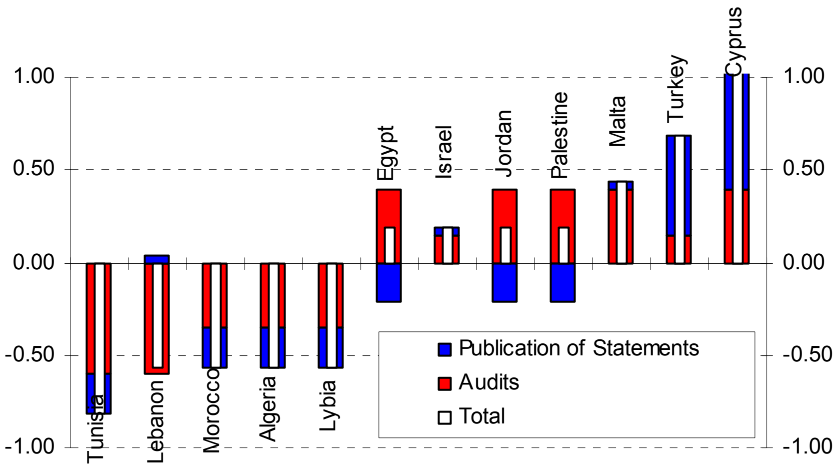
Source: our calculations

Lebanon ranks first here because it is the only country that states that the Central Bank cannot operate with non-financial institutions (quasi-fiscal activities) and also establishes clear limits to the credit to government, which is only allowed in extraordinary circumstances and subject to safeguards.

Accountability – According to the index used in the present work, the majority of central banks present a satisfactory (above average) level of accountability, intended in terms of publication of statements and audit procedures. The EU member countries, together with Turkey, rank first in this criteria. Tunisia, Lebanon, Morocco, Algeria and Libya appear to be, on the contrary, scarcely accountable.

Fig. 11 – Legal Central Bank Independence: Accountability

(difference from average)



Source: our calculations

4. The Macroeconomic Impact of Central Bank Independence

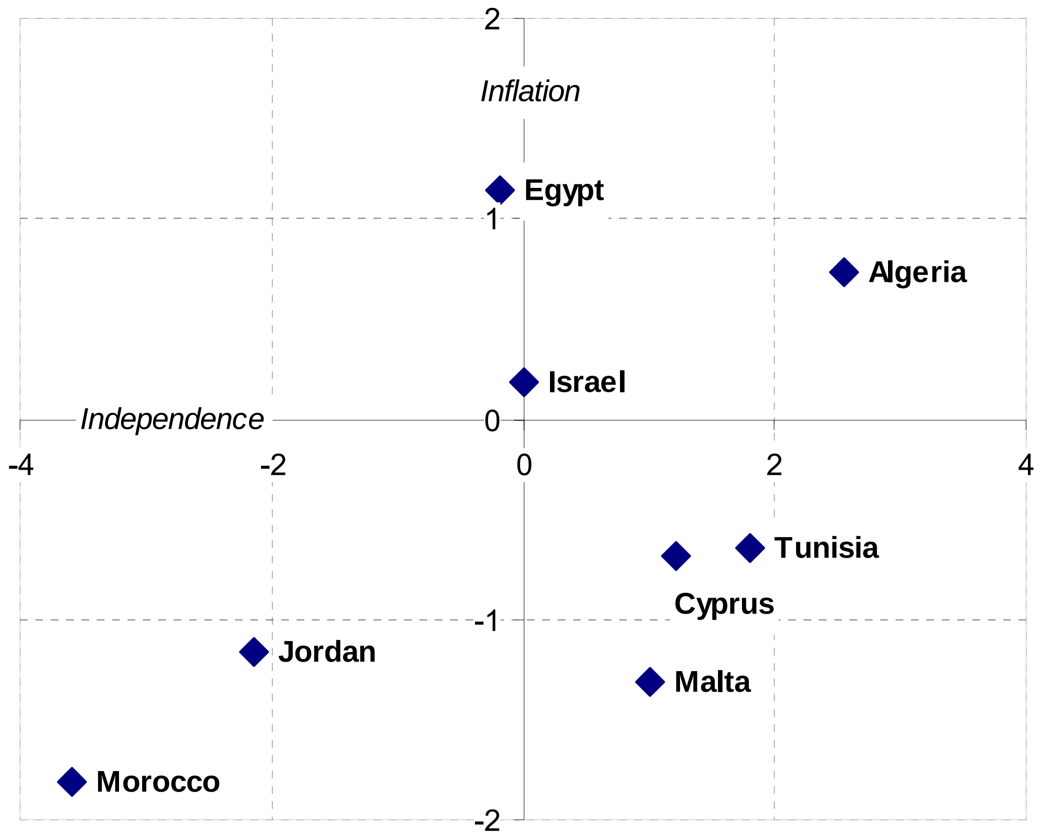
The previous part of this paper reports the results of an extensive analysis of the charter of the central banks of the southern shore of the Mediterranean Sea and thus give a picture of the degree of central bank legal independence in the area. Nevertheless, as stated above, legal independence does not necessarily imply actual independence, at least in the short run. To assess preliminary to which extent legal independence may correspond to actual a correlation analysis of the calculated independence indicator and the average inflation in the past ten years may prove to be useful. The result of such an analysis are reported in fig. 12 that plots the independence indicator and the last ten years average inflation rate[6].

As mentioned, the central bank of Israel enjoys a degree of actual independence higher than the one suggested by the legal indicators. Bearing in mind this consideration, fig. 12 clearly shows how amongst the central banks of countries of the Barcelona Process for which data are both reliable and comparable, we can identify a group of 5 which shows the expected correlation between the legal independence indicator and the inflation fighting attitude (Egypt, Israel, Cyprus, Malta and Tunisia), two central banks whose actual anti-inflation behaviour seems greater that the one implied by the legal indicator (Jordan and, even more, Morocco). On the contrary, Algeria exhibits a higher-than-expected middle-run inflation rate when compared to the legal independence enjoyed by its central bank.

6 Data are taken from the International Financial Statistics (IFS) of the International Monetary Fund. Due to non-availability or very poor quality of the data reported for inflation and GDP growth in the last available version of the IFS, Palestine, Lebanon and Libya have been excluded from the present analysis. Turkey has bee excluded as well because available data, although reliable, show an iperinflation pattern, not common to the area, that only very recently seems to have come to an end.

Fig. 12 - Legal Independence vs. Recorded Inflation

(index and ten year average)



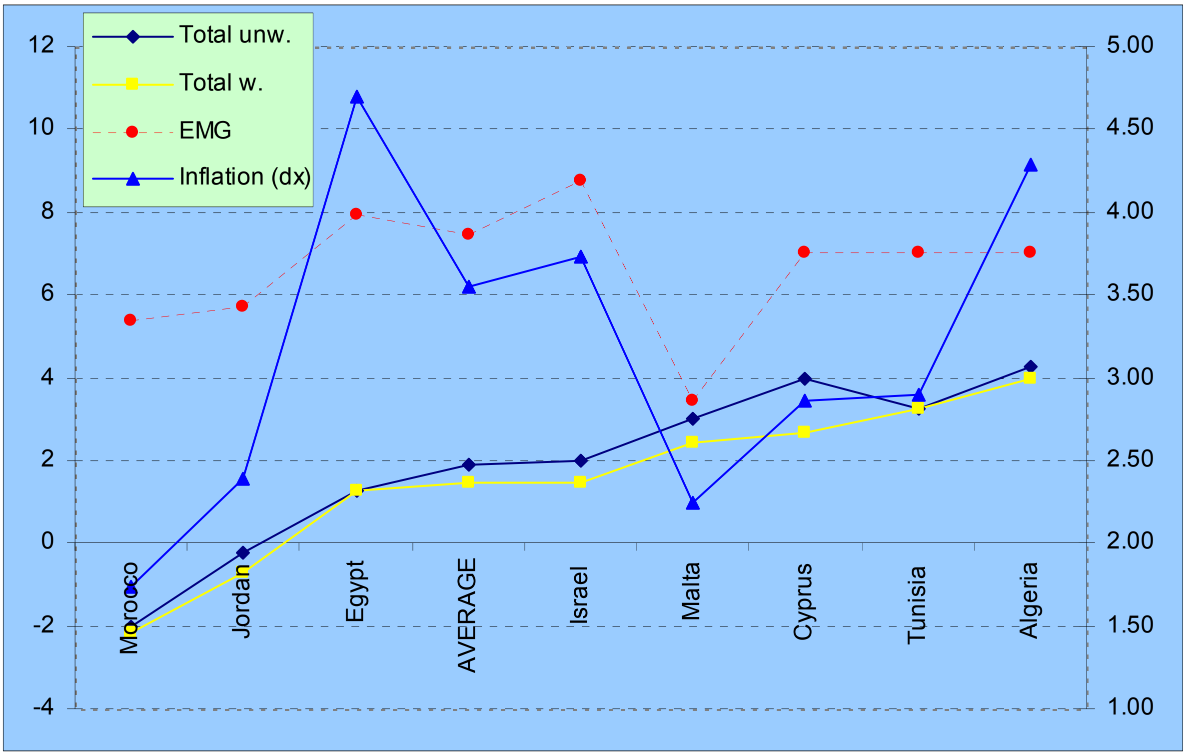
Note: data are expressed in differences from the average. Source: elaboration on IFS data (IMF).

To the extent in which the middle-run inflation rate can be considered a rough indicator for the degree of conservativeness (inflation-fighting commitment) of a central bank, fig. 12 can help identifying which are the more conservative monetary authorities of the area with regard to the legal framework in which they operate.

Similar conclusions can be drawn comparing the legal independence indicators with a measure of the medium term excess money growth (EMG), defined as the last ten year average difference between the growth rate of quasi-money and the one of GDP (as in fig. 13). EMG is highly correlated with inflation, as arguable, except for Morocco and Jordan where a relatively high EMG has led to a relatively low inflation. This may imply a different interpretation of the behaviour of the local central banks: they may have actually pursued an expansionary monetary policy that has only partially translated on prices due to some deflationary pressures. In other words, they may have not been as conservative as the analysis of medium term inflation could suggest.

Fig. 13 - Independence Indicator and Conservativeness

(index and ten year average)



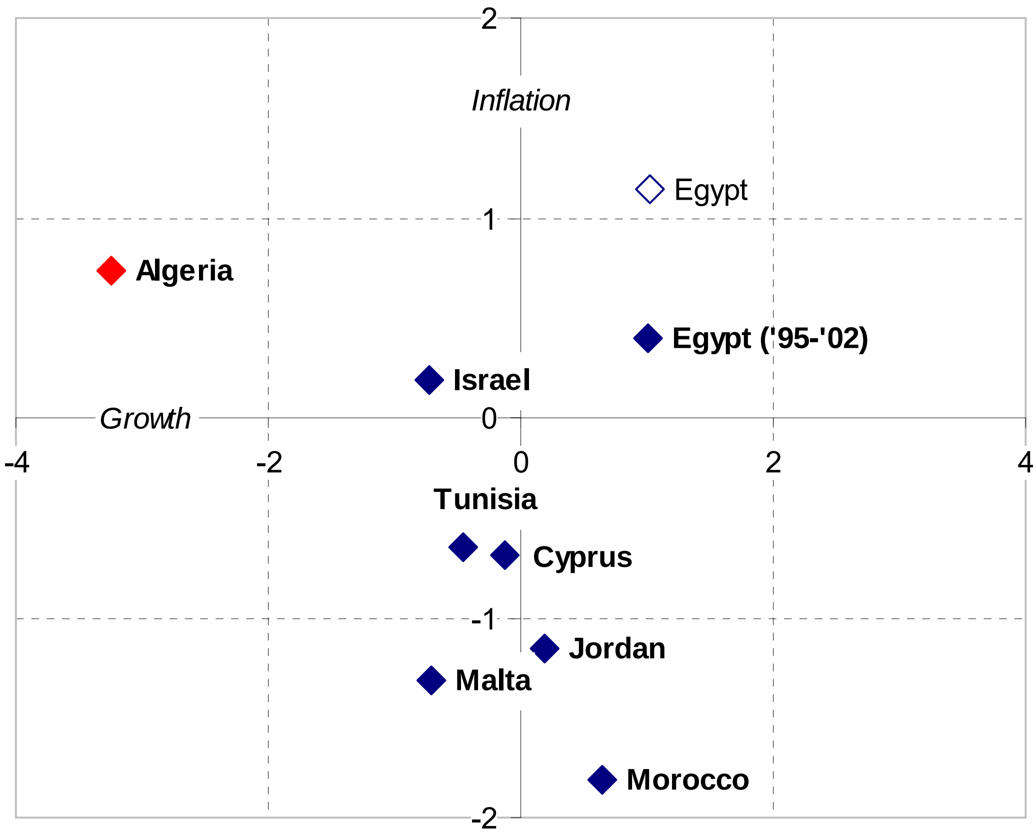
Source: our elaboration on data from IFS of the IMF.

Notwithstanding the fact that the economic theory does not present any conclusive argument in favour of the view that inflation, at least within common recorded values, may lower growth, there is a quite widespread consensus on that fact that when inflation is under control, the market's uncertainties are reduced, the price formation mechanisms is thus more effective and, as a consequence (provided that the market mechanism are working) the resulting better allocation of resources (through price adjustments) should foster long-run growth. The evidence from the last ten years in the countries considered does not contradict the common understanding (fig. 14). In fact, if we exclude Algeria, where prolonged episodes of civil war during the last decade have reduced mid-term growth rates, a trade-off seems to exist between the ten years average inflation rate and the same-period growth rate. A relevant exception seem to be represented by Egypt, at least if we do not consider the high devaluation of the currency occurred in 2003, which contributed to the vigorous recent raise of inflation.

The available data suggest that a strong commitment in reducing inflation seem to be conductive to a better long term macroeconomic performance: except from Malta, where a relative low inflation seems not to have implied a faster growth, the expected relation between long run inflation and growth seem to be verified in the majority of the countries considered.

Fig. 14 - Inflation vs. Growth

(index and ten year average)



Note: data are expressed in differences from the average Source: elaboration on IFS data (IMF).

5. Concluding Remarks

Central bank independence, as resulting from the provisions of law, has been analyzed, also in its relation with the overall macroeconomic performance by a number of studies. Notwithstanding arguments against that, there is a broad consensus on the fact that central bank independence should positively reflect (at least in industrialized countries) on fighting inflation attitude, and thus foster growth. The nexus between *de jure* central bank independence and its possible macroeconomic implications have been far less explored for emerging economies, even if some recent attempts have contributed to shed some light on this also in developing areas, including Latin America, Baltic and the CIS Republics, Eastern and South-Eastern Europe. Nevertheless, an assessment of central bank independence for the countries of the Barcelona Process had not been conducted so far. The present work represents a first investigation of the situation in this area. From a country-side point of view, the present study shows that very few laws succeed in reaching a balanced equilibrium between all the aspects of independence. Indeed, even the countries that have a positive assessment and that usually rank among the firsts for all criteria, such as Cyprus and Malta, show noticeable exceptions; for example, Cyprus ranks number 9 in the case of the Political Autonomy-Governor, and Malta ranks number 10 in the Economic Autonomy. The same could be said as regards Tunisia, which ranks always number 2 or 3 except for two important exceptions in which it is nearly the last country in the list: Policy Formulation (number 11) and Accountability (last one, number 12). Lebanon could be considered an average country, with two exceptions: it is the last one in the assessment of the Political Autonomy of the Governor, and the first one in the Economic Autonomy. The same could be said about the Palestine Monetary Authority, with exceptions; it ranks first concerning Policy Formulation. At the lower rank in the sample, we find Egypt, Jordan, Libya and Morocco.

The main achievements of the assessment of the degree of central bank independence seem to be the following:

1. Looking at the legal independence situation, as stated in the central bank laws, the Mediterranean countries show a diverse picture, sometimes counterintuitive if compared to the common wisdom;
2. Looking at one possible but rough indicator of actual independence, as well as taking into consideration the deeply studied case of Israel, legal independence does not always appear in line with the *de facto* situation;
3. The Mediterranean countries that recently joined the European Union (Cyprus and Malta) and Turkey, that has been recognized a candidate country status, do not always show the best degrees of legal or actual independence, even when the indicator proposed by this study is adjusted to match the Treaty compliance criteria;
4. Central Bank independence is a “hot” issue for the region; many central banks of the area have recently amended their Statutes with a view to achieving more independence.

A preliminary analysis on the impact of central bank independence on macroeconomic variables can lead to the following conclusions:

1. The legal independence indicators proposed by this study seem to adequately capture the effective degree of independence and appear also to be to some extent correlated to the conservativeness of each central bank;
2. Pursuing a low inflation rate appears to be a suitable policy indication for the countries of the Barcelona Process also having in mind possible positive repercussions on long term growth;
3. Even if the reaction functions of the central bank of the area may have indeed been similar, the pass through to prices (and the effects on growth) of monetary policy actions may have followed country specific paths. This fact points out to the need of tailor adequately monetary policy to each single country situation while pursuing an inflation fighting objective.

Further research is needed to better understand in which extent the actual situation is coherent with the legal picture, even if this effort presents non trivial challenges, mainly due to lack of detailed information on internal procedures and unofficial agreements and relationships. An immediate fields for further research on the central bank profession attitude in the Mediterranean region could be a better assessment of other features of the central banks of the area (e.g. the degree or ‘conservativeness’ or, in other words, of the inflation-fighting commitment) and, consequently, a more in-depth exploration of the relationship between the features of the single central banks and the respective country specific macroeconomic developments.

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Appendix 1 – Unweighted and weighted central bank independence scores

Unweighted	Cyprus	Egypt	Israel	Lebanon	Morocco	Tunisia	Algeria	Lybia	Malta	Jordan	Palestine	Turkey	Average
Central Bank Objectives													
Economic Policy	1	0.25	0.25	0.25	0.25	1	0.25	0.25	1	0.25	0.25	1	**0.50**
Financial System	0	0	0	0.25	0	0	0	0	0	0	0	0	**0.02**
Total	***1***	***0.25***	***0.25***	***0.5***	***0.25***	***1***	***0.25***	***0.25***	***1***	***0.25***	***0.25***	***1***	**0.52**
Policy Formulation													
Monetary Policy	1	0.5	0.5	0	0.25	0.5	1	0.25	0.5	0.5	1	0.5	**0.54**
Foreign Exchange Policy	0.5	0	0.5	0.5	0	0	0.5	0.25	0	0.5	1	0.5	**0.35**
Coordination	0	0.25	0	0.75	0	0	0.25	0	0	0.25	0.25	0.25	**0.17**
Resolution	0.75	0	0	0	0	0	0	0.25	0.75	0.25	0.25	0.25	**0.21**
Total	***2.25***	***0.75***	***1***	***1.25***	***0.25***	***0.5***	***1.75***	***0.75***	***1.25***	***1.5***	***2.5***	***1.5***	**1.27**
Political Autonomy													
Appointment of Governor	-1	0.25	0.25	-1	0.25	0.25	0.25	1	0.25	-1	-1	-1	**-0.21**
Term of the Governor	-1	-1	1	-1	0	1	0	-1	-1	-1	-1	-1	**-0.50**
Dismissal of Governor	0.5	0	-1	0.5	0	-1	0	0.5	0.5	0.5	0.5	0.5	**0.13**
Goverment Representation (in the Board)	0	-1	0	-1	-1	0	0	-1	0	0	-1	0	**-0.42**
Total	***-1.5***	***-1.75***	***0.25***	***-2.5***	***-0.75***	***0.25***	***0.25***	***-0.5***	***-0.25***	***-1.5***	***-2.5***	***-1.5***	**-1.00**
Political Autonomy													
Appointment of Board Members	-1	0.25	*0.25*	-1	-1	0.25	0.25	-1	-1	-1	-1	-1	**-0.58**
Terms of Board Members	-1	-1	*1*	0	-1	-1	0	-1	-1	-1	-1	-1	**-0.67**
Disimissal of Board Members	0.5	0	*-1*	0	0	0	0	0.5	0.5	-1	0.5	0	**0.00**
Total	***-1.5***	***-0.75***	***0.25***	***-1***	***-2***	***-0.75***	***0.25***	***-1.5***	***-1.5***	***-3***	***-1.5***	***-2***	**-1.25**
Economic Autonomy													
Credit to the Government	0.5	0.25	-1	1	-1	0.25	0.25	0.25	1	0.25	0.25	0.5	**0.21**
Quasi-Fiscal Activities	0	0	0	1	0.5	0	0	0	0	0	0	0	**0.13**
Monetary Instruments	1	1	0	1	0	1	0.25	1	0	1	1	1	**0.69**
Solvency	0.25	0.5	0.25	1	0.5	1	1	0.25	0.25	0.25	1	0.25	**0.54**
Total	***1.75***	***1.75***	***-0.75***	***4***	***0***	***2.25***	***1.5***	***1.5***	***1.25***	***1.5***	***2.25***	***1.75***	**1.56**
Accountability													
Publication of Statements	1	0	0.25	0.25	0	0	0	0	0.25	0	0	0.75	**0.21**
Audits	1	1	0.75	0	0.25	0	0.25	0.25	1	1	1	0.75	**0.60**
Total	***2***	***1***	***1***	***0.25***	***0.25***	***0***	***0.25***	***0.25***	***1.25***	***1***	***1***	***1.5***	**0.81**
TOTAL SCORE	**4**	**1.25**	**2**	**2.5**	**-2**	**3.25**	**4.25**	**0.75**	**3**	**-0.25**	**2**	**2.25**	**1.92**

Weighted	**Cyprus**	**Egypt**	**Israel**	**Lebanon**	**Morocco**	**Tunisia**	**Algeria**	**Lybia**	**Malta**	**Jordan**	**Palestine**	**Turkey**	**Average**
Central Bank Objectives													
Economic Policy	1	0.25	0.25	0.25	0.25	1	0.25	0.25	1	0.25	0.25	1	**0.50**
Financial System	0	0	0	0.05	0	0	0	0	0	0	0	0	**0.00**
Total	***1***	***0.25***	***0.25***	***0.3***	***0.25***	***1***	***0.25***	***0.25***	***1***	***0.25***	***0.25***	***1***	***0.50***
Policy Formulation													
Monetary Policy	1	0.5	0.5	0	0.25	0.5	1	0.25	0.5	0.5	1	0.5	**0.54**
Foreign Exchange Policy	0.3	0	0.3	0.3	0	0	0.3	0.15	0	0.3	0.6	0.3	**0.21**
Coordination	0	0.25	0	0.75	0	0	0.25	0	0	0.25	0.25	0.25	**0.17**
Resolution	0.6	0	0	0	0	0	0	0.2	0.6	0.2	0.2	0.2	**0.17**
Total	***1.9***	***0.75***	***0.8***	***1.05***	***0.25***	***0.5***	***1.55***	***0.6***	***1.1***	***1.25***	***2.05***	***1.25***	**1.09**
Political Autonomy													
Appointment of Governor	-1	0.25	0.25	-1	0.25	0.25	0.25	1	0.25	-1	-1	-1	**-0.21**
Term of the Governor	-1	-1	1	-1	0	1	0	-1	-1	-1	-1	-1	**-0.50**
Dismissal of Governor	0.5	0	-1	0.5	0	-1	0	0.5	0.5	0.5	0.5	0.5	**0.13**
Goverment Representation (in the Board)	0	-0.8	0	-0.8	-0.8	0	0	-0.8	0	0	-0.8	0	**-0.33**
Total	***-1.5***	***-1.55***	***0.25***	***-2.3***	***-0.55***	***0.25***	***0.25***	***-0.3***	***-0.25***	***-1.5***	***-2.3***	***-1.5***	**-0.92**
Political Autonomy													
Appointment of Board Members	-1	0.25	*0.25*	-1	-1	0.25	0.25	-1	-1	-1	-1	-1	**-0.58**
Terms of Board Members	-1	-1	*1*	0	-1	-1	0	-1	-1	-1	-1	-1	**-0.67**
Disimissal of Board Members	0.5	0	*-1*	0	0	0	0	0.5	0.5	-1	0.5	0	**0.00**
Total	***-1.5***	***-0.75***	***0.25***	***-1***	***-2***	***-0.75***	***0.25***	***-1.5***	***-1.5***	***-3***	***-1.5***	***-2***	**-1.25**
Economic Autonomy													
Credit to the Government	0.5	0.25	-1	1	-1	0.25	0.25	0.25	1	0.25	0.25	0.5	**0.21**
Quasi-Fiscal Activities	0	0	0	0.4	0.2	0	0	0	0	0	0	0	**0.05**
Monetary Instruments	1	1	0	1	0	1	0.25	1	0	1	1	1	**0.69**
Solvency	0.25	0.5	0.25	1	0.5	1	1	0.25	0.25	0.25	1	0.25	**0.54**
Total	***1.75***	***1.75***	***-0.75***	***3.4***	***-0.3***	***2.25***	***1.5***	***1.5***	***1.25***	***1.5***	***2.25***	***1.75***	**1.49**
Accountability													
Publication of Statements	0.2	0	0.05	0.05	0	0	0	0	0.05	0	0	0.15	**0.04**
Audits	0.8	0.8	0.6	0	0.2	0	0.2	0.2	0.8	0.8	0.8	0.6	**0.48**
Total	***1***	***0.8***	***0.65***	***0.05***	***0.2***	***0***	***0.2***	***0.2***	***0.85***	***0.8***	***0.8***	***0.75***	**0.53**
TOTAL SCORE	**2.65**	**1.25**	**1.45**	**1.5**	**-2.15**	**3.25**	**4**	**0.75**	**2.45**	**-0.7**	**1.55**	**1.25**	**1.44**

Appendix 2 - Methodology

Central bank objectives	1	0.75	0.25	0	-1	
Economic policy	Price stability or stability of the internal and external value of the currency is the sole objective or primary objective	Monetary stability is given explicit priority	Price stability, monetary stability, or stability of the currency is explicitly mentioned as one of several objectives	There is no reference	Only objective other than price or monetary stability are mentioned	-
Financial system	Banking supervision is explicitly delegated to an autonomous government agency	The law mentions the existence of a banking supervision agency whose members are elected and/or appointed by the legislative	Banking supervision is delegated to an institution, although its functional autonomy is not established or if the existence of a banking supervision institution is mentioned	There is no reference in the law or banking supervision is performed by the central bank or one of its instrumental bodies	-	-

Policy formulation	1	0.75	0.5	0.25	0	-
Monetary policy	The central bank can explicitly formulate and determine monetary policy	-	The central bank executes monetary policy and participates to its formulation	The central bank executes monetary policy, or contributes to its execution	There is no reference in the law	-
Foreign exchange policy	The central bank can formulate and determine the exchange rate consistent with its monetary policy	-	The central bank implements exchange rate policy and participates in its formulation	The central bank implements exchange rate policy	There is no reference in the law	-
Coordination	The central bank and the government shall inform each other or there are government representatives in its board that do not constitute a majority, but it is stated that the central bank is responsible for formulating monetary policy	The central bank coordinates with the government in the formulation and/or implementation of central bank policies	-	Policies are jointly set or if the central bank participates in policy formulation	There is no reference in the law	-

Appendix 2 - Methodology

Resolution	In case of conflict, when the government instructs the central bank to pursue a specific policy, both parties shall make statements, presented to the legislature or published	The central bank is not subordinated to government directives and central bank independence is strongly stated	The central bank does nor accept orders, in particular areas and independence is strongly stated	It is stated that the central bank is autonomous or that the bank does not accept orders from the government in particular areas	There is no reference in the law or the Executive has the power to ask for a review/modification of the central bank policy	-

Political autonomy (Governor)	**1**	**0.75**	**0.5**	**0.25**	**0**	**-1**
Appointment of Governor	[Nominated (appointed) by the Government and] appointed (confirmed) by Parliament	-	Appointed by the Board of Directors	Appointed by the Head of the State [on the recommendation of the Executive]	There is no reference in the law	The Executive alone is responsible for the appointment
Term of the Governor	Longer than the term of the body responsible for, or prominently involved in, the appointment	-	The term is defined in the law with a view to promote autonomy	-	There is no reference in the law	Equal or shorter than the term of the body responsible for, or prominently involved in, the appointment
Dismissal of Governor	Dismissal only can take place in case of breach of qualifications, misconduct, or poor performance, and if the latter can be clearly defined, ruled upon by the court or by an independent tribunal, and with the approval of the legislature	Dismissal only can take place in case of breach of qualifications, misconduct, or poor performance, and with the approval of the legislature	Dismissal only can take place in case of breach of qualifications, misconduct, or poor performance	Dismissal is approved by the legislative but the grounds are not clearly specified	There is no reference in the law or the Governor is supposed to stay in charge	The Executive alone can dismiss without further specifications
Government representation	-	-	-	-	There is no reference in the law	The Government has direct representatives with voting rights

Political autonomy (Board Members)	**1**	**0.75**	**0.5**	**0.25**	**0**	**-1**

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Appointment of Board Members	All members are [Nominated (appointed) by the Government and] appointed (confirmed) by Parliament	The majority of members are [Nominated (appointed) by the Government and] appointed (confirmed) by P arliament	-	The Head of State appoints (on the recommendation of the Executives)	There is no reference in the law	The Executive alone is responsible for the appointment of the majority of members-
Terms of Board Members	Longer than the term of the body responsible for, or prominently involved in, the appointment	-	The term is defined in the law with a view to promote autonomy	-	There is no reference in the law	Equal or shorter than the term of the body responsible for, or prominently involved in, the appointment
Dismissal of Board Members	Dismissal only can take place in case of breach of qualifications, misconduct, or poor performance, andif the latter can be clearly defined, ruled upon by the court or by an independent tribunal, and with the approval of the legislature	Dismissal only can take place in case of breach of qualifications, misconduct, or poor performance, and with the approval of the legislature	Dismissal only can take place in case of breach of qualifications, misconduct, or poor performance	Dismissal is approved by the legislative but the grounds are not clearly specified	There is no reference in the law or the executive alone can dismiss some of the board members	-

Economic autonomy	**1**	**0.5**	**0.25**	**0**	**-1**	**-**
Credit to the Government	Direct or indirect credit to the Government is prohibited, with the exception of extraordinary circumstances or in the context of Open Market Operations	Direct credit to the government is forbidden	Only temporary and/or limited overdraft are allowed	There is no reference in the law	The central bank can grant credit to the government and limits are not clearly specified	-
Quasi-fiscal activities	The central bank cannot operate with non-financial institutions, or cannot give credit or guarantees to non-financial institutions	The central bank can not give credit to non-financial institutions	-	There is no reference in the law	The bank can operate with non-financial institutions	-

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Monetary instruments	The central bank can set its key interest rates on its own transactions without interference from the government and can freely conduct Open Market Operations	-	The central bank can freely conduct open market operations	There is no reference in the law or the central bank can not conduct completely freely OMO	-	-
Solvency	The central bank has financial autonomy or its own patrimony: its budget is not subject to executive or legislative approval, and the bank can not be dissolved without parliamentary approval	The central bank has financial autonomy and its budget is not subject to executive or legislative approval	The central bank has financial autonomy or its budget is not subject to executive or legislative approval	There is no reference in the law or the central bank can not conduct completely freely OMO	The law establishes interest rate controls	-

Accontability	**1**	**0.75**	**0.25**	**0**	**-**	**-**
Publication of statements	The central bank regularly reports to congress on the execution of policies. [The governor appears before the legislature to answer questions, at the legislature's request]	The central bank regularly reports to the Parliament on the execution of its policies	The Governor appears before the legislature to answer questions, at the legislature's request	There is no reference in the law or the central bank reports to the Executive	-	-
Audits	Independent external auditors audit the annual financial statement	The auditor general, or an non-independent third party, audits the annual statement and the audit report is released to the Legislative	The auditor general, or an non-independent third party, audits the annual statement and the audit report is released to the Executive	There is no reference in the law	-	-