Central Bank Independence

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One of the most substantial illustrations of institutional change over the last decades has been the rise of central bank independence (CBI) in many countries. The primary justification for this institutional setting is the conviction that it contributes to lower inflation rates, although the empirical evidence is not as straightforward. The vast body of literature focuses on technical aspects and attempts to refine the models within the given framework, but fails to investigate the reasons behind those mixed findings. The theorized claims of CBI do not reflect its empirical reality. If a concept is only technically optimal, but not politically, it is always inclined to fall short. This paper attempts to fill the theoretical gap by studying the institutional mechanisms and historical events which transformed central banks into not more than a place marker for stylized policy, and it challenges the broad endorsement of CBI based on this evidence.

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1. Introduction

Over the past thirty years, the majority of central banks in advanced economies have been granted the authority to control monetary policy autonomously. Before the crisis, there was a large consensus that central bank independence (CBI) was necessary to monitor inflation, supported by a strong theoretical foundation and empirical support. CBI is considered to be a possible mechanism to commit to a noninflationary policy if as suggested by Rogoff (1985) a conservative central banker is appointed whose preferences put more weight on price stability. Although not entirely costless, this solution has become the primary justification for CBI. Empirical research, at least over the 1970s-1990s, appeared to validate this reasoning in both advanced and emerging economies (Alesina & Summers 1993; Grilli et al. 1991).[1]

Following the latest financial turmoil, this model of a central bank is losing support. Mainstream academic authors embraced the concepts of easy money for governments and challenged inflation targeting. Several countries witnessed the emergence of initiatives to cut back the independence of their central banks. CBI may no longer be useful if monetary policy is forced upon and inflation rates are too low at any rate[2].

Likewise, the Centre for Macroeconomics (CFM) and the Centre for Economic Policy Research (CEPR) (2017) recently published an expert survey about the future of CBI. Less than 50% disagreed with foreseeable changes concerning CBI in the UK and the Eurozone. Furthermore, most correspondents do not longer fully believe in a

[1] However, empirical evidence turned out to be quite mixed as the number of studies increased.

[2] Cecchetti et al. 2017Argue, on the contrary, that the sound management of price stability is a case for CBI

significant negative relationship between independence and inflation. Yet, CBI remains desirable, although the justification is not clear. Most of the literature is “reduced to a discussion of the technical efficiency of the policy-making process.”(Watson 2002, 3)

The partial absence of an explanation is a common the theme in the current literature on this topic. Most writings are empirically motivated and lack a theoretical foundation for their findings. The primary analytical justification is contingent on a simplified representation of a benevolent, conservative central banker whose preferences are stable through time and different from government. Likewise, many “models conceptualize the representative individual as one who adopts the same cognitive approach to the question of monetary policy making as that of macroeconomists” (Watson 2002, 7) This paper analyzes why the concept of CBI is erroneous by definition. As a consequence, its implementation is almost impossible in practice and leads to inaccurate empirical research. This fundamental problem has been largely ignored in the current literature.

The next section sketches a brief overview of the empirical and theoretical foundations of CBI. Section 3 analyzes the main reasons which render the practical realization of CBI impossible and gives a critique of empirical evidence about CBI based on this evidence. Section 5 studies the broad endorsement of CBI and section 6 concludes.

2. Background

As outlined above, CBI has been considered more or less a necessity to control inflation up to the financial crisis. This mechanism would be an efficient protection from political burdens, smooth out business

cycles and reduce the temptation to fund government deficits (Buchanan & Wagner 1977). Around the same time, Kydland & Prescott (1977) and Barro & Gordon (1983) identified what is called a “time inconsistency problem” according to which governments could have an incentive to give a short-term stimulus to the economy at the cost of increasing long-term inflation. As mentioned before, Rogoff (1985) provided a potential solution, although not first-best, by introducing the concept of a conservative, independent central banker. Empirical research confirmed roughly this theoretical concept and authors such as Alesina & Summers (1993) demonstrated that it was almost costless for the economy. Likewise, the idea of inflation targeting gained in popularity for the quest of optimal monetary policy. It was conceived as an efficient means to complement CBI by reducing uncertainty and increase transparency (Bernanke et al. 2001) and allowed to provide somewhat an accountability mechanism for central banks (Nergiz Dincer & Eichengreen 2014). Most advanced and emerging economies were convinced by these arguments and not only increased their CBI (Cukierman 2008), but also adopted inflation targeting, formally and informally. Similarly, the markets considered that CBI reduced volatility in monetary policy and rendered it more credible. CBI became the norm ultimately, when the Bank of England (1997) and the Bank of Japan (1998) decided to become independent and with the introduction of the Euro by the European Central Bank.

Over the last years, a vast number of articles have been published to further empirically endorse or disapprove the relationship between CBI and inflation, and results have been somewhat mixed[3]. Interestingly

[3] As a matter of fact, most advanced countries witnessed relatively low inflation rates regardless of their degree of CBI. In particular, Japan, where inflation rates are low, the central bank is highly influenced by the Ministry of Finance.

enough, this triggered, even more, attempts to refine the measurements within the given framework, but articles on the theoretical concept of CBI, in particular about its institutional aspects, are relatively rare. Forder (1999;2005), Watson (2002) or Buiter (2014) are among the few authors to provide a different viewpoint on the concept of CBI. More recently, the actions of central bankers' have been studied in order to look at the diffusion of ideas. For instance, Thomassen (2017) applies these concepts to explain the establishment of CBI in Norway. Furthermore, Boettke & Smith 2013 evaluate the performance of Federal Reserve independence during the last hundred years and provide insight into institutional mechanisms of CBI.

In the next section, this paper complements those approaches and takes it one step further by showing that the concept of CBI is flawed by design. As a consequence, empirical research cannot provide clear answers for this topic as the measures are accordingly likely to fail.

3. Is Central Bank Independence Feasible?

It goes back to at least David Hume who already pointed out that modeling an institution under the hypothesis of benevolence and perfect knowledge is likely to be an incomplete analysis subject to misrepresentative assumptions about human nature (Hume 1748). Under these premises, there is a risk to "overconfidently, designing weak and fragile institutions"[4] (Paniagua 2016, 6). The central theoretical concepts of CBI and inflation targeting are appealing for an optimal monetary policy model builder, but they do not reflect their

[4]Boettke & Fink (2011) point out that central banks are only policies and not institutions in the strict sense. This paper follows the definition by Hodgson (2015b, 6) according to which "systems of language, money, law, weights and measures, traffic conventions, table manners, and all organizations are institutions"

empirical reality. If a theory is only technically optimal, but not politically, it is always predisposed to vulnerability.

Assumptions of CBI are unrealistic

CBI assumes that central banks are autonomous in their monetary policy decisions and pursue an optimal monetary policy naturally given their constraints. Even if we accept the assumption of perfect knowledge and grant the theoretical possibility to identify an optimal monetary policy, how can we be confident that central bankers will actually pursue it? Central banks face incentives[5] such as other economic agents and might be tempted by political ideals[6] and not technical ones. Several strands of literature such as Public Choice (e.g. Buchanan (1983)), political business cycle theory (e.g Nordhaus (1975)) or Austrian School of Economics (e.g. (Mises 1969 [1945]) challenged the assumptions of benevolent bureaucratic institutions, yet they remain largely ignored when designing institutional rules. As a matter of fact, CBI has always been flipped over after financial downturns (Capie & Wood 2013). Weintraub (1978) demonstrated the funding of government deficits was often considered as being the main reason for monetary growth according to Federal Reserve employees. Grier (1989;1991) showed the influence of changes in political leadership concerning monetary supply increases. Research that analyzes mostly technicalities of monetary theory is rather limited if they are not politically possible (Havrilesky 1995).

[5] And structure at the same time partly incentives that individuals face (Boettke et al. 2013)

[6] Furthermore, politicians trying to influence monetary policy may choose to undermine CBI by recruiting individuals at central banks that they believe are biased towards their preferred policies.

Furthermore, it is an empirical reality that we live in a constantly changing world comprised of imperfect human beings. As such, institutions arising from erroneous human interactions are subject to imperfections. Imperfect monetary systems result in misaligned incentives and incomplete information (Willett & Keen 1990). Calomiris & Haber (2014) highlighted that monetary frameworks are the institutional consequence of political negotiations among interest groups and elected officials. As a result, it is naturally the banking system that is in agreement with the governing institutions which is implemented. A government does not choose a banking system, but the other way round.

That is also the reason why comparisons among different countries are complicated. The feasibility of institutional arrangements depends on the possibility set which is shaped by history and other constraints (Boettke et al. 2013). It is important to make the relevant comparison by using the correct benchmark. Therefore, it is also unaccommodating to compare the empirical reality of CBI of different countries with the unsubstantiated claims of an idealized general theory.

Accountability of Central Banks

Milton Friedman wrote a full essay criticizing independent monetary authorities based on the theory of bureaucracy (Friedman 1962), according to which unlimited power cannot be presumed to serve the public interest. Yet, the main arguments are widely ignored in the current literature and overlooked by most policymakers[7].

Indeed, in most models, the credible policy by an independent central banker also corresponds to the optimal policy. Theoretical refinements

[7] There are some exceptions like (Rossi 2014).

reinforce independence within this framework and uphold that the advantages of CBI have been established.

Governments responded to observed institutional shortcomings during the crisis by extending the responsibilities of central banks to even more domains. Most regulatory frameworks incorporated financial stability objectives for central banks and entrusted them with various macro-prudential tools[8].

This development triggered some initiatives, mostly non-academic, which questioned the power and accountability of central banks. For instance, in the US, the Senate barely rejected the "Audit the Fed" proposal by Rand Paul. The ECB had to cope with legal protests concerning the Outright Monetary Transactions program[9], the "Save our Swiss Gold" referendum was rejected in Switzerland, and some economic commentators in renown newspapers started to question the role of central banks.

As a central bank becomes more powerful, it can more easily impose its preferences on society. Likewise, a central bank might be tempted to intervene in other political issues outside of its scope (Buiter 2014).

Under these conditions, it appears even more complicated to hold central banks accountable. Legal institutions are indispensable for an understanding of the financial dynamics of capitalism (Hodgson 2015a) and legal enforcement is a prerequisite for accountability. However, that is the main root of the problem. What should be

[8] The power of central banks have increased in most countries, but not in the same ways.

[9] The European Court of Justice eventually confirmed that monetary policy is exclusive to the ECB.

enforced[10]? What should be the consequences if a central bank fails to meet its objectives?

In the absence of competition and expected profit and loss methods for central banks, some economists argue that they should be held accountable regarding a policy rule. However, as pointed out by Cecchetti and Schoenholtz[11], the Taylor rule implies a broad range of policy rates based on the underlying assumptions. By adjusting the quantities of output gaps and inflation rates, the policy rule yields rates between 0,25 and 3,59 percent using current data. With the background of the outlined arguments before, it does not come as a surprise that static rules are not necessarily the best approach to evolving economic and financial conditions. As Mises (1980 [1912], 271) pointed out, “all monetary policies encounter the difficulty that the effects of any measures taken . . . can neither be foreseen in advance, nor their nature and magnitude be determined even after they have already occurred.”

All things considered, no real accountability mechanism is in place to counterbalance the powerful and independent central banks, but they were even granted more responsibilities about financial stability and macro-prudential regulations. Furthermore, the threat of replacing central bank employees in accordance with performance indicators is in contradiction with the principle of CBI.

Legal independence vs. de facto independence vs. political independence vs. operational independence

The distinction between the different concepts of independence underlines the fragility of CBI as a concept. The model by Rogoff

[10] As Mises (1969, 53)points out ““A bureaucrat differs from a nonbureaucrat precisely because he is working in a field in which it is impossible to appraise the result of a man’s effort in terms of money”(p.53)

[11] http://www.moneyandbanking.com/commentary/2016/11/21/policy-rules

(1985) of the independent and “conservative” central banker requires entire delegation of monetary policy to a central banker with preferences different from the government, thus operational and political independence at the same time. However, Ed Balls, James Howat (2016) point out that nowadays basically all advanced economy central banks use a model of full operational independence, but feature at the same time a low level of political independence. This definition is in particular vague. Political independence is generally defined as the “influence which elected politicians have over the central bank”, and “operational independence as the ability of the central bank to select and use monetary instruments with autonomy.”(Ed Balls, James Howat 2016, 17)

However, if central banks are politically dependent, they are likely to be run by officials that have been chosen by the government. Certainly, they can have recourse autonomously to monetary tools, but if they are in this important position in the first place, it is most likely due to their predisposition towards the preferences of government officials. Therefore, even if there is no direct influence, there is a certain bias towards a particular mindset. In some countries, governments undermine monetary policy because they can credibly threaten to substitute bank governors or even change central bank laws. For instance, German Chancellor Adenauer menaced to modify the central bank law in 1956 when the Bundesbank would not comply with his monetary preferences (Bibow 2009).

It seems manifest that independence is always a question of degree and absolute independence is not conceivable. To deal with this issue, instead of looking at the theoretical framework in more detail, empirical

research distinguished between de jure independence[12] and de facto independence. That is where empirical research is confronted with a new methodological problem. Legal independence is not sufficient to capture CBI as it does not reflect practical reality and de facto independence is hard to measure. The literature uses turnover rates of bank governors or central bank surveys as proxies. However, the length of a governor mandate can indicate higher or lower independence and surveys feature problems of comparability due to limited quality of data. Likewise, Bodea & Hicks 2015) argue that the presence of an opposition and free press increase central bank enforcement and strengthen the status of de facto central bank independence.

A central bank's capacity to be influential depends on its history[13], on the status and career of its governor and other factors that occur naturally in human relationships. As a consequence, legal independence and ad hoc constructed de facto independence indices are at time very divergent. De jure independence is not set in stone; statutes are always subject to potential change. De facto independence continually adapts to structural changes in the economy and relies heavily on the personality of governors. All things considered, empirical studies have to factor in several outside factors to prove a relationship of a model which explicitly excludes them in the first place.

As an illustration, Crowe & Meade (2007) demonstrate that the legal independence score, relatively small, for the Federal Reserve remained unchanged since the 1980s. However, as several authors such as Meltzer & Goodhart (2005) or Boettke & Smith (2013)showed, there have been many changes in the 1980s and the years after which

[12]De Jure independence has been measured for instance by Alesina & Summers (1993) or Crowe & Meade (2007)

[13]Monetary history seems to be the major driver of a credible monetary policy (Hayo & Hefeker 2002).

influenced de facto independence. Likewise, Taylor (2013) argues that the changes in de facto independence were closely linked to following (or not) monetary policy based on rules. Recent discretionary practices initiated by the Federal Reserve themselves decreased it even further. Similarly, as Haga (2015) points out, countries like Argentina or Venezuela have more or less the same independence index as Chile, even though, in recent history, the Argentinean president substituted the central bank governor to grant an emergency loan to his government in 2010. Hayo & Hefeker (2002) offer another illustrious example: the central bank of Belarus, which also featured a high indicator of independence. After a strong surge in inflation, the central bank governor was locked up in jail by the Finance Minister.

Still, most central bank reforms over the last decades concentrated on operational independence, but not political independence. The only ones which can be considered to have become more politically independent were Switzerland, Sweden and the ECB (Ed Balls, James Howat 2016).

Empirical One-Way-Street

Klomp & de Haan (2010) conclude in one of their important articles that in their view “the major research question for future research is therefore to determine under which circumstances CBI matters”? (p.8) They found a relationship between CBI and inflation for some countries and different results for other countries. Consequently, the policy

recommendations remain rather vague[14] and are guided to an extent by a set idea about CBI and its implications.

One reason for mixed empirical evidence stems from separate analyses for advanced and less advanced economies and fitting the data to the subjects under investigation. A proper measure of CBI should be generalizable to most countries. Likewise, most attempts to focus either on de jure or de facto characteristics to explain the relationship between inflation and CBI are on shaky ground. The political and institutional environment are likely to matter both for the operations of a central bank and as Greenspan (2008, 478) points out "I regret to say that Federal Reserve independence is not set in stone. FOMC discretion is granted by statute and can be withdrawn by statute." As a consequence, existing empirical results are already relatively weak solely based on the difficulty to adequately take into account legal, political and economic factors in their analysis. Also, there are certain constraints due to the limited quality and availability of data across countries.

However, there are even more fundamental problems which complicate the empirical analysis of CBI. To successfully measure independence, authors typically attempt to find measures that empirically correlate with the theoretical concept of independence[15]. If we had such a measure, we could test whether the relationship between CBI and inflation holds. While there are many attempts to refine those "tests", there are many ad hoc explanations to justify the use of a certain measure. The proxies for CBI are barely assessed and are chosen as a function of their plausibility. As a consequence, empirical

[14] As (Mises 1981 [1922], 325) observes: "Figures alone prove or disprove nothing. Only the conclusions drawn from the collected material can do this. And these are theoretical."

[15] For instance, turnover rates of governors (Dreher et al. 2006), or other political factors are used to proxy the relationship between governments and central banks.

outcomes are likely to diverge. Similarly, if studies seem to support each other regarding the validation or rejection of the relationship between CBI and inflation, they are most likely to be not. Other factors are used to determine independence and tested hypotheses are de facto of different nature. Up to now, there is not a broad agreement about the measures or proxies for independence, which is not problematic as such, but leads to incomplete corollary conclusions. Furthermore, the consensus on CBI in empirical literature is limited to a small group of countries, but not on a general scale.

Cukierman (2008) highlights that the empirical literature identifies a relationship between CBI and inflation depending on other factors such as legal aspects, political aspects or the commitment to CBI. How is possible to exclude whether the causality does not work the other way round? After all, inflation could determine independence. For instance, Posen (1993) suggests that CBI and low inflation rates find their origin in preferences for the latter. Even Cukierman (2008, 6) admits that "it is hard to resolve this important question on the basis of existing evidence". If fundamental interrogations like this confront current empirical literature with a problem, it remains questionable whether those studies will ever contribute a lot to the elucidation of the issue, let alone settle it once for all.

4. Why is CBI still broadly endorsed?

The theoretical and empirical foundations of CBI reveal weaknesses, but merely the current financial crisis should be sufficient to question its feasibility. Central banks expanded their monetary tools far beyond conventional policy rates and measures such as quantitative easing had and have broad fiscal implications (Greenwood et al. 2014). Central

banks reached an unprecedented size of balance sheets. Likewise, the central bank increased their lender of last resort status to accept a lot of counterparties at subsidized rates. And even like this, it lacked the resources to stem a crisis. The role of the central bank is far away from Rogoff's idea, where monetary policy with little or no redistributive consequences is a prerequisite for central bank independence, and even further from Bagehot's conception (Bagehot 1873).

One might think that this triggered some questioning of CBI, but following the crisis, responsibilities have been increased further for central banks. The Dodd-Frank Act granted more duties concerning macro-prudential supervision. In Europe, the European Single Supervisory Mechanism was initiated in 2014 and assigns banking supervision to the ECB. The implementation of Basel III including macro-prudential measures is delegated to central banks. Representatively for a large part of current literature, Ed Balls, James Howat (2016, 40) argue that the crisis actually showed that central banks need to be more powerful if they have to deal with further responsibilities and need better protection. They also argue that CBI "may be jeopardized by a perceived lack of accountability or politicization of the central bank in its new functions". Furthermore, "the distributional impacts of financial stability policies may be more problematic both because the mechanism by which the central bank should act is less consensual" and "the government can build a precise and clear accountability framework around an inflation target and conventional monetary policy decisions". Furthermore, they point out that "by aggressively and expansively providing liquidity to the financial system, the central bank will take greater risk with the state's balance sheet and become a prominent political player" (Ed Balls, James Howat (2016, 53) which limit the possibility of designing an appropriate accountability mechanism. Still,

they reach the conclusion that the role of central banks should be increased.

Central banks played a leading role before and during the crisis and invalidated the concept of CBI as they became more powerful and politicized. Likewise, the quasi-absence of accountability of central bank policies has been demonstrated. Still, many authors justify even a bigger role for central banks and propose additional oversight institutions to deal with those problems. Instead of proposing another refinement within the current framework, it may be an interesting approach to see whether the theoretical and empirical foundations of the concept are sound. As Mises (2011 [1944], x) observes: “Only to bureaucrats can the idea occur that establishing new offices, promulgating new decrees, and increasing the number of government employees alone can be described as positive and beneficial measures.”

Given these shortcomings and historical realities, how come that CBI is still so broadly endorsed and central banks are even entrusted with more power?

Interest groups and stickiness

Posen (1993) argued that monetary policy was in particular affected by the lobbying of the financial sector which desired the establishment of an independent central bank due to its inflation adversity. However, it is not that obvious that low inflation rates are always in the interest of the financial sector, in particular with the recent experience during the crisis and and empirical evidence is not a straightforward either. Maier et al. (2002) present empirical evidence that the financial sector influenced monetary policy in Germany and that political pressures are mostly explanatory for their low inflation rates.

Another aspect is the promotion of independence by central bankers themselves (Forder 2005). Kane (1993) argues that it is the bureaucratic self-interest that prevents monetary reform. And central banks have considerable resources to maintain this status. At their discretion, they hold big conferences, provide many well-paid employment opportunities[16] and fund generously research opportunities. As White (2005, 19) observes, “fed-sponsored research generally adheres to a high level of scholarship, but it does not follow that institutional bias is absent or that the appropriate level of scrutiny is zero”. Likewise, most policy boards at central banks are comprised of academic economists, and most of them are not opposed to central bank independence.

However, even more importantly, CBI allows economists to instrumentalize central banks for stylized policies, as the credible policy by an independent central bank is considered as optimal by definition within its contained framework. As such, there is always a ready-made explanation for a policy failure. If only CBI were free from political influences and worked out as in the idealized model, then policies would have worked out as designed by economists. Likewise, CBI is a means for governments to avoid some responsibility for the consequences of monetary policy such as monetary redistribution (Watson 2002). Furthermore, the literature of institutional path dependence may explain how an economy can be locked-in with institutional arrangements that might be suboptimal. Historical factors that formed current institutions and current stakeholders with a personal interest render it even more complicated to enact institutional reform (Boettke et al. 2013).

[16] The Federal Reserve is one of the largest employers of economists (Auerbach 2008)

5. Conclusion

The theoretical concept of CBI is flawed by design. Its assumptions do not reflect empirical realities and make abstractions of factors, such as human imperfections, political influences or accountability mechanisms, which are essential to understanding the functioning of an independent central bank. The resulting vague distinctions between legal and de facto independence lead to incomplete empirical measures and give rise to relatively weak outcomes. The current financial crises underlined the fragility of the CBI framework, yet academic challenges are fairly rare. One possible reason for the broad endorsement of CBI, despite all those shortcomings, may reside in the fact that potential stakeholders, such as economists and central bankers, have a great sympathy for maintaining its status out of self-interest. In addition to economic opportunities linked to central banks, it is also a convenient tool to justify policy failures. As a consequence, CBI is inclined to remain sticky as change is not likely to happen within. The aim of this paper is to challenge CBI and move research questions away from technical refinements. Monetary research should focus more on fundamental issues and study whether the incentive structure of current institutional arrangements is likely to yield the desired outcome.

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