Paper for the First International Conference
11-14 September 2014
Old Royal Naval College, Greenwich, London, UK
INSTITUTIONS THAT CHANGE THE WORLD

Orthodox Theory of Central Banking Reconsidered: Explaining varieties and change of central banking norms

Arie Krampf

a.krampf@mta.ac.il

Version: August 2014

Contact:
Arie Krampf , PhD.
School of Government and Society
The Academic College of Tel Aviv Yafo
Rabeinu Yeruham 2,Tel Aviv-Yaffo, 6818211, Israel
Mobile:: 00972-50-6911821
Email: arie.krampf@gmail.com; a.krampf@mta.ac.il

Orthodox Theory of Central Banking Reconsidered: Explaining varieties and change of central banking norms

Arie Krampf, Academic College Tel Aviv-Yaffo

Monetary theory is 'in history': it is influenced by the course of events in the 'real world', in a way in which other departments of economic theory are less influenced, or less continually influenced.[1]

1. Introduction

Central banking has become, since the 1990s, one of the most significant governing institutions in contemporary capitalism. The growing importance of central banks led to a watershed of research about the history of central banks,[2] the political economy of central banks and the diffusion of central banks. Despite the historical richness of the literature, most of the scholars still adhere to a narrowly defined concept of central banking and central bank independence. Most researchers take for granted the assumption that a "good" and independent central bank, is one that pursued price stability, even at the expense of other desired policy objectives. Even sociologists who do not shared the notion that "good" central banks should pursue price stability, accept that assumption that most central bankers adhere to this policy norm.

The recent financial crisis calls into question the economic and political premises of the orthodox theory of central banking. Whereas the central banking orthodoxy emerged in the 1990s promoted the norm the central banks should target one policy objective (price stability) by using one instrument (interest rate policy), following the crisis a "new normal" of central banking has emerged (Eichengreen and et al. 2011; Blanchard, Dell'Ariccia, and Mauro 2010; Flug 2014; José Manuel González-Páramo: 2014; ECB 2012). According to the new normal of central banking central bankers should watch for a larger number of economic indicators, they should pursue "financial stability" rather than only price stability, and they should employ various types of policy instruments. Whereas economists have discussed extensively the economic implication of the new normal, there has not been sufficient and systematic discussion of the political implication of the new normal.

---

[1] John Hicks, Collected Essays on Economic Theory of John Hicks, vol. 2, Clarendon Press, Oxford (1982), p. xii. Quoted in Fontana, Giuseppe. 2004. "Hicks on Monetary Theory and History: Money as Endogenous Money." Cambridge Journal of Economics 28: 73–88.

[2] (Wood 2005; Capie 1999; Singleton 2011; Goodhart, Capie, and Schnadt 1994; Holtfrerich, Reis, and Toniolo 1999)

The emergence of the new normal of central bank raises two types of question. First, how the new normal affect our understanding of the notion of central bank independence? Does the new normal imply that central banks became less independent? Or maybe it implies that we have to update our definition of central bank independence? A second type of question concerns the historical mechanisms that explain institutional change of central banking structure, objectives and instruments: what are the factors that lead central bankers to redefine their objectives and practices? Who are the key actors that drive these changes? This set of question concern not only the recent developments but it concerns mythological and theoretical questions regarding the history of central banking in general.

In this article my aim is to critically discuss the prevailing theories of the political economy of central banking and the way they explain the evolution of central banking. I discuss the orthodox theory of central banking, which is an economic theory, and the sociological approach to central banking. I argue that both theories fail to explain the recent developments in central banking in particular as well as the evolution of central banking in general. Then, I present alternative approach the purpose of which is to explain long-term changes of central banking objectives and instruments. This theory draws on insights of historical institutionalism and IR theories.

2. The Orthodox Theory of Central Banking

The orthodox theory of central banking is presented in its most developed and concise form in Alex Cukierman's book, *Central Bank Strategy, Credibility, and Independence: Theory and Evidence* (Cukierman 1992). The book is highly quoted by economists, political economists and sociologists as the most authoritative account of what central banks are.

Cukierman's theory of central banking, to which I will refer as the "orthodox theory", is based on rational-choice theoretical foundations. According to this view, central banks are institutional solutions to the time-inconsistency problem. In its general form, time inconsistency problem arises when policy makers have an incentive to make promises but they do not have an incentive to keep it. As North and Weingast explains "while parties may have strong incentives to strike a bargain, their incentives after the fact are not always compatible with maintaining the agreement: compliance is always a potential problem" (Douglas C. North and Weingast 1989, 806). In such institutional environment transactions are associated with high risks and uncertainty, which reduce economic performance. Therefore, rational societies developed institutional arrangements that induce "credible commitments". The existence of credible commitments creates "superior governance structures within which to organize transactions may be devised"

(Williamson 1985, 48–49). Central banks can serve as mechanisms that commit governments to keep their promises to markets and unions not to print money.

An additional justification for central bankers to make commitment to price stability is based on the rational expectation literature. According to this literature inflation targets are the most efficient monetary policy rules (Kydland and Prescott 1977; Barro 1986). In the 1990s a consensus emerged among economists according to which the best way to ensure adherence to the monetary rule of low inflation targeting is the establishment of an independent central bank with the mandate to pursue price stability. According to this view central bank independence was defined as the "ability of the bank to stick to the price stability objective even at the cost of other short-term real objectives" (Cukierman 1992, 370).

Several economists pointed out that this definition mixes together two different features of the central bank: its *institutional independence* and its *conservativeness* (Berger, Haan, and Eijffinger 2000). Whereas institutional independence is measured by the central bank institutional feature, conservativeness is measured by the legal directives that constrain the governor to the objective of price stability.

We may demonstrate the distinction between conservativeness and institutional independence by looking at the elements of the central bank independence index. The index of central bank independence devised by Cukierman, Webb and Neypati (CWN) (Cukierman, Webb, and Neyapti 1992) and by Cukierman (1992) to measure the legal independence of central bank. The legal independence index is considered the best available proxy for the actual independence of central banks.

The index consists of four key elements: (1) the features of the central bank law concerning the appointment, dismissal, and term of office of the chief executive officer of the bank—usually the governor; (2) the features of the central bank law concerning the policy formulation cluster, which concerns the resolution of conflicts between the executive branch and the central bank over monetary policy and the participation of the central bank in the budget process; (3) the features of the central bank law concerning the objectives of the central bank; and (4) the features of the central bank law concerning the limitations on the ability of the central bank to lend to the public sector; such restrictions limit the volume, maturity, interest rates, and conditions for direct advances and securitized lending from the central bank to the public sector (Cukierman, Webb, and Neyapti 1992, 356–357).

The four elements are of two sorts. The first and the second elements capture the institutional independence of the central bank and they are not related to the central bank objectives. Together, these the institutional elements comprise 35 percent of the index. The third and fourth elements are theory-laden: they capture the extent to which the central banker is tuned to a specific economic theory that preached for the

prioritization of price stability over other policy objectives. These elements comprise 65 percent of the central bank policy (Table 1).

Table 1
Components of CBI Index

Element in the Central bank independence index			Weight (%)
Institutional features 35%	Chief Executive Officer		20
	Policy Formulation		15
Theory-laden features 65%	Objectives		15
	Limitation on Lending to Government	Limitation on non-securitized lending	15
		Prohibition on securitized lending	1
		Terms of lending	1
		Potential borrowers from the bank	5
		The currencies in which limits are stipulated	5
		Maturity of loans	2.5
		Prohibition on buying and selling government bonds	2.5
Sum			100

Source: (Cukierman, Webb, and Neyapti 1992)

The mixture of institutional independence and conservativeness becomes critical when the index is used to analyze policy. Several studies have shown that in practice the institutional independence is a better predictor of price stability than the conservativeness of the bank (De Haan and Kooi 2013; Debelle and Fischer 1994). These findings imply that the capacity of the central bank to achieve price stability does not depend on the formal objectives of the bank as stated by the law, but rather by way the central banker uses its institutional independence.

This conclusion is important also from an historical perspective. It implies that if we wish to explain the behavior of central banks, the central bank mandate should not be taken as our primary source evidence. This conclusion is supported by claims that in many cases central bankers do not stick to their mandate. Stanley Fischer, for example, argues that the Bundesbank, which allegedly stick to price stability, took into account also growth and unemployment (Fischer 2011; see also Cagliarini, Kent, and Stevens 2000;

Fischer 2010). Moreover, in 1997, when the norm of price stability targeting prevailed worldwide, Mervin King, previously the governor of the Bank of England, coined the term "inflation nutter" to refer to denigrate central bankers who took seriously the policy rules of price stability targeting (King 1997).

The gap between formal objectives of the central bank and policy outcomes is more pronounced in the case of developing countries. Even Cukierman, Webb and Neypti in their 1992 paper, acknowledge that institutional independence was a better predictor of low inflation than legal independence in developing countries (Cukierman, Webb, and Neyapti 1992). A study made by Sturm, Haan, and Jakob (Sturm, Haan, and Jakob 2001), in which they used a more extensive dataset and included also the period of the 1990s, reaches a conclusion that the index of central bank independence is not significant for price stability in developing countries and that the turnover rate became significant only in cases of very high inflation rate.

Hence, there is both theoretical and empirical ground to separate between institutional independence and conservativeness. In more general terms, there is ground for distinguishing between the institutional independence of the central bank and its objective. A history of central banking has to account for changes of the two features separately. Specifically, a history of central banking should trace how the legitimate objectives of central banks are constructed historically.

Another methodological conclusion that we can derive from this discussion is that the law is not always a very good proxy for the actual behaviour of central banks. To be certain, the law is not the key source of the central bank legitimacy. Some political economists and historians argued that the law is merely a reflection of the preferences of a given society. According to this view, the Bundesbank was not independence because the law endows it with independence, but rather the consensus within the Germany society regarding price stability is the underlying explanation for the policy of the Bundesbank (Bernd 1998). Also in the case of the Fed: economic historians point out that the actual independence of the Federal Reserve during Paul Volker's chairmanship stemmed from the support of the Reagan administration (Goodfriend 2007). Along this line of argument, Cobham, Cosci, and Mattesini found several determinants of high informal independence: social consensus on the means and ends of macroeconomic policy, the acceptance that monetary policy is the sphere of the central banks and the relative technical expertise of the central bank (Cobham, Cosci, and Mattesini 2008).

To sum, the orthodox definition of central bank independence is theory-laden. It is an ahistorical definition and therefore it cannot serve a basis for long-term historical studies of the evolution of central banking. To understand the long-term evolution of central banking it is necessary to distinguish between the institutional independence of

central banks and their objective. Changes of each of the two features have to be explained separately.

3. Plurality of goals

Historical accounts of central banking demonstrate a much richer picture of central bank objectives and instruments and their change over time. In this section I provide a brief survey of the key objective the central banks fulfilled in different countries in the twentieth century. I conclude that in most cases central banks pursued stability; however the definition of stability varied significantly. Only in developing countries central banks pursued other goals than stability.

Historians of central banking highlight the distinction between central banks that prioritized domestic stability and central banker that prioritize external stability. Goodhart, Capie and Schnadt argue that the "the main objective of central banks, over the centuries, has been the maintenance of the (internal and external) value of the currency" and that this objective "almost always been achieved via the same instrument, varying the central bank's discount rate" (Goodhart, Capie, and Schnadt 1994, 1). Domestic stability is usually defined as price stability, whereas external stability is defined as exchange rates stability and balanced current account.

As in many cases there is a conflict between domestic and external monetary goals, Goodman suggests that different central banks chose to prioritize different types of goals (Goodman 1992, 7; see also Siklos, Bohl, and Wohar 2010, 12–21). This claim was supported by comparative studies on central banking that explain why certain countries have a preference for price stability while others to external stability (Bernhard, Broz, and Clark 2003; Broz 2002; Moser 1999; Posen 1995; P. A. Hall and Franzese 1998).

Moreover, in some countries central banks put more emphasis on the objective of growth and employment. The Bundesbank, for example (until the establishment of the ECB), is known to prioritize price stability, whereas the Fed is an example of a central bank that pursue also growth (Holtfrerich, Reis, and Toniolo 1999, 4). This distinction, however, is based on the formal mandate of the two central banks. In practice, the prioritization of the two objectives by the central banks dependent on economic conditions, identity of the governor and the position of the government.[3]

Another policy problem that that central bankers have been concerned by throughout the twentieth century is financial stability. Financial stability differs from both price stability and economic stability as it focuses on the financial and banking system. Overtime, the views regarding the extent to which central banks should be involved in

[3] During the term of Paul Volker the Fed prioritized price stability amid the very high inflation level and the full support of the Reagan administration.

issues of financial stability and regulation changed and changed again. There are also cross-country and cross-regional variations. A case in point is the Federal Reserve System until the 1970s. The Fed was established in a completely different context from that of the European central banks. In the United States the established to fix the national payment system (Mehrling 2010). Therefore, the Fed functioned as a "bankers' bank"—it mediated between commerical banks rather than between the natinal finance and the private banking system.

The European central banks were established in order to increase the credit worthiness of the sovereign in the context of war financing (Broz 1998) and therefore their independence from the sovereign was their key asset. In the nineteenth century they played the role of a Lender of Last Resort amid frequent banking crises (James 2010). It was only after the dissolution of the gold standard that the objective of price stability and the fight against inflaiton became standardized and instituitonalized (albeit not yet a common policy among central banks).

From the 1930s and until the liberlizatrion of exchange controls in the 1980s European central banks played a key role as Euoprean payment system. Until the early 1950s it was done bilaterally and after the establishment of the European Payment Union it was done multilaterally (Eichengreen 1994; Ungerer 1997; Kaplan and Schleiminger 1989). The role of the central bankers contributed to stability of the European economy.

In developing countries central banks fulfilled a completely different role. Due to the underdeveloped nature of the economies and their exposure to external shocks, central banks regulated and intervened in the domestic banking system by various means (Bloomfield 1957; Brimmer 1971; Coats and Khatkhate 1979) for discussion see (Krampf 2014; Krampf 2013b; Krampf 2009). These unique central banking practices that have highly praised in the 1950s by economists such Robert Triffin (Triffin 1944) and Arthur Bloomfield (Bloomfield 1957), were presented as politicization of central banking by Western economists (Fry 1997).

This historical survey demonstrates that central bankers fulfilled different roles in different eras and in different regions. We may identify five types of objectives that central banks have pursued:

- Domestic stability defined as price stability or low inflation.
- External-stability defined as stable exchange rates and/or balance current accounts.
- Economic stability defined as sustainable growth and employment.
- Financial stability, both domestic and international or regional.
- Economic development and state building.

The orthodox theory of central banking recognizes the legitimacy of only the first type of objectives. When central bankers pursue other objective they are considered less independent and politicized. However, if we separate between the institutional independence of the central bank and the objectives of the central bank, we may argue that over history central banks have pursued different policy objectives *as independent institutions*.

This conception of central banking raises whole new set of questions regarding central banks: if central bankers do not pursue pre-determined rules, how their objectives are determined? What are the mechanisms that explain the formation and change of the legitimate objectives of central banks? What is the source of legitimacy of central bankers? In the following sections I make an attempt to answer these questions.

4. Central banking as an informal international institution

Central banks are special (but not unique) institutions in the sense that they play simultaneously at a domestic and at the international levels. On the one hand, central banks are domestic actors: they are established by state laws, governors are appointed by governments and they are accountable to the domestic public. On the other hand central bankers are international actors: central bankers behave according to international standards, the individual central banker is part of an international community of central bankers, central bankers cooperate with each other, they exchange information, and in many cases they have to coordinate their policies. Hence, how should we study central banks: as domestic actors that act at the international level or as an international institution that has domestic branches? Both approaches are "correct". However, each approach has different methodological and theoretical implications regarding the way we write the history of central banking.

In this section I survey the international roles of central bankers in order to demonstrate the extensive international roles central bankers have played in the twentieth century. On the basis of this survey I suggest that in order to trace and explain the long-term evolution of central banking, more weight should be given to the international role of central bankers and to the way these roles shape their domestic political position and behaviour.

Central bankers had not always played a significant international role. Until the mid-nineteenth century central banks were primarily domestically-oriented institutions. They fulfilled four main objectives. First, they mediated between the sovereign and financial markets, thereby enabling the reduction of the costs of financing the public debt (Douglas C. North and Weingast 1989; Broz 1998; Goodhart, Capie, and Schnadt 1994). Second, in early nineteenth century the role of the Bank of England as inflation fighter

was discussed in the context of the debate between the Currency School and the Banking School (Horner 1811; Arnon 2010). In 1844 the Currency School prevailed and the charter of the Bank of England endowed with monopoly over the issue of notes and forced it to maintain convertibility (BoE 1844). This role could be interpreted as an early version of a monetary policy rule. Third, in the nineteenth century, amid repeated banking crises central banks played the role of Lender of Last Resort at the domestic level (Bagehot 2005; Mehrling 2010). In addition, central bankers were also the government's bankers.

As the gold standard consolidated central banks became more externally oriented. This trend continued and expanded throughout the twentieth century. Even in periods characterized by national hostility, central bankers maintained a certain level of interaction. Therefore, the international roles of central bankers are important because in many cases they affect their domestic behaviour.

The international roles of central bankers, I suggest here, can be classified according to three types: *cooperation*, *coordination* and the *construction of international norms*.

Cooperation of central banks is a process in which central banks manage the international payment system. When one central bank runs out of foreign reserves it may appeal to other central banks for credit. In this way, central banks function as an informal payment union. Therefore, cooperation stabilizes the international system and it provides international liquidity. In addition, cooperation also includes exchange of information, mutual transparency and standardization of practices.

Cooperation in the sense of mutual financial assistance was common during the gold standard and it contributed to the stability of the international monetary system (Eichengreen 1986; Eichengreen 1996). However, in this period cooperation was restricted to cases in which it benefitted both parties (Flandreau 1997).

After the First World War cooperation was institutionalized and central bankers became a community characterized by shared causal and principled beliefs. The driver of this process was the risk of the dissolution of the gold standard and the attempts to restore it. The leader of the community was Montague Norman, the governor of the Bank of England, who sought to produce common standards of central banking, which he called "the New Doctrine of Central Banking". This was done through a series of international conferences (Brussels 1920; Genoa 1922) and eventually the establishment of the *Bank of International Settlements* (Toniolo 2005). The BIS played a key role in this respect. In the 1930s it was described as "essentially a meeting place where monetary authorities from different countries can gather and discuss their problems. For this purpose it is admirably adapted" (quoted from Toniolo 2005, 196).

At that period central bankers developed a common identity that surpassed their national identities. They conceived themselves as the promoters of the "real" long-term interests of the European society and the global society, amid the nationalistic wave that swept European governments. When the Second World War broke out central bankers continued to cooperate. As Toniolo explains:

> In the autumn of 1939, the latter [i.e., the central banks of Europe] made the crucial decision to keep the BIS alive during the war, and not merely in a dormant state. Throughout the following years, for a number of reasons… central banks—both belligerent and neutral—stuck to their original decision. In a very meaningful way, they effectively (if indirectly) cooperated in keeping their creature alive and well, as circumstances allowed (Toniolo 2005, 203).

Coordination is a process in which governments and/or central bankers adjust their (monetary) policies according to the policies of other countries (procedural coordination). If successful the process of coordination leads to coordinated policies (substantial coordination). The aim of coordination is to harmonize between the domestic preferences of each country and the collective preferences of the community in stable international monetary system.

Processes of coordination may take different forms. Each form is characterized by different process and by different distributive outcomes. Coordination may be achieved through negotiation between governments. In this case each country adjusts its policies to the other. Such process took place within the G7 in the 1980s and led to the Plaza and Louvre Accords (Funabashi 1988; Baker 2013).[4] Coordination may be also achieved by subordination, when powerful country or countries impose its preferences on another country or countries (Andrews 2006). Whereas in the first case the burden of adjustment is distributed more symmetrically, in the latter case it is shifted toward to the weaker country.

The role of central bankers in coordination is not formal and there is agreement among scholar regarding the extent to which central bankers affect outcomes. Realists would undermine the role of central bankers, whereas liberal IR scholars and constructivists would assume a greater role for central bankers. I would argue that the question should be settled empirically and cases by case. Rather than assuming the central bankers have a capacity to shape outcomes, I argue that a historical research should identify the condition in which central bankers have more (or less) capacities to shape patterns of coordination.

[4] Realists minimize the extent to which the community of central bankers shape outcome. Whereas social constructivists relegate to the community of central bankers a more significant role in shaping the outcome of international negotiation (Kenneth Dyson 1994; Verdun 1999a). Some liberal acknowledge that communities of experts do affect outcome by providing a "focal points" or "roadmaps" for the political parties (Haas 1992; Campbell 2002).

For example, it may be the case that central bankers had a significant capacity to shape outcomes at the European context, as several scholar argue (Verdun 1999b)(K. Dyson and Featherstone 2001) (McNamara 1998), due to the highly institutionalized structure in the European Union, than in other international contexts. But this is still an open question.

The third international role of central bankers is *the construction of international norms* and standards of behaviour for central bankers. The experience of central bankers in their policy area and their prestige is unique and therefore their recommendations, if unanimous, can hardly be challenged on economic grounds by other actors. They can be of course rejected by governments on political grounds, but this might involve a political cost. Central bankers as a community possess the moral authority not only to recommend policies, but also shape the perceived long-term interests of the international community. Whereas each government is accountable to its consistency and to domestic actors, the community of central bankers conceives itself—or at least pretends to be—accountable to the international society.

The role of central bankers as norm creators is not alternative to their roles in cooperation and coordination. Rather, the construction of norms and standards serve the purpose of cooperation and coordination. First, norms, transparent rules and standards create a sense of *fairness* within the community of central bankers and it contributes to its differentiation from political actors. The first occasion, in which central bankers created transparent norms of behaviour was in the 1930s. As the gold standard disintegrated Montague Norman made an effort to construct a "New Doctrine of Central Banking". The report of the Bank of England explains the motivation for the New Doctrine: "The terms on which we do business with foreign Central Banks have been worked out experimentally, rather than systematically thought out'. These terms "may seem to be inconsistent and even capricious".[5] Now, it continues,

> we may know the principles of Central Banking on which we try to work, we have not expressed them at any one time; our clients have to guess at them; and what they know of our practices may sometimes lead them to think that if there are any underlying principles at all, they are mysterious, perhaps quixotic, more probably hypocritical, and quite certainly haphazard in their effects.[6]

The sense of fairness within the community was essential to in order to overcome the national tensions between dominant central banks such as the Bank of England, the Fed and the Fed on the one hand and central banks of smaller countries. By creating standards of fairness central bankers as a community were more equipped to confront

[5] 'Central Banking (Revised Version)'.

[6] 'Central Banking (Revised Version)'.

individual governments. The community of central bankers stood behind any domestic central bank that had a conflict with the domestic government. This was specifically the case when the government faced financial crises and foreign central banks provided aid (???).

Second, norms produced by central bankers provide "focal points" that facilitate the consolidation of international agreements (Haas 1992). Focal points play a key role in the process of coordination. Monetary and economic coordination is a process by which countries seek to address collective action problems at the international level. Agreements, therefore, have to be both effective from economic perspective and political viable, in the sense that their distributive outcome should be consistent with the power-balance among key actors. Central bankers, as experts, may facilitate convergence toward certain solutions by providing ideational roadmaps that reduce the uncertainty regarding the behaviour of the other countries (Campbell 2002, 29).

Finally, central banking norms serve as "fillers" of governance gaps. This role is not discussed in the literature so far. Formal or even informal international regimes may include governance gaps.[7] Monetary regime designed and formalized by governments can never cover all the possible situations with which policy makers are likely to encounter. Some regimes contain more governance gaps and "ambiguity" than others, if to use Best's concept (Best 2005), but any regime is ambiguous to some extent. Policy norms produced by the community of central bankers fill these gaps and they provide guidelines for central bankers in cases the "rules of the game" are not fully defined.

To sum, in this section I argued that during the twentieth century central bankers the international roles of central bankers expanded. Therefore, they became more outward-looking actors. Their international roles, in many cases, I argue, shape their domestic behavior. Therefore, in order to understand the evolution of central banking in the long-run it is necessary to give more weight to the three international roles of central bankers.

5. Historicity and function: can they be reconciled?

One of the challenges in studying the history of central banking is how to reconcile the *function* and *historicity* of central banking. The main purpose of the orthodox theory of central banking is to explain the function of central banks. Therefore, its account of the history of central bank is narrow. The orthodox approach reduces the history of central banking to the fluctuation of central bank independence and to the deviation of actual central banks from the theoretical model of the "good" central bank. It evaluates its cases study in respect to the contemporary (orthodox) standard of good central banking.

[7]

Therefore, it does account for what I term the historicity of central banking, the process in which the standard of good central banking changes over time.

Sociological theories of central banking, on the other hand, focus on the historicity of central banking independence, objectives and instruments. Therefore, it fails to capture the unique roles that central banks play in the political economy. From a sociological perspective a central bank is an "institution called central bank" (Marcussen 2005) that employs discursive strategies to expand its power and influence for the sake of self-survival.

Can historicity and function be reconciled within the same conceptual framework, and if so, how? I argue that reconciling historicity and function is essential in order to explain the long-term evolution of central banking. This can be done if an only if we historicize the function of central banks. This is done by including in the historical study the process by which the standards of good central banking is constructed. *This approach assumes that the function of central banks is determined by the prevailing consensus among central bankers regarding the legitimate goals of central bankers in concrete historical contexts.*

This assumption has too implications. First, if the function of central banks is determined by a consensus among central bankers, a historical study of central banking has to trace the process by which this consensus is constructed. This consensus is not constructed in the domestic arena but the international arena by the community of central bankers. This brings us back to our assumption that in order to trace the long-term history of central banking we should start at the international rather the domestic level.

Second, this assumption implies that the rationality of the central bank's behavior is constructed historically. This implication is consistent with Peter Hall's notion of policy paradigm (P. A. Hall 1993). A policy paradigm consists of set of ideas and hierarchies goals which are considered rational within a given historical context. It is also consistent with Rachel Epstein's notion of historically constructed rationality: "what actors believe is rational in a given context and […] what constitutes 'rationality' shifts over time" (Epstein 2008, 10–11). Hence, in order to reconcile historicity and function we have to historicize the very concept of the rationality of the economic action by tracing the process in which the certain policies gained the status of "rational behavior".

The methodological implication of the historicity of function for the history of central banking is that tracing the process in which central banking norms and standards have been constructed has to be an essential part of the history of central banking. In order to trace this process it is not sufficient to focus on individual central bank; rather, it is necessary to investigate the international community of central banker and how they shape the norms of the behavior of individual central banks because the norms are constructed collectively.

6. Central bankers as agents: rule followers or innovative agents?

The assumption that central bankers, as a community, shape international norms and standards of behaviour of individual central banks, leads to a question regarding the agency of central bankers.

The orthodox theory conceives central bankers as civil servants that follow predetermined policy rules. The central banker is endowed with extensive capacities to pursue only one specific objective. According to this approach what makes central bankers valuable from a social perspective is their capacity to follow rules, irrespective of pressure exerted by interest groups. The orthodox theory justifies this behaviour on the basis of two economic arguments. First, the new institutional argument regarding the importance of credible commitments for the performance of liberal economies and the protection of private property rights (Douglass C. North and Weingast 1989). Second, economists justifies the adherence to low inflation policy rule as an instrument to cure inflation expectations (Barro and Gordon 1984). The orthodox theory, however, fail to explain the motivation of central bankers to follow the rules. Principal-agent theories can provide only partial explanations (Banaian, Burdekin, and Willett 1998; Elgie 2002).

Sociologists also portray central bankers as rule-followers, but they explain it on a different mechanism. For sociologists central bankers, as a community, seek to expand their influence and defend their autonomy (R. B. Hall 2009). According to this approach, central bankers follow strict rules because formal rules provide the bureaucracy with an image of professionalism and it contributes to their autonomy from other actors, which have an interest in shaping the behaviour of the bureaucracy.

The sociological approach draws on Max Weber's conception of bureaucracy. For Weber, bureaucrats draw their authority from the rational-legal basis of their practice. Unlike other sources of authority, the bureaucrat follow formal rules, behaviour characterized the rational-legal source of legitimacy (M. Weber 2009). Following rules, which are based on legal principles and economic theories, depoliticize the policy area and defend it from political interference.

Hence, the orthodox and the sociological accounts of the ideal-type central bankers are very similar: both approaches conceive the central banker as rule-follower, a notion which is inspired by the Germanic-liberal notion of bureaucracy.

However, not all bureaucracies are characterized by following rules. In developing countries, for example, bureaucracies were characterized by extensive powers, discretion and they were not always bound to the legal principles. This type of bureaucracies was common in developmental states and late industrializers (Johnson 1982; Chang 1999). This type of discretionary bureaucracies is not restricted to developing countries and it was observed also in France (Loriaux 1999).

The notion of discretionary, innovative and experimental bureaucracy is alien to liberal and democratic values because it implies that unelected governing institutions are endowed with the capacity to exercise policy that has distributive outcomes. Therefore, from a liberal-democratic perspective discretionary and innovative bureaucracy is considered undemocratic, it is not consistent with private property rights and it might lead to corruption and crony capitalism. Nevertheless, many political economists of late-developing countries and emerging economies recognized the public benefit of discretionary bureaucracy (Evans 1995; Mukand and Rodrik 2002; Qian 2003). Hence, it might very well be the case that unlike the liberal-democratic assumption innovative bureaucracy might increase the social welfare despite its undemocratic and its illiberal implications.

I suggest here that historical accounts of central bankers demonstrate that their behaviour is more consistent with the innovative bureaucracy approach than with the Weberian notion of rule-following bureaucracy. The most recent example for the innovative tendency of central bankers is the response of the community of central bankers the subprime crisis and the Eurozone crisis. Since the subprime crisis a growing number of central bankers and economists in international financial institution of think tanks pushed for an adoption of a new approach to central banking. This change was promoted by the Group of 30 (G30 Working Group 2008; G30 Working Group 2009), by IMF economists (Blanchard, Dell'Ariccia, and Mauro 2010), by the BIS (Stefan Ingves 2011), and by the ECB (ECB 2012).

The response to the crisis was accompanied by explicit acknowledgement of central bankers that the old normal of central banking failed to address the crises and that a change is required in the international financial governance architecture (Krampf 2013a; Baker 2013; Quaglia 2012). Not all central bankers were happy with this change. Bundesbank officials such as Axel Weber and Jens Weidman and Andreas Dombert, for example, thought the non-standard practices of the ECB did not reflect a change of paradigm but rather simply a loss of its independence (Financial Times 2012; A. A. Weber 2011; Dombert 2011) (Michael Steen 2013).

One example is not sufficient to substantiate the claim that central bankers are characterized by innovation. However, this example is sufficient to put under question the conservative image of central bankers that the orthodox and sociological approaches constructed during the recent three decades.

7. The motivation of Central Bankers

The claim according to which central bankers behave as an innovative bureaucracy leaves us with an open theoretical question: what motivates central bankers? Why central bankers innovate?

The sociological conception of central bankers assumes that the motivation of central bankers, as any other actor, is attaining legitimacy and power (Barnett and Finnemore 1999). In order to seek legitimacy and power they use their key social asset that distinguishes them both from governments and from market actors: their prestige as experts. According to the sociological theories bureaucrats construct their self-image as neutral and disinterested actors. They depoliticize their policy area in order to secure their autonomy vis-à-vis other actors in the arena (Wendt 1999; Blyth 2012; Simmons and Martin 2014).

The sociological claim is supported by process took place in the 1990s. At this period a growing number of central banks worldwide upgraded their independence by making a commitment to the policy rule of price stability (Polillo and Guillén 2005; Maman and Rosenhek 2011). The orthodox theory of central banking legitimized the depoliticization of central banking by providing an economic and political rationale for central bank independence. Therefore, the experience of the 1990s supports the sociological argument.

However, in a long-run perspective the picture is different. Taking again the example the response of central bankers to the recent financial crisis, the emergence of the new normal of central banking within the community of central bankers poses an anomaly for the sociological account. The new normal of central banking renounced the "one objective one instrument"[8] ethos of the old (orthodox) normal of central banking and it promotes an alternative financial regulatory architecture in which the central banker have to take into account a large number of economic indicators and responsibilities (Eichengreen and et al. 2011; Blanchard, Dell'Ariccia, and Mauro 2010; Flug 2014; José Manuel González-Páramo: 2014; ECB 2012; Turner 2009).

Whereas the new normal does not reject the objective of price stability, it adopted the view that central bankers operate within an environment characterized by high level of uncertainty and complexity and therefore central bankers should watch for larger number of economic indicators and should be responsible for a larger number of objectives. In addition, the central banker, according to the new normal of central bankers, has to cooperate with other governing institutions in order to ensure financial stability. These trends weaken the capacity of the central bank to make commitment to one objective and they expand the discretion the central bankers. The new normal of

[8] The one objective is low inflation and the one instrument is interest rate.

central banking also blurs the differentiation between monetary policy making and other policy areas such as fiscal policy, exchange rate policy, banking regulation and financial supervision.

The emergence of new normal of central banking poses a puzzle for the sociological approach: why central bankers would promote a paradigm that rather than substantiate their autonomy weakens it? If central bakers drew their legitimacy from formal policy rules, why would they promote an approach to central banking that implies more discretion? I argue that the sociological approach cannot explain the motivation of central bankers to promote the new normal of central banking and that an alternative mechanism is needed to explain the motivation of central bankers.

8. The quest for output legitimacy

In order to explain the motivation of central bankers to innovate I adopt Fritz Scharpf's concept of output-oriented legitimacy. Output-oriented legitimacy is based on the "degree of effectiveness in achieving the goals, and avoiding the dangers, that citizens collectively care about" (Scharpf, 1999). This concept refers to the legitimacy of non-elected governing institutions, which address collective action problems that are "beyond the reach of voluntary cooperation in civil society and of market interactions" (Scharpf 2013). In other words, output-oriented legitimacy captures the extent to which the public—however defined—trusts the technocratic (and not democratic) institutions to solve policy problems, problems that democratic institutions fail to solve.

The notion of output-legitimacy is linked to the notion of innovative bureaucracy. Whereas the rule-based bureaucracy approach evaluates the bureaucrats according to its capacity to stick to pre-determined and transparent rules, the innovative bureaucracy approach evaluates the bureaucrats according to outcomes. Therefore, it might be the case that the notion of output legitimacy is in conflict with the fundamental principles of liberal-democracies. The concept of output legitimacy implies that if outcomes are desired, the illiberal and undemocratic procedures are legitimate.

The claim that the legitimacy of central banks depends on their performance is not new. Boulding, for example, argues that "If an institution [i.e., a central bank] provides good terms of trade with those who are related to it, up to a point this contributes to its legitimacy, especially in the long run (BOULDING 1969). On the other hand, "An institution which has very poor payoffs, demands a great deal of input from other people and gives very little output to them, is likely to have its legitimacy eventually eroded on this account" (BOULDING 1969).

Hence, the theory I present here assumes that central bankers are driven by the quest of output-oriented legitimacy. When a society faces a crisis—and in the twentieth century

crises are almost always international crises—central bankers are expected to provide a solution to the crisis. Otherwise, they might be held accountable for the policy failure, they will lose legitimacy and their independence may be curtailed.

The claim that central bankers are innovative bureaucrats does not imply that they never follow rules. Obviously they are. However, it argues that following certain policy rules is part of a broader institutional arrangement that provides a solution to a policy problem within a concrete historical context.

9. Long-term legitimacy vs. short-term independence

The assumption that central bankers are driven by the quest for legitimacy leads to another question: how to reconcile this assumption with the assumption that central banks are independent institutions?

Above I argued that my aim is not to debunk central bank independence but to historicize it. My aim is not to show that central banks are simply self-interested institutions that seek nothing but their own survival. Rather, my aim is to show that central bankers are actually independent, but their role as independent institutions is historically constructed. How, then, we could maintain the assumption that central bankers seek legitimacy, with the assumption that they still have a certain level of capacity to confront other actors?

To reconcile the two assumptions we have to distinguish between long-term and short-term processes. In the long-term central bankers seek output-oriented legitimacy and therefore they are not independent. In the long-run central bankers are expected to serve the preferences of the society they are embedded in (be it domestic or the international society).

This claim leads to a follow-up question, how the long-term preferences are shaped and who shaped them? The answer to this question is historical rather than theoretical: it is the task of the researcher to investigate how and who shape the long-term preferences of society. I would only say that central bankers take part in the process. Central bankers do not only behave in accordance to the long-term preferences but they also invest much effort to promote their definition of the "real" long term preferences of society.

In the short-term central banks are given a mandate to confront other actors—public or private—in order to achieve their goal. Therefore, according to this historical approach central bank independence is defined as *the capacity of central banks to confront other actors, public or private in order to achieve their goals.* This definition of independence does not say anything about the objectives of central banks, because we assume that these goals depend on what is to believe to the long-term interest of society.

The play between long-term legitimacy and short-term independence forces central banks to play a very delicate game in order to conserve their legitimacy and independence: *on the one hand, central bankers are expected to confront powerful actors (governments and private actors) in order to solve policy problems. They have the legitimacy to do that, within their formal mandate and informal legitimacy; however, on the other hand, their capacity to confront powerful actors is limited because the very actors that they confront have the capacity to shape the long-term preferences and to discredit the central banker policies. Therefore, the capacity of central bankers to confront powerful actors is limited.*

To sum, there is no contradiction between the assumption that central banks are independent (as having a capacity to confront other actors) and the assumption that they seek legitimacy. Rather, legitimacy and independence are linked causally: without legitimacy central banks will not have the capacity to confront other actors. At the same time, the independence is constrained by the prevailing conception of what is good for society.

This conclusion explains better the political status of central banks. The fact that central bank are independent does not imply that they are not political institutions. Central bankers are political institutions because they play a role in promoting a certain definition of the long-term preferences of society and in shaping those preferences. The fact that central banks are *political* institutions does not imply they are *politicized*. Being political implies that the central bank take part in the public debate that defines the public good; politicization is a situation in which the central bank captured by a powerful actor that influence the policy of central bank for its own advantage. The long-term evolution of central banking has to trace how central bankers shaped the long-term preferences of society as well as how certain central banking norms served these preferences.

It must be kept in mind that my use of the term "long-term preferences" is not essentialist but constructivist. I do not assume that the researcher know what these preferences are; rather, I argue that the political process by which these preferences are shaped has to be part of the history of central banking.

10. International legitimacy, domestic independence

There is still another point which is left ambiguous: the relationship between the domestic and international levels of analysis. The orthodoxy theory of central banking analyzes the political position of central banks at the domestic arena. It assumes that key source of legitimacy of central banks is their legal mandate. Above we saw that the legitimacy of central banks stem from other sources which are discursive and informal.

The question is how the two levels are linked. I argued that central banking norms and standards are constructed at the international level by the community of central bankers. Therefore, whereas each individual central bank operates within the domestic arena its legitimacy to so is constructed internationally.

This conclusion is not valid to all central banks. "Dominant" central banks, such as central banks of the G7 countries construct their legitimacy locally; whereas central banks of smaller countries are more heavily dependent on the legitimacy constructed internationally. In other words, the capacity of central banks of small countries to confront domestic actors depends to a large extent on the prestige of the international community of central bankers. This may be summarized in the following table.

11. Conclusion and discussion

The aim of this article was to present a conceptual framework that explains the long-term evolution of central banking. The starting point of the discussion was the argument that the orthodox theory of central banking fail to explain the evolution of central banking objectives and instruments and that its definition of central bank independence is not consistent with historical findings regarding the role played by central bankers through the twentieth century.

The article also argued that the sociological approach cannot provide an adequate account of the evolution of central banks. First, like the orthodoxy theory, the sociological approach conceive central bankers as rigid and conservative actors, and therefore it fail to explain institutional changes of central banks and ideational change within the community of central bankers. Second, the sociological explanation of the motivation of central bankers as an international community fails to explain paradigmatic changes within the community of central bankers.

To overcome the weakness of the two approaches, in this article I presented a middle-range historical theory that provides guidelines for the way history of central banking should be studied. The conclusions of the article may be summarized as follows:

1. The history of central banking should start by tracing the process by which the community of central bankers formulate norms of central banking. Only after this process is accounted for, case study may address the question how these norms are localized.
2. Central bankers are driven by the quest of maintaining their output-oriented legitimacy. This is done by addressing urgent policy problem in the monetary and financial policy area as well as by discursive effort to frame themselves as protectors of the long-term interest of the society (both global and domestic).

3. A history of central banking should not do away with the notion of central bank independence neither with the notion that central banks serve a function. However, the two concepts should be treated as historical objects: a history of central banking has to address the way central bankers shape the meaning of central bank independence and the way they shape standards that determine what the function of central banks should be.
4. Finally, a history of central banking should not assume that a homogenous community of central bankers neither the existence of a single set of central banking standards. The community of central banker may be divided and each sub-group may promote a different norms and standards of central banking.

References

Andrews, David M., ed. 2006. *International Monetary Power*. Ithaca, N.Y.: Cornell University Press.

Arnon, Arie. 2010. *Monetary Theory and Policy from Hume and Smith to Wicksell: Money, Credit, and the Economy*. Cambridge University Press.

Bagehot, Walter. 2005. *Lombard Street, a Description of the Money Market*. Echo Library.

Baker, Andrew. 2013. "The New Political Economy of the Macroprudential Ideational Shift." *New Political Economy* 18 (1): 112–39. doi:10.1080/13563467.2012.662952.

Banaian, King, Richard C. K. Burdekin, and Thomas D. Willett. 1998. "Reconsidering the Principal Components of Central Bank Independence: The More the Merrier?" *Public Choice* 97 (1/2): 1–12.

Barnett, Michael N., and Martha Finnemore. 1999. "The Politics, Power, and Pathologies of International Organizations." *International Organization* 53 (04): 699–732.

Barro, Robert J. 1986. "Recent Developments in the Theory of Rules Versus Discretion." *The Economic Journal* 96: 23–37.

Barro, Robert J., and David B. Gordon. 1984. "Rules, Discretion and Reputation in a Model of Monetary Policy." *National Bureau of Economic Research Working Paper Series* No. 1079 (February).

Berger, Helge, Jakob de Haan, and Sylvester C. W. Eijffinger. 2000. "Central Bank Independence: An Update of Theory and Evidence."

Bernd, Hayo. 1998. "Inflation Culture, Central Bank Independence and Price Stability." *European Journal of Political Economy* 14 (2): 241–63. doi:10.1016/S0176-2680(98)00006-8.

Bernhard, William, J. Lawrence Broz, and William R. Clark, eds. 2003. *The Political Economy of Monetary Institutions*.

Best, Jacqueline. 2005. *The Limits of Transparency: Ambiguity and the History of International Finance*. Ithaca, NY: Cornell University Press.

Blanchard, Olivier J., Giovanni Dell'Ariccia, and Paolo Mauro. 2010. *Rethinking Macroeconomic Policy*. International Monetary Fund.

Bloomfield, Arthur I. 1957. "Central Banking in Underdeveloped Countries." *The Journal of Finance* 12 (2): 190–204.

Blyth, Mark. 2012. "Paradigms and Paradox: The Politics of Economic Ideas in Two Moments of Crisis." *Governance*.

BoE. 1844. "Bank Charter Act 1844". Bank of England. http://www.ledr.com/bank_act/1844032.htm.

Broz, J. Lawrence. 1998. "The Origins of Central Banking: Solutions to the Free-Riders Problem." *International Organization* 52 (2): 231–68.

Broz, J. Lawrence. 2002. "Political System Transparency and Monetary Commitment Regimes." *International Organization* 56 (4): 861–87.

Cagliarini, Adam, Christopher Kent, and Glenn Stevens. 2000. "Fifty Years of Monetary Policy: What Have We Learned?" In *Reserve Bank Of Australia 50th Annieversary Symposium*, edited by Christopher Kent and Michael Robson, 38–40.

Campbell, John L. 2002. "Ideas, Politics, and Public Policy." *Annual Review of Sociology* 28 (January): 21–38.

Capie, Forrest. 1999. "Banking in Europe in the Nineteenth Century: The Role of the Central Bank." In *The State, the Financial System and Economic Modernization*, edited by Richard Sylla, Richard Tilly, and Gabriel Tortella, 118–33. Cambridge, UK: Cambridge university Press.

Chang, Ha-Joon. 1999. "The Economic Theory of the Developmental State." In *The Developmental State*, edited by Meredith Woo-Cumings, 182–99. Cornell: Cornell University Press.

Coats, Warren L., and Deena R. Khatkhate. 1979. "Money and Monetary Policy in Less Developed Countries: Survey of Issues and Evidence." *Economic and Political Weekly* 14 (46): 1881–1900.

Cobham, David, Stefania Cosci, and Fabrizio Mattesini. 2008. "Informal Central Bank Independence: An Analysis for Three European Countries." *Scottish Journal of Political Economy* 55 (3): 251–80.

Cukierman, Alex. 1992. *Central Bank Strategy, Credibility, and Independence: Theory and Evidence*. Cambridge, Mass.: The MIT Press.

Cukierman, Alex, Steven B. Webb, and Bilin Neyapti. 1992. "Measuring the Independence of Central Banks and Its Effect on Policy Outcome." *The World Bank Economic Review* 6 (3): 353–98.

De Haan, J., and W. Kooi. 2013. "What Really Matters: Conservativeness or Independence?" *PSL Quarterly Review* 50 (200). http://bib03.caspur.it/ojspadis/index.php/PSLQuarterlyReview/article/view/10569.

Debelle, Guy, and Stanley Fischer. 1994. "How Independent Should Central Bank Be?" In *Goals, Guidelines, and Constraints Facing Monetary Policymakers: Proceedings of a Conference Held at North Falmouth, Massachusetts, June 1994*, edited by Jeffrey C. Fuhrer. Federal Reserve Bank of Boston.

Dyson, K., and K. Featherstone. 2001. "The Road to Maastricht: Negotiating Economic and Monetary Union." *OUP Catalogue*. http://ideas.repec.org/b/oxp/obooks/9780198296386.html.

Dyson, Kenneth. 1994. *Elusive Union: The Process of Economic and Monetary Union in Europe*. London ; New York: Longman.

Eichengreen, Barry. 1986. "International Policy Coordination in Historical Perspective." In *International Economic Policy Coordination*, edited by Willem H. Buiter and Richard C. Marston, 139–78. CUP Archive.

Eichengreen, Barry. 1994. *Reconstructing Europe's Trade and Payments: The European Payments Union*. Ann Arbor: University of Michigan Press.

Eichengreen, Barry. 1996. *Globalizing Capital : A History of the International Monetary System*. Princeton, N.J.: Princeton University Press.

Eichengreen, Barry, and et al. 2011. *Rethinking Central Banking*. The Committee on International Economic Policy and Reform. Washington, D.C.: The Brookings Institution.

Elgie, R. 2002. "The Politics of the European Central Bank: Principal-Agent Theory and the Democratic Deficit." *Journal of European Public Policy* 9 (2): 186–200.

Epstein, Rachel A. 2008. *In Pursuit of Liberalism: International Institutions in Postcommunist Europe*. JHU Press.

Evans, Peter B. 1995. *Embedded Autonomy: States and Industrial Transformation*. Princeton, N.J.: Princeton University Press.

Fioretos, Orfeo. 2011. "Historical Institutionalism in International Relations." *International Organization* 65 (02): 367–99.

Fischer, Stanley. 2011. Interview with the author.

Flandreau, Marc. 1997. "Central Bank Cooperation in Historical Perspective: A Sceptical View." *The Economic History Review* 50 (4): 735–63.

Flug, Karnit. 2014. "Targets and Instrument of the 'New' Central Bank. Lecture at the Israeli Economics Association". Bank of Israel, Tel Aviv, May 20.

Fry, Maxwell J. 1997. *Emancipating the Banking System and Developing Markets for Government Debt*. London: Routledge.

Funabashi, Yōichi. 1988. *Managing the Dollar: From the Plaza to the Louvre*. Washington, DC: Institute for International Economics.

G30 Working Group. 2008. *The Structure of Financial Supervision: Approaches and Challenges in a Global Marketplace*. Group of Thirty.

G30 Working Group. 2009. *Financial Reform: A Framework for Financial Stability*. Washington, D.C.: Group of Thirty.

Goodfriend, Marvin. 2007. "How the World Achieved Consensus on Monetary Policy." *National Bureau of Economic Research Working Paper Series* No. 13580 (November).

Goodhart, Charles. A.E, Forrest Capie, and Norbert Schnadt. 1994. "The Development of Central Banking." In *The Future of Central Banking*, edited by Forrest Capie, Charles Goodhart, Stanely Fischer, and Norbert Schnadt, 1–232. Cambridge: Cambridge university Press.

Goodman, John B. 1992. *Monetary Sovereignty: The Politics of Central Banking in Western Europe*. Cornell University Press.

Haas, Peter. 1992. "Introduction: Epistemic Communities and International Policy Coordination." *International Organization* 46 (1): 1–35.

Hall, Peter A, and Robert J Franzese. 1998. "Mixed Signals: Central Bank Independence, Coordinated Wage Bargaining, and European Monetary Union." *International Organization*, International Organization, 52 (3): 505–35.

Hall, Peter A. 1993. "Policy Paradigms, Social Learning, and the State: The Case of Economic Policymaking in Britain." *Comparative Politics* 25 (3): 275–96.

Hall, Rodney Bruce. 2009. *Central Banking as Global Governance: Constructing Financial Credibility*. 1 edition. Cambridge, UK ; New York: Cambridge University Press.

Holtfrerich, Carl-Ludwig, Jaime Reis, and Gianni Toniolo. 1999. *The Emergence of Modern Central Banking from 1918 to the Present*. Ashgate.

James, Harold. 2010. *Central Banks: Between Internationalisation and Domestic Political Control*. BIS Working Papers No 327.

Johnson, Chalmers. 1982. *MITI and the Japanese Miracle: The Growth of Industrial Policy, 1925-1975*. Stanford, Calif: Stanford University Press.

José Manuel González-Páramo: 2014. "The Banking Sector towards the 'new Normal' – Some Considerations." Accessed May 2. http://www.bis.org/review/r110128a.pdf?frames=0.

Kaplan, Jacob Julius, and Former G. Nther Schleiminger. 1989. *The European Payments Union: Financial Diplomacy in the 1950s*. Clarendon Press.

King, Mervyn. 1997. "Changes in UK Monetary Policy: Rules and Discretion in Practice." *Journal of Monetary Economics* 39 (1): 81–97.

Krampf, Arie. 2009. *Translation of Central Banking to Developing Countries in the Postwar Period: The Case of the Bank of Israel*. Preprint / Max-Planck-Institut für Wissenschaftsgeschichte.

Krampf, Arie. 2013a. *From the Maastricht Treaty to the Post-Crisis Europe: The Changing Role of Central Bankers in the EMU*. Work in Progress.

Krampf, Arie. 2013b. *The Life Cycles of Competing Policy Norms: Localizing European and Developmental Central Banking Ideas*. KFG Working Paper 9. Berlin: KFG "Transforming Power of Europe." http://papers.ssrn.com/abstract=2256188.

Krampf, Arie. 2014. "Between Private Property Rights and National Preferences: The Bank of Israel's Early Years." *Israel Affairs* 20 (1): 104–24.

Kydland, Finn E., and Edward C. Prescott. 1977. "Rules Rather than Discretion: The Inconsistency of Optimal Plans." *Journal of Political Economy* 85 (3): 473–92.

Loriaux. 1999. "The French Developmetnal State as Myth and Moral Ambition." In *The Developmental State*, edited by Meredith Woo-Cumings, 235–75. Cornell University Press.

Maman, Daniel, and Zeev Rosenhek. 2011. *The Israeli Central Bank: Political Economy, Global Logics and Local Actors*. Taylor & Francis.

Marcussen, Martin. 2005. "Central Banks on the Move." *Journal of European Public Policy* 12 (5): 903–23.

McNamara, Kathleen R. 1998. *The Currency of Ideas: Monetary Politics in the European Union*. Ithaca, N.Y.: Cornell University Press.

Mehrling, Perry. 2010. *The New Lombard Street: How the Fed Became the Dealer of Last Resort*. Princeton University Press.

Michael Steen. 2013. "Bundesbank in Court Clash with ECB over Bond-Buying Plan." *Financial Times*, June 11.

Moser, Peter D. 1999. "Checks and Balances, and the Supply of Central Bank Independence." *European Economic Review* 43 (8): 1569–93.

Mukand, Sharun, and Dani Rodrik. 2002. *In Search of the Holy Grail: Policy Convergence, Experimentation, and Economic Performance*. National Bureau of Economic Research.

North, Douglas C., and Barry R. Weingast. 1989. "Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England." *Journal of Economic History* 49 (4): 803–32.

North, Douglass C., and Barry R. Weingast. 1989. "Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England." *The Journal of Economic History* 49 (04): 803–32.

Polillo, Simone, and Mauro F. Guillén. 2005. "Globalization Pressures and the State: The Worldwide Spread of Central Bank Independence." *The American Journal of Sociology* 110 (6): 1764–1802.

Posen, Adam. 1995. *Declarations Are Not Enough: Financial Sector Sources of Central Bank Independence*. NBER Chapters. National Bureau of Economic Research, Inc.

Qian, Yingyi. 2003. "How Reform Worked in China." In *In Search of Prosperity: Analytic Narratives on Economic Growth*, edited by Dani Rodrik. Princeton University Press.

Quaglia, Lucia. 2012. "The 'Old' and 'New' Politics of Financial Services Regulation in the European Union." *New Political Economy* 17 (4): 515–35.

Scharpf, Fritz W. 2013. *Political Legitimacy in a Non-Optimal Currency Area*. KFG Working Paper No. 52.

Siklos, Pierre L., Martin T. Bohl, and Mark E. Wohar. 2010. *Challenges in Central Banking: The Current Institutional Environment and Forces Affecting Monetary Policy*. Cambridge University Press.

Simmons, Beth A., and Lisa L. Martin. 2014. "International Organizations and Institutions." In *Handbook*. Accessed June 19.

Singleton, John. 2011. *Central Banking in the Twentieth Century*. Cambridge: Cambridge University Press.

Stefan Ingves. 2011. *Central Bank Governance and Financial Stability A Report by a Study Group*. Bank of International Settlments.

Sturm, Jan-Egbert, De Haan, and Jakob. 2001. *Inflation in Developing Countries: Does Central Bank Independence Matter?* SSRN Scholarly Paper ID 277288. Rochester, NY: Social Science Research Network. http://papers.ssrn.com/abstract=277288.

Toniolo, Gianni. 2005. *Central Bank Cooperation at the Bank for International Settlements, 1930-1973*. Studies in Macroeconomic History. Cambridge, England: Cambridge University Press.

Triffin, Robert. 1944. "Central Banking and Monetary Management in Latin America." In *Economic Problems of Latin America*, edited by Seymour Edwin Harris, 1st ed, 93–116. New York: McGraw-Hill Book Company, inc.

Turner, Adair. 2009. *The Turner Review: A Regulatory Response to the Global Banking Crisis*. Vol. 7. Financial Services Authority London.

Ungerer, Horst. 1997. *A Concise History of European Monetary Integration: From EPU to EMU*. Greenwood Publishing Group.

Verdun, Amy. 1999a. "The Role of the Delors Committee in the Creation of EMU: An Epistemic Community?" *Journal of European Public Policy* 6 (2): 308–28.

Weber, Axel A. 2011. *The Euro – Opportunities and Challenges at the Ragnar Nurkse-Lecture*. The Ragnar Nurkse-Lecture. Tallinn.

Weber, Max. 2009. "Bureaucracy." In *From Max Weber: Essays in Sociology*, edited by Hans Heinrich Gerth and C. Wright Mills, 196–244. Milton Park, Abingdon, Oxon: Routledge.

Wendt, Alexander. 1999. *Social Theory of International Politics*. Cambridge University Press.

Williamson, Oliver. 1985. *The Economic Institutions of Capitalism*. New York: Free Press.

Wood, John Harold. 2005. *A History of Central Banking in Great Britain and the United States*. Cambridge University Press

.