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# **The Fifth Age of Central Banking in the Global Economy**

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## Abstract

The paper presents scattered evidence that global central banking is heading towards a qualitatively and quantitatively new age: one characterized by scientization, horizontal bureaucratic extension, committee decision-making, transparency and outcome performance. These developments resonate well with Max Weber's concept of rationalization and they are expected to impact on how central banks engage in different modes of governance in transnational regulation, on how knowledge is being produced and political accountability transformed. In general, the case of central bank scientization may be an early indicator of more general trends in global governance: the increased importance of normative, cognitive and imaginary governance, the blurring border between science and politics, and the objectification of power structures.

Key words: central banking, global governance, scientization, rationalization

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Only dead institutions do not change. Central banks across the world are embedded in a variety of national contexts and histories, and, to different degrees, they are exposed to a multitude of challenges that require learning and adaptation in very specific situations. Globalization, regional integration processes, financial crises, wars and terrorist attacks impact differently on different central banks and in most cases central banks themselves feel that these challenges make flexibility and change indispensable. Seen in that light, we would not expect that central banks across the globe display isomorphic characteristics. Central bankers do indeed model each other's practices, structures and ideologies. However, they do not copy these features one to one. Rather, they translate institutional fashions from other contexts into a format that resonate with existing domestic structures, relations and ideas. Emulation does not necessarily imply institutional convergence. Indeed, in preparation of major institutional reform a comparative study commissioned by the Reserve Bank of New Zealand concluded that in the 1980s "there was little commonality among central banks in their precise functions, objectives, or even the question of who should set the objectives. The evidence was that few central banks at the time had well-defined, stable, objective functions" (cited in Singleton *et al.*, 2006: 140). And it has been argued that central bankers are an "oddly assorted bunch. Many national idiosyncrasies persist that may no longer have a place, though ... these may have deeper roots than many people assume" (Dean and Pringle, 1994: 338).

Despite the obvious danger of oversimplification I will neglect many of the differences that indeed exist and continue to exist between central banks. Rather, I will raise the level of abstraction to such an extent that central banks and the art of central banking are analyzed as categories in their own right. I will adopt a so-called macro-historical perspective on central banks and central banking with a view to spelling out some of the commonalities that exist in the world of central banking. The purpose of this exercise is to try to substantiate *a claim about where central banks are at the moment and whereto they are heading*. In short, I will claim that central banking is on its way into an *entirely new age, characterized by scientization, horizontal bureaucratic extension, external communication, collective decision-making and outcome management*. Max Weber's concept of rationalization that includes a striking *intellectualization* of the world; an *objectification* of things and actions via formal analysis and mathematical abstraction; a *technical mastery* via specialized practices and discourse; and *reification* (or thingification) of humans, machinery, raw materials describe well the development.

The scope of this paper does not allow that I present bulletproof evidence for my claims. The analysis will amount to what has elsewhere been categorized as a "plausibility probe", i.e. an exercise in presenting an argument that intuitively sounds plausible and puzzling and ought to be dealt with in further and more detailed empirical research (Eckstein, 1975). In the last part of the paper I will discuss which possible implications scientization will have for transnational governance, knowledge production and accountability.

## Global Trends in Central Banking

Because central banks and the practice of central banking are complicated phenomena it takes detailed case studies to really grasp the reasons behind, the content of and impact from institutional change. The fact that the practice of central banking typically is decoupled from the formal statutes

of the central banks in question further complicates the analytical endeavor (Siklos, 2002: 116). As mentioned, this paper takes the luxury of neglecting these well-founded methodological challenges, and, applying the “large brush strokes method”, it directs its attention towards macro-phenomena, i.e. institutional characteristics which in hindsight seem to have been shared by a majority of the central banks around. In other words, I neglect the individual trees in order to be able to get a good look at the forest. When doing that, it is common practice among central bank historians to distinguish between four stages in the development of central banking (Fischer, 1994: 262). In a first stage, special banks were created by governments to raise loans for the government; typically to be able to cover war expenditures. These central banks also regulated and took responsibility for the issuing of notes. In a second stage, central bankers were defined as the sort of entities that we recognize today as central banks proper. Central banks started to become banks to other banks, and thus accepting the responsibility for the stability of the financial system. The central bank was sometimes the lender of last resort and they were responsible for the management of the external value of the national currency. In a third stage, central banks were nationalized. They were entirely subordinated their government and should implement the general macro-economic policy. Monetary policy had multiple goals such as full employment, economic growth, price stability, and a stable exchange rate. Finally, in a fourth stage, central banks were given formal autonomy to pursue a single objective, most typically price stability. Central banks maintained their currency function and responsibility for the overall stability of the financial system (although their supervisory functions vary from country to country).

According to established knowledge in the area, the shift from the first to the second stage can be explained by the gradual development of private banking and the consequent risk of bank failure. The government’s bank simply had to take on additional duties to assist in situations of financial default, sometimes as lender of last resort. The shift from the second to the third stage, and from the third to the fourth stage can be accounted for by the consecutive crises in the form of economic depression and two world wars. With that background in mind, this paper raises the question whether globalization and risk society in general has implied that yet another stage in the development of worldwide central banking is taking form. In other words, is there enough empirical evidence to suggest that it is plausible that central banking is undergoing yet another paradigmatic change, moving into a so-called fifth age (Table 1)?

Table 1: Central Banking Throughout the Ages

	<b>First age 1600s-1800s</b>	<b>Second age 1873-1914</b>	<b>Third age 1930s-1970s</b>	<b>Fourth age 1980s-1990s</b>	<b>Fifth age? 2000s</b>
<b>Regime</b>	Mercantilism/colbertist nationalism	Gold standard/ Laissez faire internationalism	Bretton Woods/ Keynesian nationalism	Washington consensus/ Monetarist internationalism	Post-Washington consensus/ transnationalism
<b>Arena shifting</b>	Few state-owned central banks around	De facto autonomous central banking	Integrated central banking	Formally autonomous central banking	Scientization
<b>Bureaucratic scope</b>	Small – disparate	Establishment of basic structures	Building up	Building down	Building out (alliances)
<b>Decision-making</b>	Subdued the will of the principal	Discretionary	Public service machine bureaucracy. Process administration	Let managers manage. Business and output management	Committees and outcome management
<b>Communication</b>	Non-existent	Non-existent.	Legalistic – formalistic	Techno-speak	Transparency
<b>Targets</b>	Servicing the state and their war-economies	Currency stability	Multiple goals – internal and external	Monetary targeting	Inflation targeting

*The first four ages and macro-historical pendulum swings*

It is always dangerous to talk about institutional reform in terms of pendulum swings between two poles. It gives the impression that there exists only a limited set of reform options, and that ongoing reforms are only replications of past practices. However, if we have in mind that a pendulum is never swinging back to exactly the same position from where it came, the history of central bank reform can indeed be understood as one of pendulum swings from one fashion to the next (Goodhart *et al.*, 1994: 62-63).

Figure 1: Pendulum swings of fashions and practices

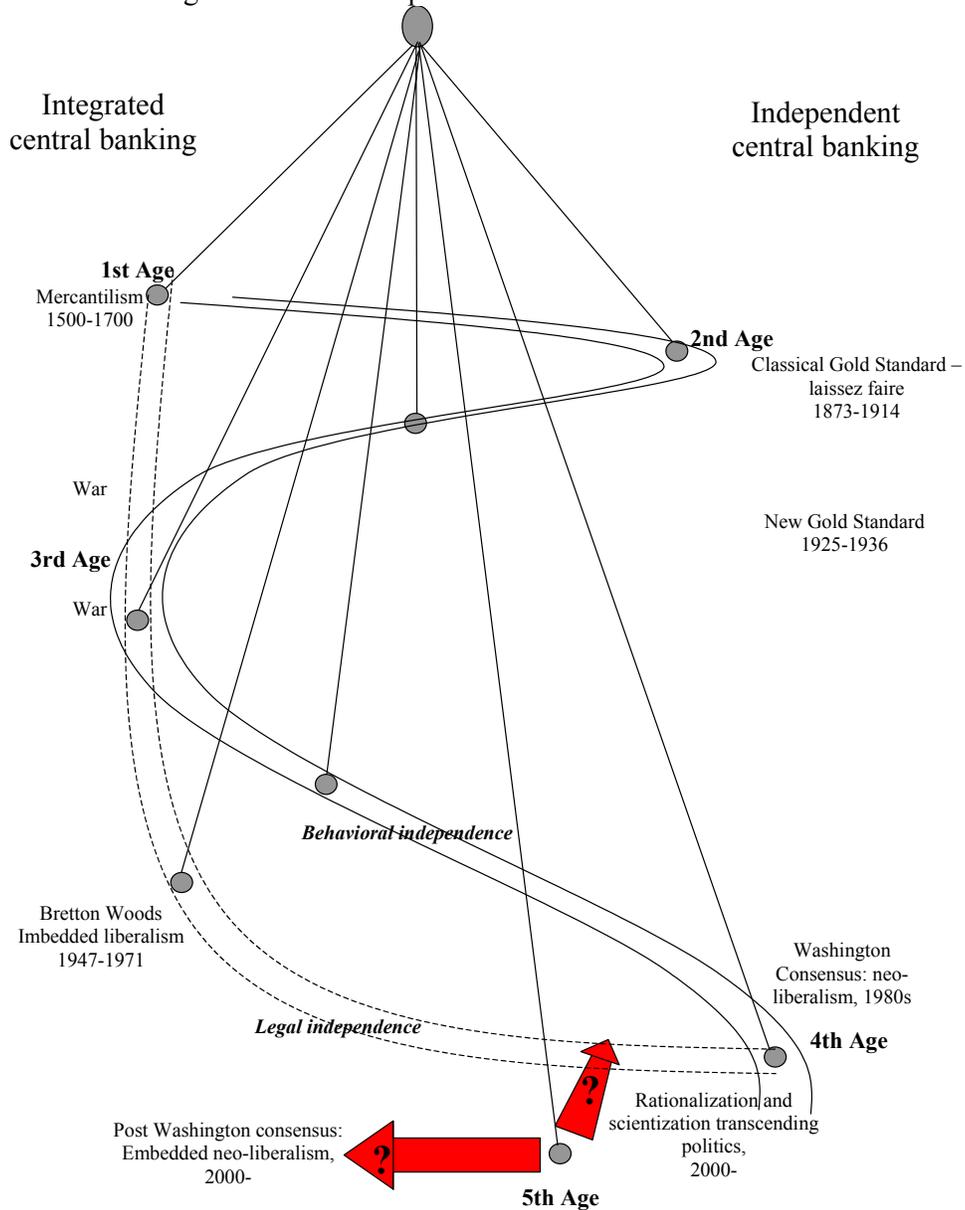


Figure 1 illustrates that within the area of central banking the institutional standing of central banks has oscillated between an ideal-typical situation in which central banking has been “formally integrated” into the state apparatus, and an ideal-typical situation in which central banking had a formally de-coupled and “independent status” in relation to the rest of the state apparatus. Going into the concrete practice of central banking, however, reveals that one thing is what is formally written in the statutes of the central bank (legal independence), and quite another thing may be how

independence is being experienced in day-to-day policy-making (behavioural independence). Over the last three to four centuries, behavioural and legal independence only seem to have coincided three times. In addition to these complications, it could be added that all central banks, disregarding their formal statuses, most of the time have an interest in working actively with, and not always against, the rest of the state apparatus. No organization can afford to run the risk to be completely without allies, either in parliament, in government or in society at large (Kettl, 1986). In other words, “central banks, whatever their statutory relationship with government, are unlikely to deviate far from the domestic political consensus about appropriate action” (Goodhart *et al.*, 1994: 20).

The first two central banks in existence, the Swedish Riksbank (1668) and the Bank of England (1694) were created by the state, for the state. It was not until the classical gold standard (1873-1914) that the stability-culture, which has been at the core of central bank activity until the present day, involved a considerable degree of behavioural independence of the concerned central banks. This was the golden era of central banking. Not only were the most important functions of the central bank metier invented, it was also a period in which typically conservative and liberal governments pursued a *laissez-faire* policy (Gallarotti, 1995). The general idea was that a general economic equilibrium should not be disrupted by untimely political intervention, as a result of which central bankers, on the whole, were left to themselves. Central banking was basically considered to be a technical endeavour. Elected politicians did not have great opinions about or plans for how monetary policies should be conducted on an every-day level. Thus, although the central banks, as a general rule, were not legally independent they behaved in distinct independent ways. With the approval of national politicians the central banks pursued an external stability objective, i.e. a relatively stable currency defined in relation to a certain amount of gold. Internal stability, i.e. employment and growth, only came second.

World War I abruptly ended the golden era of central banking. Everywhere in Europe the working classes started to organize themselves much more effectively than was seen hitherto. Through trade unions and social democratic parties they required political influence and, which is important in this regard, a changed perspective on the political priorities. In fact, the consensus about external stability first and internal stability second was turned upside-down (Eichengreen, 1992). During the war, a large number of barriers for the free movement of capital and goods had been introduced. In many places these were maintained after the war. The so-called ‘first globalization’ had come to an end (James, 2001). The stability culture that is so dear to central bankers faded away into the background even though the most powerful central bankers of the time, Montagu Norman at the Bank of England and Benjamin Strong at the Federal Reserve Bank of New York, travelled around the world to act as ‘monetary missionaries’ (Sayers, 1976; Chandler, 1958). Norman went to all parts of the British Empire whereas Strong covered Central and South America disseminating the doctrine of central bank independence and stability. Although their success was limited, they managed to prepare the ground for a new organization for central bankers, the Bank for International Settlement (BIS), whose primary objective was to enhance central bank cooperation, independence and stability (Toniolo, 2005).

During the 1930s, the worldwide recession put a definitive end to central bank independence. The central banks and their stability culture were often accused of being the main sources of unemployment, social unrest and extreme political ideologies. Another war broke out in that climate of depression and, towards the end of World War II, the consensus was now tipping towards ‘embedded liberalism’ (Ruggie, 1982). Accordingly, the focus on external stability should not prevent states from promoting employment and growth on their own territories. This was a compromise between particularly John Maynard Keynes’ focus on internal stability and Harry Dexter White’s focus on external stability and openness. After the war, many central banks were nationalized, and policy makers, with the help from the most recent scientific advances, more actively wanted to steer the societal machinery in a much more detailed way than was seen hitherto.

It was Keynesianism that was taught at university. Neo-classical economics was, for the time being, taken out of the curriculum. One of the founding principles of the Keynesian doctrine was that monetary policy was too important to be left only to the central bankers. Inside the world of central bankers, in the BIS for instance, the governors were still faithful towards the classical stability culture and, therefore, on some occasions “leaning against the wind” as former Fed chairman, William McChesney Martin Jr. expressed it (Kettl, 1986: 82). They were seemingly not disturbed by the fact that the political consensus had turned towards interventionism, deficit spending and growth, paying less attention to monetary stability. Central bankers found allies on the financial markets and among themselves and they had time to wait for the pendulum swinging back towards stability. They knew that, at some point, the world would realize that monetary – price and currency - stability is too important to be left to politicians.

This happened towards the end of the 1970s! A row of complicated factors – mistaken sheltering strategy in the face of the petrol shocks, change of monetary doctrine by Fed Governor Paul Volcker, the accession to power of Ronald Reagan and Margaret Thatcher, Milton Freedman’s intellectual diplomacy, idea diffusion by the OECD, neoliberal think tanks and the financial media – provided national policy-makers with a new paradigmatic set-up for their economic policies. Governments that came to power in the first part of the 1980s – whether Liberal, Conservative or Social democratic – were offered a complete ideational set-up as a replacement to old and discredited thinking. Some governments initially fought against this trend, François Mitterrand in France and Robert Hawke in Australia may be examples in point, but liberalized capital markets made such strategies increasingly difficult to uphold for longer periods of time. Signalling credibility and stability to the financial markets preoccupied national politicians everywhere. The ‘second globalization’ was soon a reality and a new golden era for central bankers emerged in the 1980s and 1990s with legal independence matching their behavioural independence.

The issue at this stage is to discuss whether we are witnessing empirical developments that somehow justify that it makes sense to talk about a new pendulum swing back in favour of more integrated central banking? Alternatively, it may be that the pendulum metaphor is unable to conceptualize the present developments and that the pendulum has started to swing in a completely different direction. Is a Post-Washington consensus emerging according to which social relations ought to be embedded in democratic political institutions or is central banking simply transcending politics by way of rationalization and scientization?

### *The Fifth Age – Significant Global Trends*

Which key trends are so significant and general in scope that they contribute to laying the foundation to a qualitatively and quantitatively new stage in the development of central banking? Attention will be directed towards five such trends that together may add up to constituting an entirely new world of central banking: scientization, horizontal bureaucratic extension, collective decision-making, external communication and outcome management.

*Scientization.* Whereas the 1990s was characterized by a worldwide upsurge in organizational reform enhancing the instrument autonomy of central banks, i.e. freedom from being supervised by political authorities in the process of implementing monetary and financial policies, the 2000s seem to be characterized by scientization. In the previous decade, monetary and, to the extent that bank supervision is in the hands of central bankers, financial policy-making were *depoliticized*. These two areas of policy-making were shielded from what was seen to be short-termish political considerations. The arena for ideological debate and political deliberation shifted away from the world of central banking towards other areas of political life. Central banking was somehow exempted from ordinary democratic decision-making.

In the present years, however, central banking is becoming increasingly *apoliticized*. Max Weber referred to this process as being one of “rationalization” – ideology is being displaced by science, central bankers gain legitimacy and authority by constantly basing their views on and excessively applying the language of science. Human affairs are being reduced to ‘calculable, cold, hard, “matter-of-factness”’ (Gregory, forthcoming), which lies outside - transcends - the sphere of political action. Scientization implies that power is being concentrated in the hands of those who master the discourse of science, scientific technospeak. Central banking is being a matter for intellectuals, thereby implying that it is an elite phenomenon with which elected politicians would not even consider to deal. It is being dehumanized, eliminating personal ideological and emotional features that escape calculation. In line with Max Weber’s portrayal of the ideal typical civil servant, central bankers are being presented and do indeed present themselves as passionless machines and specialists without spirit.

Scientization which apoliticizes the art of central banking is fundamentally different from autonomization which depoliticizes central banking. Autonomous central banking does not imply that media and politicians and other opinion-makers do not care about or pay attention to the metier of central bankers, but scientization does. Autonomous central banking does not imply that central bankers automatically are considered to be right when they make decisions, scientization does. And autonomization does not imply that central bankers are being uncritically listened to as the Delphi oracle, even when they speak out about matters that lie far beyond the narrow field of monetary and financial policy, but scientization does.

Of course, the claim here is not that central banking is “scientific.” Whereas genuine science is open-ended, keeping alive a continuing conversation between theory and practice not attempting to close debates and present general, everlasting truths about human affairs, central banking seem to be “scientific” representing a closed scientism which is “self-confirming, essentially an ideology or dogma presented in the guise of science” (Gregory, forthcoming).

Scientization expresses itself on many dimensions of central banking. Central bankers start to make epistemic alliances with other members of the scientific brotherhood (building out); co-incident, prejudices and discretion are being filtered out of decision-making in an instrument rational manner (collective decision-making); procedures are being made to minimize haphazardly and random reactions to central bank decision-making - irrational exuberance (transparency and communication); and measurable performance is based on few and exact standards (inflation targeting).

*Building out.* The first central banks were established more than three hundred years ago, but the real upsurge in central bank institutions proper took place in the interwar years and the world has seen a steady increase in the number of central bank institutions since then. Indeed, “[if] the fundamental, evolutionary criterion of success is that an organization should reproduce and multiply over the world, and successfully mutate to meet the emerging challenges of time, then central banks have been conspicuously successful” (Goodhart *et al.*, 1994: 91). Today almost all sovereign states in the world have established a central bank. It has become a sign of statehood on the same level as a national hymn, flag and army (Goodhart *et al.*, 1994: 26).

With the politicization of central banking in the immediate post WWII period, most central banks were charged with additional functions and grew considerably in size. Together with the rest of the national public administration, the number of personnel, departments, sections and administrative levels continued to grow. Central banks were building up their administrative structure. Integrated central banking could be characterized as a paternalistic, formalistic and hierarchical machine bureaucracy, in which employees had steady career prospects and where form and process mattered more than substance (Singleton, 2006: 240-243). The global wave of New Public Management

changed all that (Kettl, 2005). Everywhere central bank organizations went through considerable trimming – building down. It became an objective in itself to measure the success of central bank organizational reform in relation to the number of employees that were asked to leave the organization (see for instance, Mendzela, 2003). Modernization became synonymous with downsizing. The administrative and management culture changed as well. Whereas in the immediate post WWII period central banks were considered to be distinct public administrations, during the 1980s and 1990s they were considered to be businesses in their own right, or a subspecies of the category of state-owned enterprises. Managers were asked to manage their business, and each individual was evaluated on his or her ability to perform, i.e. to deliver a certain kind of output in time according to contractual obligations.

As a result of scientization and rationalization in the 2000s, this may be changing! As epistemic communities, central banks work in entirely different ways. They are opening up their distinct knowledge networks to like-minded allies, and closing off their relations to the uninitiated. Organizational boundaries are blurring, and so are territorial and cultural boundaries. Today, central banks are neither building up nor down, they are simply building out. They form collegial alliances in the national as well as in the global organizational field. Hierarchies are being broken down, and co-equal central bankers work closely together from project to project. Interesting and influential allies are being sought, preferably among those actors on the global institutional field of monetary policy-making who share central bank notions of rationality. Veritable transnational, epistemic clan structures or communities may be emerging in the world of central banking (on clans see Ouch, 1980). Such a development does not require less personnel (building down), but it does require a different sort of personnel possessing doctoral degrees in economics, that engage directly and actively with the scientific community. Slowly we will see that research departments in central banks are being established, expanding and taking on prestigious positions in central banks, we will notice that central bankers create scientific working paper series and finance their own scientific journals, and that management is being recruited from universities. Within the central bank scientific credentials will be effective career enhancing factors.

*Committee decision-making.* The history of central banking has typically been written with a particular focus on strong, decisive men that created, consolidated and defended the integrity and autonomy of their institution. One scholar concluded that “[t]hroughout the Fed’s history, its power over the economy has depended more on the political leadership of its chairman than on any other factor” (Kettl, 1986: 193). Bank of England Governor, Montagu Norman as well as a long series of Fed Chairmen are being presented as superhuman beings that constitute strong elements of these two central banks’ institutional legacies as well as role models for central bankers across the world. Throughout most of his governorship, Fed Chairman Greenspan, for instance, simply personified the central bank institution, not by law, but in practice (Meyer, 2004: 50-51, 74-75, 216). Thus, a former member of the Federal Open Market Committee (FOMC), the main decision-making forum of the Federal Reserve System, holds that “[f]rankly, to this day I do not know if I ever actually influenced a FOMC decision in my five and a half years” (Meyer, 2004: 166). In other countries, the role and responsibility of the central bank governor personally is spelled out in contractual form. The Reserve Bank of New Zealand is a case in point. Alan Bollard and, before him, Don Brash, were since 1989 personally responsible for achieving the inflation targets established together with treasury. Because of that personal responsibility, it is also in the end the Reserve Bank’s governor, and only him, that make decisions about interest rate changes. Being unable to fulfil these stated objectives, the central bank governor can be fired by parliament.

The focus on one-person performance may be changing now! Rationalization and scientization require that decisions cannot be left to charismatic individuals. Instrumental rationality (zweckrationalität) stands in contrast to value-rational (wertrationalität), affectual and traditional forms of social action. Therefore, it is just natural that collective decision-making is gaining ground

in the world of central banking (Blinder, 2006). In countries as different as UK, Japan, Sweden, Norway, Switzerland and Brazil, and many others, a monetary policy committee has been established. The same goes for the Committee-based European Central Bank that so far has replaced 12 central banks that used to be run by individual governors. No central bank that has collective decision-making has so far replaced that form of internal consensus building with a one-man show.

Over recent years, the increased depoliticization of central banking to a large extent explains why such a major change in decision-making mode has taken place. When central banking was fully integrated into the state apparatus during most of the Bretton Woods period, there was not much point in establishing decision-making in committees. Governmental orders were not meant to be discussed, and even less criticized. The job of the governor was to carry out other peoples' decisions rather than making informed decisions of their own. With central bank autonomy flourishing in the 1990s, central banks themselves were made accountable for efficient and effective decision-making, and many central banks have, in recent years, shifted to collective deliberation to enhance the knowledge repertoire behind decisions and, not to forget, to spread out accountability on more persons than one.

Arguments about the efficiency of decision-making, in contrast to argument about representational democracy, are being applied in favour of collective decision-making in central banks. Indeed, some experimental research demonstrates that committees actually make better and more informed decisions than individuals (Lombardelli *et al.*, 2005). Majority voting cancels out the worst performers in the committee and more knowledge is being shared. When Lars Svensson was asked to evaluate single-governor decision-making at the Reserve Bank of New Zealand, this was exactly a point he brought up for discussion, and he thought that it ought to be changed. He "considered it risky for one individual to have so much power over monetary policy" and he recommended that a monetary policy committee was established (Singleton *et al.*, 2006: 201).

*Transparency and communication.* Many myths about central banking date back to the classical gold standard where central bankers themselves constructed the art of central banking in esoteric and almost religious fashion keeping the functioning of the central bank temple as the best kept secret of all (Greider, 1989: 54). Thus, a legacy of the past is that central bankers, as a rule, do not interpret their role as consisting of communicating with the public on a regular basis or explaining their policies (Siklos, 2002: 82). No wonder that "central bank traditionally [has been] surrounded by a peculiar and protective political mystique" (Brunner cited in Goodfriend, 1986: 64). Speaking about central bankers, Milton Friedman once observed that they had two principal objectives "avoiding accountability on the one hand and achieving public prestige on the other" (Friedman cited by Fischer, 1990: 1181, fn. 5).

All this may be about to change! Today, there is a "general consensus among central bankers that transparency is not only an obligation for a public entity, but also a real benefit to the institution and its policies" (Issing, 2005: 66). Again, within central banking efficiency arguments, rather than arguments about democratic legitimacy and accountability, drive the case for central bank transparency and external communication. Although central bankers duly recognize that their institution cannot exist in a vacuum cut off from public scrutiny they primarily spend their time on making the scientific case for how transparency can enhance the effectiveness of their monetary policies. In other words, in their own way central banks translate the globally accepted norm of "good governance", which condemns secret and closed public administrations, to fit their own world. By way of targeted one-way communication, central bankers do not communicate with a view to learning from or adapting whatever argument may be raised against central bank policies. On the contrary, such market insensitivity or "leaning against the wind" is helping central bankers to consolidate their reputation of integrity and autonomy on the financial markets. When central

bankers talk, they talk with the financial markets, and not with the larger public (Blinder *et al.*, 2001). The argument is simple: central banks depend on financial and monetary markets to be effective and ‘rational.’ If markets are irrational, it will become difficult for the central bank to lay down a monetary policy strategy that helps it to reach its stated goals. One way in which the central bank improves the rationality and effectiveness of the financial markets is that it reveals not only its policy decisions, but also the arguments and data leading to its decisions. The clearer the central bank is about what it is doing and why, the easier it becomes for the financial markets to form an opinion of how the short-term develops. If the financial markets are clear about the short term, then, it is argued, the central banker can more easily achieve its objective on the medium- to long term.

Central banks that have a long history of policy effectiveness and credibility do not necessarily need to talk as much as central banks with a low level of perceived credibility. That is “why ‘nouveau riche’ institutions with poor credibility ‘talk,’ and why institutions that have a great ‘wealth’ of credibility can afford to whisper” (Eijffinger *et al.*, 2000: 119). This may explain why, in Norway, a hitherto unheard degree of transparency has been adopted. The Governor, Svein Gjedrem has decided that his quarterly inflation reports should contain projections of interest-rate levels three years into the future (*Financial Times*, 26 May 2006). Other central banks plan to follow the trend on the name of transparency, but critics argue “that there is no point in announcing intentions for the future if that future is clouded in mystery” (Paul de Grauwe in *Financial Times*, 26 July 2006: “A Central Banking Model for Neither Gods Nor Monkeys”).

Increased and improved communication with the external world is, of course, closely connected to the habit of making decisions collectively, rather than by individuals. Committee decision-making simply helps to open up the doors of the inner circles of the secret houses for professional central bank watchers in the financial media, stock exchanges and private banks. Transparency is also closely connected to the next global trend in central banking, inflation-targeting. In that regard, former Swedish central bank governor, Lars Heikensten argued that inflation targeting is being conducted now “almost by necessity with a high degree of openness and clarity” (Heikensten, 2005: 6).

*Inflation targeting*, i.e. the idea that the bank, typically together with the treasury of the country, decides on an acceptable range within which price inflation is allowed to settle, is now a world wide trend in central banking. Whereas central bankers during the classical gold standard were most interested in external stability, the value of the currency, central bankers in the post WWII period were asked to pursue several objectives at once such as growth, employment, financial and price stability. During the late 1970s and the 1980s many central banks started to establish monetary targets, which is an arrangement under which the central bank aim for a certain rate of growth of the money supply. In the US, the idea of monetary targets entered political discourse in 1974, but it took until 1979 before it was implemented by Fed Chairman Paul Volcker and then only lasting a couple of years as a watered down kind of “pragmatic monetarism” (Kettl, 1986: 144, 173). In practice, monetary policy was based on an eclectic use of economic theory. It proved to be incredible difficult to exactly determine what the money supply was, and which kind of impact it would have on price levels.

A new era of targeting started when New Zealand, as a first mover, formally announced an inflation target in 1990. The New Zealanders as well as outsiders, having been used to double-digit inflation levels for more than two decades, thought the first targets agreed upon in March 1990, 0-2 per cent, seemed radical. However, already after two years the objective had been reached (Bollard and Karagedikli, 2006). Today, a very large number of the world’s central banks have adopted explicit or implicit inflation targets (Mahadeva, 2000: 38). Both as professor of economics, ordinary member of the FOMC and now as Chairman of the Fed, Ben Bernanke has been an ardent supporter of inflation targeting (*Time Magazine*, 23 July 2006: “Gentle Ben. Inside the Head of the Fed”). The

IMF is now also taking an active part in diffusing the idea world-wide, as a result of which it has entered high on the agenda, not only among the largest and richest countries in the world, but also, and maybe particularly, among the poorest and most peripheral countries in the world, such as Albania, Botswana, Romania, Uganda and many others.

Former central bankers are sceptical. Paul Volcker, for instance, recently said that inflation targeting “is a little bit too tight for me. The inflation rate is bound to go up and down a little bit and it should go up and down a little bit” (Bloomberg.com, 14 July 2006). Harvard professor Benjamin Friedman is also extremely reluctant to embrace inflation targeting: “By forcing the entire conversation to take place in terms of only one aspect of economic activity that the central bank and the government care about ... inflation targeting tends to hide what the true objectives of the monetary policy are and therefore undermines transparency” (CentralBankNet.com, 11 February 2005). The debate is classical in central bank circles. It is one of discretionary policy making versus rule-based policy making (Fischer, 1990). Although inflation targeting can be seen as “constrained discretion” (King, 2004: 5), most analysts actually consider the explicit focus on one single performance criteria defined within a narrow fluctuation band as an excessive breach with the extended discretion which central bankers have fought for over decades and actually obtained. When Congress established the Fed in 1913 the job was thought to be relatively automatic. The rule-based automaticity was supported by monetarist theory from the 1930s and onwards, of which Milton Friedman was and is the most ardent advocate. From the 1960s and onwards, however, consecutive Fed Chairmen made it a central feature of central banking to adopt a discretionary, holistic, eclectic and pragmatic approach to monetary policy-making, i.e. not one that only focused on one single objective maintained within a narrow band (Kettl, 1986: 194). Targeting was not only considered to be an excessively constraining activity that could seriously undermine the utility of monetary policy, it was seen to be a threat to central bank independence, and, as we have seen, somehow a set-back for accountable policy-making in central bank circles. Furthermore, most recently, some of the first-movers as regards inflation-targeting, for instance Sweden, have in practice interpreted the targets in pretty flexible ways, which have made some commentators ask whether this is the beginning of the end for inflation targeting (Wolfgang Munchau, *Financial Times*, 5 June 2006).

However, inflation targeting can be seen as just another key-element of rationalization and scientization. By explicitly and strictly determining the criteria for success and failure, monetary policy-making is in many ways dehumanized. The scope for discretion and intuition – holistic and pragmatic central banking – is being narrowed down considerably, thereby confirming the external perception of central bankers as being one of passionless machines. The art of central banking is becoming objectified, thereby hiding the social character of monetary policy. The interests of real human beings and the political and power-related structures underlying central banking are being obscured by scientific and almost “divine” rules. An abstract and complex affair is simplified and objectified, made a thing rather than a malleable social relation (reification). Thus, reification may conceal everything which is actually arbitrary and socially changeable by representing it as immutably given (Berger and Luckmann, 1966: 106). As such, reification through scientization and rationalization could be considered an excellent form of social control, since those who may have a stake in central banking, ordinary citizens as well as elected politicians, exercise self-control and self-censorship, rather than engaging in direct debate, and thereby helping to politicize central bankers.

Scientization and rationalization may challenge our existing understanding of accountability, legitimacy, and power relations between civil servants and politicians. This is the subject for the next section. I will argue that the process of scientization may have consequences for how we conceptualize governance, for how and what kind of knowledge is produced, and for political accountability (Table 3).

## New Rules of the Game in Transnational Economic Governance

Table 3: The impact of scientization on governance, knowledge and accountability

<i>Governance Transnationalization</i>	
Governance Communities	→ Knowledge Communities
Political Governance	→ Knowledge Governance
<i>Knowledge Production</i>	
Scientific Pluralism	→ Scientific Overlay
<i>Civil Servant – Politician Relationship</i>	
Depolitization	→ Apolitization
External accountability	→ Internal Accountability

Scientization may imply that governance—the regulation of social behaviour—is being transnationalized, i.e. that *a movement from territorial governor communities to non-territorial knowledge communities* is taking place (Table 3). Central bankers have most of the time been involved in international cooperation. During the era of the Classical Gold Standard, international cooperation between central bankers was characterized by ad hoc and informal contacts (Tonio, 2005: 17). It was also characterized by a certain asymmetry, since some key central banks—i.e. The Bank of England—constituted the structural centre of the international web of contacts. Most information and contact ran to, from and via the bank that held the world’s reserve currency. Since World War II, international cooperation has become formalized in a large number of international organizations and also globalized, in view of the fact that more and more countries are now involved in increasingly complex ways.

Up till now, the many forums in which central bankers meet have been defined by their national members and the territory they represent. It has been possible to speak of communities of national central bank governors. International central bank forums have had a distinct territorial dimension—larger or smaller, depending on the number and type of members. Thus, international organizations such as these are fundamentally based on a territorial principle of organization and governance (Egeberg, 2005). The territorial dimension has always been present, but this may now be changing. If it is true that scientization is taking hold of central banking and that central bankers are merging to form a transnational knowledge community, territorial borders will cease to play a role and nonterritorial principles of organization and governance will start to become more descriptive of the field. Conflict structures and patterns of governance within a knowledge community do not respect territorial borders. Cleavage structures are defined according to the rules of the scientific game: intra-paradigmatic quarrels about theory, methods, data etc. Knowledge communities are being constructed, partly replacing and partly supplementing or overlapping with governor communities.

Governor communities consist of central bank governors who represent clearly demarcated territories. Knowledge communities, in contrast, include all scientists within a field—whether they are central bank personnel or not. A knowledge community may be broader or narrower in scope than a governor community, and knowledge communities are more dynamic and porous than governor communities. Membership of a knowledge community cannot be inherited in the same way as membership of a governor community. For instance, the governor of the Bundesbank will always be part of G10, but he will only be a member of the knowledge community as long as he continues to contribute to the generation of scientific knowledge.

To a much larger extent than international governor communities, transnational knowledge communities will be inclined to exercise soft governance. Central bankers may not be directly and continuously involved in the production of formally binding regulation – regulative governance. Rather, central bankers in knowledge communities seem to be more in the business of producing rules of appropriateness, standards and guidelines – normative governance; knowledge and data – cognitive governance; as well as meaning, common histories, myths about the past and visions about the future – imaginary governance. So, it is also possible that *a movement from political governance to knowledge governance* is taking place as a result of scientization. Political governance can, for the sake of argument, be simplistically defined as using regulation to solve a concrete societal problem. Until now, this practical dimension has always been a component of central banking. This is clearly illustrated by the following description of two key figures in the history of central banking who have played a central role in defining a veritable central bank culture—the British Montagu Norman and the American Benjamin Strong:

Norman and Strong had in common many things that predisposed them to congenial and effective cooperation. Both were bankers with long and responsible experiences in the greatest financial centers of their respective countries. Both shared a banker’s conservatism, distrust of ‘politicians’ and impatience with ‘theory’ that seemed inapplicable to ‘practice’ (Chandler, 1958: 260).

The practical aspects of problem solving – “the art of central banking” - rather than theorizing for the sake of theory – “the science of central banking” - have traditionally been central to the business of central banking. Theoreticians have not been held in high esteem in central bank circles, and it has been argued that the art of central banking is driven by intuition and life experience. Keynes, for instance, was viewed among central bankers as a distant theoretician, and Strong and Norman feared that people like him would overshadow the “practical bankers” (Jacobsson, 1979: 45).

This may no longer be the case, however. In contrast to political governance, knowledge governance can be defined as the production and dissemination of norms, knowledge and identity. Central to knowledge governance is the idea that knowledge production is an objective in itself (Gouldner, 1979)—i.e., more knowledge is better than less knowledge! Central bankers seem to have reached an intellectual level where the general impression is that they know how the economic organism functions and that their task now is to provide a theoretical background for all the practical knowledge they have accumulated. In central bank circles, as well as among other economic and political elites, a major consensus seems to have evolved about the need to understand macro-economic cause-effect relationships. As knowledge governance obtain a footing, central bankers exploit that consensus as a stepping-stone to formalizing that consensual knowledge and giving it model status.

Related to the development of knowledge governance is the question of what knowledge is and which aspects of knowledge should be expanded through intensified and systematic research. It is possible that scientization within central banking implies *a movement from scientific pluralism to strategic overlay of particular research disciplines and approaches*. Since central banks in many cases provide for their own income and to a large degree have a free hand when it comes to spending that money, and since central bankers tend to spend considerable amounts of money on a few areas of research activity, one would expect to see a noticeable expansion of research activity in some areas of research rather than others. Through the massive injection of central bank money into research activities in delimited fields of research many more actors will suddenly become players in the field of generating knowledge within a particular subset of macro-economic research. In other words, the scientization of central banking may cause a bias in research focus, since very few other sources of research funding, private or public, will be able to match the cash flow emanating from central bank circles. It is difficult to predict whether this potential research bias will have enduring consequences for the development of the science of economics in particular and the social sciences

in general, but it is to be expected that the scientific disciplines of most relevance to central bankers will tend to play a dominant role in the overall field of macro-economic research.

By the same token, just as specific scientific disciplines can become overemphasized by an extraordinary injection of funding, so can specific scientific approaches. The new impetus to macro-economic research may have an impact on the scientific discourse in general and, consequently, also on which approaches are considered to be marginal/peripheral and which are considered to be central/important (Kuhn, 1962 [1970]). Since the new actors in the knowledge game are relatively well financed and since it may reasonably be expected that they will have quite a narrow agenda, central bankers may be able to dictate the kind of discussions held in certain disciplines. Within the field of research on monetary policy, some voices in the ongoing academic debate may be strengthened while others become weaker. If central banking ideas about achieving stability via sound money, finances, and institutions have achieved the status of hegemony, this status can only be expected to be further consolidated by additional funding in its favour.

Within central bank circles, this power to actually influence the entire research climate and the conditions of research is fully recognized and even valued. The Swedish central bank governor held that “[s]everal of my academic contacts have stressed how valuable the contact with the central bank world is for their research” (Heikensten, 2005). The most recent evaluation report of ECB research, for instance, argued that the benefits to be attained by a central bank from engaging actively in academic research included the fact that the central bank “can stimulate and encourage external research on issues of interest to the central bank through publications, conferences, and consulting relationships” (Goodfriend *et al.*, 2004: 5). The “powerhouse of research”, the European Central Bank itself, has ostensibly already grasped the overall idea behind the concept of research management since it “uses its research capacity to encourage, coordinate, and lead research efforts of the national central banks of the Eurosystem” (Goodfriend *et al.*, 2004: 22). And this is not in vain! For the conclusion is that “[g]iven its place at the centre of a continental system of central banks, it is not surprising that the ECB has already had a major effect on academic discourse throughout Europe” (Goodfriend *et al.*, 2004: 24).

Scientization of central banking may also impact on the power relationship between civil servants and politicians, typically in favour of the unelected civil servant, ie. the central banker. As mentioned one result of scientization may be *a movement from depolitization to apolitization of the civil servant-politician relationship*. First, scientization consolidates the autonomous status of civil servants by objectifying monetary policy-making. It becomes “unthinkable” to start a political argument with a civil servant that possesses recognized scientific authority. Rather, to boost their own credibility, politicians might instead tend to socialize with and even publicly flatter the civil servant in question.

Second, scientization implies that civil servants with recognized scientific authority are encouraged to engage in policy issues and domains that are not part of their primary area of responsibility. The functions and responsibilities of the civil servant grow exponentially with the degree of scientization. This may take two forms. One is the case where the central banker on his own initiative start to engage in questions related to education policy, public administrative reform, and even cultural matters. Thus, researchers employed in the European Central Bank do not hesitate to express criticism with regard to the efficiency of the public sector in various European countries (Afonso *et al.*, 2003). In an American context, Chairman Greenspan earned a notorious reputation for speaking out loud on issues that are far beyond the authority of the Federal Reserve, including those that are politically contentious (Meyer 2004: 215). Another form is the case where politicians and media alike on their own initiative consult central bankers on question that are only marginally related to the art of central banking. This may take place in various hearings or in other public spheres.

Thirdly, scientization has an impact on the mode and type of communication taking place in the political sphere. Apolitization through scientization means that the entire language of public administration is changing. In contrast to political and administrative statements, a major characteristic of scientific statements “is that they are privileged in the sense that, if derived in accordance with scientific procedures, they are considered to give greater assurance of truth. It is more useful if conclusions on, say, what works and what does not work in government are scientific because scientific propositions are understood to be more reliable” (Farmer, 1995: 71). In other words, scientized civil servants become immune to political argumentation because only the language of science is a valid means of communication.

All of these considerations suggest that the locus of accountability in central banking may be about to change. We may see *a movement from external to internal accountability*. Whereas before, central bankers were accountable to the financial markets (during the 1990s) and politicians (during Bretton Woods), central bankers are increasingly accountable, first and foremost, to their scientific colleagues within the knowledge community. In knowledge communities, central bankers can only enhance their legitimacy and authority by complying with a number of scientific standards and subjecting themselves to continuous peer review processes.

Whereas before, central bankers were obliged to communicate broadly with politicians, citizens, and the financial markets, nowadays their communication is increasingly limited to communicating with their peers. In doing so, they apply an arcane scientific terminology that excludes a large number of people—including many economists. Thus, the current fashion in central banking circles for engaging in a debate about “How do central banks talk?” (Blinder *et al.*, 2001) or whether it is a good or a bad thing that central bankers talk (*The Economist*, 2004: 65) should not be interpreted as a general attempt to open the business of central banking to the broader public or to elected politicians.

## **Conclusions**

Do scientization and rationalization constitute a qualitatively and quantitatively new era for central banking, making the pendulum metaphor hitherto applied to describe central banking inappropriate? Is central banking developing from being an “art” to becoming a “science”? As emphasized all the way through this paper, Max Weber pointed to rationalization as a mega-trend of modern society, embodied in the reality of public administration. Later, in the 1970s, Gouldner argued that public administration is on its way to becoming fundamentally scientized (Gouldner, 1979). Thus, scientization as a phenomenon is, strictly spoken, not a revolutionary new phenomenon. It may not even adequately describe the world of central banking in all detail. However, there may be three solid reasons for why it is worthwhile paying attention to elements of scientization in central banking. A first reason concerns the role of the state in the globalized world. As the reality of globalization is taking form the state is embarking on new roles and functions, new actors continue to pop up on the global scene for governance, and a multitude of authoritative governance instruments are being applied. In this situation, the possible scientization of central banking might be an early indicator of what is maybe becoming a more general phenomenon in global governance, i.e. that the production of knowledge, norms and identity, rather than the production of traditional, enforceable regulation, is what matters. Scientization can simply be seen as a new mode of governance in transnational regulation, according to which rational, technical and objectified knowledge stands central for the authoritative allocation of goods in society (Drori and Meyer, forthcoming).

Second, it is worth paying attention to the nascent scientization of central banking because it problematizes the relationship between science producers and science consumers. The literature on

epistemic communities (Haas, 2004) tends to view these two spheres as separate, i.e. scientific knowledge is injected into the policy process from outside in situations of uncertainty with a view to helping policy-makers to construct meaning. The case of central bank scientization illustrates that those who produce science are not easily distinguished from those who consume science. Science and politics are not easy to disassociate. Central banks do not necessarily produce relevant, open, debatable and testable science. But they do indeed obtain a certain level of authority by presenting themselves as true scientists. Likewise, elected politicians seem to have tacitly agreed to leave large trunks of macro-economic policy-making to the discretion of unelected bureaucrats. This delegation of power can be justified in the name of science and it conveniently shifts responsibility for a problematic political arena away from the sphere of interest of elected politicians. The matter is objectified, no longer an art subdued the discretion of individuals, but rather a science subdued generalizable rules for the social world.

Finally, and connected to this latter point, the case of central bank scientization helps us to unravel the objectification of power structures. By doing so, we may better understand why national, regional and global governance structures suffer from democratic deficits. If monetary policy is somehow transcending politics, lifted out of the political game all together, how can support and demand then be channelled into the formulation, adoption and implementation of monetary policy? David Eastons' system perspective simply assumed that policy issues are salient and that concerned individuals and groups would attempt to channel their demands and support into the political system. Scientization and rationalization suggest that it may not be the case that interested parties engage in politics at all, particularly if the contentious issues and procedures are being brought beyond politization into the world of pseudo science, hidden in techno-speech and reserved for the few initiated. Scientization points to the need for uncovering these processes with a view to repoliticizing monetary policies and bringing politics back in.

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