

Changing Role of Central Banks: **Comparison of Practices**

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Political Economy of Changing Role of Central Banks: Comparison of Practices

[Central banks have long valued their independence and, when not literally independent of government, their operating autonomy. Immediately before and during the Second World War most central banks became the agents of their governments, in particular of ministers of finance, de facto if not literally nationalized until later. They regained their autonomy of action only gradually (the Federal Reserve in the celebrated “accord” of 1951, when the Fed ceased to support the government bond market), with many central banks achieving statutory independence only in the 1990s. Richard N Cooper (2006)]

Introduction: There are organizations in modern economies that neither evolved spontaneously for some economic reason (like e. g. firms), nor were set up out of pure necessity (like e. g. army), but were established by governments for their special interests. Usually, these organizations could not come to existence without the power of the government behind them, and in some cases they would disappear if their governmental protection ended. Nonetheless, many of these organizations have evolved through time (and sometimes they have changed their environments as well) in such a way that now they sub serve important economic goals—some of them even have a vital role in modern economies. A great example of such an organization is a Central Bank, but many other instances are at hand. Both historical experience and the public choice theory show us that such organizations might be dangerous for society if they are abused by the government. The theory and experience also show us that there might be (at least sometimes) a strong incentive for the government to abuse these organizations. That is why there is a strong pressure to make some of these potentially dangerous organizations independent of the government. However, with independence new problems might arise: the accountability, responsibility, and legitimacy of these organizations might become questionable.

What are central banks: Most central banks evolved out of private institutions, which at some point were endowed with special statutory powers, such as a monopoly on the issue of banknotes, and perhaps also special responsibilities, such as with respect to short-term financing of the government. Gradually they were transformed into public institutions, through government appointment of governors and perhaps other senior officials, and eventually often through outright nationalization. This process started in the 1930s (e.g. the Reserve Bank of New Zealand, the Bank of France in 1936, when Prime Minister Léon Blum assumed appointment of virtually all the Regents, the Bank of Canada in 1938, but was greatly accelerated by the financing and other requirements of the Second World War and its immediate aftermath. The Bank of England was nationalized in 1946, the Reserve Bank of India in 1948. From the beginning the Federal Reserve System of the United States had a peculiar status. Although created by Federal legislation in 1913, it is technically owned by its member banks, which appoint 72 of its 108 regional bank directors, who in turn select the regional bank presidents (subject to approval by the Board of Governors in Washington), who in turn participate in framing monetary policy. The seven governors are appointed by the President of the United States, subject to confirmation by the Senate, for 14-year non-renewable terms, with the chairman (Alan Greenspan, 1987-2006) appointed for a renewable four-year term. Originally the Secretary of the Treasury and the Comptroller of the Currency, both public officials, sat as ex officio members of the Board of Governors, but that provision was eliminated in 1934. The Federal Reserve thus remains a curious hybrid, a privately owned, quasi public institution, whose sole function is central banking (including bank regulation and supervision). Central banks have long valued their independence and, when not literally independent of government, their operating autonomy. Immediately before and during the Second World War most central banks became the agents of their governments, in particular of ministers of finance, de facto if not literally nationalized until later. They regained their autonomy of action only gradually (the Federal Reserve in the

celebrated “accord” of 1951, when the Fed ceased to support the government bond market), with many central banks achieving statutory independence only in the 1990s.

Even then, important ambiguities still remain, for example with respect to the setting of exchange rate policy and the management of exchange rates. Whether decisions are made by governments or by central banks is not always clear, nor who runs exchange risk, although execution is almost invariably the task of central banks. Thus “central bank cooperation,” or lack of it, often reflects the decisions of governments, not of central banks themselves. This ambiguity was concretely acknowledged when central bank governors were invited to join the Group of Ten in 1962 and the informal G-5 ministers of finance meetings starting in 1973, and their representatives also attended many meetings of the deputy finance ministers. Even during the 1920s, when the ethos of central bankers was to keep governments at a respectable distance, and the Federal Reserve Bank of New York took the lead in cooperating with European central banks, Benjamin Strong regularly reported his intentions to the Board of Governors and to Secretary of Treasury Mellon (who at that time sat with the Board), and thus had their actual or tacit approval in his various proposals and actions.

Original purposes of central banking: Central banks were historically created first to manage the state’s credit: this is the story of the oldest central banks, the Swedish Riksbank, the Bank of England, as well as of a newer wave of central banks that followed the example of the Bank of France. It was suspicion of the politics behind a designated state-oriented central bank that led to the non-renewal of the charters, and the demise, of the First and Second Banks of the United States. Resistance to the process of political capture led in some countries such as Switzerland at the end of the 19th century has become an example. A second historical motivation for the creation of central banks involved the safeguarding of a financial system, and the maintenance of an adequate supply of credit. In the mid-19th century, a new generation of central banks was established essentially to manage payments systems, and stabilize fragile banking systems: this was the motivation behind the German Reichsbank (1875) or the Federal Reserve System of the United States (1914). It was only after the end of metallic monetary standards and the advent of paper-based money that central banks began to be concerned with the problem of price stability.

This is precisely what has happened in the case of central banks in the earlier times. In the second half of the 20th century, central banks were seen as an inevitable part of market economies, which were necessary to stabilize the business cycle and the banking system, and perhaps also the price level. Then new theories and evidences appeared showing that the government can benefit from an abuse of the monetary policy or the central bank itself. White (1999) portrays that there is no spontaneous tendency for the evolution of central banks. Definitely, some of the functions provided nowadays by central banks (such as emergency lending, banking supervision to decrease information asymmetry etc.) may be provided on the voluntary basis by private clearing houses or other organizations. But there is no spontaneous tendency to make money independent of a commodity, or create a centralized reserve system, or an authority able to carry out the monetary policy etc. Bagehot (1873, ch. 2) puts it this way: “. . . the natural system that which would have sprung up if Government had let banking alone is that of many banks of equal or not altogether unequal size.” In other words, if politicians did not meddle with the banking systems in the past, there would be no central banks nowadays—only commercial banks of a similar size interconnected by private clearing houses. Some of these banks would issue bank notes convertible at par into specie.

It was the politicians who have created central banks to serve their purposes. Bagehot (1873), Smith (1936), and White (1984, 1999) among others put across that in the 19th century central banks were usually created to serve fiscal needs of governments. In the 20th century central banks

were established by political pressures as well, sometimes for governmental fiscal needs, sometimes for other particular reasons (see Rothbard (1999), and Friedman and Schwartz (1963) for the account for the Fed. However, in all cases central banks were established by politicians. Kane (1980) says (for the Federal Reserve System): “After all, the Fed is a political institution designed *by* politicians to *serve* politicians.” (Italics is Kane’s.)

Of course, in many cases the actual outcomes of the politicians’ acts have been quite different from their intentions. Most politicians in the 18th or 19th century did not plan to establish a central bank at all—they simply wanted to obtain a credit for the government on more favorable terms. The obvious way to get it (at least from their perspective) was to give some bank privileges or even monopoly power. Such a bank would be both willing and able to offer cheaper credit to the government in return. The modern central bank has evolved step by step from these privileged banks. As Bagehot (1873, ch. 3) says: “Thus our one reserve system of banking was not deliberately founded upon definite reasons; it was the gradual consequence of many singular events, and of an accumulation of legal privileges on a single bank which has now been altered, and which no one would now defend.” To put it in a different way, a central bank is neither a product of a spontaneous evolution, nor an outcome of economic reasoning and planned governmental policy. It is a product of a “political evolution.” Thus the origin of a central bank shows us that a central bank is an organization with quite different characteristics from organizations that have evolved spontaneously. It was given many privileges: the note-issue monopoly, power to set either the monetary base or interest rates, and the right to regulate commercial banks can be mentioned as the most important ones. These privileges are granted and protected by the government—without its power they could be neither established, nor preserved. In this sense the central bank shares the part of the governmental power while it is, because of its banking origin (at least from the legal point of view), a separate organization.

We have seen above that the central banks were created by politicians to serve their special interests, but through the time they obtained special rights and privileges that allowed them to conduct the monetary policy. This was made possible by the governmental power that guarantees these rights. At the same time the banks are given objectives by the government. From this point of view the management of a central bank is bureaucracy, or a bureaucratic management, see Mises (1944). Central banks have no inherent goals, only the goals given by the government. But the same does not hold for its managers. The central bankers are agents of the government (and of the public), but poorly constrained ones. It allows them to act in their own interests. Therefore, to understand the behavior of a central bank we have to first understand the incentives of its managers. This is what the theory of bureaucratic behavior of central banks explores.

Incentives of the central bankers: The general concept of bureaucracy and its behavior goes back to Weber (1997). The approach was then applied to central banks in many papers on the theory of bureaucratic behavior of central banks; for the summary see White (1999, ch. 8). Some of the classical authors in this field are Acheson and Chant (1972, 1973a, and 1973b), Friedman (1982), Kane (1980), and Toma (1982). The theory views central bank managers as poorly constrained agents who may seek their own interests, which may deviate the monetary policy they carry out from its optimal course (whatever it may be). The authors analyze the general incentives of the central bankers, and then use their findings to explain some deviations of the monetary policy practices from its theory. Let us summarize the major incentives attributed by the theory to the central Bankers. The theory assumes that the utility of the central bankers is derived first of all from their prestige, and safety (or the self-preservation of the central bank). Other potential bureaucratic goals (like on-the-job consumption, hoarding of power, or high

wage rates) are neglected—either the authors assume they are not important for the central bankers, or that they do not have a considerable influence on the monetary policy of the bank.

Prestige is assumed to be a goal per se for a central bank. It is derived from the position of the bank in the social hierarchy. It “reflects the public’s and other groups’ concern with the goals associated with the bureau, the bureau’s degree of responsibility for such goal and the public’s and other groups’ opinion of actual performance relative to the expected performance.” (Chant–Acheson, 1972, p. 14) Their prestige is influenced by many factors: The importance the public associates with the bank’s goals, the public’s rating of the bank’s performance, the bank independence et cetera. The theory predicts that the central bankers tend to act in such a way that enhances or at least protects their prestige. Central bankers’ safety includes two interrelated parts: They seek to preserve the “life” of the bank, and they seek to preserve their jobs there. The preservation of the bank is necessary for their (the banker’s) own job safety, and also his prestige as it signals the importance of the bank in the economy. These two ultimate objectives (prestige and self-preservation) create an incentive structure for the central bankers’ behavior. The theory predicts many phenomena we can observe in the real world (some of them were mentioned above).

First of all, a central bank seeks to keep its operations secret. It usually resists offering information about its actions. Such secrecy not only raises the prestige of the bank, but it also protects it against criticism. The same reasons have motivated the bank not only to obfuscate rather than offer information, they also motivate it to create a “central bank mythology”—to persuade the public, the government etc. that the central bankers are fierce fighters against inflation, that they are able to carry the monetary policy out better than any ironclad rule, and that their task is extremely complex and beyond all understanding of laymen on the one hand, but on the other hand that they cannot be blamed for any failure because there are many factors affecting the policy outcomes out of their control, because the transmission is not well-understood et cetera. This way all successes can be attributed to the bank, but all failures can be attributed to external shocks, irresponsible fiscal policy et cetera. Under the information asymmetry the bank can always argue that without its provident policy the outcomes would be much worse. (For details see especially Friedman, 1982, and Acheson–Chant, 1972, 1973a, 1973b.)

Second, for the same reasons a central bank usually opposes any ironclad rules and sticks to incomplete discretionary policies, and complex instrument-mixes, because it further lowers the ability of outsiders to monitor the actions of the bank—and thus to criticize it for a poor performance. Moreover, if the bank had admitted that the discretionary policy could be replaced by a rule (i. e. by an automaton), its prestige would have diminished to zero (ibid, see especially Friedman, 1982). *Third*, the theory predicts that a central bank will struggle for its independence. If a bank is independent, and its responsibility for the monetary policy is not shared with other agencies, its prestige is ceteris paribus higher.

Central banks have generally had three main objectives or functional roles: (i) To maintain price stability, subject to the monetary regime in current operation, for example the gold standard, a pegged exchange rate or an inflation target. (ii) To maintain financial stability, and to foster financial development more broadly. (iii) To support the state’s financing needs at times of crisis, but in normal times to constrain misuse of the state’s financial powers. In the past this meant preventing debasement and misuse of the inflation tax. Prospectively it may in future also involve preventing misuse of the bank tax.

Naturally, the balance between these three objectives has shifted over time, with support for state financing becoming prominent during wartimes. Indeed, several of the first central banks to be established, notably the Bank of England and the Bank of France, were founded to help

provide war finance. In the absence of wars, it is the shifting balance between the central bank's monetary policy (stable prices) and its financial stability role that usually generates most interest. In this latter respect, we may perhaps identify three main stable epochs from the past, with the shortest periods of confusion and search for a new regime/system in interregnums between them. These three periods are: (i) the Victorian era, say from the 1840s until 1914; (ii) the decades of government control: the 1930s until the end of the 1960s; and (iii) the triumph of the markets: from the 1980s to 2007. The period from 1914 to 1931–33 was a confused interregnum including World War I, followed by a failed attempt to re-establish the gold standard (Eichengreen (1992)). Similarly, the 1970s was another confused interregnum between the subservience of monetary policies to government control, and the establishment of a free market system, with the central bank following a regime of inflation targeting.

Objective and Structure of the paper: This paper attempts to evaluate the role of central banks in different economic, financial and political regimes. In particular, this paper discusses the roles and objectives of the central banks under the changing environment of political philosophy, business and economics both in national and international perspectives, in rich and poor countries, in command and market oriented economies, and in recession heat and boom situations. This paper also looks into generic functions and changing patterns of the central banks in dealing with the situation mentioned herein. Given these, the paper is divided into eight sections. *Section one* discusses the theory of the changing roles of central banks. The key concepts on the role of organization vs. institutions and central bank independence have already been addressed. *Section two* describes the historical evidence of changing roles of central banks. *Section three* highlights the future role of central banks under the changing economic and political scenario of a country. Moreover it touches on the essence of central banks in terms of bank tax, sanctions, debt management, bank resolutions, interest rate settings, interaction with other regulators, structural management of the development of financial sectors, and the future of central cooperation. *Section four* produces evidence of the changing roles of central banks in the market economies like USA, UK, France and Germany showing the pattern of central bank independence positions since their inceptions. *Section five* documents the post crisis role of central banks. *Section six* highlights the communication and stabilization policy. *Section seven* highlights on the developmental role of central bank by providing evidences from Europe and North America covering developed and developing countries. *Section eight* presents a brief description on the origins and motivations of establishment, objectives and functions, independence since the inception highlighting the changing economic environment. Countries covered from Europe include Sweden, England, Norway, Germany and France. North American country includes USA and Chile from South America. African country include Zambia, and from Asian countries India, Srilanka, Vietnam, Kuwait and Bangladesh. *Section nine* summarizes the paper.

Section one: Theories on the changing roles of central banks

This section will discuss how networks and relations between key individuals influenced the changing role of the central banks and will also examine the extent to which the central banks have held a mediating position between politicians and financial institutions, and between domestic and international concerns. Can this position –or the lack of such a position- as a boundary organization explain how and why a central bank had developed a new role during a particular period. Another fruitful theoretical contribution within the dynamic-institutional research tradition is provided by the political scientist Stephen Bell, who adds a third level of analysis to the study of changing central banks, namely the institutional environment surrounding these banks.

Despite the fact that the two above research traditions are partly complementary, in other respects they can also be viewed as competing, especially as regards the generation of general theories. Even if most scholars of the dynamic-institutional tradition primarily analyze particular historical cases, some also aim at the generation of more abstract general theories. Unlike the static-generalizing tradition, however, the general theories of the dynamic-institutional tradition attach great importance to the historical and institutional context of central banks in order to understand their development and behavior. Thus, rather than trying to de-contextualize, simplify and fix central bank behavior, these general theories incorporate social and institutional complexity as well as dynamic perspectives in order to understand how and why the behavior of central banks change. In our context, one of the most interesting theoretical perspectives within the dynamic-institutional tradition has been developed by the sociologist Susan E. Stockdale, who has explained the nature and timing of shifts in CBI by comparing four twentieth-century legislative events in the USA and Great Britain: the 1935 Banking Act (US), the 1946 Bank of England Act (GB), the 1980 Monetary Control Act (US), and the 1998 Bank of England Act (GB). While the two earliest of these events represent shifts towards less CBI regarding monetary policy, the two later events were shifts toward greater independence. Stockdale interprets central banks as organizations that exist in the boundary between state, society, and economy. As boundary organizations, they mediate the relationship between these realms by managing the tension not only between the public and private sectors, but also between domestic and international concerns. The concept of boundary organizations, which was originally derived from principal-agent theory, has been promoted most effectively by the political scientist David H. Guston, who argues that the success of a boundary organization is determined by principals on either side of the boundary, both of whom rely on the boundary organization to provide them with necessary resources. Applied to central banks, this would mean that their chances of success in terms of political influence and autonomy depends on their ability to act as intermediaries and provide necessary resources to principals of, for example, the political authorities on the one hand, and the financial institutions on the other. As pointed out by Stockdale, changes in the role of central banks can thereby be explained not only by exogenous factors, such as changes in political and economic conditions, but also by factors endogenous to central banks themselves, such as ideological and mental elements, which central bank officials can influence through networking and active participation in policy-making processes. Hence, according to this perspective, the degree of CBI is a direct consequence of boundary construction, reconstruction, and maintenance activities of central bank officials.

The theory on boundary organizations brings light to two mutually dependent levels of analysis that are necessary to explain changes in the role of a central bank: the individual level with central bank officials and other principal actors who take part in policy-making, and the organizational level with its focus on the position of the central bank as an organization in this

policy-making environment. In his examinations of Australia's recommitment to CBI in the 1990s, Bell emphasizes the importance of the international context to domestic policy-making processes. Based on an inductive, historically grounded political economy approach, Bell introduces a model of 'embedded statism' that places such domestic processes, in which politicians and central bankers act in relatively closed 'state-directed' monetary policy network, in a wider, international context. Bell argues that standard theories of political science based on closed economy models are insufficient in order to explain Australia's recommitment to CBI since they exclude the fundamental structural changes and globalization of international financial markets that embedded this domestic process. Whereas political scientists traditionally have tended to view changes in the role of central banks as a result of domestic pressure group politicization over monetary policy, political business cycles and government-central bank conflict only, Bell argues that these domestic processes are decisively influenced by the international institutional, political and economic context in which they take place.

In accordance with the approach of the dynamic-institutional tradition, Bell limits his model of state embeddedness to a specific historical setting: the globalized economy of the 1980s and 1990s. However, perhaps his theoretical perspectives also can be applied to the pre-globalization period after World War II. During the first postwar decade, a new institutional framework for the exchange of goods and capital had to be developed to replace the former gold standard system. As a small, traditionally open economy, Norway totally depended on taking part in this process, which was characterized by much uncertainty as well as economic and political unrest. Based on Bell's model of embedded statism, the question in our context is thus to what extent and in what way did this international process affect the development of a new role for the Bank of Norway.

In his most recent academic contribution, Bell has focused on another important dimension in the study of central banks, namely the balancing of theory versus practice. Commenting on the contemporary literature on CBI, Bell argues that although this model has been underpinned theoretically, there is a critical shortage of empirical studies on how CBI has worked in practice. Based on his own empirical studies, Bell questions the theoretical presumptions that monetary policies and independent central banks are characterized by rule compliance and transparency (such as inflation targeting and publications of inflation forecasts) rather than discretion and political consultations in policy-making. Bell argues that the very nature of central banking, as part of a political system, encourages various forms of non-transparency, and he rejects the idea that central banks are insulated from particular interests and thus 'depoliticized'.

Bell's call for empirical studies of today's central banking agrees well with Stockdale's emphasis on the need for such examinations in order to determine the changing role of central banks also in a historical perspective. Moreover, Bell and Stockdale share a common theoretical view of central banks as institutionally embedded, yet capable of maneuvering purposefully within this institutional framework. As Bell has described it:

The role of institutional arrangements is context specific and variable. Neither governments nor central banks are necessarily passive in the face of institutional arrangements and their strategy in this respect will depend on their own motives and on the wider context.

In order to understand how and why the role of the central bank changed after World War II, such general, yet historically rooted theories on changing central banks are useful, among other things, for empirically examining, identifying and explaining social relations and behavioral characteristics. In the following, there will be an elaboration on the approach to the theory and its application in general.

Theoretical considerations

Basically, it has an eclectic approach to theory in the sense that it applies to various theories or parts of theories, which can shed new lights on the different aspects of particular historical studies. Along with many historians, and in contrast to natural sciences and many social scientific disciplines, the approach to theory is not driven primarily by an ambition to develop a new theory. Instead, it can be said that a theory is a source of new research questions, concepts, and explanatory models, which can add to the understanding of historical events. Theories enter this understanding as the instruments for creating historical news rather than as part of an objective of theory-making.

All scholars use theory throughout the research process, from the generation of research questions, via the selection of empirical evidence, to the interpretation and presentation of their findings. Whereas some disciplines apply theories explicitly by requiring that scholars state their theoretical standing in detail. Historians traditionally have used theories more implicitly, for instance, interpreting actors as rational or utility maximizing agents without actually pronouncing any specific framework of behavioral theory.

A classic argument for the first approach is that explicit theoretical accounts make underlying assumptions more visible and easier to evaluate, while scholars of the latter tradition argue that a strict and complete theoretical framework will impose “tyrannical” guidelines on research and restrict the analytical perspectives of researchers. A compromise between these two extremes, which is preferred by many historians today including myself, is to select certain key concepts and build loose theoretical frameworks, which can contribute to systematizing a course of events and clarifying causal mechanisms without being too deterministic.

Institutional theory includes variants of different behavioral assumptions and epistemological approaches, such as economic institutional theory, which regards individuals as rational actors who use cost-benefit logic when they relate to their institutional setting, and sociological institutional theory, which usually emphasizes how the structural surroundings determine individual actions by the internalization of values and establishment of routines. A common feature, however, is the perception that institutions constrain and regularize individual behavior, as expressed by the economic historian Douglass C. North:

[Institutions] establish the cooperative and competitive relationships which constitute a society and more specifically an economic order (...). It is the institutional framework which constrains peoples' choice sets.

According to North, institutions control human behavior much in the same way that rules of a game control the players. He uses the metaphor of a soccer game, and argues that the institutional rules that influence human action can be compared to the three types of rules that structure this game. There are formal rules, which lay down the number of players, the size of the pitch, and how to carry out the game; informal rules, which constitute the culture and norms that create notions such as fair play and team spirit; and meta-rules, which determine how to change the rules. By using the metaphor of a game, North acknowledges that individuals are not free to do entirely what they want, but at the same time he presents the rules as relatively explicit and understandable. As a representative of the economic branch of institutional theory, he also emphasizes the ability of individuals to reflect consciously upon their institutional framework and choose whether or not they should obey the formal and informal rules. In this respect, North's approach diverges from other branches of institutional theory, more oriented towards sociology, which tend to see institutions as internalized norms and values that individuals follow

routinely. Some sociologists, associated with a so-called cognitive branch of institutional theory, go even further and regard institutions as symbols, words, signs, gestures that shape the meanings that the actors attribute to objects and activities, and help them make sense of what is happening. In the terminology of North's soccer game metaphor, this far more abstract approach to institutional theory entails that the game not only involves rules and enforcement mechanisms, but also consists of socially constructed players. From an eclectic's point of view, the various behavioral theories and epistemological traditions of institutional theory do not necessarily represent a problem. On the contrary, they can make an excellent starting point for discussing different interpretations of human interaction and for giving balanced assessments of historical events. People are multi-dimensional, and human interaction is a complex matter. Thus, rather than constructing general theories by reducing the number of dimensions shaping human behavior, as many social scientists would do, we aim at accentuating and understanding this complexity by applying different theoretical perspectives. As a historian, one would believe that human behavior cannot be generalized but depends on the historical and geographical setting in which it takes place.

Human behavior is not *either* rational and profit maximizing *or* totally determined by external forces; it is usually a combination of these extremes. People might be partly trying to increase their personal power or wealth, but at the same time be influenced by their institutional setting, a setting upon which they can reflect only partly, since it is, to some extent, internalized. In other words, people are complex, and if scholars operate with too rigid and simplified behavioral assumptions, they might miss out on important aspects of their object of study. Institutional theory generally emphasizes the stabilizing effects of rules, norms and values on social developments as well as individual behaviors. However, from the 1920s to the mid-1950s, the political, economic and cultural environment underwent considerable changes, which means that the period in question was one of institutional change rather than stability. Old rules, norms and values met new ones, and there were no clear breaks between two consistent institutional regimes. Rather than being surrounded by a fixed, unambiguous institutional framework, individuals and organizations faced inconsistent and changing expectations, as well as new challenges and opportunities. A theoretical concept that aims to explain such institutional changes is 'institutional entrepreneurship', a term that has attracted considerable attention in recent years.

This concept combines perspectives from literature on institutions, which emphasize the stabilizing effect of rules, norms, and cognitive perceptions, and entrepreneurship, which accentuate how institutions are themselves shaped by creative entrepreneurial forces that bring about changes. It thereby brings light to the dual perspective that often emerges in historical examinations that organizational and social processes are usually characterized by both continuity and change. This theoretical approach tends to view actors as institutionally embedded, but by developing strategies of change and entering into negotiations with other organizations or individuals, they can also bring about institutional change that again constitutes a new, stabilizing institutional framework. By emphasizing the strategic elements and forces behind institutional change, this approach tends to present this as the result of strategic and skillful action by entrepreneurs who "narrate and theorize change in ways that give other social groups reason to cooperate". However, as we will see below, such strategic and conscious explanations constitute only one of several possible perspectives underlying individual behavior. In order to understand the mechanisms underlying institutional change, it might thus be necessary also to apply other theoretical perspectives.

Key concepts I: Roles

A key concept emphasized by the normative branch of institutional theory is the notion of roles. Defined as “patterns, as configurations of goals, attitudes, and behaviors that are characteristic of people in particular situations”, the concept of roles draws attention to an often-occurring standardization of human action. Roles can be generated from formal positions – for example the position of central bank governor – in which an actor is expected to behave in a particular way, or they can take shape over time from informal interaction that creates expectations of a certain behavior. An important aspect of this concept is that a role not only imposes constraints on social behavior: by being associated with certain rights and privileges, it also empowers and enables social action. According to the underlying behavioral assumptions of economic institutional theory as defined by Douglass North, we have seen that the key question for an individual in a social setting would be: *What are our interests in this situation and how do we fulfill them – by manipulating or adapting to the institutional framework?* In contrast to this ‘cost-benefit’ logic, the normative branch of institutional theory argues that rational action is grounded in social contexts that specify appropriate means to particular ends.

This generates a different key question for individuals: *Given my role in this situation, what is expected of me?* According to the normative branch of institutional theory, values and normative frameworks structure the actors’ choices by, on the one hand, defining what preferred or desirable goals are and, on the other hand, specifying the suitable way to pursue these goals. However, even if the values and normative institutions are often internalized, this does not imply that human behavior is unreasoned or automatic. Since institutional rules have to be adapted to every particular situation, actors must select and interpret the appropriate rules. And in this process of selection and interpretation, the normative branch of institutional theory assumes that actors will attach more importance to environmental expectations than to their personal preferences.

The concept of roles can add important perspectives to our understanding of how and why the individuals who participated in developing a new role for the central bank acted as they did. Rather than interpreting policy initiatives or confrontations as mere reflections of quests for power and influence, the concept of roles draws our attention towards the institutional context of these events and suggests that they alternatively – or partly – were attempts to meet environmental expectations. During the period of interest here, the expectations regarding the central bank and its governor were shifting from anticipations of political independence towards notions of the central bank as part of a politically controlled bureaucracy and the governor as a loyal civil servant. A question is thus how did the central banks respond to these changes and to what extent did the governor and his officials take new expectations of political loyalty into account. By applying the concept of roles as an alternative dimension to the notion of power-seeking strategists, we can thereby more easily explore and explain complexities in individual and organizational behavior.

Key concepts II: Organizations vs. institutions

In everyday language, the two concepts of organizations and institutions are often used synonymously. Large firms or organizations are referred to as institutions without any further reflection. Institutional theory, by contrast, provides a clear conceptual distinction between the two: institutions are defined as the formal and informal rules that regularize behavior, while organizations are viewed as a specific type of participant within this institutional framework. In the case of central banks, this conceptual distinction can add to our understanding of their nature since they can be viewed as both organizations and institutions. On one hand, central banks are organizations that have to relate to a surrounding institutional context. In interaction with the political authorities, the financial markets and the general public, central banks have to take a

wide set of rules, norms and values into account in order to perform their tasks effectively. And when this institutional framework changes, as it did from the inter-war period onwards, central banks would have to change their behaviors as well in order to survive. Hence, studying how the central banks operated as organizations becomes an important element in explaining the development of a new role after World War II. On the other hand, central banks constitute part of the institutional framework in which they operate. By virtue of its long history, its economic expertise and its traditional key roles in conducting monetary policy, the central bank had traditionally been an important generator of economic institutions such as legislation, directives, and informal rules as well as more abstract values and norms. During the post-WWII period, the position and tasks of the central bank changed, and an important question that arose was the extent to which the central banks continued to serve as part of, and further develop, the institutional framework that regulated economic behavior in general and the working of the financial markets in particular.

Key concepts III: Central bank independence

As mentioned earlier, during the post-WWII period there was a recognized discrepancy between the legislative status and the actual position, for example, the Bank of Norway. Despite political ambitions to control the central bank, the liberalist central bank law of 1892, which granted the central bank extensive operational autonomy, remained virtually unchanged until the mid-1980s. This discrepancy indicates that the concept of CBI is ambiguous and has to be discussed more thoroughly. Lexically the concept of independence is defined as the power to act, speak or think without externally imposed restraints. Based on this definition, a central bank would be politically independent only if it could act in whatever way it preferred. For central banks this will never be the case, since they are created as part of a political and economic system. Most scholars agree that whether a central bank has an independent or politically controlled position, the political authorities usually decide policy objectives and define a framework within which it has to operate. However, when it comes to the importance and nature of this framework the opinions diverge. Some scholars stress the element of conflict between the political authorities and the central bank when trying to define the concept of independence:

A central bank is independent if it can set policy instruments without prior approval from other actors and if, for some minimal period (...), the instrument settings clearly differ from those preferred by other actors.

By this definition, independence to a large extent reflects the ability of central banks to resist political pressure. Thus, it is closely associated with the behavioral assumptions of the static-generalizing tradition of central bank literature that depicts central banks as more conservative and predictable than political authorities. This definition makes no acknowledgement of the fact that the socio-economic context surrounding central banks has changed over time and between countries and that in some periods central banks have been viewed as an integrated party of policymaking processes rather than a corrective of 'lavish' politicians. A definition that to a larger extent emphasizes how central banks are part of political systems is:

Autonomy is the scope allowed to the central bank to formulate monetary policy as it thinks best (...) in the light of the Government's policy and the socio-economic situation.

This definition explicitly states that the degree of independence is a result of political decisions. It can more easily be applied to various cultural, economic and political settings, and therefore correspond better with the historical approach. This definition also acknowledges the fact that even independent central banks have to take the preferences of politicians into account, since

ultimately it is the political authorities that can grant central banks independence and can thereby also abolish it. As Francis Sejersted has pointed out:

It is only on the surface that the CBs [central banks] can act independently. In a broader perspective the CBs must act as an integrated part of a political system which is designed to serve the common good and which has defined reasonable stability as desirable. The CBs can only confront the government in conflict as long as there is a deeper consensus on the policy pursued.

Most scholars who study the matter of independence quickly realize that there often are discrepancies between a central bank's legal status and its actual role. Usually, central bank legislation only gives a rough indication of the actual role, and in some cases – as in post-WWII Norway – it can be directly misleading. Thus, scholars often establish a dual conceptual distinction between the formal, legal or *de jure* status of central banks, on the one hand, and their actual, behavioral or *de facto* position, on the other. According to this approach, the conventional view on the central bank during the post-WWII period would be that its *de jure* position was one of political independence, while its *de facto* role was characterized by total political control. It is observed that the central banks obtained a more influential role than usually assumed, one would find it necessary to introduce an additional conceptual distinction: the *declared* position of central banks. The concept of declared independence captures the publicly announced ambitions of the political authorities regarding the central bank, whether they wish to control it or to grant it independence. In our case, the declared position of the central bank is one of total political control and organizational subordination to the Ministry of Finance. Then it remains to be seen throughout this study whether this declared position equals the central bank's *de facto* role.

Section two: Historical Evidences of Changing Role

The Victorian era: in praise of the real bills doctrine: The main concern of the great monetary writers of the Victorian age, notably Henry Thornton and Walter Bagehot, was how to reconcile adherence to the gold standard with the maintenance of financial stability, especially at times of panic and stress (though the Bank of England was also much concerned about the opposite problem of how to make the Bank Rate effective in times of confidence and expansion). The answers that came forth mostly took the form of certain rules of thumb, notably the Palmer rule for varying the Bank Rate (named after Governor Horsley Palmer of the Bank of England, which may, with the eye of faith, be seen as a kind of prototype Taylor reaction function) and the Bagehot rule for acting as lender of last resort, which latter is all too often misinterpreted.

But the rule, or doctrine, that it is desired to be focused on here is that concerns real bills. In this respect “real” does not mean “adjusted for expected inflation”, as now, but instead “real” in the sense of being based on actual, real, output and/or trade. “Real” interest rate is now correlated to “nominal” interest rate, whereas, “real bills” in Victorian times was considered as “speculative” or “finance bills”. Since “real bills” were based on real output and trade, monetizing them via central bank discounts could not create inflation, so the argument went on as the output and money kept rising hand in hand. Similarly, since they were based on trade/output, they would become quasi-automatically self-financing when the goods were eventually sold. In contrast, speculative, or finance, bills were drawn to support asset purchases, notably in stock markets, and hence generated unhealthy asset price bubbles and busts with accompanying (temporary) inflation and deflation.

During the Victorian era, governments tended to run (small) surpluses in peacetime years. Deficits were generally a function of war. So, the standard assumption was that government papers – bills and bonds – were not related to underlying output/trade. Thus, under this doctrine, the purchase of government debt was just as reprehensible as open market operations in finance, or speculative, bills. While it may seem crazy now, one reason why the Fed was so reluctant to undertake expansionary open market purchases of government debt in the depths of the Depression was that their model told them that this was quasi-automatically inflationary and wrong (Meltzer (2003)). One reason it is worth remembering this episode now is that it puts in context the (historically mistaken) claims that have been made by some economists that central banks should only now carry out open market operations in government debt.

Another reason for recalling the real bills doctrine is that it provided a unifying theoretical basis for both monetary policy (price stability) and financial stability. So long as discounts and lending were strongly directed to “real bills”, both price stability *and* financial stability would be jointly and simultaneously assured. Ever since this Victorian era we have lacked such a unifying theory. So now we wonder whether the single interest rate instrument can, or should, be made to bear double duty, to “lean into the wind” of asset price and credit fluctuations as well as stabilizing inflation, and its expectations; or whether a second set of macro-prudential regulatory instruments can be developed to maintain separate control of financial stability.

Of course, the real bills doctrine was wrong. It was wrong for the same reason that the real business cycle model, which lies behind DSGE models, is wrong: it assumes implicitly that the private sector is inherently self-stabilizing. So long as the government does not make everything worse by misguided intervention, the assumption was that output/trade would always return to

equilibrium, so there would always be enough real bills to monetize to keep output at equilibrium and prices steady. When the Great Depression hit, this assumption collapsed. Deflation ensued.

The decades of government control, 1930s–1960s: the subservience of central banks: The Great Depression and the accompanying collapse of the gold standard represented a huge failure for central banks. Their objectives, their models and their mental framework all fell apart. Moreover, there was another model waiting in the wings, that of socialist control by government, a model which was given a massive extra boost by the need to direct economic resources to the conduct of World War II.

Certainly there was not much theory behind the government takeover of monetary policy; it was pragmatic. Initially, with continuing depression and deflation, governments pressed for low interest rates once the gold standard had been abandoned, and with that for devaluation, at least against gold. Thereafter, with an excess demand for resources during World War II, the standard procedure was to control demand by direct rationing rather than by the price mechanism. By the time rationing ended, the selection of the official interest rate had become established in most countries as a governmental exercise, not only in wartime but at all times. This was, perhaps, least so in Germany (after World War II), Switzerland and the United States, where central bankers had, for a variety of reasons, some room for maneuver and ability to face down political pressures. But for most other countries, the politicians, not the central banks, directed monetary policy. This is not to say that central banks in these more subservient countries had no influence on the conduct of monetary policies. They were treated by the relevant minister(s) as expert advisers, alongside the civil servants in the ministry of finance (treasury). But the minister usually paid much more attention to the economists in his own ministry; after all, they had his ear. In contrast, the central bank, certainly in the United Kingdom, emphasized its knowledge of market behavior. These years, the 1950s and 1960s, were a period when in the United Kingdom and some other countries, the swollen wartime national debt was only slowly being worked off, and the foreign exchange markets were often fragile during the Bretton Woods pegged-but-adjustable exchange rate regime. Under these conditions, should the central bank warn that “markets would not like” some proposed policy changes, then ministers would listen with attention. In the United Kingdom, both the central bank and the Treasury fiercely guarded those areas where they dominated. The Treasury refused to allow the Bank of England to publish its own economic forecast, and sought to censor the economic commentary in the Bank’s *Quarterly Bulletin*. In turn, the Bank became exercised and hostile should the Treasury attempt to second (junior) staff to City financial institutions in order to gain market expertise.

With interest rates being held generally low to support investment and lessen the cost of servicing the national debt, there was a need for some additional policy to prevent undue credit expansion, which might threaten both the current account and inflation. This was provided by direct quantitative controls, of one kind or another, over bank lending, reinforced by exchange controls over international capital movements and controls over leasing terms, access to capital markets, etc. In the United Kingdom there was an attempt to get away from direct controls over bank lending in 1971 with the adoption of the policy of “Competition and Credit Control”. But the Heath government was not willing to allow interest rates to rise sufficiently high; the policy failed, and a final version of direct lending controls, known as “the corset”, was reintroduced in 1974 and lasted until 1981.

One of the lessons that had been learnt, rightly or wrongly, from the financial collapse in 1929–33 was that competition within the financial system was dangerous to the maintenance of stability. Such competition pared profit margins and hence the build-up of capital buffers. It encouraged banks to take on more risk in pursuit of higher profits. The more oligopolistic

banking systems, for example in Canada and the United Kingdom, had fared better than the more competitive and less diversified system in the United States. Consequently, many of the “reforms” enacted in the 1930s were intentionally anticompetitive, limiting the interest rates that could be paid on deposits and limiting the scope of business that various groups of intermediaries could undertake. Thus housing mortgages would only be provided by some specified group of mortgage, housing finance, intermediaries, credit provision or personal sector purchases of consumer durables by another financial group, and so on.

In many countries during this era, not only was the amount of private sector credit expansion constrained, but so also were the rates at which they could do such business. Given these constraints, financial intermediaries naturally satisfied the demands of their biggest and safest customers first. There was no call for financial innovation; bank managers were trained to say “no”, rather than “yes”; and they, and their counterparts in mortgage banking, followed the 3:6:3 rule, i.e. borrow at 3%, lend at 6% and be on the golf course at 3 pm. Lunches were long and liquid. The current nostalgia for the controlled conditions of the postwar period is misplaced. But such a controlled system is, by and large, a safe system. Between the Great Depression and the 1970s there was a comparative dearth of bank failures.

Crisis frequency

Year	Banking Crises	Currency Crises	Twin Crises	All Crises
1880-1913	2.30	1.23	1.38	4.90
1919-1939	4.80	4.30	4.03	13.17
1945-1971	0.00	6.85	0.19	7.04
1973-1997 (21 Countries)	2.03	5.18	2.48	9.68
1973-1997 (56 Countries)	2.29	7.48	2.38	12.15

Source: Eichengreen and Bordo (2003), Table 3.5

This was *not* due to any exertion of effort by central banks to maintain systemic stability; instead, the controlled, constrained financial system was just a safe, but dull, place. Indeed, the general absence of financial stability problems meant that experience and interest in this field in central banks eroded. At the onset of one of the first episodes of instability, the fringe bank crisis in the United Kingdom in 1973–74, the Bank of England entrusted all supervisory duties to one fairly senior official, the Principal of the Discount Houses, and four or five more junior officials.

So, if during this era the central bank, at least in many countries, did not set the official interest rate, since the relevant minister did, and did not exert much effort in maintaining systemic stability, since the framework of controls saw to that, then just what did it do? It had three main roles: (i) advice on policy; (ii) the administration of the system of controls, and (iii) the management of markets.

Although the monetary policy, both domestic and international, was generally set by the relevant minister, s/he did listen to the advice of the central bank. Whereas on domestic monetary issues the economists at the treasury (ministry of finance) generally had greater influence than those at the bank (though not in Italy, where the Bank of Italy developed an estimable reputation), the expertise of the central bank on international monetary issues was unrivalled either in the treasury or in the foreign office.

Perhaps the greatest use of manpower in many central banks in this era was in the administration of the government's panoply of controls. In terms of sheer numbers, the Exchange Control Department was the biggest segment of the Bank of England in the 1960s. Acting as a go-between amid the ministry setting the control, often with little understanding of the financial sector, and the regulated financial sector, complaining bitterly and sometimes validly about their imposition, was not a role that central banks relished.

It was in their third role, overseeing the management of markets, that the real kudos was to be found. The three most important positions in the Bank of England, below the Governor and his Deputy, were those concerning the management of the three key markets: the gilt-edged market, the money market and the foreign exchange market. Debt management, liquidity management and foreign exchange operations were central and crucial. Whereas in all these cases the overarching policy strategy was ultimately decided by the government, the parameters of what strategy might be possible lay in the hands of Bank officials, whose tactical skills and experience were renowned.

1980–2007: the triumph of the markets: The cabined and constrained financial system of the early post-World War II system was, of course, inefficient. What brought it down was market pressure, as improved information technology encouraged greater international competition. Those less constrained by regulation sought to garner quasi-rents from the more constrained. The first location where this took place was in the newly developed Eurodollar market in the late 1960s. Central bank Governors, meeting at the Bank for International Settlements (BIS) in Basel, quickly identified this market as posing a serious challenge to their prior cozy domestic control systems, and set up their first standing subgroup, then called the Euro-Currency Standing Committee, to monitor its development. But the authorities could not prevent the advent of this market facilitating international capital flows, despite exchange controls. Such capital flows undermined the pegged, but adjustable, Bretton Woods exchange rate system, since it was usually obvious who the potential candidates for devaluation or appreciation were; the speculative profits (enjoyed by the “gnomes of Zurich”, as Harold Wilson termed the speculators) from this one-way bet could be huge. The Bretton Woods system finally collapsed in 1972–73.

Before that collapse, all other countries had pegged on to the United States, so faster-growing countries, like Japan, had higher inflation than slower-growing countries, such as the United Kingdom, owing to the Balassa-Samuelson effect. In the United States itself, inflation was restrained by the instinctive, pragmatic monetarism of Fed Chairman McChesney Martin, under periodic attack from more expansionary (and Keynesian) pressure from presidents and Congress.

Once the Bretton Woods system had broken down, it allowed countries, previously restrained by balance of payments constraints, to “go for growth”, and a worldwide boom ensued, punctuated by the 1973 oil price shock. A period of debate between monetarists and Keynesians was accompanied by a decade of confused policymaking in the 1970s and high and variable inflation. This was ended in 1979 by Volcker's adoption of the (non-borrowed) reserve base system, which quickly led many other countries to adopt a roughly similar policy of pragmatic monetarism and monetary targets. But the short-term instability of relationships between monetary growth, however measured, and nominal incomes and inflation soon led to the abandonment of such targets; “We did not abandon the monetary targets: they abandoned us,” Governor Bouey of Canada quipped in 1982.

The story of the search, thereafter, for some other anchor for policy, and its (chance) discovery in 1988 in New Zealand in the guise of an inflation target is well known. What is perhaps less often realized is that the setting of the official interest rate in order to hit the inflation target does

not need to be done by an (independent) central bank. It can just as easily (in an operational sense) be carried out by the ministry of finance. Indeed, in the United Kingdom, Chancellors of the Exchequer had the final say on the choice of interest rate from 1992–93, when, after ejection from the European Exchange Rate Mechanism, the United Kingdom adopted an inflation target, until 1997, when Gordon Brown gave the Bank of England operational independence.

What such operational independence for the central bank provides is credibility for the policy of inflation targeting. In contrast, a Minister of Finance has conflicts of interest. The best known conflict is the desire for a more expansionary policy (especially before an oncoming election). But almost as pressing, when the national debt is high relative to taxable capacity, is the minister's desire to keep the interest burden low. Central bank operations in public sector debt and in rate setting have an immediate and direct fiscal impact. As the burden of national debt will now rise once more, questions of coordination between fiscal policy, debt management and interest rate setting, which have been largely in abeyance in the last couple of decades, will come to the fore again.

Meanwhile, the development of the Eurodollar market in particular, and of the global financial system in general, was changing the nature and structure of banking, and with it of the regulatory approach to the industry. Previously banks had felt constrained by the available stock of (essentially retail) deposits held with them, whose total was largely outside a banker's control. Their margin of freedom to expand (or reduce) loans to the private sector, given the quantum of such deposits, lay in their ability to offload (or buy) marketable public sector securities (liquid assets). Fortunately for the banks, they had been stuffed full of government debt during World War II and so entered the postwar period in a highly liquid form. So, their ability to expand loans, when direct controls were not biting, seemed to lie in their holdings of such liquid assets. In response, theories about the money supply (Sayers (1967)) and regulation then (1950s and 1960s) focused much more on liquidity, and a variety of required liquidity ratios.

All that got blown away by the development of the Eurodollar and other wholesale markets. Now a banker was no longer constrained by a combination of exogenous retail deposits and available liquid assets. If the banker wanted more funding, he could just borrow it in wholesale markets. Funding liquidity had replaced asset liquidity.

What, then, determined the size of banks' books? Not cash, since the central bank had to provide enough cash to keep market rates in line with the official rate; not liquid assets, for the above reason. The answer, of course, was capital. But here there was a problem for the regulators. First, while more capital would make a bank safer, it would, given the unpriced insurance given to bank depositors/bond holders and the tax wedge, lower the return on equity (ROE). In banking, the Modigliani-Miller theorem did not hold. So, limited liability equity holders would encourage bankers to adopt riskier strategies (Bebchuk and Spamann (2010)) – an encouragement that bankers hardly needed to don their vestments as “Lords of the Universe”. The second concern was that the collapse of a bank, because of a combination of size and interconnectedness, would cause contagious externalities. The financial system was subject to various self-amplifying mechanisms in both the upwards (bubble) and downwards (bust) phases of the credit cycle. For both these reasons, banks could not be expected, of their own independent volition, to hold sufficient capital, in order to obtain the best social trade-off between risk and return. Indeed, by the mid-1980s capital ratios amongst banks had been declining quite steadily and sharply for some time.

The catalyst to enforce regulatory change was the Mexican/Argentine/Brazilian (MAB) crisis of 1982. During the 1970s, western, mostly US, commercial banks had intermediated successfully

between oil exporting emerging economies, such as Saudi Arabia and Kuwait, and oil-importing emerging economies such as Argentina and Brazil. With other commodity prices quite high and real interest rates low, and often negative, the borrowers had no problems servicing their debts. Paul Volcker's regime switch utterly altered the context. Real interest rates rose steeply and commodity prices tumbled. Neither the borrowers nor the bankers saw the danger quickly enough, lulled by Citibank's CEO, who erroneously believed that "sovereign countries do not default". In 1982, MAB threatened to do just that. Even without default, the secondary market valuation of such loans fell so far that, on a mark to market basis, most US city centre banks were insolvent.

Congress was outraged (*every* financial collapse – 1907, 1929, 1982, 2007–08 – provokes Congressional rage; Wall Street is not beloved on Capitol Hill) that the banks had put the financial system in such a fragile state, and wanted to insist that all the US banks establish a stronger capital base. But the banks complained that they would then lose business to foreign, especially Japanese, banks which would not be subject to such reinforced requirements. So Volcker was mandated by Congress to go to Basel to put pressure on the Basel Committee on Banking Supervision (BCBS) to agree on an international standard for bank capital. Difficult negotiations resulted in the Basel Accord of 1988, now often termed Basel I. The choice of the mandated capital requirements – a minimum of 4% of risk-weighted assets for Tier 1 capital, and of 8% for Tier 1 plus Tier 2 capital – was not based on much empirical analysis, e.g. stress tests, nor on any theoretical consideration of what might be necessary (for what? or why?), but rather on the pragmatic basis that this was the highest numerical requirement that could be reasonably expected to be reached, after a transitional period, by the main commercial banks from their current starting point without causing them or their economies undue stress.

The initial risk "buckets" in Basel I were crudely defined, which gave banks an incentive to securitize those loans/assets whose regulatory requirement was excessive, and to hold those assets where the regulatory requirement was comparatively too soft. It was this latter failing that brought about the further negotiations leading up to Basel II, whereby the risk weightings were to be based on (the banks' own) risk assessments (the internal ratings-based (IRB) approaches). While altering the risk weightings, Basel II made no significant changes to the definition, or required quantum, of capital. The implicit belief was that this arbitrarily chosen level of capital should suffice to act as a guarantor of continued bank solvency. With bank solvency thereby assured, banks should face no difficulty in meeting any (temporary) liquidity requirements by borrowing in efficient, broad wholesale markets. These comfortable assumptions fell apart in August 2007.

Meanwhile, the trend in credit expansion to the private sector had for several decades comfortably outstripped the trend growth in bank deposits, (Schularick and Taylor (2009)), though quite why this was so remains unclear. Commercial banks had responded by:

- (i) selling off their liquid public sector debt;
- (ii) borrowing more and more, often on a short-dated basis, from wholesale markets; and
- (iii) securitising their loan books (originate to distribute).

All this reinforced their exposure to, and fragility in the face of, a malfunction in such wholesale markets.

Moreover, during the years of confidence and asset price boom, banks were taking on additional leverage, in each case subject to their own particular set of regulatory requirements. Both US investment houses (broker-dealers) and European banks were subject to Basel II, but not to a simple leverage ratio. So they increased leverage sharply by filling their portfolios with highly

rated (AAA) mortgage-backed securities (MBS), which carried a minuscule risk weighting. In contrast, US commercial banks were subject to a simple leverage ratio, but not at that time to Basel II. They exploited their position by taking on the riskier tranches of MBS.

Indeed few – whether bankers, regulators or economists – perceived this overall fragility, though many realized that risk was being underpriced. A reason for this blindness was the procyclicality of Basel II (since risk seemed low, risk-weighted capital appeared to rise!), and of mark to market accounting (when asset prices rise, the resulting capital gains in trading books go straight into profits and enhanced capital). Never had the profitability and capital strength (over the last couple of decades) of the banking sector seemed higher; never had market appreciation of bank risk, as measured by banks' CDS market prices, seemed more sanguine than in the early summer of 2007. With the benefit of hindsight, a populist frenzy now blames the excesses of bankers for putting the system at risk, and the weakness (light-touch) of regulators/supervisors for allowing this to happen. But at the time, neither bankers nor regulators, nor virtually all commentators, had any appreciation of the (systemic) risks that were being run.

Whether or not the inevitable “blame game” is worthwhile or justified, the experience of financial crisis, panic in September 2008 to March 2009, and nearly widespread financial collapse, has been so unnerving and shaking that there are likely to be far-reaching consequences to the operation and regulation/supervision of the financial system in general, and to the role and functions of the central bank in particular. It is to this latter subject that we now turn.

Section Three: The future role of the central bank

In the years prior to August 2007, central banks had appeared to have almost perfected the conduct of monetary policy. The standard regime was one in which the central bank was delegated operational independence to vary the official short-term interest rate in order to achieve an inflation target, which in turn was mandated either in general or in specific numerical terms by the democratically elected government. We now recognize that the achievement of price stability by this procedure does not guarantee financial stability. That raises, *first, the question* whether this standard procedure, whereby the central bank dedicates setting the official interest rate to the achievement of its inflation target, should be radically altered. The answer to that, which have developed in other papers – and which will not be rehearsed again here – is no. The implication of this answer is that a separate additional set of (macroprudential, regulatory) instruments will need to be developed for the specific purpose of maintaining financial stability. The *second question* related to the role of central banking, then, is what their role in this latter exercise will be. Should the central bank also be in charge of systemic financial stability; or, if not, what should be its relationship with the systemic regulator? This is a good entry point for examining the changing role of central banks, since the answers, in my view, depend on and reflect the essence of central banking as an institution.

A. The essence of central banking

Whereas the systemic stabilizer may or may not be allocated a new and shiny set of macroprudential instruments to operate, such as (possibly time- and state-varying) capital, liquidity and leverage ratios, the traditional focus of stabilization has been the central bank's capacity to lend, and thus to create liquidity, either to an individual bank, as the lender of last resort, or to the market as a whole, via open market operations (OMOs). It would cause massive complications if liquidity management remained the sole province of the central bank while a separate financial stability authority was to be established without any command over liquidity management. It can infer from that that the financial stability authority has to be given command over liquidity management; but that also implies that the financial stability authority would have command over the central bank balance sheet. Indeed, the financial stability authority would then, *de facto*, become the true central bank.

Lord Cobbold, former Governor of the Bank of England, is reputed once to have said, “A central bank is a bank, not a study group”. It can take this to mean that the essence of central banking lies in its power to create liquidity, by manipulating its own balance sheet. The question is often asked whether a central bank that sets interest rates should also manage financial stability. This question is put the wrong way around; it should be whether a central bank that manages both liquidity and financial stability should also be given the task of setting interest rates.

Unlike the essential role of liquidity management, setting official interest rates is *not* essential for a central bank. As we already saw in the opening historical section, in many countries and for many decades, it was done by a politician, *not* the central bank. It could easily be done by a “study group”, as many monetary policy committees really are, and they could be formally separated from the central bank without much loss. Or indeed interest rate setting could be done by a coven of Druids casting runes over the entrails of a chicken. What is important is not so much as who does it as how it is done; the need is for a reaction function that restores equilibrium smoothly and surely after some adverse demand or supply shock. We shall, however,

leave until later our initial question of whether the liquidity managing central bank, charged with financial stability oversight, should also set the official interest rate.

One of the main concerns of the Bank of England in the 19th century was how to make its Bank Rate effective in the market. Under normal circumstances, the main task of the monetary management desk in central banks is to undertake OMOs so as to drive market rates into line with the separately set official rate. At such ordinary times, this is a somewhat humdrum exercise, hardly noticed by most people but of considerable technical interest to the cognoscenti. But, under conditions of financial disturbance and crisis, liquidity management takes on a life of its own, potentially independent of official interest rates. This is patently obvious once nominal interest rates hit the zero lower bound, so that subsequent unconventional measures, whether quantitative easing, credit easing or the ECB's suite of market measures, all involve OMOs and manipulation of the central bank's balance sheet. But even when interest rates are above the zero bound, there is a range of freedom to operate liquidity management independently. This margin of freedom may now, perhaps, be greatly augmented by the generalized adoption of the "corridor" system for managing short-term interest rates. In principle at least, the corridor system could be so managed that liquidity policy and interest rate policy could be varied in a largely independent fashion. Thus, for example, official interest rates could be raised to counter speculative attacks on the exchange rate, while at the same time the liquidity of the domestic financial system could be maintained, or even enhanced, leaving market rates at the lower edge of the corridor. For the time being, central banks are still experimenting with the extra degree of freedom that the corridor system has given them. During the financial crisis many of the innovations in liquidity management were a somewhat ad hoc response to each new twist of the crisis. Looking forward, there is still much to learn and discover in this field.

One of the more contentious topics in liquidity management is what should be the set of assets in which the central bank should operate and hold on its balance sheet. Again, as we noted in the historical section, fashions change. Under the real bills doctrine, the commercial paper of the private sector was the preferred asset for OMOs. Since World War II, the preferred asset has, in most countries, become government short-term paper, bills or short-dated bonds. But some more fortunate countries have not had to develop a broad market in their own government paper, and they carry out liquidity management through other assets, in some cases foreign exchange, as in Switzerland or Hong Kong SAR.

Whatever asset is used for OMOs, it is likely to have fiscal consequences. For example, the United Kingdom's quantitative easing has had massive fiscal consequences. Indeed, it is precisely because the fiscal consequences of setting interest rates and undertaking OMOs in public sector debt are so great that their exercise has been delegated to the central bank, to avoid politicians being subject to massive conflicts of interest.

The concern about the choice of market for central bank operations should not be so much on its fiscal implications, but rather on the extent to which such intervention might distort relative prices and have a distributional effect, benefiting one set of borrowers rather than another. But this raises a question and a problem. When some financial markets malfunction, so borrowers in that market suffer relative to the rest of the economy, would central bank intervention directly in that market just restore the status quo ante, and thereby stabilize an adverse distribution, or is that intervention having a distributional effect which central banks ought to eschew? For fervent adherents to the efficient markets theory, there is no contest. For everyone else, the issue is much more nuanced. Fed credit easing, for example in the commercial paper and MBS markets, is a case in point. In practice, such questions will probably usually be answered pragmatically,

“needs must”, and such a pragmatic response is, to my mind, preferable to one based on theoretical ideology.

B. Interactions with government

One of the attractions, to many economists and others, of the standard inflation targeting regime was that the choice of interest rates could be made independent of government, in order to achieve an objective democratically mandated. That same separation and independence is not really feasible in the central bank’s pursuit of its financial stability objective. We have already discussed how a central bank’s liquidity management, and especially its unconventional measures, will have both fiscal and distributional consequences. Here we shall consider five further ways in which the central bank and the government may need to interact.

(i) The bank tax: The imposition of a tax on banks is an idea whose time has come, especially since US President Obama called for such a tax in January 2010. Governments’ fiscal positions are so stretched, banks and bankers are so unpopular, and the tax can be justified as a quid pro quo for potential future or past taxpayer support of the banking/financial system. Although the parameters, tax base and most other details have yet to be determined, a bank tax is likely to be adopted, either unilaterally in many countries or internationally. The analogy, which Perotti (2010) makes, is with the inflation tax and seigniorage. There is a temptation for politicians to make excessive use (from an overall social welfare standpoint) of the inflation tax. So a solution is to mandate the central bank to hold inflation at a desired, low and stable, level, but to pass the proceeds of seigniorage to the government. By the same token, governments could be tempted to impose a tax on the banking system that would not optimize social welfare, either by failing to operate in an ex ante preventive fashion, or by being so draconian as to impede the essential intermediation and allocated functions of that system. Perotti’s idea is to combine a low basic tax rate with prudential, time-varying surcharges: “Variable surcharges should be chosen by a macro prudential council where central banks play a significant role.” The revenue from both the basic rate and the surcharges would flow to the government.

Whatever may be thought of this particular idea, a bank tax will have financial stability implications. It would surely be wrong to introduce such a tax without a full exploration of the relationship between the tax and the financial stability objective.

(ii) Sanctions: The Basel Committee on Banking Supervision has no formal legal status, being only an advisory standing committee to the G10 central bank Governors meeting at the BIS in Basel. It could only put recommendations and suggestions to the Governors. Understandably, but regrettably, they interpreted this as meaning that it was for each nation state, not for the BCBS, to decide how the proposed standards, especially the capital ratios, should be enforced. So the BCBS never discussed how sanctions might be imposed for shortfalls below the proposed ratio(s).

In effect, with no discussion of a ladder of increasingly tough sanctions, the Basel requirements became treated by everyone as minima, to be observed at all times. But, as already noted, such requirements were intentionally designed to raise capital levels above those that banks would want to keep of their own accord. So the available margin of safety, the buffer of excess capital beyond that required, was generally kept quite low by the banks. This led to a poor outcome, in that banks held a stock of required capital that could not be trenced upon without signalling a crisis occasion, while the usable buffer was just too small. An example of an appropriate ladder of sanctions is given by the FDIC Improvement Act of 1991. The BCBS and the Financial Stability Board (and the ECB and the European Systemic Risk Board) must overcome their hesitancy about advising on patterns of sanctions. For example, if banks had been prevented by

regulatory sanctions from paying out dividends in the crisis, the system would have been much more robust.

But sanctions, like taxes, such as the prospective bank tax, depend on (national) democratic legislation and the rule of law. Thus, the systemic supervisor in each country will have to engage with their own government to get the appropriate pattern of sanctions (and taxes) applied. Regulators have consistently tried to avoid such engagement. That should not continue.

(iii) Debt management: For over three centuries (1694–1997), a prime function of the Bank of England was to manage the national debt. But as that debt declined, both as a percentage of GDP and in relation to the size of the financial market, debt operations became simpler and standardized, falling into a routine pattern. Much the same happened in other countries. Under these circumstances, the transfer by Chancellor Gordon Brown in 1997 of such management to a separate and specialized Debt Management Office was hardly noticed or remarked, except by a few historians. But now, many countries face the prospect of sharply rising debt levels, to a point that may, once more, test the confidence of market participants. Debt management is again becoming a critical element in the overall conduct of policy, as events in Greece have evidenced. Debt management can no longer be viewed as a routine function which can be delegated to a separate, independent body. Instead, such management lies at the crossroads between monetary policies (both inflation targets and systemic stability) and fiscal policy. When markets get difficult – and government bond markets are likely to do so – the need is to combine an overall fiscal strategy with high-calibre market tactics. The latter is what central banks have as their *métier*. During the coming epoch of central banking, they should be encouraged to revert to their role of managing the national debt.

(iv) Bank resolution: A central bank can only provide liquidity; it cannot provide capital. If liquidation of a failing bank cannot be allowed and the market will not provide more capital, then the only remaining recourse is to taxpayer funding. That implies that politicians must have, on behalf of the taxpayer, a leading role and concern in resolution policies and mechanisms, and indeed in the preventive policies that the central bank, as systemic supervisor, may be putting in place. As long as taxpayer funding, or (partial) nationalization, of failing banks remains a possibility, the relevant minister must be involved at all times, and in charge of the resolution exercise itself. Of course, the necessary involvement of the political authorities could be much reduced if “too big to fail” (TBTF) or “too interconnected to fail” never held. And there have been numerous proposals to try to prevent the need for future taxpayer funding and TBTF. For example, Senator Dodd’s bill, as of April 2010, will put more weight on the:

- (i) prior completion of living wills or “funeral plans”;
- (ii) accumulation of a bank-financed “orderly liquidation fund”; and
- (iii) imposition of haircuts on unsecured and secured creditors in order of seniority.

While there are good arguments in favor of such proposals, many doubt whether such an “orderly liquidation process” will suffice to end TBTF. The losses that may need to be absorbed, partly as a result of fire sales into unwilling markets, are likely to deter investors from putting additional capital into other banks. So the dynamic market process, as began to emerge after the Lehman bankruptcy (and before the capital injections by governments), could bring a large proportion of the financial system towards default simultaneously. Can any government seriously envisage liquidating half (or more) of its banking system simultaneously, and if they did press on with such massive liquidation, would they be sensible to do so.

Even in the case of *one* large bank, and even assuming that depositors could be provided quickly with transaction balances elsewhere, the withdrawal of access to funds by borrowers with unused

credit facilities could have a devastating effect on them, especially if the liquidator sought early repayment of outstanding loans. This is not the place to go into more radical ideas, such as Larry Kotlikoff's mutual banking (similar to Islamic banking, with similar drawbacks), or making all banks "narrow" or tiny, or both. They will not happen, and for good reason. The upshot is that government insurance of the systemically important parts of our financial systems will remain in place for the foreseeable future. As the ultimate provider of such insurance, governments will want, and need, to maintain a close involvement with the conduct of systemic stability.

(v) Interest rate setting: Many have argued that liquidity management is integral to the management of systemic stability and the essential core of the operation, and *raison d'être*, of a central bank. Thus the institution running systemic stability will be, in practice, the central bank. But this institution does *not* necessarily also need to set the official interest rate. Should that be hived off to a separate body.

Throughout this subsection, many have emphasized that the central bank in its systemic stabilization role will have to work closely with government. Indeed, despite the patent, but in the end hopeless, desire to get away from TBTF, many see the linkages between central bank and government becoming stronger, as the bank tax, the need for a ladder of sanctions and the much enhanced role of debt management all conspire to drive government and central bank back into each other's arms.

One of the arguments for separating interest rate setting from central banking (and systemic stability) is that the former depends on its credibility for independence, whereas the latter is conjoint with government. I have never been much swayed by this. An institution can wear two hats simultaneously. A similar argument is that the combination of responsibilities would lead to conflicts of interest. Again, it would tend to argue that the main failures of central banks, as interest rate setters, have lain in taking too little account of financial conditions and monetary developments. Possibly a more persuasive argument is that the combination of operational independence to set interest rates and liquidity management together with prospective macroprudential regulation just vests too much power in a non-elected body. There is some force in this.

Arguments against separation mainly rely on the necessarily intimate connection between the two facets of monetary policy. For example, once the zero lower bound to interest rates is reached, then monetary policy, in the guise of inflation targeting, and systemic stability issues become indistinguishable. If you had an MPC separate from the central bank, who would decide on credit easing, or QE-type measures? And when the official interest rate rose above the zero bound, who would decide on the width of the corridor, or the terms and conditions of access to the discount window? One could envisage a completely separate body, whose sole function would be to determine the official interest rate, but I somewhat doubt whether this would be the most sensible approach.

Interactions with other regulators/supervisors at home and abroad: The regulator in charge of systemic stabilization – which we assume, for the reasons given, to be the central bank – should also be a direct supervisor of the main systemic financial intermediaries. It should also have unquestioned supervisory access to such other banks and intermediaries which it considers may cause, or be involved in, systemic problems. But it need not, and probably should not, be the sole supervisor of even the most important and largest banks. Except in relatively small countries, or countries with few skilled professionals, there is little to be gained by concentrating all supervision within a single institution. Indeed, when the focus of supervision differs between supervisory institutions – between the economic, market-based focus of the systemic supervisor

and the more accountancy-oriented, legal stance of the micro-prudential supervisor – there may instead be actual benefits from having large and systemic intermediaries seen from two differing viewpoints.

Particularly if the central bank combines interest rate setting with its essential roles of liquidity management and systemic stabilization, there is some question whether its role and functions are reaching the acceptable limit for a non-elected body within a democratic society. Under these conditions, it would, in my view, be unwise and inappropriate to also give the central bank the task of micro-prudential supervision, even for the domestic banking system, let alone the much wider set of financial intermediaries, including various forms of investment funds and insurance companies. If the interest rate setting function were to be hived off to a separate body, then there would be more of a case for combining both macro- and micro-prudential functions within the central bank.

But even then the central bank should seek to steer well clear of consumer protection issues, and should want to be consulted, but not take the lead, on questions about product designs, innovations and safety measures. Similarly the actual administration of the resolution of a financial intermediary, when subject to a special resolution regime, is best left to the microprudential supervisor, if separate, or otherwise to a specialist body.

So, in a large, developed country there are likely to be, and should be, a number of regulatory/supervisory bodies with focused specialized purposes. There probably does need to be an oversight, coordinating committee. The proposal is that, in normal times and whenever discussing measures for *preventing* crises, that committee should be chaired by the Governor of the central bank, but that in crisis periods and whenever discussing measures for *resolving* existing crises, that it would be chaired by the relevant minister. The distinction between the two cases should not be hard to make.

When we turn to the international (including here the euro zone) context, the problem of coordination becomes much more difficult. The basic problem is that the financial system is cross-border, if not global, whereas both the legal structure and fiscal competences remain national. There are two logical possibilities. The first is to make the financial system conform to national boundaries, but this would be anathema both to most of the cross-border financial intermediaries and, more importantly, to all those upholding the single European market. The second is to harmonize a limited, but appropriate, set of laws relating to the resolution of cross-border intermediate (Avgouleas et al (2010)) *and* to provide some form of agreement over fiscal burden-sharing. What needs to be done to achieve the latter is now reasonably well discerned (Fonteyne et al (2010)). The problem remains to get political agreement to take this programme forward. In the absence of such agreement, the treatment of cross-border financial crises will remain a dangerous dark hole.

Structural development in the financial sector: Direct government intervention in the financial sector in our second epoch, the 1930s to the 1960s, was consciously so far-reaching that, to a large extent, the structure of intermediation was largely determined by regulation and controls. Then in our third epoch, 1980–2007, the ethos changed. The government set the overall framework, especially the rule of law and the monetary regime, but beyond that, structural changes were to be determined by the private sector market processes and innovations. Whatever met the test of the market was, *prima facie* at least, considered to be good.

Now we are moving back, perhaps somewhat unconsciously in reaction to the crisis, towards the second, more interventionist, mode. Perhaps in this coming epoch, intervention will be less draconian, less based on direct quantitative control, and more on the pricing mechanism,

perhaps via bank taxes and graduated macroprudential regulation. But such intervention will still shape the future structural development of the financial system. What worries me is that the debate on systemic regulation is almost entirely reactive and backwards-looking; that is, the focus is on how such regulation might, if in place, have prevented or mitigated the crisis of 2007–10. While this is inevitable, what is also needed is forward thinking about what should be the desirable future structure of our financial systems, and how the various regulatory initiatives proposed might help to get us there.

Central banks used to be concerned with such structural issues. They saw themselves as having a deliberate role to play in shaping the developing structure of the financial system. More recently, they have eschewed such a role. As we return to an epoch of greater government (and central bank) intervention in markets, central banks had better brush up their understanding of, and participation in, such structural issues.

Summary: The first (Victorian) and third (1980–2007) epochs of central banking were characterized by highly successful monetary regimes (the gold standard and inflation targeting), reliance on market mechanisms and independent central banks. After an interregnum post-World War I, the first epoch came to a crashing halt in the 1929–33 Depression, and deflation then led to a period of government domination, direct controls and subservient central banks. Now there is a good chance – but not a certainty – that we are entering a fourth epoch, in the aftermath of the financial crisis of 2007–10.

This is likely to involve some return towards the second epoch, with more intrusive regulation, greater government involvement and less reliance on market mechanisms. I would hope that we only go part way back. Instead of central bank subservience, perhaps we could have a more even-handed partnership. But the range and scale of interaction with government, on the bank tax, on regulation and sanctions, on debt management and on bank resolution, is likely to increase. The idea of the central bank as an independent *institution* will be put aside.

We do not see that this greater extent of interaction between central bank and government on those other fronts need not prevent the continuation of the present desirable procedure whereby the central bank *also* has operational independence to set the official short-term rate. But some will see an inconsistency. If so, their answer should be to hive off the interest rate setting function to a separate (study) group (of economists) but do not confuse the study group with the central bank.

As expected, Charles Goodhart has written an interesting and challenging paper, which starts with the historical background of central banking, and then discusses a key set of issues that face all central banks at present and that will continue to face us in the months and years ahead. As one read the paper, recalled a line of Paul Samuelson's about what one expects from a paper: "It's not whether it's right or wrong that matters, it's whether it gives you a good run for your money" – meaning that a good paper is one that makes you think hard about things you believe or think you know. This paper succeeds splendidly in that regard.

Historical section: The historical background on central banking is well worth reading. It includes a few teasers, such as the mystery line "... the Bagehot rule for acting as Lender of Last Resort, which is ... all too often misinterpreted." In discussion with Charles after the session at the conference, I learned that the misinterpretation concerns lending at a penalty rate. Many interpret Bagehot as requiring the lender of last resort to lend at a penalty rate relative to the market rate during the crisis. Goodhart's interpretation is that Bagehot's recommendation was that the lender of last resort should lend at a penalty rate relative to the normal market rate, i.e.

relative to the market rate that the central bank expects will obtain after the crisis has been dealt with. Whether or not this is exactly what Bagehot meant, the advice is clearly logical.

This section also includes a persuasive answer to the question we must all have asked ourselves at some time: “How come there were so few financial crises or bank failures in the period after World War II, up to the early 1970s?” The relevant sentence is: “This was *not* due to any exertion of effort by central banks to maintain systemic stability; instead the controlled, constrained financial system was just a safe, but dull, place.” (p8). No doubt there were times during the last few years when many central bankers would have preferred to be in a safe but dull place.

The future of central bank cooperation: Central bank cooperation has a long history. From the episodic efforts to support the 19th century gold standard to the personal interactions of interwar central bankers, to the institutionalized postwar efforts to maintain fixed exchange rates, to the post-Bretton Woods progress in developing standards for prudential bank regulations, central bankers have progressively consulted and coordinated their activities. Such cooperation has always been shaped by a few perennial parameters. Can central bankers agree on theory (end-means relationships)? To what extent can they agree on goals (social purpose)? Do they have the capacity (technical and institutional) to achieve their collective goals? Does the broader political environment facilitate or impede cooperation? It is easy to assume, in writing a paper on the “future of central bank cooperation,” that such cooperation is (1) easily observable (implicit in the assumption that a non-participant can meaningfully write about it), and (2) a good thing. Neither of these assumptions is without controversy, however. First, we can say that central bank cooperation is *factually* controversial. Looking over the historical record, there are important disagreements over *whether*, in fact, central bankers have cooperated at various historical moments. The passage of time does not seem to have settled the debate over whether, for example, central bankers in the 19th century were mutually cooperative or merely opportunistic. Much depends on how one defines cooperation. The dictionary defines it as “joint operation or action;” its antonym is “competition.” Joint action can be shallow or deep; deep cooperation is marked by policy adjustments that differ from those that would have been taken unilaterally, and which are taken specifically to address a collective good or mutual interest (Downs, Roche, and Barsom 1996; Keohane 1984). “Deep” central bank cooperation can be *normatively* controversial as well. Theoretical controversies rage about whether - and the extent to which - exchange rate or monetary policy coordination actually improves outcomes over well-designed unilateral policies (Obstfeld and Rogoff 2002). Moreover, to countries which are excluded from decision-making, policy coordination may look more like a cartel than cooperation. Global standards for the supervision and regulation of internationally active banks for example can be interpreted as serving disproportionately the interests of major banks in the leading jurisdictions. Some of the more profound forms of central bank cooperation can be expected to raise domestic political controversies as well: there are bound to be domestic voices concerned about the collective interests that might sacrifice an important national interest. The historical reluctance of the United States to officially allow the Federal Reserve to participate in the activities of the BIS largely reflects such a concern. Despite these concerns, central banks have accomplished a lot through collective effort, which bodes well for the future. Collectively produced and shared information is increasingly rich and user-friendly. Central bank independence from regular government interference is fairly (though not universally) robust, reducing (though not eliminating) political frictions. Cooperation in some areas appears to be cumulative, involving positive feedback loops through which central bankers continue to develop and improve on past achievements, successfully learning while doing despite an increasingly complex global financial environment. In their collective regulatory capacity, for example, it is hard to imagine a return to the free-for-all that existed prior to the 1980s. Additionally, central banks also seem to have

developed a reasonably robust response to financial crises, though efforts here have plateaued far short of acting as lenders of last resort. The ability of central bankers to assemble very short-term financial packages to contain crises (as a bridge to more substantial - and more conditional – IMF assistance) has been an important example of the rapid response of which central banks may be uniquely capable.

We have come a very long way from 1931. However, in areas such as setting exchange rates or other macroeconomic policies, central bank cooperation is as difficult and controversial as ever. At the theoretical level, there are important debates over whether central banks should do anything other than tend to domestic price stability. Optimism in the 1980s on the joint gains to be made from coordinating monetary policies has given way to greater skepticism that such coordination could ever really “get it right.” Legitimate questions have even been raised about the efficacy of official international intervention in foreign exchange markets of the major floating currencies. Moreover, with the imbalances reflected in rapidly expanding Asian, and particularly Chinese, dollar reserves, the global political economy is changing in ways that will challenge existing institutions and practices. This essay explores the future of central bank cooperation along with a continuum from “easy” to “difficult.” The first section lays the foundation for assessing future collaboration by observing the central banks and governors themselves. The second examines what I have been able to find on the state of the presentation and sharing of information among central banks. The trajectory here, I argue, is really quite positive. The third section discusses cooperative standard setting, and the fourth looks at extraordinary emergency central bank assistance. Finally, I examine the most difficult issue facing central bank cooperation in the near future: imbalance at the core of the international economy. I conclude with some observations about the political-economic and institutional environment.

Cycles in history: The idea that central bank independence and international central bank cooperation were conspiracies to divert money away from a national community was a commonplace argument 70 years ago, in the aftermath of the Great Depression. Figures such as the long-lasting Governor of the Bank of England, Montagu Norman, were first venerated (before the Depression), and then ridiculed and reviled. According to the retrospective diagnosis, Norman had pushed the overvaluation of sterling in order to restore Britain’s position as an international financial centre, but had in consequence starved the British industry of funds. Conspiracy theories about central banks abounded. In Britain, the left of the Labor Party blamed the Bank of England for orchestrating a “Banker’s Ramp” which had used financial blackmail to force the government to cut unemployment benefits. In France, the left saw the Bank of France as controlled by its 200 shareholders, who represented the “two hundred families,” a sinister and powerful money elite. Central banks were blamed (rightly) for failing to provide currency stability; and blamed (mostly rightly) for having used their independence or autonomy in a political sense. The solution was popular control.

In the United States, Benjamin Strong, Norman’s close friend and Governor of the Federal Reserve Bank of New York – at that time the institution that managed the Fed’s international business – was believed to have fuelled the New York stock market bubble by holding interest rates down in 1927 and 1928 to comply with the demands of European central bankers. In an extreme version, the critique held that the major cause of bubbles, speculation and fraud was financial internationalism.

Norman’s leading critic was the Cambridge economist John Maynard Keynes. When it came to designing an international monetary system at the end of the Second World War, Keynes wanted to limit the power of central banks. The major new institution for coordinating international

action, the International Monetary Fund, was to be run by finance ministries and treasuries, not central bankers. In other words, it would be firmly anchored in the structure of domestic political arrangements. The US administration wanted to close down the central bankers' bank, the Basel-based Bank for International Settlements. The IMF would ensure that capital markets were tightly controlled, and that monetary policy could be made in a national setting.

One country went a different way, but that was because the rest of the world, for good reasons, did not trust the political process of that country. The German central bank, the Reichsbank, was recreated as an independent institution under the terms of the 1924 Dawes Plan and the London Conference. It had a new administrative council, of which half the members were foreigners, as a guarantee of its independence. But after 1933, under the Nazi dictatorship, it became subject to political control. In reconstructing the German economy in the wake of the Second World War, the US military authorities insisted on central bank independence, strengthening the position of the central bank at the expense of the government. By the 1970s, the Bundesbank was widely admired by other central bankers.

The discussions of central bank independence in Germany, both in 1924 and in the post-World War II era, emphasized independence from the government and political institutions, which had been in the eyes of Allied experts responsible for the pressures that led to hyper-inflation in the early 1920s. But it was not only independence from the government that mattered. Part of the pathology had lain in the subservience of the central bank to the interests of the financial and business community. It had not only discounted government paper, but had also offered credit facilities to banks and to large and well connected businesses at low nominal and negative real interest rates. In consequence the central bank had to be doubly insulated, and taken away from pressures to yield both to politics and to finance.

By the 1970s, when the fixed exchange rate system invented at the Bretton Woods conference collapsed, central bank independence began to be fashionable again. In particular the German Bundesbank, with a firm legal guarantee of its independence, looked like an impressive model that yielded a better macroeconomic environment and greater growth. Academics and politicians followed the general public into thinking that inflation was damaging. Many central banks consequently wanted to be more like the German model. European monetary integration was founded on the idea that an institution created by international treaty and consequently endowed with cast-iron autonomy would give a better framework for making a strong European economy. Centre-left parties in Britain and France and elsewhere became enthusiastic converts to the idea of central bank independence. The process was best described as “tying hands” in order to prevent sub-optimal outcomes resulting from short-term political pressures.

Section Four: The Changing Role of Central Banks in Market Economies

Among the main reasons for the emergence of central banks in Europe were the wars that ravaged the continent from the 17th century onwards and the consequent pressure this exerted on government finance. In brief, governments granted monopoly power over the note issue to a commercial bank and in return were given privileged borrowing facilities. This marked the beginning of the 'special relationship' between governments and their central bank. However, in most cases, recent years have witnessed enormous changes in the nature of this relationship. In particular, since the beginning of the 1990s, many governments have become convinced that the way to ensure price stability is to sever the institutional links between government and the central bank, leaving the latter to manage monetary policy free from political interference. The focus of this section is on the historical developments, which have underpinned this new monetary orthodoxy.

The nature of central bank independence: The extent of central bank independence is assessed against two criteria: political independence and economic independence. Political independence, as defined by Grilli, Masciandro and Tabellini (1991, p366), embraces three aspects of monetary policy:

'(i) the procedure for appointing members of central bank governing bodies; (ii) the relationship between these bodies and government; and (iii) the formal responsibilities of the central bank. ... This is why we identify independence with autonomy to pursue the goal of low inflation.'

Defined in this way, political independence was greater in the earlier history of central banks than in the present day. The fact that most of the central banks were established as private institutions gave them autonomy to make their own appointments, set their own regulations and pursue their own objectives.

Economic independence, on the other hand, is defined by Grilli *et al.* (1991 p.368) as the freedom of a central bank to choose the instruments of monetary policy with regard to:

'(i) the influence of the government in determining how much to borrow from the central bank; and (ii) the nature of the monetary instruments under the control of the central bank.'

Central banks were established mainly to provide finance for governments to wars. Consequently, despite the high degree of political independence accorded to central banks, until recently they were granted far less economic independence. The major problem confronting central banks throughout the early years of their existence was that their obligations conflicted. On one hand they were required to finance government wartime expenditures, and on the other, they were required to maintain the full convertibility of gold at the fixed rate. In reality, this conflict of objectives was more apparent than real and the over-riding objective of central banks was to maintain the Gold Standard. Furthermore, in times of peace no conflict arose since the prevailing orthodoxy was one of *laissez faire*.

Independence and the changing objectives of central banks: No consensus has emerged in the literature over the historical development of central banks. Toniolo (1988) has referred to their development as '... the free offspring of parents who were not born free'. Despite the lack of any consensus, this section identifies three distinct phases in the historical development of central banks: the nineteenth and twentieth centuries leading to the mid-1940's, the mid-1940's to the mid-1970's and the mid-1970's to the present day.

Period up to the mid -1940's: Goodhart, Cappie and Schandt (1994, p51) have argued that in the nineteenth and early twentieth centuries, central banks had considerably more independence than they currently possess. Elgie and Thompson (1998) offer three reasons for this. **First**, the *laissez-faire* economies of the nineteenth century provided no role for the state and left the problem of resource allocation to the market. Correspondingly, no active role existed for central banks in influencing the performance of the macroeconomy which was regarded as self-regulating. **Second**, the operation of the Gold Standard implied to the central bank independence since their major objective was to maintain a stable economic environment consistent with ensuring convertibility with the national currency within the limits set by the 'gold points'. **Third**, the equity of central banks was privately owned and this gave them a considerable *a priori* independence. Goodhart (1988) has also stressed the role of Gold Standard and has argued that the objective of the early central banks was to 'unify what had become in cases, e.g., in Germany, Switzerland, and Italy, a somewhat chaotic system of note issue, to centralise, manage, and protect the metallic reserve of the country, and to facilitate and improve the payments system'. The operation of the Gold Standard provided a means of achieving at least some of these objectives and during the late nineteenth and early twentieth centuries, central banks were charged with responsibility for maintaining the convertibility of national currencies. Central banks also provided finance for governments in times of war when tax revenues were insufficient to meet government expenditures. An obvious conflict exists between these objectives, but until the mid-1940s it was generally accepted that central banks would have no obligation to finance government expenditures in times of peace.

Mid-1940's – mid-1970's: A second period stretching from the 1940s until the mid 1970s can be identified. During this period governments became increasingly active in managing the economy and Goodhart (1995, p112) has noted that following the end of the Gold Standard 'the links between central banks and governments in the conduct of the macro-policy became much closer'. The economy was no longer thought to be self-regulating and among other things, central banks were now charged with responsibility for ensuring that the central government's budget deficit was financed in accordance with planned changes in the aggregate demand that the governments felt would deliver their economic objectives. The multiple and inconsistent goals of central governments (inflation, employment, growth and the balance of payments) were a source of conflict with their central banks because these goals had no clearly defined hierarchy and their importance often changed in response to economic mismanagement, or as governments moved through the political cycle. The rate of interest became the main operational tool of monetary policy and, in order to ensure central bank compliance with required changes in the rate of interest, many governments nationalized their central banks. For example, during this period the central banks in Canada, Denmark, the Netherlands, England, France, Norway and New Zealand were all brought into public ownership (Elgie and Thompson 1998, p.17). This removed at a stroke any independence central banks possessed, but the situation was different in Germany where, after the currency reform of 1948, the Bundesbank was constitutionally authorized to preserve the internal value of the currency. German experience of hyperinflation, in the 1920's significantly increased the country's determination to maintain price stability and this was accorded priority even in times when most countries were targeting maximum employment!

Being the banker to the central government, central banks have gradually increased the degree of centralization of commercial banks' reserves. Consequently Goodhart (1988) has identified two dimensions of central bank monetary policy: a macro dimension and a micro dimension. The macro dimension involves setting monetary conditions for the macro economy, while the micro dimension involves ensuring the efficient functioning of the individual entities that make up the banking system. The interrelationship between the central bank's macro and micro functions resulted in the evolution of a supervisory function for central banks ultimately involving the

provision of lender-of-last-resort facilities. This role was performed in different ways in different countries. In some, like Germany and Switzerland where the central bank was publicly funded, banking supervision was entrusted to a separate body and the central bank was not empowered with lender-of-last resort facilities. In other countries, like England, France and Italy, where the central bank was initially funded by private shareholders, it was charged with responsibility for providing lender-of-last-resort facilities and was also empowered with a supervisory role over the commercial banks.

Post 1970s: The revival of independent central banks marks the third stage of their development as identified by Goodhart (1994). The policy of granting a greater independence to central banks became particularly popular during the 1990's when countries world-wide started providing their central banks with greater autonomy. Cukierman (1995) has argued that there are several reasons behind this tendency. *First*, the experience with fixed exchange rates, in particular the Bretton Woods System and later the European Monetary System persuaded countries to design institutions increasing their commitment to price stability.

In most countries until about the mid-1970's, economic policy was based on the assumed existence of a stable tradeoff between inflation and unemployment and decisions by the central bank were motivated by the particular combination of inflation and unemployment that satisfied the government's objectives at each point in time. As the relationship between unemployment and inflation deteriorated during the 1970s a consensus emerged at the International Monetary Fund conference in Kingston, Jamaica in 1976, that the primary objective of central banks should be price stability. Increasingly price stability has become the major objective of the majority of central banks worldwide with other goals, such as promoting stable employment, accorded far less prominence in the hierarchy of central bank objectives. The single policy objective greatly enhanced the independent status of central banks and Goodhart (1994) has argued that central banks with a single objective are more likely to be less subservient to central governments than central banks with a plurality of vague objectives. A single objective for monetary policy also facilitates greater accountability since it is abundantly clear whether an institution has achieved its objectives or not. Goodhart (1994) has further argued that targeting a single objective might reduce any dispute between central bank officials and academic economists over operational techniques since, for most central banks, interest rate adjustment is the only instrument of policy available.

The *second* reason identified by Cukierman (1994) for the emerging trend towards central bank independence was its establishment as one of the requirements for joining the single currency bloc. As a consequence, the central banks of European Union (EU) countries were granted increasing independence in the 1990's as a prelude to the creation of the single currency. More recently, the EU accession countries have granted independence to their central banks and more generally this is now an established global feature of central bank development. The *third* reason for emerging independence among central banks identified by Cukierman (1994) was the performance of the Bundesbank with its proven track record of delivering consistently low inflation in the post-war period. Progress was also made in providing the theoretical explanation for the Bundesbank's success. In particular, Kydland and Prescott (1977) showed that when a central bank is not independent, policy announcements are subject to time inconsistency. Barro and Gordon (1983) extended this work and showed that in the absence of binding rules on central bank behavior, an inflationary bias existed. Reputational considerations might reduce this inflationary bias, but it was felt that an independent central bank would act as a pre-commitment device, which would enhance credibility by transferring responsibility for monetary policy to a non-political body. This study, as well as an earlier study by Rogoff (1979) provided the rationale for what the Germans and the Swiss had known for decades: that price stability would more

easily be achieved if central banks were granted greater independence from central government. The theoretical predictions of Rogoff (1979) and Barro and Gordon (1983) were confirmed empirically by Cukierman (1992), Cukierman *et al.* (1992), and Grilli *et al.* (1991) who showed that independent central banks facilitate lower inflation.

Changing Trends of Central Bank Independence: Country Comparisons

This section provides some inter-country comparisons of trends in CBI since their formation until the present day. The central banks included in the comparison are the Bank of England, the Bank of France, the Federal Reserve and the Bundesbank. This paper measures the degree of political independence of these central banks using the index designed by Grilli, Masciandro and Tabellini (1991) from their formation to the present day. Additionally Grilli, Masciandro and Tabellini index (referred to hereafter as GMT index) has become increasingly popular in the economic literature after its introduction in 1991. Table 1 summarises the studies on CBI that have used GMT index:

Table 1: Summary of major studies using GMT index of CBI

Empirical studies	Indices used
Grilli, Masciandro and Tabellini (1991)*	GMT ^
Dvorsky (2000)	Cukierman (1992), GMT
Maliszewski (2000)*	GMT
Alesina and Summers (1993)*	GMT, Bade and Parkin (1988), Alesina (1988)
Alesina and Grilli (1992)*	GMT
De Haan and Sturm (1992)*	GMT, Alesina (1989), Eijffinger and Schaling (1992)
De Haan and Siermann (1994)	Cukierman (1992)
Eijffinger and Schaling (1995)*	Alesina (1988), Eijffinger and Schaling (1993), GMT, Cukierman (1992)

The Bank of England: From its very earliest days the Bank of England could appoint and nominate its own personnel. The Governor, Deputy Governors and directors were chosen every year between March and April (Elgie and Thompson 1998, p.36). Independence was guaranteed because the Committee of the Treasury was created comprising the Governor, Deputy Governor and the most senior of the directors with responsibility for preparing proposals for the election of Governors and Directors. For 1931, a lower score on the overall index of independence is recorded because the degree of economic independence of the Bank fell as result of its responsibility for selecting the instruments of monetary policy being withdrawn. An attempt to measure the political independence of Bank of England has been made using the Grilli, Masciandro and Tabellini (1991) index summarised below.

Table 2: Political Independence of Bank of England (1694 – 1998) using Grilli *et al.* index

Question	1694	1931	1946	1992a	1998
1. Governor not appointed by the government	*	*	-	-	-
2. Governor appointed for more than 5 years	-	*	*	-	-
3. All the Board not appointed by the government	*	*	-	-	-
4. Board appointed for more than 5 years	*	*	-	-	-
5. No mandatory participation of government representative on the board	*	*	-	-	-
6. No government approval of monetary policy is required	*	-	-	-	*
7. Statutory requirements that central bank pursues monetary stability amongst its goals	*	-	-	-	*
8. Legal provision strengthening the central bank's position in conflict with the government	Na	Na	-	-	Na
Overall index of political independence	6	5	1	1	3

a - the authors derive these estimates from reference to the Bank's statute. An asterisk indicates the criterion is satisfied and a dash indicates that the criterion is not satisfied;

b - these results are taken from Alesina and Grilli (1992, p.49);

c - the results for the period 1694 – 1946 are reported by Elgie and Thompson, according to their index of term of office. During this period the term of office was between five and eight years.

Table 2 shows how the degree of independence of the Bank of England changed over the period since its formation in 1694 until 1998. Both tables confirm that in 1946, when the Bank was nationalized, there was a dramatic fall in the overall level of independence, particularly in the degree of political independence. Prior to this all appointments were made independently of government, but after nationalization all positions were government appointments and the anchor for monetary stability, the Gold Standard, was replaced by a plurality of competing objectives to be achieved through government intervention. The amendments enshrined in the Banking Act of 1998 granted the Bank greater independence and constituted the main focus of the Act. In line with greater independence, price stability was established the major objective of the Bank and supervision of the banking system was transferred from the Bank to the FSA. As a result, the index score of political independence increased from one to three during 1998.

The Bank of France: The Bank of France was founded at the very beginning of the nineteenth century with private shareholder capital. It therefore possessed a high degree of political independence since nominations and appointments to the General Council (the governing council) were made independently of government. The General Council consisted of fifteen members who appointed the Central Committee which was charged with responsibility for supervision of the Bank's activities. The Regents (members of the General Council) were elected by the General Assembly of the shareholders. The tenure of the governor and sub-governors was completely free of any outside interference. Monetary policy was conducted by the Bank and decisions of the board were taken independently of any instructions from the government of the day. Using GMT index, the political independence of the Bank of France is measured and our results using this index are reported in Table 3.

Table 3: Political Independence of Bank of France (1800 – 1993) using GMT index

Question	1800	1808	1945	1992a	1993
1. Governor not appointed by the government	*	*	-	-	-
2. Governor appointed for more than 5 years	-	*	*	*	*
3. All the Board not appointed by the government	*	-	-	-	-
4. Board appointed for more than 5 years	*	*	*	*	*
5. No mandatory participation of government representative on the board	*	*	-	-	-
6. No government approval of monetary policy is required	*	a	-	-	*
7. Statutory requirements that central bank pursues monetary stability amongst its goals	-	-	-	-	*
8. Legal provision strengthening the central bank's position in conflict with the government	Na	Na	-	-	*
Overall index of political independence	5	4	2	2	5

a - these results are taken from Alesina and Grilli (1992, p.49);

b - the Board does not accept instructions from the government but there are government representatives with the right of veto and thus we assume that government approval is necessary for policy formulation.

Comparing Table 2 with Table 3 reveals a common trend between the Bank of France and the Bank of England. Their activities were heavily controlled by their respective governments during the period 1945 to 1992, but both were highly independent during the Gold Standard period and again in the 1990s. The governor and sub-governors now have six-year terms of office, secure tenure and are prohibited from accepting any instructions from the central government. Monetary policy was entrusted solely to the Bank. With respect to economic independence, the major change affected lending to government and the Bank was prohibited from:

‘... authorising credit or granting any form of debt facility to the Treasury. The direct acquisition of government debt is also prohibited’. (Elgie and Thompson, 1998, p.133).

The Federal Reserve: In contrast to most of the European countries, the United States did not have a central bank during the period 1836 - 1914. Instead the US Treasury performed the role of central bank. Sylla (1988, p 20) has described the system thus: ‘The entire system was the victim of a kind of irregular and vicious centralisation... The money power of the country passed into the hands of a few financiers and big bankers, and the treasury itself, through politics and manipulation, acted in sympathy with them.’ Clifford (1965, p.50) argues that:

‘A few years ago, when the US Treasury was burdened with excessive revenues and the money market depended on the whim of the Secretary of the Treasury, practically all public men of whatever shade or political belief, were agreed that the government ought to be taken out of the banking system.’

The corporate elite became the driving force in the process of separating the central bank from the Treasury and creating an independent Federal Reserve. A central banking system, with twelve regional Federal Reserve Banks, instead of a single central bank, was created with the Federal Reserve Act in 1913 that operated accordingly. The rationale behind this was to prevent a single bank (New York) from dominating the nation’s administrative and financial centre (Sylla 1988). The Federal Reserve banks appoint six directors and the Board in Washington appoints three other directors making a total of nine directors in all. The nine-member board appoints officers of the respective regional reserve banks along with regional governors. With regard to these

appointments, the Federal Reserve System is completely independent as none of the appointees come from institutions outside the Federal Reserve.

The Federal Reserve Board, consisting of five members, is appointed by the President of the United States for a period of ten years, and additionally two *ex officio* members are appointed. These are the Treasurer and his(her) subordinate who acts as the Comptroller of the Currency. The Federal Reserve Board is thus highly independent from government and its main role is to stand between the latter institution and the reserve banks, to conduct a unified monetary policy and to supervise the reserve banks' operations. The longer term of office of the Board of Governors makes it difficult for a President to influence the Board's decisions. Despite this, the President retains power over the Board and is allowed, via the Treasurer, to be involved in open market operations with or without the approval of the Federal Reserve. Moreover, in times of emergency these Offices are also free to intervene in the central bank activities whenever and however they decide to. (Sylla 1989). Table 4 shows the changing nature of Federal Reserve Bank independence between 1912 (the table says 1913) and 1992.

Table 4: Political Independence of the Federal Reserve (1913 – 1992) using GMT index

Question	1913	1935	1992
1. Governor not appointed by the government	-		-
2. Governor appointed for more than 5 years	*	*	-
3. All the Board not appointed by the government	-	-	-
4. Board appointed for more than 5 years	*	*	*
5. No mandatory participation of government representative on the board	-	*	*
6. No government approval of monetary policy is required	-	-	*
7. Statutory requirements that central bank pursues monetary stability amongst its goals	-	-	*
8. Legal provision strengthening the central bank's position in conflict with the government	-	-	*
Overall index of political independence	2	3	5

With respect to the degree of economic independence envisaged in the Banking Act of 1913, the regional reserve banks, acting as lender of last resort and fiscal agents, were partially allowed to issue banknotes. The influence of government became more explicit in 1917 when the United States entered the war. The Federal Reserve objected to the low interest rates set by the government on loans and securities – but these objections had no effect on policy and interest rates remained as set by the government! The Banking Act of 1935 conferred greater independence on the Federal Reserve. The major changes regarding economic independence are:(a) the Board of Governors (called hereafter the Board) could alter the legal reserve requirements of member banks; (b) the Board could set maximum interest rates on time deposits that banks could pay; (c) the Board could set margin requirements on loans to purchase securities; (d) the Federal Reserve Open Market Committee was established with responsibility for carrying out open market operations.

This marked a departure from the past when the Reserve Banks had the authority to implement their own open market operations. The amendments above increased the power of the Federal Reserve over the member banks and brought about a more efficient and unified monetary policy across the country. The Federal Reserve is now regarded as one of the most independent central banks in the world. The GMT index shows a relatively high degree of political independence, despite the governor and board being appointed by the President of the US.

The Bundesbank: The foundation of the German central bank took place on the 22nd January 1870, but the Reichbank *de facto* started to operate in 1876. Most of the founders were private shareholders. The primary objective of the Reichbank was to unify the note issue but its other tasks as central bank were to improve and organize the payment system in the country. Lexis has noted that:

‘... the nature of its (Reichbank’s) task is that it shall maintain the value of monetary units stable as possible’. (Quoted in Goodhart, 1988, p.108.)

The Reichbank’s administrative functions were performed by the Administrative Board and Management. The board was the ‘holder of all powers of attorney on the company’s behalf’. (Quoted in Gall, 1995, p.13). The management of the Reichbank was required to operate in ‘accordance with instructions given by the Administrative Board (subsequently the Supervisory Board)’. The chairman of the board was appointed by election. Instructions to the Reichbank came from its shareholders pursuing their own interest, rather than from government. This is illustrated by the resignation of one of the two members of the board with political affiliations because the:

‘business activity that has so powerfully imposed itself since. I wished to protect my parliamentary position by on major economic issues against any possibility of attack...(Gall, 1995).

Table 5 below provides the degree of independence of the German central bank using the GMT index of political independence.

Table 5: Political Independence of the German Bank (1870 (table shows 1880) – 1998 (1997)) using GMT index

Question	1880	1939	1997
1. Governor not appointed by the government	*	Na	-
2. Governor appointed for more than 5 yearsc	*	Na	-
3. All the Board not appointed by the government	*	Na	-
4. Board appointed for more than 5 years	*	Na	*
5. No mandatory participation of government representative on the board	-	Na	*
6. No government approval of monetary policy is required	*	Na	*
7. Statutory requirements that central bank pursues monetary stability amongst its goals	*	Na	*
8. Legal provision strengthening the central bank’s position in conflict with the government	*	Na	*
Overall index of political independence	7	Na	6

The statute of the Reichbank changed drastically at the end of January 1933. The newly appointed State Secretary, Gottfried, concluded that: ‘Of course the banks need to be directed by the State... One cannot accuse the Government of a lack of initiative’. (Quoted in James, 1995, p.284). This period has been described thus: ‘The Bank, especially after September 1938, became part of the machine of the German imperialism, and its employees the agents of a brutal political process.’ (James 1995, p. 352). The issues of independence came to the fore in Germany with the creation of the Bundesbank which established a standard of independence against which other central banks were judged. Similarly, its track record of delivering low inflation became the standard against which other policy makers were judged.

Section five: Post crisis role of central bank

Monetary policy after the crisis: The stable economic growth and low inflation of the last two decades could not prevent the emergence of vast imbalances in the global financial system, as the financial and economic crisis clearly showed. Such massive economic shocks are bound to have an impact on how central banks work. Nevertheless, ensuring price stability remains our top priority. The crisis made it evident that central banks have an effective set of instruments that can be used to mitigate the negative impact of financial crises. The unconventional measures used in this regard also proved to be effective. Yet despite these measures, the cost of the crisis remains enormous. One central conclusion, therefore, is that more attention needs to be paid to crisis prevention in order to improve the stability of financial systems. However, monetary policy instruments are only suitable up to a point in countering the emergence of financial imbalances. Hence, a different approach is needed. Strengthening macro-prudential supervision and regulation is one plausible option. Macro-prudential policy takes account of systemic risks in the financial sector through action geared to reducing such risks. As yet, however, we have little experience of this type of supervision and regulation. It is therefore vital that we act prudently and gradually when implementing any new measures, and that we give ourselves adequate time. The first step is to define clear and realistic mandates and objectives and to evaluate possible instruments. Collaboration between the various authorities involved – both nationally and internationally – is also of crucial importance. Overall, we need to create conditions that allow the timely application of suitable instruments to counter emergent financial instabilities. These instruments would essentially supplement our set of existing monetary policy instruments. Within such a framework, the SNB would be able to make an optimum contribution to both objectives – price stability *and* financial stability.

Comparing today's world with the situation a few decades ago, it becomes evident that much has changed. Deregulation of the financial markets has increased and globalization has progressed extremely fast – in the real economy as well. The brisk level of trading made a significant contribution to the long-lasting worldwide upswing in recent years. This was supported by the credible policies pursued by central banks, which increasingly prioritized the goal of price stability, thus contributing to a global reduction in the level and volatility of inflation. The battle against high inflation appeared to have been won. Overall, this led to firm expectations of low inflation and a dramatic drop in risk premia in virtually all areas of the financial markets. However, the successful battle against inflation and the related reduction in macroeconomic volatility – also known as the 'Great Moderation' – were not able to prevent serious instabilities within the globalised financial system.

Alongside its evident benefits, the 'Great Moderation' thus seems to have produced a number of damaging by-products. In combination with low real interest rates, financial innovations and liberalized capital markets provided enormous credit-creation potential. Together with a reduced perception of risk, this fostered a rapid rise in asset prices which ultimately led to excesses and imbalances in some markets. Through contagion effects, the bursting of a credit and asset price bubble can bring the entire global financial system to the brink of collapse within a very short period of time. In view of the interaction with the real economy,

this consequence also has serious implications for the world economy and global growth. This raises a number of questions about the future role of central banks. Can and should monetary policy be used to actively counter the development of imbalances or financial bubbles? Does it make sense to use monetary policy instruments for this? Will the new instruments used during the crisis also play a more important role in monetary policy in the future?

To answer these questions, one would like to look at two aspects specifically. First, I will examine the measures used by central banks during the crisis and briefly outline the possibilities and limitations on their future use in monetary policy. Then I will consider whether monetary policy should step up its focus on the goal of financial stability. With regard to measures taken during the crisis, one can say straight away that the effectiveness of monetary policy instruments was clearly demonstrated. We were able to safeguard price stability and cushion the negative impact on the real economy. However, vigorous interest rate cuts were not sufficient on their own – neither in Switzerland and nor in other countries. The liquidity situation on the money markets initially remained extremely tense.

In many cases, interest rates rapidly dropped to zero. The chief monetary policy instrument could thus no longer be used. Central banks around the world therefore adopted the so-called unconventional measures. These included direct intervention in the financial markets by buying assets, such as long-dated government bonds, debt securities issued by private borrowers and foreign exchange. Another measure was the temporary expansion of liquidity provision to banks beyond the ‘normal’ level – for example, through repo transactions with unusually long maturities of up to one year. These measures were taken for two reasons. First, they permitted further monetary easing if the desired stabilization of prices and the economy could not be achieved through cutting interest rates alone. Second, unconventional measures could be justified by the central banks’ role as lender of last resort. Its role, in other words, was to provide emergency funding for financial institutions that were facing short-term liquidity bottlenecks. The aim of these unconventional measures was to restore the functioning of market forces as quickly as possible and ultimately to restore market confidence in the financial system.

Two main lessons can be learnt from the vigorous response by central banks. It showed that zero interest rates on no account mean that central banks have exhausted their set of monetary policy instruments. Through quantitative and credit easing measures, the central banks have effective instruments that can be used to reduce risk premia, alleviate liquidity bottlenecks and prevent deflation. Moreover, their role as lender of last resort has taken on a new dimension. Previously, this role was confined to providing funds to bridge temporary liquidity bottlenecks at a particular bank. At the height of the crisis, however, the priority was to secure the liquidity of entire markets. The central banks demonstrated that they can fulfill this function to a previously unforeseen extent. In short, they demonstrated their ability to respond to a systemic crisis.

Nevertheless, we need to be cautious when considering whether such measures should be included in a central bank’s conventional set of instruments in the future. These unconventional measures proved useful for direct crisis management. However, so far we have little practical experience of monetary policy management at zero interest rates, especially over a prolonged period of time. It is clear that the instruments used come at a price. In the longer term, for instance, they could create new instabilities and distortions on the financial markets. Similarly, such an enormous increase in liquidity could lead to a build-up of significant inflationary potential. So it is too early to conclusively assess the impact of the measures taken. In general, though, they should be reserved principally for crisis management.

Looking beyond the reactive crisis management, the aftermath of the crisis has brought an old question back into the limelight: To what extent should central banks proactively hinder the development of imbalances on the financial markets, rather than simply adopting an ex post ‘mopping up’ role. More specifically: should central banks try to counter market excesses by steering interest rates in order to prevent a potential collapse of the financial system and the resultant costly implications for the real economy? This is a complex issue and answering it

would go well beyond the scope of this talk. However, it is very topical and tends to recur constantly in the public policy debate. I would therefore like to give you my view on this issue.

For a while now, central bankers and economists have been examining the extent to which changes in asset prices should be taken into account in monetary policy. For example, this could mean that the central bank would raise interest rates if there was a risk that an emerging credit bubble could destabilize the system. The debate is with difficulties, and though it started some time ago, research is still at its infancy. I will therefore merely outline the possible problems and challenges that could arise. To make my position clear: Many are convinced that a strategy geared to medium and long-term price stability is vital for effective implementation of monetary policy. After all, the economic benefits of stable prices are undisputed. High and volatile inflation rates are detrimental to productivity and growth. Uncertainty about future price trends leads to inefficient investment and consumer spending decisions. That does not mean, however, that financial stability should be ignored completely in monetary policy considerations. Nevertheless, taking greater account of financial imbalances presents a number of practical difficulties. An initial problem is that a *single* instrument – namely the interest rate – would be expected to achieve *two* objectives simultaneously: price stability *and* financial stability. That does not seem to be a problem at first sight, because usually the two support each other, especially when taking a long-term view. Credible action to ensure price stability fosters a sense of security and market confidence, which in turn play a key role in ensuring financial stability. Similarly, a stable financial system is a key prerequisite for price stability. The recent financial crisis provided impressive negative evidence to confirm this rule. The bursting of a financial bubble can easily trigger a deflationary trend. So far, so good. However, a second glance reveals potential conflicts between these two objectives in certain situations. For example, a positive supply shock – as a result of technological progress, for instance – could keep inflationary pressure low for a prolonged period.

Expansionary monetary policy conditions could therefore be maintained. However, if we look at financial stability, this situation entails the risk of a boom-bust cycle, which would require a tightening of monetary policy. A similar problem is conceivable if the economic outlook is so poor that raising interest rates would be inappropriate because of the risk of deflation. Then again, maintaining low interest rates would pave the way for potential imbalances, which – from the point of view of financial stability – would actually have to be countered by raising interest rates. Such situations make it clear that a *single* instrument cannot simultaneously achieve *two* objectives.

A further problem is that a bubble is not easy to identify. Expecting us to be able to tell in advance whether damaging price imbalances are building up within certain asset classes is not realistic. First, that would require us to be better than market forces in assessing the fundamentally justified value of a specific asset. Second, it is not easy to clearly identify which variables are to be used as indicators of imbalances. A third problem is that we do not yet have any sound knowledge of the timing, effectiveness and required scope of the monetary policy response that would be necessary to counter financial imbalances. Since asset prices are typically far more volatile than real economic variables and general price levels, substantial changes in interest rates could be required to check financial imbalances, and this could have serious side-effects on the goal of maintaining price stability. As we can see, there are many questions that have not yet been clarified. The problems we have mentioned make it clear that central banks would rapidly reach their limits if they were simply to add a further goal alongside price stability without new instruments to deal with it. The more objectives an instrument is expected to achieve, the greater the risk of wrong decisions and conflicting objectives.

However, as it is already said, these problems do not mean that financial stability should be ignored completely in monetary policy decisions. Asset prices and other variables such as credit growth must be included as indicators when assessing the situation and the outlook for inflation. They are already included in the practical implementation of today's monetary policy strategy. Yet, care must be taken when interpreting such 'instability variables' because they provide only limited information about future economic trends. To sum up, monetary policy can make an important contribution to financial stability. However, the set of monetary policy instruments is unsuitable for excluding all imbalances in all circumstances. Accordingly, instruments that have a direct effect are needed to counter the emergence of (global) financial instabilities. A key lesson of the crisis is that there is scope to strengthen what is known as macro-prudential supervision and regulation. This should be seen as complementary to monetary policy, to aid attainment of the twin goals of price stability and financial stability.

A framework for macro-prudential supervision and regulation: Put simply, macro-prudential supervision and regulation is concerned with the stability of the entire financial system, rather than that of individual institutions, which is the domain of micro-prudential supervision and regulation. Macroprudential supervision and regulation involves examining systemic risks that arise from the interaction between individual banks or the risk that the default of a *single* bank – because of its size or market share – could jeopardize certain functions that are vital for the economy, such as payment transactions or lending businesses. For example, one solution that could significantly reduce such problems would be progressive capital adequacy requirements. In other words, the greater a bank's systemic importance, the more equity it would be required to hold. If capital adequacy requirements rise in step with systemic importance, banks have an incentive to stay smaller and thus less systemically important. Capital reserves for systemically important banks in excess of a minimum level could also act as a kind of 'automatic stabilizer'. Reserves built up in 'good times' allow banks to absorb losses in 'bad times' without having to cease normal business operations. Another central aspect of macro-prudential supervision and regulation takes account of the build-up of systemic risks *overtime*, and especially the pro-cyclical effects in the financial sector. Discretionary action could be taken to cushion the growth of such risks over time – for instance, by imposing an obligation to build up additional capital in phases of excessive credit growth, in other words a countercyclical capital buffer. A key aspect here is that such measures help prevent possible imbalances within the financial system. Another way of achieving the required countercyclical effect is, for example, imposing direct restrictions on loan-to-value ratios if there are signs that a bubble could be forming in certain markets, such as the mortgage market.

The difficulties in applying macro-prudential supervision and regulation should not be underestimated, however. First and foremost, experience of discretionary instruments is still fairly limited. For example, there is not yet any conclusive research showing which indicators could be used to reliably identify systemic risks. Moreover, it is not easy to assess the point beyond which credit growth should be regarded as excessive. Furthermore, the interaction between macro-prudential and monetary policy instruments could make implementation more difficult. In particular, monetary policy transmission channels could be affected.

The impact of a change in interest rates on lending could vary depending on the level of a bank's capital buffer. Therefore, in order to develop reliable indicators for systemic risk, to analyze the interaction and feedback between macro-prudential and monetary policy instruments, and to carefully evaluate the effective measures, we need clear mandates, enough time and additional expertise.

So what is the role of central banks in establishing such a macro-prudential framework? Generally speaking, the traditional tasks of central banks are closely linked to various aspects of systemic stability. A stable financial system is very important for the effective implementation of monetary policy. But also in active crisis management, central banks bear a major responsibility, as the recent financial crisis clearly demonstrated. The contribution of central banks is therefore of great relevance in the analysis and regulation of systemic risk. In particular, central banks will have a key role to play in macroprudential supervision and regulation for the following reasons: Developing and structuring macroprudential measures requires reliable analytical and forecasting skills – for instance, with regard to the overall economy or specific market segments, such as real estate. Central banks have extensive and sound knowledge of these fields. Moreover – as have been already pointed out – macro-prudential policy interacts closely with monetary policy. This implies that the information advantage of central banks could be important in shaping macro-prudential measures. Central banks will therefore almost certainly have to play a major role in implementing such instruments. At the same time, the risks involved in overemphasizing the role of central banks in connection with such supervision and regulation also have to be borne in mind. Central banks could find themselves facing increased political pressures that could jeopardize their independence. If their credibility with regard to maintaining price stability were undermined, this could have devastating implications for the effective implementation of monetary policy.

Institutional aspects: And now, in the final part, we would like to look at some institutional aspects. To allow a more detailed analysis of systemic risks and how to keep them in check, we need a macro-prudential framework in which various instruments can be combined to optimal effect. What is the best way of achieving this? Firstly, it is essential to recognize that ensuring financial stability as a whole is generally dependent on the decisions made by a range of different bodies. These need to act together in order to ensure financial stability. To create the necessary basis for a functioning macro-prudential framework, the exact institutional set-up of the regulatory authorities is of the utmost importance. First and foremost, objectives, mandates and responsibilities need to be clearly defined. In Switzerland, for instance, FINMA – the Financial Market Supervisory Authority – is responsible for the regulation and supervision of individual banks. The SNB, on the other hand, is required to contribute to financial stability. With regard to Switzerland’s two big banks, there is a clear overlap between institutional and systemic risks. In this context, an exact definition of the responsibilities of the SNB and FINMA is of central importance for optimal macroprudential supervision and regulation. The revised Memorandum of Understanding between the SNB and FINMA is an important step in this direction. Secondly, to ensure that the institutions involved can optimally carry out the roles assigned to them, it is also important to give them the right tools. In concrete terms, this means that the SNB would, for example, need to have more extensive information about the stability of financial institutions – regarding their risk exposure, interdependences, etc. – or it would require specific instruments enabling it to take the right decisions when implementing macroprudential policy. Thirdly, the crisis made it clear that closer international cooperation between regulatory authorities is vital. Functioning international coordination mechanisms are required to counter future crises earlier and more effectively. International cooperation is the only way to check undesirable developments on the globalised financial markets.

To briefly sum up these lengthy remarks by trying to reply as explicitly as possible to the question raised earlier: is there a danger that the active and innovative involvement of central banks in crisis management will put at risk the two major achievements of the pre-crisis years, namely the priority given to (price) stability-oriented monetary policy and the independence of central banks? It is proposed to submit four specific conclusions.

Crisis Prevention and Management: It is believed that central banks should be given an explicit macro-prudential mandate as regards both crisis prevention and crisis management. One reason for this recommendation is the conviction that our globalised, competitive and highly innovative financial markets will continue to breed financial disturbances of a size and nature that could lead to systemic meltdown. Another reason is that have doubts about our ability to correct global imbalances, which therefore will continue to nurture a crisis-friendly environment. The last reason is that, with or without a mandate, central banks will find themselves in the first line of defense. It would seem to me preferable to give them a well defined framework within which they should operate, rather than rely exclusively on improvisation. We will always need improvisation, but we also need an operational framework.

Implement a price stability-oriented monetary policy: It is believed that we should not attach excessive weight to the argument that such a mandate would “pollute” the implementation of a (price) stability-oriented monetary policy. On the other hand, there is belief that the macro-prudential mandate should carefully avoid giving implicit approval of asymmetrical policies regarding asset price and/or debt bubbles. Any perceived asymmetry would sooner or later be detrimental to financial stability, and might also cause damage – although not with the same degree of certainty – to price stability.

Entrust with micro-prudential supervision: Should central banks be entrusted with micro-prudential supervision. Many have doubts on the wisdom of raising this question in abstract terms. Tried to say that what really matters is the flow, quality and speed of information between micro- and macroprudential supervision and acknowledged that these are two distinct, but very complementary functions. Depending on the specifics of organization, on tradition and on the “human factor”, ensuring the appropriate flow of information may succeed – or fail – in both the integrated and the cooperative model.

Central Bank Independence: Is central banking independence at risk? Yes, it is. The risk arises from the obvious fact that having to comply with two distinct mandates pushes the central banks into a much more complex world. The modalities of their independence in their monetary policy function may be debatable, but, once agreed, the terms of independence can be reasonably well defined. In the case of the macroprudential mandate (in both models), this is very difficult. Once it appears that an initial liquidity problem is mutating into a solvency problem, and especially when the latter implies the risk of a systemic meltdown, the central bank has to operate hand in hand with the government. But hand in hand can mean very different things – this is why one is pleading for a reasonably well defined operational framework. The macro-prudential mandate implies for the central bank a type of relationship with, and therefore a type of independence from, the government that is different in substance from the one governing monetary policy. The rules of the game on both sides have to be spelled out.

Section Six: Central-Bank Communication and Stabilization Policy

One of the most notable changes in central banking worldwide over the past two decades has been the increased openness with which central bankers speak in public about the policy decisions that they have made and that they are likely to make in the future. The title of William Greider's 1987 best seller about the U.S. Federal Reserve --- *Secrets of the Temple* --- indicates the air of mystery surrounding the institution only twenty years ago, and this mystique was jealously cultivated by central bankers.

Now, instead, monetary policy decisions are commonly announced and explained in press releases at the time that they occur --- the President of the European Central Bank even holds a press conference --- and a number of central banks, such as the Bank of England and the Swedish Riksbank, issue *Inflation Reports* several times a year that provide detailed presentations of the reasoning behind recent policy decisions. Moreover, a number of central banks, including both the Fed and the ECB, have in recent years frequently offered fairly direct indications about future interest-rate decisions in their official statements, and a few central banks even publish quantitative projections of the likely path of interest rates years into the future.

This shift toward greater transparency and more active communication about policy decisions and intentions is not a mere passing fad, but a fundamental change with important consequences for the success with which monetary policy can be used to maintain economic stability. A central aim of my research over the past decade has been to understand the role of communication in successful monetary policy, and to develop criteria for the conduct of policy that can allow the decision process to become more transparent.

Why Communication Matters: The importance of communication strategy for policy effectiveness follows from a fundamental feature of the kind of problem that a central bank is called upon to solve. Central banking is not like steering an oil tanker, or even guiding a spacecraft, which follows a trajectory that depends on constantly changing factors, but that does *not* depend on the vehicle's own expectations about where it is heading. Because the key decision makers in an economy are forward-looking, central banks affect the economy as much through their influence on *expectations* as through any direct, mechanical effects of central bank trading in the market for overnight cash.

Few central banks of major industrial nations still make much use of credit controls or other attempts to directly regulate the flow of funds through financial markets and institutions. Instead, banks generally seek to control the overnight interest rate in an interbank market. But the current level of overnight interest rates *as such* is of negligible importance for economic decision making. The significance of changes in central-bank targets for overnight rates is wholly dependent upon the impact of these decisions upon other financial-market prices, such as longer-term interest rates, equity prices and exchange rates --- and these depend not on the current *level* of the overnight rate, but on its *expected path* over coming months and years. Moreover, it is the expected path of *real* interest rates that matters for economic decisions, and not the nominal rates that are directly targeted by the central bank; and these depend on the public's *expectations of inflation* in addition to the expected path of nominal rates. Expectations of inflation are in turn strongly influenced by the public's expectations about future monetary policy.

Thus the economic effects of central-bank decisions depend critically upon public expectations regarding the future conduct of policy; indeed, changes in the current interest-rate target are

primarily significant for what they indicate about likely *future* policy. It is therefore important for central banks to think carefully about what their current actions signal about future policy, and reasonable for them to seek to develop other channels through which they can also shape expectations about future policy, perhaps in a more nuanced fashion.

Anchoring Inflation Expectations: One aspect of the expectation that the central bankers should seek to influence is the public expectation regarding the rate of inflation over the next several years. A large body of research has confirmed the robustness of the conclusion that, while some degree of short-run variation in the rate of inflation is inevitable or even desirable, it is important to maintain the public's confidence that the average rate of inflation over the medium term will be low and that this can be forecasted with reasonable precision. One reason is because expected inflation leads to socially wasteful efforts to economize on cash balances; a correct alignment of private incentives with the social cost of providing liquid balances to facilitate transactions occurs only if money is expected to retain its value. Moreover, uncertainty about the real value of future nominal payments discourages nominal contracting, reducing the efficiency of financial intermediation.

But at the same time, effective stabilization of the real economy depends on stable inflation expectations as well. For the available short-run tradeoff between inflation and real activity, which allows monetary policy to affect output and employment, depends critically on inflation expectations. If expectations are not firmly anchored, and are easily shifted in response to variations in the observed rate of inflation, then short-run variations in the rate of inflation will *not* produce substantial differences between current inflation and expected inflation, and hence will have only a small effect on real activity. If instead people have reason to believe that inflation will always return fairly quickly to a stable long-run rate, so that an observed departure of the current inflation rate from the average rate has little effect on expected inflation for the future, the short-run "Phillips-curve" tradeoff between inflation and employment is much flatter, allowing monetary policy a larger short-run effect on real activity. Hence even from the point of view of improved stabilization of the real economy, it is important to find a way of stabilizing inflation expectations.

Central bankers have long understood the importance of maintaining confidence in the "soundness" of the currency. But the traditional understanding of how this could be done relied upon a commitment to convertibility of currency into some real commodity, such as gold. Since the collapse of the Bretton Woods system in the early 1970s, this approach to anchoring expectations about the future purchasing power of money has not been available. It has instead been necessary for central bankers to find ways to maintain confidence regarding the future purchasing power of an inconvertible currency that rely solely upon public beliefs about the way in which the instruments of monetary policy will be used in the future.

The most popular current approach to this problem is public commitment of a central bank (often through the legislative definition of its mandate) to a quantitative inflation target, or (as in the case of the ECB), a quantitative definition of the bank's objective of price stability. This kind of specificity about the goals of policy has clearly been valuable, but the mere declaration of a target is not enough to anchor expectations: it is also necessary that the public be able to *see* that policy is conducted in a way that should be expected to achieve the target, at least on average over a suitable horizon. This is where communication with the public about the basis for policy decisions can make a crucial contribution.

One might think that it should be sufficient for a central bank to behave reliably, without any need to talk about what it does. But requiring market participants to guess the pattern in the central bank's behavior by extrapolating from what they have observed is not likely to stabilize expectations as reliably as a convincing explanation by the bank of its behavior. For example, if the public must infer the inflation rate that is aimed at on average from observed outcomes, then any temporary increase in inflation will naturally lead to fears that the central bank's inflation objective is actually higher than had been previously believed; but this is exactly the kind of instability of beliefs that undermines the possibility of using monetary policy to stabilize the real economy. The ideal situation --- in which it is possible to allow some transitory variation in inflation for the sake of greater stability of the real economy, without undermining confidence regarding the medium-run inflation rate --- is only likely to be achievable if the *reason* why the central bank views transitory fluctuations in inflation as acceptable at particular points in time is explained to the public. Only in this way can confidence be maintained that the central bank's concern with the real economy is not of a kind that will be allowed to interfere with achievement of its medium-run inflation objective.

Steering Interest-Rate Expectations: Effective monetary policy requires not only that certain aspects of expectations remain relatively constant in the face of transitory turbulence; it is also important that certain aspects of expectations *change* with changing circumstances, but in the proper way. As noted above, a central bank exerts its control over spending by affecting expectations about the future path of interest rates, rather than their current level alone; effective stabilization requires that those expectations about the path change with economic conditions in the way that the central bank intends. Here too, simply relying upon the public to discern the pattern in central-bank behavior on its own may be insufficiently reliable, and communication --- in this case, about the likely path of future policy --- can be essential.

A good example is the situation faced by the U.S. Federal Reserve in the summer of 2003. By June, the target for the overnight interest rate had been reduced to only one percent, and the Fed had little room for further rate reductions; yet inflation remained unusually low, causing some to fear that the U.S. could slide into a deflation like Japan's. At the same time, many traders were speculating that the Fed would begin raising interest rates soon, in view of signs of nascent recovery of the real economy, and as a result, long-term bond yields began rising sharply in anticipation of this. Officials at the Fed disagreed with the market's interpretation of their intentions, and moreover feared that the premature increase in long-term interest rates would strangle the recovery in its cradle, precipitating the dreaded deflationary spiral.

With little room to signal more expansionary intentions through further immediate interest-rate cuts, the Fed had to resort to direct communication about future policy intentions. The statement issued after the August policy meeting, at which there was no change in the current interest-rate target, included an explicit indication that the Fed expected that low interest rates could be maintained "for a considerable period," and similar language was included in each of the next several post-meeting statements. This had the desired effect of allowing long-term rates to subside fairly soon, and the recovery to gain momentum. Even once the deflation scare was past and it became necessary to return overnight interest rates to a more normal level, it was possible to raise rates without any notable disturbance of the long-term bond market, by signaling in advance the approach of interest-rate increases and committing to increase rates only "at a measured pace."

Forecast-Targeting as a Policy Framework: Shaping the expectations of market participants through central-bank communication requires more, however, than a mere willingness of the central bank to be forthcoming about its thoughts. Statements by the central bank will not influence

expectations, or not for long, if they are not found to provide the key to what is actually done. This in turn requires not only that the central bank's statements be made in good faith, but that the central bank *know its own mind* to begin with, so that it has something to communicate. A central bank cannot reveal its intentions regarding future policy if it has not actually formulated a plan of action; nor can it explain its past decisions, in a way that will help to predict future decisions, if those decisions were not actually based on a structured decision process. Accordingly, a successful use of communication policy requires not only a commitment to transparency, but the adoption of a more structured approach to policy deliberations as well.

This is one of the main reasons, in my view, for the increased role of quantitative modeling in monetary policy deliberations at central banks around the world. This is taken farthest by banks like the Bank of England, the Swedish Riksbank, the Norges Bank, and the Reserve Bank of New Zealand, which are leading exemplars of "inflation-forecast targeting." This is a decision making framework for monetary policy under which the central bank seeks at each policy meeting to determine the action that would lead it to project an evolution for the economy over the next several years consistent with a specific quantitative "target criterion." The discussion of economic projections under alternative assumptions accordingly comes to play a central role in policy deliberations. These projections are also central to the bank's explanations of its policy decisions to the public; typically, forecast-targeting central banks publish an *Inflation Report* three or four times a year with a detailed discussion of the most recent projections and the way in which they justify recent policy decisions.

A key aspect of the target criterion for all of these central banks is the requirement that a certain measure of inflation be projected to converge to a specified medium-run target value, over a specified horizon (usually two to three years in the future). It is because of this emphasis on the inflation projection that the approach is called "inflation-forecast targeting." However, this stipulation alone is insufficient to fully determine the appropriate policy action. There will be different paths by which inflation might be projected to reach the desired level two or three years in the future; these different paths may require quite different actions by the central bank in the short run, and of course it is always only the *immediate* policy action (say, an interest-rate target for the coming month) that is decided upon at any given meeting.

As a consequence, a fully specified target criterion must also include an explanation of what makes one or another nearer-term transition path acceptable. The Norges Bank has been most explicit about this. Each issue of its *Inflation Report* contains a box listing the multiple criteria that acceptable projections are expected to satisfy. The first item on the list is convergence of a particular inflation measure (CPI-ATE) to its target value (2.5 percent per year) at a particular horizon (the next 3 years). But the next item specifies that the "inflation gap" (departure of the current inflation rate from the medium-run target) and the "output gap" (departure of current real GDP from the economy's "natural" or potential level of output) should be of opposite sign, be in suitable proportion to one another, and be projected to be eliminated over time at similar rates. This explains how a temporary departure of projected inflation from the medium-run target must be justified, and what determines whether the rate at which inflation is projected to approach the target is too slow, too fast, or just right.

This approach has important advantages as a way of shaping private-sector expectations. On the one hand, a commitment to regular publication of a detailed analysis that shows how specific policy decisions conform to a general decision framework makes it evident to the public that it can count on the bank to conduct policy in a specific, relatively predictable way. Moreover, the emphasis on the bank's projections of the economy's evolution directs attention very precisely to the implications of the policy framework for expectations that the central bank would like the

public to share. For example, the task of ensuring that medium-term inflation expectations remain anchored is served by constantly discussing what the path of inflation should be expected to be in the light of the most recent developments, and explaining why the central bank believes that its policy is consistent with convergence of the inflation rate to the unvarying medium-run target rate at a fairly specific future horizon, despite what might otherwise be troubling features of recent data.

At the same time, the approach achieves the goal of making the bank's commitments evident and the consequences of its policies fairly predictable, without tying it to a rigid framework that would require policy decisions to be based on some very small, pre-specified set of statistics. The *target criterion* --- the thing that one should see in the projections in order to judge that policy is on track --- should be able to be specified in advance, and should remain consistent over time. But the information used in *constructing* the projections --- the information on the basis of which the bank decides whether a given policy should satisfy the target criterion or not --- may be of many kinds, that need not be specified in advance. These sources of relevant information may change over time owing to unexpected circumstances, and may include non-quantitative sources of information ("judgment"), as long as the required adjustment of the bank's projections can be quantified. The source of discipline in such a procedure is the requirement that the reasoning behind the banks be publicly defended in considerable detail, in addition to the fact that the accuracy of the published projections can eventually be evaluated once the outcomes are observed.

Thus, credibility can be established without a central bank's having to bind itself to a rigid framework that does not allow it to take account of developments of unexpected kinds. The key to success is a commitment to frequent and detailed communication. But this also requires a commitment to a clear policy strategy, the necessary basis for clarity in communications. Economic research can contribute to the refinement of our understanding of the properties of desirable policy commitments, and more work of this kind is needed. But the experience of central banks around the world over the past decade has already shown that a more rule-based approach to policymaking is possible in practice, and that it pays substantial dividends in terms of improved stabilization of both inflation and the real economy.

Section Seven: The role of central banks in development

This section presents a brief on the role of central bank as development agent of the government. Primarily, this section deals with the political economy of central banking and less known political role of a central bank itself. The underspported role of allocation policy that can deliberately or inadvertently affect the profitability and access to credit of different industries are fixed by the central bank resulting from government directive. A comparison of practices prevailed in North America, Europe and developing countries are evaluated in this section.

Most historians identify the following functions as being historically essential to the operations of central banks: (1) unifying and issuing the country's bank notes; (2) acting as the government's bank; (3) acting as the commercial banks' bank; (4) serving as a lender of last resort to the banking and even the financial system as a whole; (5) conducting monetary policy to manage the foreign exchanges and the price level. Other activities have been added to this list: (6) conducting monetary policy to manage the overall level of economic activity and (7) allocating credit to promote national goals. This list is contentious with historians, with many claiming that one or the other of these is the *sine qua non* of central banking, and with most authorities ultimately throwing up their hands and declaring that maybe they cannot agree on how to define a central bank, but they know one when they see it (Capie 1999).

There are at least three other roles of central banks that are less considered. One is the *distributive* role of central bank policy. Central banks' policies can have differential impacts on different classes and groups: workers and capitalists, debtors and creditors, finance and industry, those operating in traded and non-traded goods. Linking this to the political economy of central banking, for example, bankers may oppose expansionary monetary policy because it might lower real interest rates and raise inflation, whereas workers and industrialists may prefer looser policy. A second less-known role is the *political* role of central banks. These days, this role is primarily discussed in the context of whether or not the central bank is *independent* of the government (as opposed to being *integrated* into the government) with a focus, primarily, on the impact of central bank 'independence' on inflation. But the political role of central banks is much more multi-faceted than this. During the period of decolonization following the Second World War, it was recognized that by promoting financial unification, central banks can play an important political role in helping to establish national sovereignty and unity. More recently, central banks which are relatively independent from government often represent and promote particular interests, constituencies and ideologies in the public and private spheres and thereby affect the color and tenor of overall political debate over economic policy (Epstein, 1982). In recent times, these have often been aligned with those in financial circles, including external actors like the IMF, in promoting financial liberalization, inflation targeting and the elimination of capital controls. By contrast, central banks that are more integrated into government are more likely to promote policies and procedures that are framed more closely by government priorities and reigning ideologies.

A third underappreciated role is the *allocative role*: central bank policy can deliberately or inadvertently affect the profitability and access to credit of different industries. This developmental role is currently under-emphasized, relatively to the other two. In short, historically central banks have played many and diverse roles: Central banks have accumulated these roles in fits and starts, some first as private, government connected banks, some as 'proper' public institutions. In any event, it is clear that the neo-liberal version of central banking has picked a highly truncated version of this list.

Central banks as agents of development

This brings us finally to the question: Where in all of this is the role of the central bank as an *agent of development*? The term ‘agent’ implies that the central bank *sees itself* as trying to promote development. The current fashion is for central banks to take a narrow view of this: the only roles it can play as an agent of development is to create a context of ‘macroeconomic stability’, including, financial stability through financial regulations. In our histories, however, we will see that for much of central banking history, many central banks have aspired to do much more than that, with a number of them even seeing themselves as ‘agents of development’ in the self-aware meaning of the term.

The development of central banking in the US, UK, Europe and Japan

Financing the state: Historians of the development of financial institutions in general and central banks in particular increasingly emphasize the role of the state as being critical in the development of banking and central banking. Among the most important aspects is the impact of the state’s need for finance. According to three of the most prominent historians of banking: The more one studies the historical origins and development of modern financial systems, the more it becomes apparent that at most of the critical points when financial systems changed, sometimes for the better, sometimes for the worse, the role of the state was of paramount importance...

Long before private economic entities...came to require financing on a scale beyond the capabilities of individual proprietors and partners, governments had needs for large scale finance... Among the needs for which states needed financing were: solidifying and extending their authority, unifying the disparate components of their states under a central administration, promoting state-led and state-financed economic development projects as means of increasing state power, and, perhaps most important of all, waging wars against other competing states. (Sylla et al. 1999: 1).

Among the ways states found to raise funds for these purposes, the most important included making arrangements with or creating special banks, typically by issuing a bank charter. In exchange for giving these banks monopoly over note issue and other privileges, the bank would promise to finance the state. Among other means, the bank would then generally take the debt issue of the government and distribute it among a decentralized group of lenders. This would facilitate the government’s borrowing, and would also allow the lenders to create a ‘lender’s cartel’ thereby improving their enforcement of debt repayment by the government (North and Weingast 1989). It is these banks that often evolved into central banks.

The initial creation of the Bank of England in 1694, in the midst of a major war with France, is, perhaps, the classic example of this role of central banking. In effect, a deal was struck: the state would get badly needed loans at a preferential rate in exchange for granting extensive legal privileges to a private banking corporation, a corporation that eventually became the Bank of England (Broz 1997: 215).⁶ The role of the Bank of England in financing the crown is commonly cited as an important factor in the warmaking prowess of Britain and, particularly, in its success in the Napoleonic Wars. While the Bank of England is the best-known case of the fiscal role in central bank development, there are many other prominent examples: the first two banks of the United States in the nineteenth century, the Bank of France (1800) the National Bank of Belgium (1850), the Bank of Spain (1874) and the Reichsbank (1876) (Capie et al. 1994: 1-231; Broz 1997: ch. 6). Central banks, then, at their inception, were designed to finance the state. How ironic it is, then, that the current fashion in central banking is to severely limit the ability of central banks to carry out this function, especially when state capacities in developing countries have been eviscerated by years of structural adjustment.

Continental European central banks in the nineteenth century

Central banks in Europe were not only important lenders to the state. Many of them were also very involved in lending to industry (Capie et al. 1999: 69; Cameron and Neal 2003). For example, the Bank of France, the Bank of the Netherlands, and the Bank of Italy all had widespread branch networks, and had very close relationships with industry. The Reichsbank of Germany also had important industrial customers (ibid.). It is important to remember in this discussion that these ‘central’ banks were private banks with special government privileges. Hence, they were profit oriented.⁷ But the fact that these were private institutions should not lead us to underestimate the ‘public’ role they played in helping to direct credit. Because these banks had special monopoly privileges from the government, including a monopoly on note issue and, in some cases, the requirement that the government and even other banks place reserves with them, these banks had subsidized access to credit. The fact that they, then, loaned this subsidized credit to industry, likely played an important role in the development of industry in these economies (Cameron and Neal 2003). Knodell reports that countries that had central banks during this period had, on average, lower nominal and real interest rates, than countries that did not (Knodell 2004).⁸ This resulted presumably from both the efficiencies of these institutions and also the subsidies created by the state in their formation and operations.

The point is that there was a government/central bank financial structure that was able to mobilize credit, both for state activities as we saw earlier, and also for industry. And, in many cases, this was accomplished while countries remained on the gold standard, perhaps with the help of ‘gold devices’ that served to some extent as exchange controls to give central banks some freedom to pursue domestic goals. And this was all happening during the so-called ‘laissez-faire’ period of European capitalism in the nineteenth century. One should not over estimate the extent to which these central banks were ‘agents’ of development in the sense of having a developmental ‘vision’ and intent. These central banks were private, not public. As a result, their interest was in making a profit. At times, this concern even conflicted with their activities as central banks. Still, however imperfectly, these central banks helped mobilize and allocate finance to industry and to government in the service of economic development, sometimes directed by a developmental vision from the state.

Britain and the US: As discussed earlier, the Bank of England and the US Federal Reserve are often seen as lacking in ‘sectoral’ policy during their early years. While these central banks were not as closely connected with ‘industry’ as central banks on the continent, their association was not completely lacking. But the main problem with this argument is that these banks were very much involved in promoting sections of the financial sector in their economies. We first discuss the Federal Reserve and then take on the more familiar story of the Bank of England.

The Federal Reserve: The common explanation of the founding of the Fed in 1913 was that it was designed to enhance the country’s lender of last resort function to prevent the cyclical drains of reserves from regional banks and resulting financial panics that had characterized earlier

decades. While this is certainly part of the story, another key factor was the desire on the part of New York bankers to enhance their ability to compete with London banks in the global financial market. As Carter Glass, who was instrumental in the creation of the system, told a Washington audience during the First World War: The proponents of the Federal Reserve Act had no idea of impairing the rightful prestige of New York as the financial metropolis of this hemisphere. They rather expected to confirm its distinction, and even hoped to assist powerfully in wresting the scepter from London, and eventually making New York the financial center of the world. (quoted in Kolko 1963: 254).

As Broz describes in great detail, relative to the prior National Monetary System the key changes in the Federal Reserve Act concerned creating markets in bankers and trade acceptances that would allow New York Banks to compete with British banks in the highly lucrative financing of international trade (Broz 1997: ch. 1). A key factor was creating a central bank that would allow the bank to discount these acceptances. As Paul Warburg, a New York banker and one of the master-minds behind the Federal Reserve Act put it: American discounting practices prior to the founding of the Fed was ‘as backward as Europe at the time of the Medicis, and Asia, in all likelihood, at the time of Hammurabi’ (quoted in Broz 1997: 40.)

In determining the choice of eligible paper for open market operations, the authors of the Federal Reserve Act chose instruments that would help develop these markets in order to improve the competitiveness of US banks with their London counterparts. These included bills of exchange, or trade acceptances drawn within the United States, which was not used extensively to finance domestic transactions (Broz 1997: 48). Key components of the Federal Reserve Act were also designed to enhance the ability of the US financial system to manage the gold standard. Since the resumption of the gold standard in 1879, the US had perhaps the freest market for gold in the world, and did not have a central bank to protect the supply in case of crisis (Broz 1997: 49). In addition, the US did not have a central bank that could employ gold devices to help create policy space to pursue other goals.

Promoting New York banks in their quest to become more competitive with British banks in global business was also associated with promoting the US dollar as an international currency. Despite the fact that the US had accumulated massive amounts of foreign assets and had been turning into the world’s largest creditor, the US dollar was still not widely used in international finance. The Federal Reserve Act was also intended to rectify that situation. This too was seen by New York bankers as enhancing their profits (Broz 1997: ch. 2). To some extent, this promotion of the international aspects of the Federal Reserve Act in order to help New York bankers compete with London was simply a matter of ‘rent seeking’: the bankers were well organized and they had the economic and political muscle to push through the Act in Congress, despite opposition from other sectors. Still this act of targeted policy to subsidize and promote a particular financial sector in its quest to become more internationally competitive came at a time of major increase in the US economic and political role in the world economy, and further developed that role. One could discuss many other examples of ways in which the Fed has supported the financial sector of the US – from LDC debt crisis bailouts, to promoting IMF structural adjustment policies, to underwriting the stock market during the ‘tech bubble’ – but space does not allow. Still, it seems clear that, from its inception, the Fed has engaged in significant amounts of sectoral promotion. To claim otherwise is to ignore history.

The Bank of England: The case of the Bank of England and its connection to the City of London is well known. London had been the financial center of the world, or had a monopoly of capital exports at least up to 1850. Rivalry with the French heated up around mid-century, but the Franco-Prussian War destroyed French chances. By 1875 London was supreme in both

domestic and international money markets. (Kindleberger 1993: 261). By the late nineteenth century, during the heyday of the classical gold standard, British banks and bond houses were dominant in international capital markets and in the financing of trade. For example, during the boom in foreign securities from 1904 to 1913, British bond and banking houses sent abroad close to half of British savings and 5 per cent of national income (Kindleberger 1996: 136).

A major reason for British financial primacy was the structure and stability of the international gold standard, which, at times, operated more like a sterling standard (Kindleberger 1996: 136). A French study quoted by Kindleberger comparing the relative competitiveness of finance in London versus Paris highlights the role of the gold standard in conferring advantages on London: 'Paris was especially handicapped by the practice of bimetallism, which gave the Bank of France the choice of whether it would pay off its notes in gold or silver – whereas in London one could get all the gold one wanted without hesitation on the part of the authorities or any doubt' (quoted in Kindleberger 1993: 262). Summing up, Kindleberger notes that London was a world financial center, while Paris was a European one (ibid.: 263). For our purposes, the relevant lesson is this: while other factors were important, such as the efficiency and sophistication of the British financial institutions, the existence and stability of the gold standard, with sterling at its center (along with gold) was enormously important in the success and global competitiveness of the British financial system. *Hence, the efforts and support that the Bank of England made to develop and maintain the gold standard were, in effect, a major subsidy and support of the city of London financial institutions themselves.* For England then, central bank policy to maintain the convertibility of sterling into gold was not only a macroeconomic policy; it was, very importantly, also a sectoral policy, a sectoral policy designed to support the international competitiveness of British financial institutions.

Thus, even during the classical liberal period of the late nineteenth and early twentieth century, all the central banks considered here have engaged in sectoral policies, including the Bank of England and the US Federal Reserve. After the Great Depression and the Second World War, this use of selective policies became even more integral to central bank policies, and more widespread.

Western central bank policies after the Second World War: credit allocation for social goals: It is well known that following the disasters of the Great Depression and the Second World War, governments in the UK, Europe, Japan and even the US asserted much greater control over central banks and the banking industries (Capie et al. 1999). Central banks became, once again, important institutions for financing and managing government debts accumulated during the war; and after the war, central banks also became important tools for rebuilding and restructuring national economies and providing for social needs, often under government's direction. Central banks utilized a variety of credit allocation techniques to accomplish these goals, and in most cases, these techniques were supported by capital and exchange controls on international capital movements (see, for example, Epstein and Schor 1992). The types of controls central banks used, the goals they were directed to and their degree of success, varied from country to country and time to time. No matter how successful, virtually all of these central banks had ended or severely limited their use of these controls by the mid 1980s. Under the neo-liberal play book, these controls, despite their long histories and many successes, were thrown in the dust bin of history.

Developed country central banks as agents of development during the 'golden age of capitalism': The great depression of the 1930s and then the Second World War was a watershed for central banks in the industrialized world. Virtually all were brought under more government control and were reoriented to facilitate government priorities. In the United States,

the Fed was brought under tighter government control in the late 1930s and then, at the start of the Second World War was required to help the Treasury finance the war effort at relatively low interest rates. It remained under Treasury control until 1951, but even after that, was subject to significant government pressures to support the market for US government debt that had been accumulated during the war. In addition, the Humphrey-Hawkins full employment bill obligated the Federal Reserve to pursue policies to support high employment while controlling inflation. The era of Keynesian policies was at hand (Epstein and Schor 1990). The US government had a myriad of financial institutions, moreover, that supported national goals, notably housing (Dymski 1993; Wolfson 1993). The Savings and Loan banks, along with other government supported financial institutions, for example, supported housing. During this period, the Federal Reserve policy was quite sensitive to the needs of the housing market concerns and even tailored its monetary policy to avoid significantly harming it (Maisel 1973). In Europe and England, central banks that had been independent before the war found themselves subject to state control after 1945 (Capie et al. 1999: 72). During the war, monetary policy was often implemented through direct controls while interest rates were held low and constant. Direct controls continued in the aftermath of the war with various credit allocation techniques (Capie et al. 1999: 25).

Credit allocation techniques: Credit controls are commonly defined as measures by which the authorities seek to modify the pattern and incidence of cost and availability of credit from what markets would generate on their own (Hodgman 1972: 137). Credit controls seek to influence credit allocation and interest rate structures (ibid.). In Europe credit controls have served a number of purposes: (1) to finance government debt at lower interest rates (2) to reduce the flow of credit to the private sector without raising domestic interest rates (3) to influence the allocation of real resources to priority uses and (4) to block channels of financial intermediation and thus to assist restrictive general monetary policy and (5) to strengthen popular acceptance of wage-price controls by holding down interest income (ibid.).

European experiences with credit controls varied from country to country. In Germany, controls were used only briefly after the Second World War. In the Netherlands and the United Kingdom, extensive use was made of them, but they were always seen as temporary and short-run expedients. In the Netherlands, credit controls were used to support macroeconomic policy, rather than credit allocation. In the United Kingdom, the principle aim of controls was to facilitate low cost government debt. The government was concerned about the impacts of high interest rates on the bond market, on income distribution and on the balance of payments. A more limited aim of the quantitative ceilings was to guarantee a flow of short term credit at favorable interest rates to high priority activities such as ship building and the finance of exports and productive investment in manufacturing. Credit ceilings were put into place, and exemptions were sometimes made for priority sectors (Hodgman 1972: 144). Moreover, the Bank of England identified sectors for which credit should be limited, such as consumption and the financing of imports. In England, as elsewhere, these credit controls were accompanied by exchange and capital controls. France, Italy and Belgium were a different story. There, the principle of controlling credit flows and interest rates to serve national interests was widely accepted. France had, perhaps, among the most extensive and successful sets of controls, that were part of the government's overall approach to industrial policy.

The Bank of France was nationalized in 1945, and placed under the National Credit Council, the institution in charge of implementing the financial aspects of the government plan (Hodgman 1972: 147; Zysman 1987). The broad aim of credit policy in France was to contribute to the modernization of the French economy and its ability to compete in international markets. To influence the volume and allocation of credit, the Bank of France used various methods (see

Hodgman 1972: 148 and Zysman 1987, for descriptions). Variable 'asset based reserve requirements' were widely used. These require banks have to observe minimum reserve requirements based on the assets they hold, but the central bank varies these to promote lending to desired sectors. They do this by allowing lower required reserve rates on privileged assets. A second technique – ceilings on credit extension – has been used as well. The ceilings were used to reduce credit expansion without raising interest rates, and also to allocate credit: priority sectors were exempted from the ceilings. These included short-term export credits, medium-term loans for construction, and others. These ceilings applied to a large range of financial institutions, and were accompanied, as well, by capital and exchange controls as an important concomitant (Hodgman 1972: 148-149; Zysman 1987).

A third tool was the scrutiny of individual credits made by banks. This allowed the Bank of France, for example, to approve loans for privileged purposes. Another approach to affecting the allocation of credit involved the use of rediscounting of bills at lower interest rates for priority purposes (ibid.: 151). Zysman (1987) has emphasized the role of these credit allocation techniques in helping to revive the French economy and help it adjust to structural challenges in the post war period. Italy and Belgium also used similar policies. In the case of Italy, a major goal was to help develop the southern part of the country (US House of Representatives 1972: 11). Oddly enough, there has not been a comprehensive statistical analysis of the effectiveness of these controls over a range of industrial countries. The studies that have been done report that the controls were effective (ibid.: 145). More broadly, the general consensus of analyses of these experiences is that they are most successful when the controls apply to a broad swath of the financial sector, to avoid arbitrage and avoidance, and when they are part of a coherent plan of economic promotion and development (Zysman 1987; Hodgman 1972; US Senate 1972; US House of Representatives 1981). These same lessons apply to developing countries as well, though they were not always applied.

The neo-liberal order: To be sure, not all of these efforts were successful. Yet most accounts suggest that some, if not many of them were in reaching important social goals including rebuilding industry, supporting housing and financing the overhang of government debt acquired during the war while avoiding massive shifts in wealth toward rentiers. Still, by the 1990's many if not most of these programs had been swept away. The increase in inflation, elimination of exchange and capital controls, and the break down of the Bretton Woods system all contributed to the dramatic changes in financial markets and policies. Still, rather than seeing this evolution to liberalized financial markets and central banking policy as a conjunctural change, economists and policy makers have identified the current confluence of policies and structures as somehow 'modern', even optimal, and therefore worthy of emulation throughout the globe.

Central banks as agents of development in developing countries: After the Second World War, there was a major transformation of central banking in the developing world. In many respects, these changes paralleled those in the developed world just described. But in developing countries, central banks were much more emphatically *agents of economic development* than in many richer countries. As described by renowned monetary historian of the New York Federal During the past decade there has been a marked proliferation and development of central banking facilities in the underdeveloped countries of the world, along with an increasing resort to the use of monetary policy as an instrument of economic control. Since 1945, central banks have been newly established and pre-existing ones thoroughly reorganized, in no less than some twenty-five underdeveloped countries.

In other cases the powers of pre-existing central banks have been broadened...in large part the recent growth of central banking in the economically backward areas has also reflected a desire

on the part of the governments concerned to be able to pursue a monetary policy designed to promote more rapid economic development and to mitigate undue swings in national money incomes. (Bloomfield 1957: 190) Bloomfield goes on to describe the functions, powers, and goals of these central banks. Many of the central banks, especially those established since 1945 *with the help of Federal Reserve advisers* are characterized by unusually wide and flexible powers. A large number of instruments of general and selective credit control, some of a novel character, are provided for.

Powers are given to the central bank to engage in a wide range of credit operations with commercial banks and in some cases with other financial institutions... These and other powers were specifically provided in the hope of enabling the central banks...to pursue a more *purposive* and effective monetary possible than had been possible for most...that had been set up...during the twenties and thirties...[that] for the most part [had] been equipped with orthodox statutes and limited powers which permitted little scope for a monetary policy *designed to promote economic development and internal stability*.

Somewhat surprisingly from the perspective of today's financial orthodoxy, the Federal Reserve Bank of New York helped to establish developing country central banks and encouraged them to have a broad range of monetary and credit powers, especially in contrast to the orthodoxy of the 1920s and 1930s. Of course, the Fed continued to be concerned about the importance of stabilization, controlling excessive credit creation and maintaining moderate inflation. But [the central bank's] efforts need not, and in fact should not, stop here. The majority of central banks in underdeveloped countries have in actual practice adopted a variety of measures designed more effectively to promote the over-all development of their economies. Some of these measures are admittedly outside the traditional scope of central banking, but central banking in these countries should not necessarily be evaluated in terms of the standards and criteria applied in the more developed ones...the central bank can seek to influence the flow of bank credit and indeed of savings in directions more in keeping with development ends. (ibid. p. 197) Bloomfield describes the same tools of credit manipulation described earlier with respect to Europe, Japan and even the United States: selective credit controls applied to the banking system, through help in establishing and supporting special credit institutions catering to specialized credit needs, and through influence over the lending policies of such institutions, it can help to some degree to re-channel real resources in desired directions, both between the public and private sector and within the private sector itself.

Writing about the same issue almost fifteen years later (in 1971), another prominent Federal Reserve official, Andrew F. Brimmer, a member of the Federal Reserve Board of Governors, looks back on the experience with 'developmental' central banking in the developing world: 'during the last ten years, a number of central banks concerned themselves with problems of economic development almost as much as they did with the traditional functions of central banking' (Brimmer 1971: 780). By 1971, monetary officials, as represented even by a pro-Keynesian economist like Brimmer, had become more skeptical of the developmental role of central banks in developing countries. Brimmer and his associates describe a variety of techniques that central banks pursued in the 1960s: these included: providing capital to development institutions, such as industrial and agricultural development banks; extending credit to development banks and purchasing their securities; buying a small part of the equity of development banks; establishing a 'securities regulation fund' to create a market for the securities of various development finance institutions, by using the profits from the ordinary operations of the central bank (ibid.: 785); using differential discount rates to allocate credit to capital development projects;¹⁶ the establishment of portfolio ceilings on activities having a low priority; various types of reserve requirements, including differential reserve requirements to

influence the allocation of credit; using import deposit requirements, (primarily intended to deal with balance of payments difficulties) to also influence the allocation of bank credit (Brimmer 1971).

Brimmer on the whole is somewhat negative about the effectiveness of many of these techniques, with the evidence from Brimmer's study providing mixed results about the effectiveness of these policies. The possible trade-off between developmental central bank policy and the maintenance of financial and macroeconomic stability is also a continuing concern. Yet, despite these concerns, one sees in retrospect that support by the central bank of the government's policy for industrial development made a key contribution to the rise of many of the more successful developing countries in the late twentieth century. Alice Amsden reports the role of medium and long-term financing, often supported by central banking mechanisms as just described, were key to *The Rise of 'the Rest'* (Amsden 2000). The countries of the rest, according to Amsden, acquired a manufacturing base in the years prior to the Second World War and then, after the war, industrialized rapidly, moving, eventually into mid-level and even high-technology production. Among many other factors, Amsden stresses the important role of finance in the success of these countries, and especially the mobilization and allocation of medium term and long-term finance for industrialization.

The state's main agent for financing investment was the development bank. Sometimes, the whole banking sector in these countries was mobilized to direct long-term credit to targeted industries, thereby 'acting as a surrogate development bank'. Lending terms of development banks were almost always concessionary. The public finance behind the rest's development banking was often 'off-budget' and related to non-tax revenues. It derived from foreign sources, deposits in government owned banks post office savings accounts, and pension funds. As we just saw, many central banks played a key role here as well. More specifically, central banks played an important role in accommodating the development oriented policies of these governments. Most kept effective real interest rates low, even negative. They also used capital controls to insulate domestic markets from hot money flows that could lead to over-valued exchange rates and crises. Furthermore, central banks also played an important role in the 'off-budget' financing of a number of these countries using the techniques described by Bloomfield and Brimmer as mentioned above. These experiences were not all unqualified successes, of course. Still, in many cases, as part of a government policy, they helped underwrite significant economic development in many countries.

Section Eight: Country Comparison of Changing Role Central Banks

This section attempts to present a comparison on the origin and motivation for creating the central bank across the globe. It includes objectives, functions and roles played under different political philosophy economic development including war time and peacetime. This section also looked into the state of central bank independence at different stages of economic development. In particular, the role played by central bank during crisis period, recession and boom period, currency devaluation, and inflationary period. This section also highlighted on the banking supervision and control, state of independence and corporate governance. Information on the ownership, capital contribution, distribution of profit, practice of appointing governor and directors of central bank are provided. Countries included here are from Europe: Sweden, England, Norway, Germany, and France. Countries included from North America USA and South America Chile while Asian countries include India, Srilanka, Vietnam, Kuwait and Bangladesh and from Africa the central bank of Zambia.

Sweden: Sveriges Riksbank

Founded in 1668 as Forerunner: Stockholms Banco (The Stockholm Bank) had been privately chartered in 1657 by Johan Palmstruch, although the charter reflected considerable government influence over the bank. Although it initially only made loans against security and received deposits, the bank began to issue notes convertible into coin in 1661, thereby becoming the first bank of issue in Europe. However, over-issue led to the bank becoming unable to redeem its notes, resulting in the imprisonment of its founder and the reorganisation of the bank as a state institution under Parliament in 1668.

Motivation for founding: The over-issue of notes by Stockholms Banco precipitated its closure and replacement in 1668 by a state owned bank, the Riksbens Standers Bank (Bank of the Estates of the Realm).

Original objectives and functions: The Riksbens Standers Bank (hereafter the Bank) continued the lending and deposit business of its predecessor but, given the fate of the Stockholms Banco, was expressly forbidden from issuing notes of any kind. Although it was state owned, the administration of the Bank was under the charge of a commission chosen by the Riksdag (Parliament), and was not responsible to the government.

Evolution of objectives and functions: The bank on note issue did not prevent the Bank from issuing so-called transfer notes in 1701, which basically functioned as bank notes. Moreover, in 1789, a National Debt Office was set up by the Riksdag to issue notes for government funding purposes, and for some time the National Debt Office supplanted the Bank as the primary note issuer. A monetary reform in 1834 culminated in the redemption, well below par, of all outstanding Bank and National Debt Office notes, and the issue of new Bank notes redeemable in silver. By this time, however, several private note issuing banks had already been chartered, and their notes now competed with those of the Bank. The establishment after 1864 of the first joint stock banks (known as enskilda banks, interesting insofar as their stock carried unlimited liability) also saw the gradual erosion of the Bank's commercial lending and deposit business.

For the greater part of the nineteenth century, therefore, the Bank basically comprised a state commercial bank, acting neither as a monopoly note issuer, nor as a lender of last resort. Indeed, a state proclamation in 1824 prohibited state participation in, or support of, private banking. The Bank did engage in foreign exchange policy, however, and was explicitly charged with maintaining the external value of the krona. This became a central function of the Bank after the formation of the Scandinavian Monetary Union in 1875 with Denmark and Norway, two years

after each of these countries adopted the gold standard. In 1867 the Bank was renamed Sveriges Riksbank. Towards the end of the nineteenth century a lengthy debate over the status and role of the Riksbank culminated in the Riksbank Act of 1897, which gave the Riksbank the sole right to issue notes as from 1904. The notes of private issuing banks were thus gradually withdrawn, and banks given compensation in the form of favourable discount rates by the Riksbank until 1910.

After 1897 one of the functions of the Riksbank became, though not explicitly, lender of last resort. Furthermore, in 1899 the Riksbank established a clearing institution through which banks could facilitate interbank payments, via accounts held at the Riksbank. The Riksbank did not, however, regulate and supervise banks. This task was undertaken by a government controlled Bank Inspection Board, which monitored banks' adherence to regulations specified in a Bank Act of 1911.

The Riksbank Act also limited the note issue of the Riksbank to twice its metal reserves, although this restriction was amended shortly after the outbreak of World War I, and again in 1918, giving the King and Parliament together the right to permit the issue of additional notes in the event of a national crisis (such as a war). Although convertibility was suspended at the outbreak of the war, the reserves of the Riksbank actually increased (due to large exports), leading to a resumption of convertibility two years later. The gold standard was abandoned in 1932.

The aftermath of World War II saw a break from the traditional monetary regime, as exchange and credit controls were imposed and political pressure was put on the Bank to maintain a 'low' discount rate. The Governor of the Bank objected to this policy, and eventually chose to resign in 1948 in protest. For several decades the policies of the Bank remained subservient to government policies, although it did attempt to resist these on occasion. In 1957, for example, the Board chose to raise the discount rate without prior approval by the government, which resulted in the eventual resignation of the Chairman, and his replacement with a former Finance Minister. During the 1980s policy emphasis shifted towards liberalisation and deregulation, and a more market-oriented approach. This has led, in turn, to a lessening of political pressure on the policies of the Riksbank.

Although a new Act was adopted in 1934, the fundamentals of the 1897 Riksbank Act were in force for almost a century until a new Riksbank Act in 1988. In this latter Act it was clearly stated that the Riksbank was Sweden's central bank, and that its functions should be those of a central bank. The position of the Governor was also strengthened, and the Government no longer had the right to appoint the Chairman of the Board of Directors.

Independence: It is noteworthy that it is stated in the Swedish constitution that the Riksbank is the central bank of Sweden and an authority under the Parliament. The Riksbank is responsible for exchange rate and monetary policies. It is administered by the eight members of the Board of Directors, seven of which are elected by Parliament for a term ending at the next general election. These seven members elect an eighth member to act as Governor of the Bank. The 1988 Riksbank Act states that the Bank shall decide the system that shall apply for establishing the external value of the krona, and that the Bank owns and manages the country's foreign exchange reserves and, further, determines its own budget. The Act does not, however, specify a clear monetary policy objective. To promote a coordinated monetary policy, the Act states that the Bank shall consult with the Cabinet Minister appointed by the government prior to making a monetary policy decision; once such consultation has been made the Bank may, however, make its own decision. Although the Bank may not accept instructions from anyone but the Riksdag,

the post-World War II period saw the Riksbank coming under political pressure to conduct monetary policy in accordance with the general policy of the government. Furthermore, foreign exchange and credit policy regulations, until they were all abolished in the 1980s, required decisions by both the Riksbank and the government.

Bank of England

Founded in 1694 as Forerunner: The Bank of England was the first chartered bank in the UK. The primary motivation was the necessity for raising government funds to finance the war against France, although the view had become current that a bank was needed to 'stabilise' financial activity in London, which saw periodic fluctuations in the availability of currency and credit. An original proposal in 1693, by William Paterson, for a government 'fund of perpetual interest', was turned down in favour of another proposal by Paterson (in 1694) to establish a company known as the Governor and Company of the Bank of England whose capital, once raised, would be lent in its entirety to the government.

Original objectives and functions: An ordinary Finance Act, now known as the Bank of England Act 1694, stipulated that the Bank was to be established via stock subscriptions which were to be lent to the government. A Governor, Deputy Governor and twenty-four Directors were to be elected by stockholders (holding £500 or more of stock). Under its original charter the Bank was allowed to issue bank notes, redeemable in silver coin, as well as trade in bills and bullion. The notes of the Bank competed with other paper media of exchange, which comprised notes issued by the Exchequer and by private financial companies. In addition, customers could maintain deposit accounts with the Bank, which were transferable to other parties via notes drawn against deposit receipts (known as accomptable notes), thus providing an early form of cheque.

An early customer of the Bank was the Royal Bank of Scotland, which made arrangements to keep cash at the Bank from its inception. Loans were extended, predominantly in the form of discounting of bills, to individuals and companies, and the bank undertook a large amount of lending (often via overdrafts) to the Dutch East India Company and, from 1711, the South Sea Company. The Bank also acted as a mortgage lender, although this business never took off, and ceased some years later. Finally, an important function of the Bank was the remittance of cash to Flanders and elsewhere for the wars against Louis XIV, which was facilitated through correspondent arrangements with banks in Holland.

Evolution of objectives and functions: In 1697, the renewal of the Bank's charter for another ten years saw the passing of a Second Bank Act, which increased the capital of the Bank and prohibited any other banks from being chartered. This monopoly was strengthened at the next renewal of the Bank's charter in 1708, when any association of six or more persons was forbidden to engage in banking activity, precluding the development of any other joint stock banks. The Bank's position as banker to the government was consolidated in 1715 when it was decided that subscriptions for government debts issues would be paid to the Bank, and further that the Bank was to manage the government debt (the Ways and Means Act).

The Bank also encouraged the use of its notes over other media of exchange by persuading the Treasury to increase the denomination of Exchequer bills. By 1725 the Bank's notes had become sufficiently widely used so as to be preprinted for the first time. Although a number of private banks had developed by 1750, both in and outside of London, none competed seriously with the Bank in the issue of notes. By 1770 most London bankers ceased to issue notes, using Bank of England notes (and cheques) to settle balances among themselves in what had become a well

developed clearing system. Furthermore, in 1775, Parliament raised the minimum denomination for any non-Bank of England notes to £1, and two years later, to £5, effectively guaranteeing the use of Bank of England notes as the dominant money.

In Scotland, on the other hand, no note issuing monopoly existed, and banks were free to issue notes, although two banks dominated, namely the Bank of Scotland and the Royal Bank of Scotland. Furthermore, several private note-issuing banks were in business in Ireland, and the Bank of Ireland was established in 1783. These banks relied on the bank of England to obtain silver and gold, particularly during times of financial stress such as 1783 and 1793.

Following the dramatic rise in government expenditures after 1793 due to the war against France, which caused a large rise in the Bank's note issue, the Bank's gold holdings fell sharply. Thus convertibility was suspended in 1797, and resumed again only in 1821. This period thus saw a further consolidation of the Bank as a note issuer, since it began to issue small denomination notes (given the shortage of silver/gold coin), which became legal tender in 1812. Furthermore, in 1816, silver coin ceased to be legal tender for small payments. The government also moved most of its accounts to the Bank in 1805 (in 1834 all government accounts were finally moved to the Bank).

During the early part of the nineteenth century, smaller country banks had proliferated throughout England and Wales, many issuing their own notes. Given the prohibition on joint stock banking, the capital of these banks was usually small, and they regularly became insolvent, especially when the demand for cash (coin) became strong. This contrasted sharply with Scotland, where joint stock banking and branch banking were permitted, and relatively few failures occurred. Following a severe banking crisis in 1825, during which many English country banks failed, an Act renewing the Bank's charter (in 1826) abolished the restrictions on banking activity outside of London. This led to the establishment of several joint stock banks, and the Bank opened several branches throughout England. Thus the semblance of a banking 'system' began to emerge by 1830, with the Bank of England as the 'central' bank. The practice of banks placing surplus funds with bill brokers also emerged, with the Bank beginning to extend secured loans to these brokers on a more or less regular basis. In 1833 joint stock banks were finally allowed to operate in London, although they were not permitted to issue notes and thus were essentially deposit-taking banks only. The same Act specified that Bank of England notes were legal tender, and the Bank was also given the freedom to raise its discount rate freely (until then Usury Laws had placed a ceiling on interest rates) in response to cash outflows. The position of Bank of England notes was consolidated in an important Act, passed in 1844, restricting all note issuers from expanding their note issue above existing levels, and prohibiting the establishment of any new note issuing banks. The 1844 Act also separated the issue and banking functions of the Bank into different departments, and required the Bank to publish a weekly summary of accounts.

Given that it did not pay interest on its deposits, the deposit activity of the Bank could never really compete with that of other banks, which expanded rapidly from 1850 onwards. In 1854, joint stock banks in London joined the London Clearing House, and it was agreed that clearing by transfer of Bank of England notes would be abandoned in favour of cheques drawn on bank accounts held at the Bank. Ten years later the Bank of England itself entered this clearing arrangement, and cheques drawn on bankers' accounts at the Bank became considered as paid (i.e. cash). Although the Bank had, from the beginning of the nineteenth century, periodically bought or sold Exchequer bills to influence the note circulation, explicit open-market borrowing operations to support its discount rate began in 1847. From 1873 until 1890 the Bank almost

always acted as a borrower rather than a lender of funds, as there were typically cash surpluses. As a result, the Bank introduced the systematic issue of Treasury bills via a regular tender offer in 1877. Treasury bills had a much shorter maturity (three to twelve months) than Exchequer bills (five or more years), and were to play an important role in raising funds at the outset of World War I.

By 1890, the Bank's role as lender of last resort became undisputed when it orchestrated the rescue of Baring Brothers and Co., a bank whose solvency had become suspect, threatening to cause systemic problems. Earlier, in 1866, the failure of a discount house, Overend, Gurney and Co., had precipitated a financial panic, during which the Bank discounted large amounts of bills and extended considerable loans.

Throughout the nineteenth century, the Bank streamlined its discount facilities. In 1851 it overhauled its discount rules, stipulating that only those parties having a discount account could present bills, and that these bills had to have a maturity of under ninety-five days and be endorsed by two creditworthy firms. In the latter part of the century, however, the Bank gradually came to favour discount houses, often by presenting them with better rates of discount, and the range of firms doing discount business with the Bank declined. Until World War I the Bank pursued a discount policy which was aimed at maintaining its gold reserves, and which was conducted largely independently of the government. During World War I, however, a clash occurred between the Bank Governor (Cunliffe) and the Chancellor (Law), during which the government made clear that it bore the ultimate responsibility for monetary policy, and that the Bank was expected to act on its direction. This position, which was implicitly maintained during the inter-war period, was formalised in 1946, when the Bank was nationalised by the newly elected post-war Labour government.

Although the Bank Act of 1946 left the administration of the Bank largely unaltered (although the number of Directors was reduced from twenty-four to sixteen), it gave the government statutory authority over the Bank, and gave the Bank statutory authority over the banking system. The relationship between the Bank and the banking system was further defined by the Banking Act of 1987, which gave the Bank, in its role as banking supervisor, the objective of protecting the interest of depositors.

Independence: Between 1844, when the Bank first began actively to alter its discount rate in response to gold flows (for the century prior to this the discount rate was held, with few exceptions, between 4 per cent and 5 per cent), until World War I, the Bank remained relatively independent in the formulation and implementation of discount policy. No statutory provisions detailed the relationship between the Treasury and the Bank. This state of affairs began to change during World War I when, in 1917, following a public disagreement between the Bank and the Treasury, the Bank was threatened with nationalisation. Thereafter, the position of the Bank became less independent, with the Governor in 1937 (Norman) claiming: 'I am an instrument of the Treasury'. However, only after the nationalization of the Bank, in 1946, did the government gain statutory authority over monetary policy, which it retains to the present date. The Bank's responsibility, therefore, is to advise on monetary policy, and to carry out the policy that has been agreed with the government. Recently, the issue of increased independence for the Bank has come under investigation and, although no official steps in this direction have been announced, the Treasury has given the Bank greater discretion over the timing of interest changes than it has had in the past.

Bank of Norway-from independence to uncertainty

From its early establishment in 1816 until the end of World War II, the BoN underwent several fundamental changes, from serving mainly as an ordinary commercial bank, towards becoming a modern central bank with a unique position in the financial system, serving as lender of last resort and independently formulating and implementing the monetary policy, through wars and economic crises that seriously undermined the trust in this traditional type of central banking, to a new political and economic context that prescribed increased political control and market regulations. Examinations have revealed an image of a central bank, which despite being embedded in the political context, managed to develop and maintain a high degree of operational independence. In this final section, we will sum up the most important aspects of this independence and other facets of the central bank's traditional role, which by 1945 appeared as a thing of the past. During the gold standard, this CBI was in accordance with predominant liberalist ideals, which emphasized limited and predictable state intervention in the economy. By the end of the 19th century, once the Bank was established as a centralized organization with a full-time management, headquarters in the capital, and a single unified discount rate that could be used in a consistent monetary policy, the central bank obtained both the authority and the expertise necessary to carry out these ideals in practice. Before 1914, when the gold standard was suspended, this implied an orthodox monetary policy based on flexible interest rates; a policy developed in an international context of free capital flows and fixed exchange rates. This was a market-based system in the sense that demand and supply decided the flows of capital, and to the extent that whenever the authorities intervened, they used mainly changes in the price mechanism, the interest rate, to influence the outcome. Unlike later policy regimes, the gold standard thereby appeared as a self-regulating system, in which the central bank acted as a completely independent agency in charge of maintaining the external value of the *krone*, that is, its convertibility into gold.

In practice, it has been seen that both the working of the gold standard system and the position of the central bank towards the political authorities probably was less straightforward. First, new research indicates that monetary policy during the gold standard contained considerable elements of discretion. Rather than keeping a single focus on the external value of the currency, the BoN, without seriously violating the link between the gold reserves and the volume of notes in circulation, actively tried to balance the systemic tension between international and domestic concerns and often also changed the discount rate to smooth seasonal variations and business cycles at home. Second, there were some discrepancies as well between the ideal of CBI as declared by the political authorities and the *de jure* position of the BoN as stated in the new Central Bank Act of 1892, since the governing bodies of the central bank, including the governor, were appointed by the political authorities.

Moreover, there was also a greater overlap between the central bank and the authorities than is usually assumed since a number of directors of the BoN also served as members of parliament, the Storting, which according to the Constitution was formally in charge of superintending the central bank as part of the monetary system. The above points add some important nuances to our understanding of the gold standard system as well as the traditional role of the BoN. Even so, in practice and, particularly when compared with later periods, the gold standard was characterized by predictable and limited state intervention and *de facto* CBI. The political authorities never exercised their right to remove the Bank's governor, and in practice the first two full-time governors established a tradition of long-serving, prominent individuals with a high degree of personal influence over the internal governing bodies of the central bank as well as the

political authorities. Thus, although politically embedded, the BoN in practice experienced a high degree of autonomy and authority in policy formulation and implementation, and the political authorities limited their activities to supervision rather than direct control and intervention. In fact, the relations between the BoN and the Storting during the gold standard probably rather reinforced the independent position of the central bank than the opposite, by soothing the numerous passive stockholders as well as adding legitimacy in the eyes of the public in general.

The outbreak of World War I and succeeding economic crises, including the suspension and reintroduction of the gold standard, represented a serious blow to the ideal of CBI, in Norway as in most other countries. Although new research indicates that the deflationary monetary policy pursued by governor Rygg and the BoN reinforced rather than caused the economic crises of the 1920s, in the contemporary context, there was a strong associative link between the central bank and the negative consequences of the crisis. This was reinforced by the fact that the political authorities at the time distanced themselves from the par policy by referring to the expertise and declared independence of the central bank. Moreover, the deflation caused by the par policy, once it was implemented, did undoubtedly contribute to the debt crisis, bankruptcies and high unemployment. So even though the BoN limited the systemic crisis by serving as lender of last resort, it later contributed to the depression by consistently giving priority to the external value of the *krone*, regardless of the domestic costs of this policy in the short run. The consequence for the central bank was a serious undermining of its public trust and legitimacy.

The final breakdown of the gold standard in 1931 represented a fundamental change of context for central banking throughout the world. Free capital movements and convertibility were replaced by bilateral agreements and capital controls, and from now on the domestic monetary policy and foreign exchange policies were no longer intimately connected. Hence, the monetary policy was directed towards domestic concerns, and, in Norway, the discount rate fell drastically and was changed less frequently as part of the attempts to overcome the depression. The foreign exchange policy, on the other hand, was characterized by completely new instruments, such as formal cooperation with the banking sector to implement rationing of currency and extensive direct regulations and clearing agreements to control foreign exchange transactions, controls maintained by a growing staff in the central bank. Through these experiences with moral suasion and direct regulations in the 1930s, the BoN gained experience and built up expertise that would later prove crucial in the process of developing a new role after World War II.

The crises of the interwar period generated increasing protests against free markets, orthodox monetary policy, and independent central banks, from politicians as well as economists worldwide. In Norway, the most prominent advocate of this criticism was the Labor Party, in alliance with a new generation of economists trained by Ragnar Frisch. Unlike his more famous colleague John M. Keynes, Frisch rejected the idea of a capitalist market economy and argued in favor of extensive market regulations and centralized planning. While Keynes proposed a cheap money policy in which interest rates were kept at a low stable level by manipulating market liquidity, Frisch recommended direct regulations of interest rates and credit rationing. While Keynes was in favor of politically independent central banks in charge of maintaining such a policy, Frisch suggested that the BoN should be reduced to an office for mere accounting transactions in the Ministry of Finance. Even though Frisch in this latter case might have represented an extremist view, there is little doubt that the Norwegian central bank faced a particularly challenging setting, in which politicians and economists joined forces against its traditionally independent role.

Throughout its first 130 years of operation, we have seen that the position of the BoN varied in terms of serving as a boundary organization. During the 19th century, the Bank gradually entered

into such a position between international and domestic concerns, and between the public and private sectors. The attempts of the Bank during the gold standard to balance the tension between the external value of the *krone* and domestic seasonal variations and business cycles fits into such a theoretical framework. Once this system was suspended, however, and the BoN tried to reintroduce par value of the *krone*, it abandoned this boundary position and gave priority to international concerns, at least in the short run. On the other hand, when the gold standard finally broke down, the Bank could again give priority to domestic concerns and still continue its close relations and frequent transactions with other central banks and thereby also maintain contact with new international concerns.

The BoN also obtained a boundary position in the second dimension of this theory, between the public and private spheres. The ideal of CBI implied that the political authorities relied completely on the expert resources of the BoN in the formulation and implementation of the monetary policy. Even when the gold standard was abandoned and the ideal of CBI was waning, the BoN in practice maintained much of its operational independence. The Bank remained in charge of both the domestic monetary policy and the new foreign exchange policy based on direct controls, and the political authorities still depended on the Bank for information and professional advice. Also the growing banking sector was in demand for the resources of the central bank throughout the 19th and early 20th century, in terms of information exchange as well as financial assistance. In times of crisis, this demand peaked in the central bank's function as lender of last resort. After the breakdown of the gold standard, the nature of the relations between the central bank and the banking sector changed somewhat. While their relations previously had been dictated mainly by the needs of the banking sector, during the formal cooperation and moral suasion of the 1930s, the requirements of the authorities was the main driving force. In either case, however, the BoN operated actively in the boundary zone between political authorities and private banks.

By 1945, the BoN was characterized by standstill and uncertainty regarding both its actions during the war and its future role. Both the ambitious Labor Party and the new generation of Frischian economists dismissed the idea of traditional CBI, and instead portrayed a new type of economic policy based on state planning and control, in which the central bank served as an integral part. Still the government appointed a well-known political opponent, Gunnar Jahn, as the new governor of the Bank in January 1946.

Several reasons can be suggested for this, including Jahn's background in the resistance during World War II, the need for added legitimacy for both the BoN and the fresh Labor government, at home as well as abroad, and the possibility that the appointment was rather a 'negative' initiative to remove Jahn from his post as head of the National Bureau of Statistics (SSB) to the presumably less important position as the governor of the subordinated central bank. Jahn tended to support this latter interpretation, and yet he still accepted his new post. This can be explained by emphasizing a four-point common basis on which Jahn and the Labor government could develop a constructive cooperation: 1) they agreed on the main economic-political goals of full employment, stable economic growth and social equalization; 2) they accepted the absolute need for short-term direct regulations after the war; 3) they also shared a more positive view on long-term state intervention in the economy, although they disagreed on the nature of such market regulation/manipulation; and finally and most important of all 4) Jahn and the leading Labor politicians had a common pragmatic approach to policymaking in which solving practical problems had priority over theoretical and ideological principles.

As newly appointed governor, Jahn accepted both publicly and in private that the BoN should be under political control. His statements thereby agreed with the contemporary theories on central

banking that prescribed adaptation to new economic and political conditions. Jahn nevertheless insisted that central banks should maintain an autonomous voice in the political debate and was obliged to protest in cases of disagreement. In this way, Jahn identified what would become the two pillars of the BoN's interaction with the political authorities during the following decade: a complex combination of opposition and compromise.

Towards renewed participation: It has been observed that throughout the first half of the recovery period, the BoN took its first steps towards finding a new role in Labor's economic policy. In accordance with conventional views, the Bank was completely marginalized in domestic economic policy. Due to the high liquidity, extensive direct regulations and political ambitions of pursuing a cheap money policy, the Bank could not carry out an orthodox monetary policy based on a flexible discount rate, and it also failed to adapt to the new surroundings and participate in maintaining the direct regulations of prices and allocation of goods or in the development of the key instrument for centralized planning, the national budget. In the foreign exchange policy, on the other hand, governor Jahn and his officials managed to gain renewed influence after external events turned the attention of the government towards the expertise and experience of the Bank.

In the process of developing a new role for the BoN in the post-WWII economic policy, the currency crisis of 1947 appears as a turning point. Before this crisis, the government rejected most policy initiatives from the Bank, not only in domestic economic policy, where governor Jahn and his officials advocated a comprehensive monetary reorganization followed by deregulations, but also in the foreign exchange policy, where the Bank in vain tried to warn the political authorities about the failures of coordination and control. The proposals for domestic economic policy completely contradicted Labor's strategies of economic planning and market controls and their rejection is therefore not surprising. The initiatives in the foreign exchange policy, on the other hand, were directed towards improving the regulatory regime and thus presumably of interest to the government. However, Erik Brofoss and the Ministry of Finance chose to ignore the core advice of these latter proposals, namely that a crisis could occur unless the administration and coordination of the currency controls were reformed, and instead interpreted them as attempts to strengthen the position of the Bank.

In a situation where the future role of the Bank was still unsettled and the Ministry of Finance strived to obtain an overarching responsibility for economic policy, initiatives to assign a coordinating responsibility to the BoN could not be accepted. The Ministry of Finance thereby failed to recognize the economic and political message from the Bank. Once the extent of the currency crisis was acknowledged, however, the attitude towards governor Jahn and his officials changed. Increasingly, Brofoss seemed to accept the Bank as an expert organization in this matter, and assigned important tasks in the reformed foreign exchange policy to the BoN, most importantly, the position as head and secretariat of the new coordinating Foreign Exchange Council. The BoN managed to obtain this position in the foreign exchange policy, but failed to participate in the domestic policy. This was probably caused by a combination of individual strategy and appearance, on the one hand, and historical and institutional guidance on the other. Most scholars have emphasized the former aspect and explained the marginalization of the BoN in the domestic economic policy by referring to governor Jahn's opposition to Labor's economic policy.

Continuing this perspective, the more influential position in the foreign exchange policy can be understood by the fact that Jahn here took a more conciliatory approach by acknowledging and promoting the need for improved controls and coordination in the short run, even though he was fundamentally critical of long-term regulations also in this policy area. However, just as

important as this individual focus is an historical and institutional explanation that emphasizes the long traditions of the Bank in foreign exchange matters, and the lack of such in a domestic policy based on direct regulations. Since the stabilization of the exchange rate during the gold standard period, through the foreign exchange rationing and clearing agreements of the 1930s and the regulation of foreign exchange during World War II, the BoN had played a key role in the formulation and implementation of the foreign exchange policy. Hence, once the currency crisis of 1947 made the government realize that this policy area was out of control, the Bank appeared as an organization with both tradition and expertise, a status that gave it the legitimacy necessary for it to be granted increased authority.

The new position in the foreign exchange policy implied that the BoN improved its relations both with the political authorities and the banking sector. Through the Foreign Exchange Council, governor Jahn and his officials had current interaction with senior civil servants from the Ministry of Finance and other parts of the Central Administration. Through these working relations, the BoN once again could take part in policy formulation and implementation and could strengthen its reputation as an expert organization. Furthermore, the Bank's links with the government also improved, as the personal contact between Gunnar Jahn and Erik Brofoss went from non-existent to regular interaction, when the finance minister established weekly meetings with the governor. At this time, these relations were rather limited, and Jahn certainly did not belong to Brofoss' inner circle of advisors and confidants. Nevertheless, the Bank was out of the political backwater, and its improved relations with the political authorities contributed to renewed legitimacy and trust.

Through the foreign exchange policy, the BoN also enhanced its relations with important parts of the banking sector. A traditional basis for such contacts, based on the banks' demand for loans from the BoN, had been undermined by the high liquidity after the war, since the banks could fund their activities through deposits. However, the reformed system for the rationing of foreign exchange implied frequent contact with the authorized joint-stock banks to gather statistics and implement currency controls, just as had been the case during similar regulatory conditions in the 1930s. The BoN interacted with the banking sector at a senior level, through meetings between governor Jahn and leading bankers, and as part of the daily conduct, through interaction between the BoN bureaucracy and the lower-level staff from the banks. Hence, the key position of the BoN in the foreign exchange policy also helped to reestablish an intimate contact with the authorized foreign exchange banks, which represented an important part of the banking sector.

According to one former civil servant, the role of the BoN in this system of foreign exchange regulations was to serve as an intermediary between the political authorities, the banks and private business life. This brings us back to the theoretical perspective of boundary organizations. BoN demonstrated that before World War II, the BoN did achieve a boundary position between the political authorities and the banking sector, which needed the expertise and resources of the Bank. After World War II, this position was lost. While the political authorities earlier had depended completely on the BoN for the formulation and implementation of monetary policy, Labor's new approach to policy-making after World War II initially rendered the Bank superfluous in the domestic regulatory regime. Once the surplus liquidity eliminated the banking sector's need for its resources, the BoN ended up in limbo.

After the currency crisis of 1947, the Bank regained some of its former boundary position, since the political authorities once more needed its expertise and experience in foreign exchange policy and the banking sector accepted the BoN as a connecting link to the political authorities. However, the BoN could still operate in only one of the two dimensions in the theory on

boundary organizations, the one between public and private sectors, while it was prevented from balancing the second dimension, between international and domestic concerns, as long as it played no part in domestic economic policy. The question now was to what extent governor Jahn and his officials could manage to get access to this latter policy area.

Following the ongoing financial crisis, central banks are now probably on the verge of a further, fourth, epoch, though the achievement of a new consensus on their appropriate behavior and operations may well be as messy and confused as in the two previous interregnums. But if we want to know where central banking may be heading, it is as well to have a good understanding of where we have been, since our historical record provides our only empirical evidence.

German Bundes Bank

Since the formation of the Reichsbank in 1876, and until the early 1970s, banks in Germany have relied primarily upon two channels to obtain reserves from the central bank. First, they have been able to discount short-term paper with the central bank (i.e. via a discount window) and, secondly, they have been able to borrow on a secured basis from the central bank (i.e. via a lombard facility). From its establishment in 1876 the Reichsbank was an active participant in the bill business, and between 1876 and 1914 its average portfolio varied between 10-15 per cent of all the bills outstanding (Bopp 1953). Although the Reichsbank was authorised to sell (i.e. rediscount) bills, in fact it always held the bills it had purchased until maturity. Virtually no limits were placed upon the amount of bills the Reichsbank would purchase, as its management subscribed to the 'real-bills' doctrine. However, bills had to carry at least two signatures of known solvency, and had to have a maturity of at most three months. Although the Reichsbank recognised that its public responsibilities might be compromised if it sought to maximise profits, its managers were not indifferent to the Bank's profitability. In particular, the President noted in 1880 that 'the Reichsbank should not look for business but neither should it decline a proper opportunity to invest its idle funds in safe, bankable paper' (quoted in Bopp, 1953, p. 38). This attitude led the Bank, between 1880 and 1896, to compete with the larger commercial banks by discounting prime bills at preferential rates that were often as much as 1.5 per cent below its official discount rate. Thus, during this period, the Reichsbank periodically lowered its preferential discount rates towards, and even below, existing market rates when its policy should have been the opposite, namely an attempt to raise market rates towards its official discount rate (see Bopp 1953).

Another notable feature of Reichsbank policy during the period before World War I was a seasonal fluctuation in its discount rate. Payment habits in Germany were such that many rents, social insurance premiums, interest and salaries were paid quarterly and in cash. These seasonal variations were particularly large in the fall and winter as cash was needed to finance the harvest - and Christmas - and due to the practice of commercial banks increasing their cash holdings in anticipation of the publication of their year-end balance sheets. Instead of treating these increased cash demands as temporary, the Reichsbank responded by first raising its discount rate and then lowering it again as soon as its reserves had been restored to a satisfactory level. In addition, the Bank tried to discourage discounting by accepting only longer-dated bills. Of course, this only served to exacerbate the problem, as banks only required the extra cash for short periods, after which they would lend their excess balances on the call market, causing market rates to fall sharply. Thus, unlike the Bank of England, or the Federal Reserve, whose discount windows served to smooth seasonal fluctuations in market rates, the behaviour of the Reichsbank was such that these fluctuations persisted despite its discount window.

The Reichsbank first used open-market operations in order to make its discount rate effective in February 1901. These operations were prompted by the fact that the Treasury had begun to borrow more heavily from the Bank - by selling Treasury bills - the previous year. Armed with an increasing portfolio of government debt, the Reichsbank would, on occasion, drain reserves from the banking system by open-market sales of debt. These operations did not become part of a coherent open-market strategy, however, and were interrupted by the beginning of the First World War in 1914 and the subsequent hyperinflation. The new Reichsbank, which was established in 1924, was initially prohibited from purchasing government debt, and this made open market operations virtually impossible in the inter-war period. During this period, however, the Reichsbank continued its discount and lombard activities, although it occasionally imposed quantitative constraints over these in order to constrain credit growth (Northrop 1938). Indeed, these facilities became the predominant features of the central banking operations of the

Reichbank's successor, in 1948, the Bank Deutscher Lander which, nine years later, became the Bundesbank.

In 1948 German banks became obliged, for the first time, to meet minimum reserve requirements. In order to meet their reserve needs, which were now well defined, they continued to discount bills with the Bank deutscher Lander and later the Bundesbank. However, each bank received a discount quota, which stipulated the maximum amount of bills which they could discount at the central bank. Additional reserve needs were then satisfied via the lombard facility, although at a rate which was above the discount rate. In the mid-1980s, the Bundesbank began to supply reserves, on a regular basis,³ by offering banks the opportunity to sell government (and other) securities to it on a repurchase basis (Deutsche Bundesbank 1989). Since these repurchase agreements were offered at a lower rate than the Lombard rate, they became the primary source of reserves (along with the discount quotas) from the Bundesbank, with the lombard facility only being used to meet peak reserve needs. As always, therefore, the lombard rate remains a ceiling for short-term interest rates. In order to prevent money market interest rates from falling too far below the rate on repurchase agreements (which currently signifies the Bundesbank's 'official' rate), the Bundesbank offers banks the option of investing in three-day Federal Treasury bills at a rate between its repo rate and its discount rate (Deutsche Bundesbank 1989).

History of public debt in Germany 1850-2010: anecdotal evidence Before formally testing the sustainability of German public finances, it is useful to consider Germany's fiscal history. Figure 1 illustrates the development of German public debt from 1850 to 2010. This time span can be divided into four separate phases: The first phase spans from 1850 to 1870 and it is characterized by relatively steady levels of sovereign debt on the one hand and changing governance structures on the other. The second phase describes the peaceful era of the German Empire leading up to World War I, the so called Kaiserreich (1871-1913). According to Obstfeld and Taylor (2003), the first two phases coincide with the first era of globalization (1850-1913). The third phase includes the two World Wars and their aftermaths, each culminating in a severe debt crisis and currency reform (1923 and 1948; see also Figure 2). The fourth phase starts with the founding of the Federal Republic of Germany and comprises large scale events as the collapse of the Bretton Woods system, the German Reunification and the Great Recession. The fourth phase coincides with the second era of globalization.

Phase I: debt and fiscal policy in the (North-) German Confederation (1850-1870)

Following the unsuccessful attempt to establish a German nation state in the wake of the so called March-Revolution of 1848, federal government debt did not accrue due to the mere lack of a central government. Public debt was, however, not non-existent: The sovereign states of the German Confederation (Deutsche Bund) had run fiscal deficits even before the starting point of our analysis (Figure 1). While debt statistics for most states are only available sporadically, coherent data series on public debt can be retrieved for the larger states such as Prussia, Bavaria, Saxony and Baden. In 1851, the aggregated debt-to-GDP⁶ ratio of these states was 30 percent. This debt can be explained by the fiscal burden of the Napoleonic Wars. However, in comparison to France (200 %) or the United Kingdom (149 %), German public debt was still relatively low (Abbas et al. 2010). This large difference might have been caused by the debt defaults of several German states, e. g., Prussia in 1807 and 1813, Hesse in 1814, Schleswig-Holstein in 1850 or Westphalia in 1812 (Reinhart/Rogoff 2009). The two decades following the March-Revolution of 1848 are characterised by ostensibly sound finances, the only exception being the economic crisis of 1857, which resulted in the Bank of Hamburg receiving a 15 million Marks bail-out from Vienna (Bordo/Schwartz 1999). Besides the relatively stable debt-to-GDP ratio, the amount of nominal debt had nearly doubled

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Phase II: struggling decentralization of fiscal policy in the Kaiserreich (1871-1913)

The Kaiserreich, constituted in April 1871, inherited not only the debt burden of its predecessor states, but also a high degree of political autonomy, a system of bottom-up fiscal federalism and a dominant influence of Prussia. While most of the states were relatively small, Prussia comprised 60 percent of the total population and economic power, and delegated both the Chancellor (Reichskanzler) and the German Emperor (Kaiser). Despite Prussian dominance, the federal states were granted extensive legislative competence, including the power to tax. While the lower chamber of parliament, i. e., the Reichstag, remained rather weak, the Federal Council, i. e., the

Bundesrat was the dominant legislative body, having been granted a veto right pertaining to all federal legislation, including taxation and the right to dissolve the Reichstag. Since small states were represented disproportionately strongly in the Bundesrat, they were – at least formally – able to overrule Prussia. In general, the competencies between the federal and the subnational level were clearly assigned, remaining mostly at the state level (Stegarescu 2005).

The high degree of fiscal autonomy allowed for (fiscal) competition between the states. Hence, fiscal responsibility of the jurisdictions was fostered and political incentives to incur debt had been curbed. Due to their political (veto) power the states were relatively successful at obstructing the expansion of central taxation powers. The federal government had to rely on revenues from tariffs (27%), indirect taxes and matricular contributions (29%).⁸ The states were obliged to pay for the latter in order to balance the ordinary federal budget. Therefore, the federal government's means of accruing debt were limited. Since matricular contributions were collected in accordance with the state's population, the federal government was highly dependent on the Prussian state (Gerloff 1913). In addition to these contributions, no further fiscal equalization scheme was established. After receiving war indemnities from France, totalling 4.2 billion Marks, the federal debt was completely paid for in 1874 and regional debt decreased significantly (Gerloff 1913).⁹ This increase in liquidity fuelled economic growth and led to a period known as the *Gründerzeit*. The Kaiserreich experienced an extraordinary increase in production capacities and in the number of companies and banks. Most stock prices in Berlin doubled between 1870 and 1872. It is often argued that the Kaiserreich transitioned from an agricultural to an industrialized country during this time. Although the spoils of war and the subsequent boom of the *Gründerzeit* initially had a stabilising effect on public finances, this stability retarded the progress of fiscal reforms. The existing tax system was not designed to cope with the new structural pattern of the economy, resulting in decreased tax revenues. In 1873, economic growth slowed down due to global financial turmoil that was described as the *Gründerkrach* in Germany.

This resulted in the most extensive economic crisis of the 19th century in Germany, lasting almost three decades (Plumpe 2010). The subsequent rise in public debt on the regional level is particularly remarkable, as the federal government was, at least in part, able to finance its growing expenditures by collecting higher matricular contributions. To do so, these contributions had to rise by an average of 40 percent during the period from 1874 to 1879 (Gerloff 1913: 522). Though the debt level continued to increase in the years following the *Gründerkrach*, an international comparison reveals that German public finances were in better shape than those of other countries. Nevertheless, a (weak) debt constraint was imposed on the Kaiserreich. While article 73 of the federal constitution of 1871 restricted debt obligations to extraordinary circumstances, i. e., war finance, the law was obviously interpreted quite loosely. As part of its protectionist trade policy, and in order to improve its finances, the federal government increased tariff rates in 1879. Although central government revenue had doubled by 1887, the effort was hardly rewarded. In order to prevent fiscal independence by the federal government, the states enacted the so-called Frankenstein Clause in 1879.

According to this law, all federal revenues from tariffs and the tobacco tax exceeding 130 million Marks per year (the amount was increased later) had to be transferred to the states (*Gesetz betreffend den Zolltarif des Deutschen Zollgebiets und den Ertrag der Zölle und der Tabacksteuer*, § 8). The excess revenue was deducted from the states' matricular obligations, regardless of potential fiscal deficits at the federal level. The resulting reverse matricular payments (Table 1) may explain the decrease of the debt-to-GDP ratio at the state level in the following decades and, in combination with the armament of the German fleet, the rise of the federal debt-to-GDP ratio. The additional increase in federal debt predating WWI was fuelled by

rising colonial and educational expenses from 1885 onwards, the introduction of the social insurance systems by Bismarck (e. g., health insurance in 1883, pensions insurance in 1891) and the costs of war preparations. While the military expenses accounted for roughly 60 percent of total federal expenditures in the pre-war years, this share increased to an average of 86 percent during the war (Table 2). The percentage of social spending increased from an average of 18 percent in 1876-1880 to 31 percent in 1911-1913 (Hefeker 2001). In addition to new functions being assigned to the federal level, the loss of the states' autonomy is also reflected by the introduction of the inheritance tax in 1906, a state tax shared federal level (Neugebauer 2000: 133; Stegarescu 2005). This centralization tendency is accompanied by an increase in public debt, particularly at the federal level shows that the total public debt-to-GDP ratio increased by 148 percent between 1873 and 1913. As indicated by Figure 2, the amount of total nominal debt rose by 783 percent during this period. Aware of this increase in public debt, the Reich followed the example of the states and enacted a law specifying that, beginning in 1908, 3-5 percent of federal debt is to be repaid each year. However, the law never really came into effect (Neumark 1976). The state of German public finances provoked a political debate on tax reforms, particularly on the introduction of direct federal taxes. Dissent on this matter finally resulted in the resignation of chancellor Bülow in 1909.

Phase III: two World Wars, sovereign defaults and currency reforms (1914-1949)

The amount of debt accumulated during the war years indicates how the war was financed. With the outbreak of WWI, numerous laws with the purpose of enhancing the ability to generate public revenue came into effect. The Reichsbank, not independent in 1914, was finally released from its duty to exchange Marks for gold, implying flexible exchange rates. As a result, the gold standard, which Schumpeter (1952) called "Die golden Bremse an der Kreditmaschine" (the golden brake on the credit machine) was abolished. Additionally there was a de facto cessation of almost all quantitative restrictions on the money supply (Pfleiderer 1976). These amendments led the government to finance its expenditures directly through the central bank. The rise in short term treasury bills held by the Reichsbank is evidence for the extensive use of this instrument, resulting in an increasing inflation rate (Table 3). Due to the already high inflation rate, neither the introduction of new taxes nor the increase of existing ones could offset the fiscal deficits anymore. In the period between 1912 and the end of WWI, the increase in public debt exceeded the inflation-driven increase in nominal GDP, resulting in an upward shift of the debt-to-GDP ratio. In 1915 the debt-to-GDP ratio and the nominal debt of the central government exceeded the debt level of the states for the first time. Apart from a short time period after WWII, this has not changed up to today.

When the Weimar Republic was established in 1919, Art. 87 of the new constitution restricted the use of public credit to extraordinary needs and to projects leading to a return. The crisis and the confusion after the First World War enabled the new Republic to reduce the fiscal and political autonomy of the states in such a way that the Reichstag became the dominant authority. In order to improve public finances, the Erzberger reform of 1919/20 altered the structure of fiscal federalism further towards a more centralized top-down approach. The federal level of government was institutionally supplemented with a financial administration and the authority to levy most taxes, leading to a unification and equalization of regional tax laws. The states were provided with shares of certain tax revenues in order to compensate them for the loss of fiscal autonomy. Furthermore, a vertical equalization scheme was established (Stegarescu 2005). The states were now fiscally dependent on the federal government. The growing federal sector may also explain the evident increase in the share of federal debt.

In 1919/20 the Treaty of Versailles obliged the Weimar Republic, contrary to its own intentions,¹¹ to pay reparations to the Entente. Indebtedness and inflation prevented the

Weimar Republic from issuing government bonds on the capital markets. The methods of generating public revenue were limited to taxes and the further (ab)use of the Reichsbank. Although the Erzberger reform led to an increase in various taxes, no substantial revenues could be generated in real terms (Haller 1976). Thus the government had to rely on further increases in the amount of floating debt held by the Reichsbank and in money supply (Table 3). The hyperinflation induced a decrease of the total debt-to-GDP ratio from its high level of 131 percent of GDP in 1918, with an exception in 1922, when the increase in debt exceeded the inflation driven rise in nominal GDP. In 1923, almost 90 percent of state revenue was generated by issuing debt obligations. Due to inflation, the possibility of paying contributions in government bonds and then repurchasing them, the debt-to-GDP ratio approximated zero in 1923.¹³ The debt-to-GDP ratio of the states had already been zero in 1919, as most of their debt had been transferred to the federal level as compensation for the acquisition of the railway (Gesetz betreffend den Staatsvertrag u"ber den U"bergang der Staatseisenbahnen auf das Reich, 4).

The hyperinflation ended in November 1923, with the currency reform and the Reichsbank ceasing to discount treasury bills. The newly issued currency, the Rentenmark (backed by real estate, land and later by gold), was exchanged for 1 trillion Marks. While smaller amounts of debt were simply deleted, the majority of outstanding public obligations were transferred according to the principle "Mark fu"r Mark" (Mark for Mark). Thus, public debt was notably reduced. Outstanding liabilities still existed in the form of these external liabilities resulted in the Dawes Plan of 1924. According to this agreement, Germany had to pay a rate of 2.5 billion Marks per annum, starting in 1928/29. An expiry date was not agreed upon. Discontent of the involved parties and the onset of the Great Depression led to a new agreement in 1929. The so-called Young Plan reduced annual payments to 2 billion Marks for the next 59 years. In order to service the payment schemes, Germany issued the Dawes and Young bond, respectively (Glasmann 1993). Soon after reparations had been agreed upon, public finances were hit by the Great Depression, placing a high burden on public finances, especially on the local level.

Two developments played a major role in this: First, the main sources of local revenue (corporate and personal income tax) decreased by over one third and, second, higher costs of social services caused local expenditures to rise (Petzina 1986: 246-251). Due to the fiscal situation during the Great Depression, the Weimar Republic introduced capital controls in 1931 and stopped servicing most of its debt in compliance with the contracts. The capital controls led to an erosion of the gold standard, which gave the Reichsbank leeway for discretionary monetary policy. After the takeover of the National Socialists in 1933, most debt payments were discontinued, the Reichsrat was dissolved and the federal structure of Germany was factually abolished. Subsequently, the share of federally determined tax revenues increased from 50 percent in 1913/14 to 98 percent in 1938 (Terhalle 1952: 317).

While there was a legal ceiling on the amount of treasury bills discountable at the Reichsbank before 1933, the National Socialists found various ways to circumvent fiscal and other disciplining rules of the Weimar Republic constitution. The rule of the National Socialists can be divided into four stages, each characterised by different methods of public finance. The practice predominantly used during the first stage of the regime (1933-1936) was the issue of bills of exchange by dummy firms redeemable at par in Reichsmark and expansive fiscal policy. The latter was already common before the National Socialists came to power: Job-creating measures were initially introduced in 1930, and their intensive use in 1932/1933 was re-financed by tax credits (Schiller 1936: 54).

In addition to these waivers, several shadow and off-budget activities became the backbone of the National Socialist work programme.¹⁵ The second stage (1936-1939) of National Socialist fiscal policy was directed to install a system of “silent” war financing operations. Wages and prices were frozen in June and November 1936, while money supply was increased. In 1939, the *Kriegswirtschaftsverordnung* (§ 1, RGBl. I, 1939, 1609-1613) imposed penalties on the hoarding of money, extending to bank deposits at commercial banks. Consumer demand was capped by the introduction of consumption stamps in September 1939, while the investment operations of banks were limited and restricted to locally issued products. This boosted savings even further. Since commercial banks were prohibited to invest savings abroad (capital controls had been previously established) and were regulated to buy national securities, savings indirectly, but inevitably, ended up at the Reichsbank – or in government bonds. This “silent” war financing procedure turned the German citizens into creditors of the National Socialist war finance strategy. In 1939, by means of the “Gesetz über die deutsche Reichsbank” the bill financing arrangement became obsolete, since public expenditures could now be financed, to a nearly unlimited extent, directly through the Reichsbank (Hansmeyer/ Caesar 1976).

The beginning of the third stage (1940-1943) was marked by the occupation of neighbouring countries. Additional revenue was obtained by integrating them into the above mentioned scheme, while selling off their central bank’s securities (including their gold) on the still existent international capital market (Vogler et al. 2012). The implementation of subsidiaries of the Reichsbank in Krakow (December 1939), Brussels (June 1940) and Bohemia (August 1940) illustrates the extent of this strategy. The leverage of the war financing operations increased, as more and more citizens were forced into this scheme. The fourth and final stage (1943-1945) saw the capital inflow from the occupied territories slow down. Additionally, the limits of the war financing operations between the Reichsbank and private savings had been reached. The Reichsbank started financing public spending by directly buying bonds and printing money. The cumulated debt overhang and the loss of credibility of the institutions of the Reich finally led to a rejection of the Reichsmark in May 1945.

The pursued strategies of war finance, combined with decreasing economic growth, resulted in a rise of the debt-to-GDP ratio, exceeding 240 percent in 1944 – not including shadow budgets and other liabilities by foreigners (Figure 1). This increase in the debt-to-GDP ratio surpassed the experience of WWI and exceeded the debt-to-GDP ratios of most other nations (Appendix A3). In contrast to WWI, the freezing of prices and wages curbed inflation. A currency reform was enacted in June 1948, three years after the German capitulation (Goldschmidt/Köhler 2008).

Phase IV: fiscal policy in the Federal Republic of Germany (1950-2010)

The currency reform of 1948 went hand in hand with a default on liabilities of the National Socialist regime. The claims of outstanding German debt were not decided and settled before the London Debt Agreement in 1953. By that time, the Bank deutscher Länder (BdL) had already gained autonomy from the Allies and had successfully organized an asset re-allocation (i. e., *Ausgleichsforderungen*) to maintain the supply of capital and credit from the start of the Deutsche Mark. The *Ausgleichsforderungen* accounted for nearly 50 percent of the BdL balance on December 31st 1950. Larger liabilities were haircut against newly issued securities, eligible to be discounted at the Federal Reserve Banks (i. e. *Landeszentralbanken*) of the newly established Central Bank System headed by the BdL. In short, the debt-to-GDP ratio had decreased, since most public debt was converted into Deutsche Mark with an exchange ratio of 1:10. In 1952, Germany joined the Bretton Woods System and pegged its exchange rate to the U.S.-Dollar. This can be seen as an attempt to return to a rule-based monetary policy. In the two decades

following the formation of the Federal Republic of Germany, the general debt-to-GDP ratio fluctuated around 22 percent. However this situation owes far more to the extraordinary economic growth during the “economic miracle” than to fiscal prudence. In fact, the average nominal GDP growth between 1953 and 1973 reached almost 10 percent, while the nominal debt increased from 14.78 to 86.42 billion Marks.

In the late 1960s, a realignment of macroeconomic policy in Germany took place. A new law authorized the government to stabilize economic cycles, using countercyclical fiscal and economic policy (StabG 1967). The implementation of this law is often interpreted as a move towards Keynesian demand side economics. In addition, the constitutional rule restricting public deficits to the volume of investment (Art. 115 GG) was amended in 1969. In the following years both the debt-to-GDP ratio and the amount of nominal debt increased (Figure 1 and 2). While the initial rise in public debt might have resulted from the first serious recession of the post-war era in the 1970s, the German Council of Economic Experts (2005: 478) and the Academic Advisory Board at the Federal Ministry of Economics and Technology (2008), among others, report a bias towards public debt since the constitutional amendment. The debate on the evident increase in public debt marked the starting point of the break-up of the social liberal coalition in 1982. The following government under Chancellor Kohl succeeded in consolidating the structural deficit until the eve of German Unification.

However, the costs of the German Unification, combined with the recession of the 1990s resulted in a new increase in public debt (Figure 1 and 2). After the establishment of the European Monetary Union and the implementation of the Stability and Growth Pact (SGP), which limits the amount of national debt and deficits as percentages of GDP to 60 percent and 3 percent, respectively, the German debt-to-GDP ratio has continuously exceeded the Maastricht benchmark of 60 percent. Due to an intervention by Germany and France, the SGP was weakened in 2005. Finally, the Great Recession has led to an increase of the general debt level to over 80 percent or above 2 trillion Euro in 2010. An international comparison, however, shows that the fiscal situation is even worse in several other states.

Although Germany has experienced steep increases in its public debt before, both the debt-to-GDP ratio and the nominal amount of debt have never been higher in peacetime than today. The introduction of a constitutional debt brake replacing the former Art. 115 GG is a reaction to this development. Today, the debt rule is in a transition period, giving the state and federal governments time to consolidate their budgets. Starting in 2016, the federal budget has to be close-to-balance after adjusting for cyclical fluctuations. Four years later, the states will be no longer permitted to run a structural deficit. Exceptions are narrowly defined and tied to repayment rules, but automatic triggers in the case of contravention are missing. At this stage, several states are struggling to balance their budget, thereby risking an unbalanced budget in 2020 (Deutsche Bundesbank 2011; German Council of Economic Experts 2011). Since legal restrictions to the accumulation of public deficits have been evaded in Germany since the Kaiserreich, and nowadays even on the EU level, the sustainability of public finances is still questionable.

Summary and further evidence

The anecdotal evidence on the development of public debt in Germany has revealed some key characteristics. First, public debt has particularly increased during economic crises, wars or extraordinary circumstances (i. e., unification). Apart from potentially “good” reasons for fiscal deficits in those times, it is evident that debt has hardly decreased afterwards. Second, constitutional rules restricting the amount of public debt were in place since the formation of the first German nation state. They have obviously been interpreted very loosely. These two

characteristics can be explained by Buchanan and Tullock's (1962) theory of the fiscal commons (Schaltegger/Feld 2009). Third, since 1949 the share of the federal debt level has increased. Fourth, the largest rises in the public debt ratios were accompanied by a loss of independence of the central bank. Fifth, although the Bundesbank gained independence and committed itself to price stability, German fiscal policy was not constrained effectively, as supposed by Sargent and Wallace (1981).

In the current debate on the European debt crisis the call for a growth-oriented policy instead of austerity measures gains popularity. Such a policy is supposed to enable economies to grow out of their debt without the need of (primary) surpluses. As discussed in Section 2, this is only feasible under the assumption that the nominal interest rate remains below the nominal GDP growth rate in the long run. This is not the case. After 1974, economic growth in Germany was lower than the interest rate (Figure 4). Average economic growth is notably below the average interest rate for this period. In the period before WWI, regarding average values for this period, the interest rate also remained above the rate of economic growth (Figure 3, top). Only in the years of the "economic miracle" the average growth rate of nominal GDP comes close to 10 percent. It therefore exceeds the average interest rate, bottom). Given these facts, it is hardly feasible – at least for Germany – to grow out of its debt. The years of the "economic miracle" are the exception rather than the rule.

Banque de France

Founded in 1800 as Forerunner Napoleon persuaded the stockholders of the Caisse des Comptes Courants, a joint stock discount and note issuing bank, and one of the two largest such banks in Paris, to dissolve this company and form a new bank known as the Banque de France, partly financed by additional issues of stock and by government funds. The Caisse des Comptes Courants was itself modelled on, and shared personnel with, another bank, the Caisse d'Escompte.

Motivation for founding: The collapse of the assignat regime (1789-1795), during which the overissue of fiat money drove a hyperinflation, left the French financial system in considerable disarray at a time when the government had a large and ongoing war financing requirement. To restore financial confidence, and to improve state revenue, a more efficient system of tax collection was imposed (1799) and the Banque de France established (1800), primarily to manage the public debt and ease the discounting of government paper. However, these steps were an integral part of a wider impetus to create a more centralised bureaucracy.

Original objectives and functions: The Caisse des Comptes Courantes had been one of two large note issuing discount banks in Paris, and also accepted deposits. The Banque de France (hereafter the Banque) continued the business of its predecessor, although the emphasis in discounting shifted in favour of government paper and that in deposit-taking to government deposits. Its bank notes were denominated in francs and convertible into silver. The administration and management of the Banque was undertaken by a committee of directors, but was heavily influenced by the government (Napoleon). Soon after its foundation the government sold a large part of its shares in the Banque, although this did little to make management of the Banque more independent. The Banque was first chartered in 1803, and statutes first issued in 1808 in the form of an Imperial Decree. These governed the Banque's operations, with some modifications, until the statutes became legally ratified (Codified) in 1936.

Evolution of objectives and functions: Two years after the dissolution of the Caisse des Comptes Courants its main competitor, the Caisse d'Escompte du Commerce, was also induced (unwillingly) to merge with the Banque de France, thus substantially reducing competition in both the discounting and the note-issuing business. However, one year later, in 1803, the government granted the Banque de France the exclusive right to issue notes in Paris, ordered all existing note-issuing banks there to withdraw their notes, and forbade the formation of any new note-issuing banks in France except by the consent of government. The government also reserved the right to grant all privileges of issue, and to fix the maximum of such issue. Permission was granted in 1817-18 for three (regional) banks of issue to be formed, although their business was severely constrained, i.e. their notes were legal tender only within a restricted area. By 1838 six more banks had been founded, prompting the Banque to open several branch offices (each of which had a monopoly in their area) and pressurising the government to refuse to grant any more bank charters. This reinforced the position of Banque de France notes and, during a banking crisis in 1848, all these banks felt forced to become branches of the Banque, securing its note monopoly.

From its inception the Banque was under continuous pressure from Napoleon to discount large amounts of government paper at favourable rates. Already in 1805 the Banque had over-issued notes relative to its specie reserves due to excessive discounting of government paper, and had to impose a partial suspension of its notes into coin. This was seen as the outcome of poor management, and consequently the stockholder – elected management was replaced by a new system of administration in 1806, led by the Governor and two deputy - Governors appointed by

the head of state. Complementing these Governors, but only in an advisory capacity, were fifteen directors (Regents), nine of which were elected by the 200 biggest shareholders from among the merchant banking community (Haute Banque) and three of which were selected from civil servants at the Ministry of Finance, and three (non-voting) censors (Censeurs) chosen from the Paris business community. The government placed a ceiling of 6 per cent on the Banque's discount rate, which was lowered to 5 per cent in 1806, then to 4 per cent in 1807, and fluctuated between 4 per cent and 5 per cent until 1852. To maintain its specie reserves, therefore, the Banque resorted to rationing of credit or the purchase of specie at a premium rather than raising its discount rate. After 1850, increased specie mobility prompted the Banque to change its discount rate more freely, and this rate began to move in harmony with Bank rate in England (although changes were usually less severe). Discount rate changes were almost always decided upon by the government, and implemented through the Governors rather than the directors of the Banque, even though there was no explicit legislation providing for such government intervention.

Excessive government financing demands on the Banque resulted in the partial suspension of convertibility in 1813, and between 1848 and 1850 to a total suspension of convertibility. During this period notes were declared legal tender, and a ceiling on the note issue announced. Although the legal tender status of notes was abolished in 1850, it was reintroduced during the Franco-Prussian War in 1870, and remained in force since then. After 1850, several joint stock banks began to emerge, although the development of banking was much slower in France than in England. The use of cheques, for example, remained limited until the turn of the century. The Banque de France remained by far the most extensive bank until the early 1900s, having a branch network which extended to 160 sites in 1900 and 259 sites in 1928.

In 1889 the Banque de France acted as a lender of last resort to the Comptoir d'Escompte de Paris, which was the first joint stock bank. In 1901 the Banque set up the Paris Clearing House, although this took the form of an association of which the Banque was only one of several members. Since 1936, when convertibility of the franc was suspended, the Banque has managed an Exchange Stabilisation Fund on behalf of the Treasury for purposes of regulating the external value of the franc. After World War II, in 1945, the National Credit Council and the Commission for the Control of Banks, both of which included the Governor of the Banque either as president or vice president, were established for purposes of regulation and supervision of banks.

In 1993 the main objectives of the Banque de France were reformulated according to the Act on the Status of the Banque de France and the Activities and Supervision of Credit Institutions. The Act states that the that the Banque ' . . . shall formulate and implement monetary policy with the aim of ensuring price stability . . . shall regulate the exchange rates between the franc and other currencies on behalf of the State [and] . . . shall ensure the smooth operation and the security of payment systems.'

Independence: From its establishment in 1800 until 1936 there existed no provision for direct government involvement in the administration of the Banque, although policy decisions were almost always determined by the government in collaboration with the Governors. In 1936, an Act of Parliament codified the statutes of the Banque, and gave the government the means to intervene more directly in the activity of the Banque. The fifteen directors were replaced by twenty councilors (which together with the Governors made up the General Council), of which seventeen were nominated by the government (the number of councilors has subsequently been reduced to ten).

In 1945 the Banque was nationalised, with all shares being transferred to the State. In 1973 a reform of the Banque's statutes was undertaken, which stated that the Banque operated 'on behalf of the State and within the framework of the general instructions issued by the Minister of Economic Affairs'. Furthermore, the Banque was to 'help in the preparation and participate in the implementation of the Government's monetary policy'.

During the early 1990s the government confirmed its intention to increase the independence of the Banque in accordance with the provisions of the Maastricht Treaty and, in 1993, an autonomous, nine-member Monetary Policy Committee (headed by the Governor of the Banque) took authority over monetary policy, rendering the Banque formally independent.

The United States: Federal Reserve Bank

Throughout the nineteenth century, and until 1914, the United States had no institution which resembled the central banks that had been established elsewhere. However, some central banking functions were undertaken by the so-called Independent Treasury (established in 1841; see Taus 1943). These included what may be seen, in the modern sense, as the first open market operations, although they were clearly not described as such in the 1840s. The first operations, in 1847, took the form of a purchase of government securities for resale at later date (i.e. a reverse repo) by the Independent Treasury, 'with a view of relieving the pressure upon the money market of New York' (quoted in Timberlake, 1993, p. 79). This pressure arose due to cash flows into the Treasury (i.e. through tax payments or debt issues) and due to seasonal fluctuations in cash usage. Throughout the period 1853-5, the Treasury redeemed debt for the same reasons, and these purchases eventually totalled \$38 million out of a total of \$63 million of debt (Timberlake 1993). In 1887 it was decided that, instead of purchasing (i.e. redeeming) securities, the Treasury would deposit fiscal balances with national banks, although banks were required to pledge government securities against these deposits. Then, in 1888, it was again decided that securities purchases would be used to offset money market pressures, and this method continued to be used throughout the 1890s and early twentieth century (Timberlake 1993).

With the formation of the Federal Reserve System in 1914 (comprising twelve regional Federal Reserve Banks and a Federal Reserve Board in Washington) banks began to obtain reserves by discounting eligible paper at the 'discount window' of their regional Reserve Bank. Initially, the system operated on a decentralised basis, with each Reserve Bank posting its own set of discount rates. In order to increase their earning assets, and to foster the secondary market in certain assets such as banker's acceptances, Reserve Banks also undertook frequent open-market asset purchases, either outright or a resale basis (Meulendyke 1989). In the early 1920s it became apparent that these purchases affected short-term interest rates and hence Benjamin Strong, the Governor of the New York Federal Reserve Bank, argued that the operations of the Reserve Banks should not only become co-ordinated, but should be undertaken by the New York Fed (since New York was the major banking and financial centre). Strong's efforts led to the formation of the Open Market Investment Committee (OMIC) in 1923, which attempted to co-ordinate the open-market operations of the Reserve Banks (Meulendyke 1989). Only some years later, however, with the formation of the Federal Open Market Committee (FOMC) in 1935, was the power of individual Reserve Banks to buy or sell securities without the permission of the FOMC formally removed.

Discount window borrowing remained substantial during the 1920s, although it fluctuated with the Reserve Banks' open-market operations. Throughout the decade, however, the Federal Reserve had begun to implement non-price rationing of discount window funds, first by discouraging continuous borrowing from the window (1926) and then by specific statements that banks should not borrow from the window for speculative purposes (1929) (Mengele 1986). Soon afterwards, during the 1930s and 1940s, the pattern of borrowing changed due to the monetisation of gold inflows by the Treasury, which left banks with ample reserves and little need to borrow reserves from the discount window. Similarly, during this period the FOMC had little need to engage in open-market operations to offset seasonal cash demands or flows into Treasury accounts.

During World War II the Federal Reserve was forced, under an agreement with the Treasury, to peg the rate at which it would buy Treasury bills and longer-term debt, causing both the discount window and open-market operations to be largely redundant. After the war, in 1951, the Fed was

permitted to resume an active monetary policy, and withdrew its support of the government bond market by adopting a so-called 'bills-only' openmarket strategy: that is, only Treasury bills were to be used in its open market operations, although these assets could be bought (or sold) either on an outright or on a resale (repurchase) basis. It was also during this period that the trading desk of the New York Fed developed the practice, which it maintains to the present day, of operating via a number of dealers, all of whom are contacted simultaneously and invited to participate in its operations (for details see Meek 1982 and Meulendyke 1989). Finally, the Fed also reinforced its non-price rationing of discount window funds. Until 1960 the Federal funds rate had played a limited role as an indicator of reserve availability, and had typically traded below or at the Fed's discount rate. The rapid development of interbank markets during the 1960s, together with the advent of active liability management by banks, led to the Fed funds rate becoming a central indicator of 'reserve pressure' within the banking system. In 1965 the Fed funds rose above the discount rate for the first time, and has remained above it for most of the subsequent period (see Goodfriend and Whelpley 1986). This positive spread between the Fed funds rate and the discount rate reflects the non-price costs of obtaining discount window funds. By pushing banks further 'into' the window (i.e. by increasing the degree of reserve pressure, possibly via open market operations), therefore, the Fed could engineer a higher Fed funds rate without raising the discount rate. Policy changes are thus not only signalled via changes in the discount rate, but also via a change in the perceived 'target' level of the Fed funds rate.

This arrangement for achieving a particular Fed funds rate can be summarized as the use of open-market operations to maintain a desired level of discount window borrowing, and has remained unchanged since the 1960s (see Schnadt 1994). Although the Fed announced, in 1979, that it was adopting a different operating procedure, in practice its operations remained unchanged. However, open-market operations were no longer employed to 'smooth' the level of bank reserves as much as before, which led banks to rely more heavily on the discount window. This in turn resulted in large fluctuations in the Fed funds rate, which was one of the reasons why it was discontinued in 1982.

Changing Role of Central Bank in India

Introduction to Banking: Banking in India originated in the last decades of the 18th century. The oldest bank in existence in India is the State Bank of India, a government-owned entity that is the largest commercial bank in the country. Central banking is the responsibility of the Reserve Bank of India, which in 1935 formally took over these responsibilities from the Imperial Bank of India, relegating it to commercial banking functions. After India's independence in 1947, the Reserve Bank was nationalized and given broader powers. In 1969, the government nationalized the 14 largest commercial banks; then nationalized the six next largest in 1980. Currently, India has 88 scheduled commercial banks (SCBs) - 27 public sector banks (that is with the Government of India holding a stake), 31 private banks (these do not have any government stakes; they may be publicly listed and traded on stock exchanges) and 38 foreign banks. They have a combined network of over 53,000 branches and 17,000 ATMs. The banking system in India has undergone significant changes during the last 16 years. There have been new banks, new instruments, new windows, new opportunities and, along with all this, new challenges. While deregulation has opened up new vistas for banks to augment incomes, it has also entailed greater competition and consequently greater risks. India adopted prudential measures aimed at imparting strength to the banking system and ensuring its safety and soundness, through greater transparency, accountability and public credibility. Our banking sector reform has been unique in the world in that it combines a comprehensive reorientation of competition, regulation and ownership in a non disruptive and cost-effective manner. Indeed our banking reform is a good illustration of the dynamism of the public sector in managing the overhanging problems and the pragmatism of public policy in enabling the domestic and foreign private sectors to compete and expand. There has been no banking crisis in India.

The Government took steps to reduce its ownership in nationalized banks and inducted private ownership but without altering their public sector characters. The underlying rationale of this approach is to assure that the statutory features of public sector banking was not lost in the transformation process. On account of the healthy market value of the banks' shares, the capital infusion into the banks by the Government has turned out to be profitable for the Government.

Banking Sectors between 1947 -1969: During the first phase the growth was very slow and banks experienced periodic failures between 1913 and 1948. There were approximately 1,100 banks, mostly small. To streamline the functioning and activities of commercial banks, the Government of India came up with The Banking Companies Act, 1949 which was later changed to Banking Regulation Act 1949 as per amending Act of 1965. Reserve Bank of India was vested with extensive powers for the supervision of banking in India as the Central Banking Authority. During those days, public had lesser confidence in the banks. As an aftermath, deposit mobilization was slow. Abreast of it, the savings bank facility provided by the Postal department was comparatively safer. Moreover, funds were largely given to traders.

Banking Sectors between 1969 -1991: In 1955, it nationalized Imperial Bank of India with extensive banking facilities on a large scale especially in rural and semi-urban areas. It formed State Bank of India to act as the principal agent of RBI and to handle banking transactions of the Union and State Governments all over the country. Seven banks forming subsidiary of State Bank of India was nationalized in 1960 on 19th July, 1969, major process of nationalization was carried out. It was the effort of the then Prime Minister of India, Mrs. Indira Gandhi that brought on this phase. 14 major commercial banks in the country were nationalized. The Second phase of nationalization Indian Banking Sector Reform was carried out in 1980 with seven more

banks added to the group. This step brought 80% of the banking segment in India under Government ownership. After the nationalization of banks, the branches of the public sector banking in India rose to approximately 800% in deposits and advances took a huge jump by 11,000%. Banking in the sunshine of Government ownership gave the public implicit faith and immense confidence about the sustainability of these institutions.

Banking Sector 1991 and onwards: In 1991, under the chairmanship of M. Narasimha, a committee was set up by his name which worked for the liberalization of the banking practices. The country was flooded with foreign banks and their ATM stations. Efforts were being put to give a satisfactory service to customers. Phone banking and net banking was introduced. The entire system became more convenient and swift. Time was given more importance than money.

The financial system of India has shown a great deal of resilience. It has been sheltered from any crisis triggered by any external macroeconomics shocks while the other East Asian Countries suffered. This is all due to a flexible exchange rate regime, the foreign reserves are high, the capital account is not yet fully convertible, and banks and their customers have limited foreign exchange exposure. The industrial sector has been going through a process of restructuring and consolidation after liberalization. The industries have responded to the reforms through mergers and acquisitions, adoption of cost cutting measures, foreign collaboration, technology up gradation and outward orientation in sectors such as cement, steel, aluminium, pharmaceuticals, and automobiles. Industrial growth increased sharply in the first five years after the reforms, but then slowed to an annual rate of 4.5 percent in the next five years. From a low growth rate of 2.7 per cent in 2001-02, the industry sector grew at a rate of 7.1 per cent in 2002-03 and further to a 9.8 per cent in 2004-05. There has been steady and continuous rise in supply of money in the economy since initiation of reforms. Reserve Money has increased from Rs. 99, 505 crores in 1991-92 to Rs. 573,066 crores in 2005-06. The performance of the Indian economy on the inflation front, with price stability as one of the prime objectives of the reform process has been satisfactory, particularly after the mid 1990s. The annual average inflation rate based on Wholesale Price Index (WPI) was 10.6 per cent between 1991-96, which fell down to 5.1 per cent in the period 1996-2001 and then to 4.7 per cent in 2001-06.15.

Changing Role of RBI in financial sectors: Having talked about financial sectors and the ongoing reform processes in the sectors, let us now turn our attention to what exact role the RBI is playing for the financial sector in general and the financial reform processes in particular. As all of us know, RBI is the central bank of the country. Central banks are very old institutions. The Bank of England was set up way back in 1694, the Bank of France is more than 200 years old and the Federal Reserve Bank was set up in 1913. As aptly stated by our Governor, Dr. Bimal Jalan, although RBI, set up in 1935, may appear a ‘toddler or at most a young adult’, it is one of the oldest central banks among the developing world. Traditionally, central banks have performed roles of currency authority, banker to the Government and banks, lender of last resort, and supervisor of banks and exchange control (now it would be more appropriate to call it exchange management) authority. Generally, central banks in developed economies have price or financial stability as their prime objective. The RBI has the twin objectives of maintaining price stability and promoting growth.

The objectives are as follows: 1. Provision of adequate liquidity to meet credit growth and support investment demand in the economy while continuing a vigil on movements in the price level. 2. In line with the above, to continue the present stance on interest rates including preference for soft interest rates. This has the capacity to impart greater flexibility to the interest rate structure in the medium-term in developing economies, however, the growth objective assumes greater importance. Recent experience has shown that during recessionary or

deflationary conditions achievement of 12 percent or higher growths become the dominant objective of central banks, both in developing and developed economies. Let us now look at the evolution of RBI and its changing role and strategy over time. RBI was set up to regulate the issue of currency and keep reserves with a view to securing monetary stability in India and generally to operate the currency and credit system of the country to its advantage (RBI Act, 1934). Within these overall objectives, RBI performs a wide range of promotional functions, which are designed to support the country's efforts to accelerate the pace of economic development with social justice. In keeping with the overall logic of reforms that market based allocation rather than directed allocation of resources lead to greater efficiency, the functions of the RBI have undergone a strategic shift under the current reforms. The strategy shifted from controlling institutions and markets to facilitation of efficient functioning of markets and strengthening of the supporting institutional infrastructure. The preemptions in the form of CRR and SLR have been progressively reduced. The scope of priority sector has been expanded. The interest rate has been deregulated both on deposits and advances. From conservation of foreign exchange through control of transactions, the focus has shifted to facilitation of foreign exchange transactions. Intervention in the foreign exchange market has shifted from fixing of exchange rate to merely curbing speculative volatility. Stability issues came to the fore especially after the crises in South East Asian countries in late 1990s. The RBI progressively strengthened prudential regulation relating to capital adequacy, income recognition, asset classification, provisioning, disclosures and transparency. Furthermore, institutional strengthening was undertaken to ensure the progressive development and integration of the securities, money and forex markets. The RBI has made significant improvements in the quality of performance of regulatory and supervisory functions. Our standards are comparable to the best in the world. Attention is being paid to several contemporary issues such as, relative roles of onsite and off-site supervision, functional versus institutional regulation, relative stress on internal management, market discipline and regulatory prescriptions, consolidated approach to supervision, etc. Several legislative initiatives have also been taken up with Government, covering procedural law, debt recovery systems, Credit Information Bureau, Deposit Insurance, etc. Progress in these is critical for the effectiveness of RBI in the regulatory sphere. A recent important legislative development, which will improve the momentum of recovery of dues, is the enactment of Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest (SRFAESI) Act. Under this Act the RBI has been entrusted with the role of stipulating suitable norms for registration of securitization or reconstruction companies, prescribing prudential norms, recommending proper and transparent accounting and disclosure standards and framing appropriate guidelines for the conduct of asset reconstruction and securitization. Financial liberalization has heightened competition among banks, and between banks and other financial institutions. However, competition has engendered certain serious problems. For example, the distinction between commercial banking, investment banking, development banking, other specialized institutions, and manufacturing corporate is getting blurred. Banks are entering into para-banking and other financial services; development financial institutions, mutual funds and insurance companies are entering into banking and each other's fields; and manufacturing corporations are entering into banking and financial activities. Financial reforms have given rise to new issues of financial industry structure, systematic or social costs of oligopoly. The market-based exchange rate system has helped to open up the Indian economy, and to integrate it with the rest of the world. But the exchange rate has become far more volatile; it has become subject to severe external pressures; its management has become difficult; and there has been a partial loss of autonomy of domestic monetary policy. The primary impulses for establishing central banks in many parts of the world in the twentieth century emanated from exigency of financing wars. The necessity to finance wars also led to nationalization of many of the early central banks, which were functioning as private entities. Central banking efforts in India after independence were geared towards mobilizing resources for planned economic development and ensuring price stability.

Central bank mandates in developing countries, such as India, have gone well beyond typical central banking functions to encompass a wide range of developmental pursuits in order to promote economic growth. Central banking was initially practiced with a large number of informal norms, conventions and self-imposed codes of conduct but is not nowadays. Instituting a medium of exchange and currency management along with a monetary policy had been globally in focus till the Great Depression.

With the passage of time, however, central banks took over a whole range of functions, becoming multi-tasking institutions that conduct monetary policy, regulate and supervise the banking system and perform a crucial role in the payment system. Crisis situations that emerged from time to time led to redefining of central bank mandates. The role of the lender of last resort evolved over-time and enlarged into that of the regulator and supervisor, as also the custodian of financial stability. This gained credence in the face of danger of contagion as economies got integrated. The necessity to manage government debt emanated from the historic reasons of financing wars. The hazards of financing the persistent government deficits were, however, well recognized and such financing is being increasingly avoided. In the wake of South-East Asian crisis of 1997, many central banks in developing countries initiated financial reforms. In this direction, central banks also played a vital role in the development of the financial markets to strengthen the monetary policy transmission channels. Institutional development has been one of the major objectives of central banks in developing economies in order to spread the umbrella of organized credit in such economies. The functions of the Reserve Bank of India have been changing over time as it has responded to the emerging requirements of the macro economy and continuously diversifying financial systems. Central banks around the world have been vested with a variety of additional responsibilities such as preparing macroeconomic data-bases, data dissemination, putting in place advanced clearing systems, coordinating with the international agencies, undertaking policy-oriented research activities and bridging gaps in information.

The RBI, as the central bank of the country, is the centre of the Indian financial and monetary system. As an institution, it has been guiding, monitoring, regulating, controlling, and promoting the destiny of the Indian financial system. However, it is the oldest among the central banks in the developing countries. It started functioning from April 1, 1935 on the terms of the Reserve Bank of India Act, 1934. It was a private shareholders institution till January 1949, after which it became a State-owned institution under the Reserve Bank of India Act, 1948. The share capital was divided into shares of Rs. 100 each fully paid which was entirely owned by private shareholders in the beginning. The Government held shares of nominal value of Rs. 2, 20,000.

Objectives of monetary policy: The objectives of monetary policy have undergone a change in emphasis over the years. In the planned economy, they were very much similar to the objectives of economic planning. Accordingly, the objectives of monetary policy in India were (a) to accelerate economic development in an environment of reasonable price stability, and (b) to develop appropriate institutional set-up to aid this process. The key note of monetary policy may be said to be controlled expansion of bank credit and money supply, with special attention to seasonal requirements for credit. The Bank has been directing its attention to ensure that credit expansion takes place in the light of price variations without affecting the output, particularly the industrial output adversely. In other words, the objective has been one of disinflation without deflation. The authorities have come to hold that monetary policy is able to make more effective contribution to price stability than other objectives. Further, it has come to be believed that by achieving reasonable price stability, it is possible to -(a) Avoid waste of resources because inflation results in such a waste by increasing uncertainty about the future and (b) Create an environment in which efficient decisions are taken and greater

employment, poverty alleviation, and balanced growth can take place. In India, while the basic objectives of monetary policy, namely, price stability and adequate credit flow to the productive sectors of the economy, have remained the same, the operating environment has changed significantly. As pointed out in the RBI's Report on Currency and Finance 2003-04, there is an increasing focus on the maintenance of financial stability in the context of better linkages between various segments of the financial markets including money, Government securities and forex markets. Managing the capital flows has emerged as an important concern of monetary policy. The phasing out of ad-hoc treasury bills and their automatic monetization in 1997 imparted a lot of flexibility to the RBI in monetary management. Simultaneously, however, reserve flows through the balance of payments M3 in 2004-05 is projected to expand by 14.0 per cent. Non-food credit adjusted for investment in commercial paper, shares/ debentures/bonds of public sector undertakings (PSUs) and private corporate sector was projected to increase by 16.0 to 16.5 per cent in the annual policy statement of May 2004. This magnitude of credit expansion was expected to adequately meet the credit needs of all the productive sectors of the economy. Contrary to the assumptions underlying the annual policy statement for 2004-05, the south west monsoon turned out to be deficient by 13 per cent in the current year. There was a surge in inflation following the rise in international oil and metal prices. The carry forward of liquidity compounded matters. With a view to addressing these issues, the RBI increased the CRR by 50 basis points, in two stages, to 5.0 per cent, thus bringing down the liquidity in the banking system by about Rs.9,000 crores. The interest rate on eligible CRR balances was de-linked from the Bank Rate and was reduced to 3.5 per cent per annum. The Government of India raised the ceiling of MSS from Rs. 60,000 crores to Rs. 80,000 crores on August 26, 2004 to enable the RBI to effectively deal with the problem of the overhanging of liquidity. As the inflation was supply induced, the Government also reduced the duty rates on petroleum products twice in the year 2004-05. Taking the above developments into account, the RBI in its mid-term review of the annual policy statement for 2004-05 (October 26, 2004), revised its GDP growth projection in 2004-05 from a range of 6.5 to 7.0 per cent to 6.0 to 6.5 per cent. Inflation projection on a point to point basis was raised upwards to 6.5 per cent from around 5.0 per cent projected earlier. RBI has not affected any change in its earlier projection of M3 and aggregate deposit target of commercial banks. Considering credit growth in the first half, the projection of adjusted non-food bank credit has been revised to 19.0 per cent from 16.0 to 16.5 per cent projected earlier. The mid-term review increased the fixed reverse repo rate by 25 basis points under the LAF to 4.75 per cent. And increase in the prices of crude petroleum in the international markets has posed new challenges for monetary policy. As indicated earlier, in the current year, the two major constraints facing monetary management were carry forward of excess liquidity of over Rs.81,000 crores from the previous year and rise in inflation following the rising international prices of petroleum crude. The annual policy statement for 2004- 05 had placed the growth of GDP in 2004-05 in the range of 6.5 to 7.0 per cent, on the assumption of sustained growth in industrial sector, normal monsoon and good performance of exports. On the assumption of no significant supply shocks and appropriate management of liquidity, inflation rate in 2004-05, on a point-to point basis, was placed at around 5.0 per cent. The mid-term review also proposed a switch over to the international usage of the terms repo and reverse repo effective October 29, 2004. In the mid-term review, RBI proposed reduction in the spread between the reverse repo rate and repo rate by 25 basis points from 150 basis points to 125 basis points. Accordingly, the fixed repo rate under LAF will continue to remain at 6.0 per cent. The RBI has continued with its policy of active demand management of liquidity through OMOs, including the LAF, MSS and CRR, and using the policy instruments at its disposal flexibly, as and when the situation warrants consistent with the objective of price stability. At the same time, RBI has also been ensuring adequate liquidity in the system so that all legitimate requirements of credit to maintain the growth momentum are met. The other important policy initiatives announced in the mid-term review relate to raising the ceiling on NRE interest rates, reduction

of tenure of domestic term deposits, dispensing with the restrictive provisions of service area approach for delivery of agricultural credit, and measures for improving credit delivery to agriculture and small-scale industry (SSI) sectors.

The evolution of central banking, not only in India but also globally, indicates that the central banks have continued to adapt to the changing economic environment. In the interaction between the financial intermediaries and the central bank, the focus has been the welfare of the general public. The central bankers carefully watch the market trends and monitor numerous variables, both quantity and rates, in the domestic and global economy. The information contained in these indicators and the direct feedback from the market participants helps in calibrating and crafting an appropriate monetary policy to ensure financial stability. In the last hundred years, a period of time when most central banks were established, the markets, the objectives and instruments of monetary policy have changed. Despite these changes, the central banks have established themselves as necessary and permanent part of the financial system. The Reserve Bank of India had a fair degree of success in achieving the twin objectives of growth with stability, especially in the post-reform period. The well calibrated strategies of the Reserve Bank in refining monetary policy operating procedures, managing the capital flows, ensuring evolution of competitive markets and sustaining a healthy financial system, while also performing the developmental role have yielded visible results. While successfully facing the challenges of globalization, the Reserve Bank has earned international credibility in terms of efficacy of its policies. The Reserve Bank of India has achieved transparency in its operations, especially in terms of evolving communication policy aimed at addressing a wide range of audiences. Notwithstanding the changing challenges of different regimes, the Reserve Bank has managed to evolve constructively on a continuous basis to cope with demands for stable macroeconomic management and financial stability, while meeting the objectives of economic growth and development. As the economy becomes increasingly open and global, the role of the Reserve Bank will undergo further change and it will need to equip itself for coping with these emerging challenges on a continuous basis.

In short, the changing role of financial regulation and supervision of the Reserve Bank focuses on prudential supervision, while emphasizing the creation of an environment in which the banks think freely and innovate. More importance is being given to 'principles' and greater attention to 'risk assessment and risk containment'. In future, the regulatory and supervisory role would not only be 'friendly' and 'frank', but also be 'prompt' and 'firm'. The changing face of regulation and supervision would accord importance to the intensified use of technology in supervisory processes and substantially enhance the skills and capacities of the supervisors. While fully meeting the socio-economic objectives, it would continue to maintain stable and orderly conditions in the financial system.

Central Bank of Srilanka: Changing Role

Financial Regulator's Role is Changing: Some of the key factors that have influenced the regulator to change its role are listed below. The changes in these factors would have direct or indirect impact on the policy thinking that underlies the regulatory framework.

Core Objectives of the Regulator: Sri Lanka has a multi-regulatory system. As at the end of March 2007, the formal financial sector's assets amounted to Rs.3339 bn. The table below indicates the assets of financial institutions classified by regulatory authority:

CBSL is the Main Financial Regulator: Accordingly, CBSL is the largest financial regulator accounting for nearly 89% of the asset base. The core objectives of the Central Bank are to:

achieve economic and price stability and financial system stability, which are complimentary to each other. The recent amendments to the Monetary Law Act provided an opportunity for CBSL to focus more on the financial system stability objective, which among others, included regulatory and supervisory functions. CBSL being the premier financial regulator is expected to establish a conducive regulatory environment within which market development can take place. The Securities & Exchange Commission (SEC) and Insurance Board of Sri Lanka (IBSL) have broader objectives of preserving the solvency of institutions under their purview and ensuring orderly market development.

Progressive Liberalization of Financial Systems: The present day financial markets are well integrated. There are no longer distinct national markets for banking products, equities, bonds and financial instruments. National borders therefore mean little to the global financial services.

Increasing Role of Financial Intermediaries in Allocating Resources: Banks and financial institutions are now moving towards investment banking, structured finance, syndicated loans, retail and micro financing, derivative financing, property development financing etc., at large scales. The traditional banking label is no longer valid.

Rapid Pace of Financial Innovation and Product Development: Although getting new products under the ambit of regulatory network is important, regulation should not discourage innovation. It is also important to recognize that financial innovation is partly a result of regulation. Regulators should introduce broad macro prudential guidelines to ensure that financial innovation does not lead to disruptions in financial markets and hence stability of the system as a whole.

The Scale of International Financial Flows: International financial flows by way of foreign direct investment, bi-lateral and multi-lateral aid flows, other investment flows and more recently, cross border remittance flows are important worldwide as potential impacts of such flows are felt on economic growth of the countries. Sri Lanka has been a beneficiary from FDI flows and more importantly the worker remittances which finance about 70% of the country's trade deficit.

Increasing Incidence of Domestic and International Financial Crises: The higher the frequency of banking and financial institutions crises, the higher would be the pressures brought on financial regulators to bail out institutions. Governments bail out not only state-owned banks but also other banks and financial institutions if they do not wish to see them go under. However, there are no explicit safeguards to be provided by regulators, except to take specific actions in the interest of the wider financial system stability.

Factors Affecting Regulator's Role and Focus: In a changing regulatory environment, the regulatory focus depends on a number of factors. Let me summarize them for better understanding:

The nature and characteristics of the Financial Sector: For convenience of regulation, we have categorized financial institutions as commercial banks, specialized banks, finance companies and leasing companies and issued separate licenses to them. We assume that traditional boundaries are still there and continue to label them for convenience of regulation and supervision but, in actual fact, there are no clear boundaries or demarcations. Beyond banking, there are insurance companies and stock-brokers and dealers. We continue to treat these as separate functional institutions, although banks, insurance companies and stockbrokers now sell same products. There is, therefore, a case for changing the licensing procedure by the regulator

and focus on the nature and characteristics of the products and services in keeping with the rapidly changing financial sector.

Public policy objectives of regulation: In a broader sense, ensuring financial system stability, investor protection and market integrity/discipline are considered to be public policy objectives. Often, we try to achieve them unknowingly or without explicitly announcing them. Clarity, consistency and public announcements are necessary on the part of the regulator, as they will reduce distortions in the playing field between local and foreign institutions as well as state-owned and private institutions.

Type of the regulatory structure: Given the multi-regulatory structure and the leading financial regulator's position, CBSL has taken measures to coordinate effectively among multi-regulatory institutions by setting up two committees, at policy level through an inter-institutional regulatory council and at operational level through a working group. Even within the multi-regulatory structure, to a large extent, most regulators have moved out from a compliance and rule-based regulatory structure to a more risk focused system. We still have a long way to go to establish a principles-based risk focused regulatory structure. It may evolve eventually over a period, but it is prudent to start making preparatory work now.

Perception of the Government: It is part of Government's public policy to ensure that banks and financial institutions function well and that there is public confidence in them. That's why regulatory institutions have been set up and given powers to provide such confidence to the public. Governments tend to rely on regulators to ensure that there is a conducive regulatory environment, which establishes confidence in the wider financial system.

Perception of the financial community and understanding of regulator's role: Often, the perception of the general public is that it is the responsibility of the regulator to prevent the failure of banks and financial institutions and pay-back depositors' and creditors' funds. In this context, it is important to understand that no regulator can monitor or supervise each and every financial institution and catch wrong-doers in them. Rules can be made, monitoring and supervision can be strengthened, but strict enforcement to ensure that all financial institutions work with a commitment to honor their obligations is not easy. This has been one of the reasons why regulators tend to move out of rule-based supervision. Regulators can be vigilant, alert and advise director boards and senior management of financial institutions to abide by rules. But regulators should not undertake to pay back liabilities of financial institutions.

International standards: Our regulatory system should be compared with international norms, standards and benchmarks. Without comparable standards, we will not be able to judge whether our regulatory structure and the financial system is on par with world standards. We will deal with this element in detail later in this presentation.

Availability of domestic supervisory skills: While recognizing the commitment of the supervisory staff of the CBSL, SEC and IBSL, I wish to emphasize on the need to adjust and change their attitudes in moving towards a proactive principles-based regulation. Risks of institutions/ market operations should be explained to them by supervisors and that needs convincing skills and a matured attitude.

Over Enthusiasm of Financial Institutions: A cautious supervisory approach should be adopted by regulators in dealing with over-enthusiastic financial institutions, be it a bank, insurance company, stock broker, finance company, leasing company or primary dealer. Profit motivated financial institutions may prepare unrealistic or over-enthusiastic business plans without taking into consideration the potential risks of international and domestic events that would frustrate the

achievement of targets. In these instances, the role of the supervisor should be carefully thought through. The supervisor should not be questioning the institution as to why they make such unrealistic plans, but should examine to see whether the financial institution concerned has allocated adequate capital and is capable of mitigating potential risks in case their business plans are not realized. Such a move would project the regulator's image as not interfering with financial institutions' business decisions but as working within the regulatory remit while safeguarding the interest of the wider financial system. Similarly, the regulator/supervisor should look for cash flows of financial institutions in the case of loans and advances granted by banks while the insurance regulator should look for net premia and solvency of the insurance companies in meeting long term policy liabilities rather than merely ensuring compliance with regulatory norms. The supervisors should be matured enough to look beyond credit risk and take into consideration other potential risks of financial institutions.

Information Overload: Supervisors must also recognize that "information overload" is of little value. They should discuss with financial institutions and request only relevant and useful information. Instead of depending on a plethora of information and statistics, supervisory processes should be reinforced by institutional transparency and market discipline. It is also important to make public the supervisory procedures through websites, publications and education programs to enable markets, institutions and public to judge whether supervisors follow governance procedures.

Safety nets and moral hazards Mandatory Deposit Insurance Schemes: Many countries have mandatory deposit insurance schemes. Sri Lanka has a voluntary one confined to only a few cooperative societies. Even if the mandatory deposit insurance scheme is to be implemented in Sri Lanka, it will not be of much use, if the present liquidation process has to be followed with respect to payment of deposit liabilities. There should be provisions in the law to enable small depositors (subject to a threshold level) of the bankrupt institution be paid as early as possible. While it is recognized that Sri Lanka should introduce a mandatory deposit insurance scheme, it is imperative to clear present legislative impediments, specially, in regard to payment of deposit liabilities.

Explicit and Implicit Guarantees: Apart from the mandatory deposit insurance schemes, explicit guarantees written into statutes can also be considered as safety nets. The NSB Act provides exclusive guarantee on deposits. It is also assumed that there is an implicit guarantee on the deposits of the two state banks because of the state ownership. The Government recapitalized the two state-owned banks, when the two banks had capital deficiencies. In general, mandatory insurance schemes and explicit or implicit guarantees result in moral hazards which lead to distortions in risk mitigation. In these situations, the balancing has to be done by the regulator by playing a role of a private insurance provider, or financial guarantor who by various means monitor and constraint risk taking by their clients.

Bailouts by Regulators: Regulators, in particular, the Central Bank, should not use public funds to bail out financial institutions or depositors, except in a situation where there is an imminent threat to the wider financial system stability. Bailing out depositors or institutions by governments is also not a good practice as demonstrated by state-owned financial institutions which tend to suffer from moral hazards instead of acting prudently in their banking operations. Mandatory deposit insurance schemes are better safety nets than government or central bank bail outs of depositors or institutions.

Options Available for Regulators

Accommodative and Regulatory Forbearance (light touch) Policy: A mixed approach with reasonable balance between rules and forbearance is known as light touch policy. Often, the accommodative light touch regulatory attitude is taken for granted by banks and financial institutions and their initiative to improve compliance of prudential requirements is low. Prior to the Savings & Loans crisis in the US in the 1980s, the US Fed too has been following a softer attitude on financial

institutions. When Savings & Loans started falling one-by one, the CEOs of Savings & Loan companies approached the Federal Reserve Bank Chairman to discuss how much money they would get from the government to pay their depositors. This means that a light touch and compassionate feelings could lead to abuse. Once regulations are framed, be it rule-based or principles-based, enforcement should be strictly adhered to. Financial institutions and markets should not be given the feeling that they can shape the regulator and postpone reforms.

Compliance or Rule-based Intrusive Regulation and Supervision: This is the extreme version of regulation. The more modern thinking is to move away from this type of approaches as they do not seem to have produced desired results. There are many reasons why regulators have moved out or are attempting to move out of this approach. Let me summarize these briefly.

Financial Markets are Constantly Changing: Continuous innovation and new product developments are important ways in which the financial services industry generates benefits for customers and markets. It is important, therefore, that regulation responds to pace of change in markets and allow them to provide benefits to users and customers. Prescriptive rules will struggle to cope with changing markets, circumstances and practices and that can delay or prevent innovation.

Prescriptive Standards Have Been Unable to Prevent Misconduct: The ever expanding rulebook in many countries, however neatly they have consolidated them, have not been able to prevent abuse, market misconduct or other detrimental activity. The more one writes detailed rules to address the last scandal or abuse, it is arguable whether one is treating symptoms rather than addressing the root cause of failure to deliver regulatory outcomes.

Lack of Commitment by Senior Management to Prescriptive Regimes: With thousands of detailed rules, it is also difficult to make them accessible to senior management of financial institutions. Given the complexity of detailed rules, the senior management will simply disengage from their responsibilities and delegate observance to compliance officers, which prevents the top from being involved in compliance culture.

Highly Complex Rules and Legal Interpretation: Detailed and prescriptive rules tend to divert attention towards adhering to the letter rather than the spirit or the purpose of the regulatory standards. It can also encourage a “legally stick and a tactical attitude” to compliance in institutions rather than a meaningful alignment of its business objectives with the regulatory outcomes.

Principles-based, risk-focused regulatory regime

Principles-Based Regulation: Principles-based regulation is about focusing on the regulatory outcomes that the regulators wish the financial institutions to deliver and provide a broad framework within which financial institutions can operate and plan their future operations rather than focusing on the prescribed processes to be complied by them. It relies largely on the regulator being clear about regulatory outcomes it wants and then marshalling the supervision and enforcement efforts to ensure that those outcomes are achieved. Let me quote a couple of examples to illustrate what I mean by principles-based regulations. Often, we speak of moving towards an international financial hub – a laudable objective in deed. If this is an objective accepted by all stakeholders and if the country is anxious to pursue it, then we need to take some measurable steps. There has to be a set of rules and regulations, which should be followed by financial institutions in moving towards such a goal and also work towards establishing an upgraded regulatory regime when the goal is partially or fully achieved. We have not prepared such a regulatory framework yet. To begin with, preparation of a road map and a regulatory framework for financial institutions to work within is an imperative. If all financial regulators should work together and prepare a broad regulatory framework anticipating the type of regulatory issues that may be appropriate to deal with such issues. The regulatory framework should, of course, be closely linked to a policy and operational framework, which sets out

the policy towards establishing a financial hub. Similarly, it is time to pay attention to the existing legislation, if any, that require amendments.

Another example is the regulatory view on the formation of financial holding companies which plan to have commercial, investment and development banking arms within them. The regulatory policy towards pooling of shares under holding companies, the desirable share ownership limits, the cross directorates should be indicated to those who are getting ready for such ventures. At present, there is no view that sets out the regulatory stance or any attempts to prepare guidelines for the purpose. If financial institutions take a step ahead of regulators and form holding companies and if we notice that their operations are not desirable for the industry as a whole, it is not ethical or prudent to prepare rules and regulations to prevent their action. Such action can be interpreted as a reactive type of regulation. A related example would be the formation of a regulatory framework for universal banking. I will not go into details of this but this area of activity also needs prior thinking by all regulators.

Benefits of Principles-based Regulation: Principles-based regulation will help to achieve outcomes that produce significant benefits to consumers, markets and the institutions. If both the regulator and the financial institution concerned have common objectives of fulfilling public policy needs, in particular, enhancing access to finance, reducing transaction cost, providing efficient financial service, adopting corporate governance etc., it is easier to attain them as the regulator can provide the appropriate regulatory regime which is being agreed by the institutions. Principles-based regulation need not be seen as an additional cost to already rising business costs. It should be seen as an integral part of decision making and an operation which could lead to an effective regulation of financial institutions and more importantly, a way to provide better service to their customers.

Proactive Approach: There is no precise definition for proactive regulation. By and large, proactive approach to regulation implies the following that: (a) Be explicit and try to preserve public policy objectives, i.e. investor/deposit protection and market integrity and end goals; (b) focus on the wider financial system stability and not a group of depositors, investors, institutions, shareholders or creditors; (c) move out of intrusive and compliance-based approach to principles -based risk focused approach; and (d) take action before the event and avoid postmortem. Regulators should be empowered to take prompt corrective action by their statutes.

Key Elements of the Proactive Approach

Regulatory Independence: This refers to the appropriate degree of autonomy in setting prudential rules and regulations i.e. capital adequacy ratios, fit and proper criteria, single borrower limits, related party exposure limits, foreign exchange exposure, etc. Regulators in Sri Lanka are somewhat fortunate because almost all regulators enjoy a significant degree of regulatory independence granted to them either by statutes or in practice. All stakeholders need to recognize that regulators do not have vested interest or other agendas. As long as regulators are committed to operate within a broad set of policies, which fall in line with that of the government and if regulatory institutions coordinate well with the government through representation and frequent consultation, they should be allowed to play an impartial and an independent role. Regulators can be taken to task if they work outside their powers and act in bad faith.

Supervisory Independence: The ability to exercise its judgment and powers in matters such as licensing, on-site inspection, off-site monitoring, sanctioning and enforcement ability to avoid outside influences from other stakeholders display the supervisory independence of regulators. Here too, to a large extent the regulatory institutions in Sri Lanka have supervisory freedom. If done in consultation with respective industries and stakeholders, there is an appreciable degree of regulatory and supervisory independence for regulators.

Regulatory Accountability: While enjoying regulatory and supervisory independence, regulators should be accountable to Parliamentary Committees or to a Legislative arm of the government. In other countries, such committees have professionals who are well versed of financial stability and regulatory issues. Like in other countries, regulators may even be subject to judicial reviews, but such reviews need not establish that supervisory action has been carried out on bad faith or for improper purposes. Regulatory authority may be penalized for frauds, abuse of power or for providing undue advantages to one party against others.

Up to-date Legislation: Protection is needed in performing regulators' duties. Similarly, there should be specialized tribunals to deal with the appeals against supervisory action. If needed, it would be necessary to amend relevant legislation to facilitate the proactive role by regulators. Therefore, all sections should contain protection clauses for depositors, customers and creditors. In Sri Lanka, it is necessary to streamline the process of liquidation and winding up processes. If it takes 10 – 15 years to pay off depositors' funds under a legal process similar to that of a liquidation case, then regulators cannot be proactive. Liquidation process can perhaps be replaced with Financial Service Tribunals, or an alternative fast track system like in the US, Spain, Canada, France and Malaysia. They have adopted new provisions for bank resolution strategies including the possibility of vesting the assets of a bank in another bank. In the US, the liquidation is carried out by a strong and firmly established federal deposit insurance agency. In Switzerland, an extra judicial bank insolvency regime exists and it has been justified by the need to protect the interest of bank owners and creditors. In many developed countries, the statutes have been supplemented by a well-developed system of administrative law. It may perhaps be important for Sri Lanka to establish a banking tribunal to exercise some parts of judicial oversight to process appeals by creditors from decisions of the liquidator. It will also help the regulators to protect themselves from the political and legal pressures that could arise.

Plans for Consultation and Prompt Corrective Action: To implement: prompt corrective action, it needs qualified supervisors who are capable of taking a balanced approach. In some instances, due to lack of clarity and explicit provisions, it is difficult to exercise prompt corrective action, even though the regulator wishes to adopt a proactive approach. Regulator should frequently consult relevant stakeholders before initiating action. All financial institutions should make available their business plans to respective regulators and the latter should be ready to recommend appropriate measures, if there are changes to the business plans, or if circumstances have created risks. Investors are free to invest their money as they wish. When investments are attractive, they disregard the health of the institution, the market or the quality of the product. When things go wrong, they blame the regulator. Having realized this, in the USA, limits have been introduced on exposures of investors in too risky ventures, such as excessive investments in real estate, or derivative trading. It is intended to avoid blame on the regulator and also to protect investors from taking imprudent investment decisions. Risky products are bound to come to markets due to financial innovation. The supervisors should be continuously vigilant and watchful of such products and institutions which are not prudentially managed.

Governance Procedures: Regulatory agencies should play a key role in instilling and overseeing the implementation of the use of good practice. Where needed, governance principles should be made mandatory to ensure standard application of all such codes. However, implementing and practicing sound governance is a shared responsibility of market participants and regulatory agencies, but the financial institutions should bear the ultimate responsibility for establishing good governance practices internally. They should also adopt modern risk mitigating methods to ensure resilience. Regulatory agencies themselves should apply and follow good governance principles to ensure their credibility, acceptability and authority to promulgate good practices under their oversight.

Compliance with International Standards and Close Coordination: This is particularly important, as we need to work towards common standards in oversight. Although some of the

governance codes and principles are not directly relevant to our type of countries, when our neighbors adopt them, we will be isolated from international best practice. Regulators cannot altogether ignore governance principles, codes and guidelines issued by International Standard setters. Central banks are required to ensure that the banking sector complies with BIS guidelines for capital adequacy requirements, payment and settlements systems and corporate governance. The financial action task force and the 40+ guidelines are also expected to be complied with by financial institutions to ensure that money laundering and terrorist financing activities do not disrupt the financial system in this country. Similarly, IBSL has to be guided by the International Association of Insurance Supervisors and the SEC to collaborate with International Organization for Securities Commission.

Preparation of a Principles-based Regulatory System: As I said before, this will require regulators to decide on the outcome they wish to achieve for the wider financial system; clear legal and regulatory impediments; prepare rules to suit the regulatory system; and prepare a flexible framework with transparent processes, procedures and accountability, which was elaborated earlier in this presentation. Specifically, the principles-based regulatory system focuses on the following:

Identification of risk mitigation methods; be vigilant when risk appetite is high and track developments in high-risk areas.

Processes should be put-in place to provide optimum outcome in consultation with markets and institutions. In principles-based regulatory system, it is important to establish complementarity between micro prudential supervision and macro prudential norms. Regulators/supervisors should use macro data and analysis to understand the direction in which markets are moving and compare deviations, if any, with the regulatory policies, objectives and the way the regulator wishes markets to behave. This process will formulate policies, principles in a balanced manner.

Regulators should not take micro incidents as a norm and formulate supervision around that. For example, CBSL need not take daily/weekly fluctuations in the interbank forex markets or the CSE to look at daily or weekly spikes in stock markets.

Supervisors need not formulate principles in panicky situations catering to emergencies. They should look at fundamentals, and examine whether markets are acting on fear psychology or on actual facts. This is where stress testing will be useful to identify the vulnerabilities of the financial system to external and internal shocks.

To maintain a balance between competition and regulation, it is necessary to have a continuous dialogue with all stakeholders/ professionals and make them understand the key elements of proactive role.

Through dialogue and other sources, regulators must find out the status of the financial institutions in addition to post-mortem type examination reports. Often, the market is one step ahead of the regulator in finding out short term problems of their competitors. When there are rumors about the health of a financial institution, the regulator should take serious note of it, investigate into it and take prompt actions. In other words, “When the writing is on the wall, regulator must read it”.

If the principles-based regulation aims to avoid disruption in multiple markets, then a single regulator is far more effective as the regulatory structure is well knitted. In multi-regulatory systems, there should be effective coordination to deal with it. If there is no effective coordination, market imperfections created by participants taking the same action such as attempting to sell a particular exposure or withdraw funds or policies from an institution, can cause losses on all markets without the knowledge of one or more regulators. This needs to be avoided through constant dialogue among regulators.

Promote Market Discipline/Integrity: Supervisors should prepare themselves with more information from all possible sources and encourage participants to establish market integrity and

discipline. As an added function, it would be necessary to monitor quality of disclosures by institutions, in particular, non-bank financial institutions through constant and continuous dialogue with all stakeholders, in particular, financial intermediaries, lawyers, director boards and all relevant parties.

Regulation is Not Cost Free: Most regulators bear the financial cost of supervision. In the interest of public policy, the Central Bank, Insurance Board and Securities & Exchange Commission supervise the financial institutions that come under each one's purview with no charge to them. In some countries, regulation is not a free service. Approximate estimates of regulatory costs borne by the Central Bank with respect to bank supervision is quite a significant amount and this free service is made available in the national interest and due to the need to look after the wider financial system. In addition to monetary cost of supervision, there are other implicit costs of regulation. It affects competition between financial service providers and innovation. Compliance and implicit regulatory costs are generally passed on to customers and that leads to high transaction cost which could restrict access to finance. That defeats one of the public policy objectives.

Financial Regulation is Largely an Art: There are no tailor-made recipes or off-the-shelf packages to deal with regulatory dilemma. The approach should be practical and appropriate for the country's development. That is why regulatory and supervisory frameworks have evolved and tested over time. Usually, regulatory complexity arises due to multi-regulatory systems, a large number of statutes/laws with little enforcement, several layers of financial institutions and the existence of not so developed markets.

The effectiveness of multi-regulatory versus single regulatory systems is still being debated. We do not think countries like Sri Lanka should rush to set up a single regulatory system without appropriate legislation, explicit independence and supervisory skills to back it. One should not worry too much about the present regulatory structure as long it can look after financial system stability and help achieve public policy objectives. From the financial institutions point of view, having to report to several regulators is a cost as well as an inconvenience to financial institutions. It is important to avoid duplication of information and over regulation through close coordination among regulatory institutions which the CBSL has now focused on.

When there are several groups with various interests, the regulator should focus on the wider financial system and establish confidence of the system. Judiciary decisions too are important where justice should prevail on disputes. Sometimes, the regulatory independence is tempered by stakeholder interference, governing laws and judiciary decisions. Striking a balance between and among key stakeholder groups i.e. depositors, investors, institutions and the wider financial system is difficult. From a practical point of view, therefore, it is difficult to stick to an inflexible straightjacket regulatory system. The regulatory system should be flexible enough to accommodate the changing circumstances. Regulation, therefore, is an art and not a science.

Trends in Proactive Regulatory Approaches: Countries such as Australia, Germany, Hongkong, Scandinavian countries, Turkey, Trinidad & Tobago, the UK, the Baltics and Colombia have effected significant organizational changes. UK, in particular, has moved rapidly from a mix of rule-based approach to a principles-based and risk-focused approach. The head of UK FSA, Sir Callum McCarthy confirmed in a speech he made in February 2007, that FSA's approach is to build on a framework on principles, although FSA still has an 8,500-page rulebook. The risk-based approach by FSA means that regulatory attention is devoted to markets, firms and institutions or instruments in proportion to the perceived risks to the FSA's regulatory objectives. Countries like Indonesia, Korea and Mexico have adopted proactive regulatory role following the financial crises. China and Japan are moving towards risk-based supervision and proactive regulation. The treaties require broad regulations across countries in the European Union. USA is moving from rule-based system to

principles-based framework with focus on market discipline and oversight. Recently, the Federal Reserve Bank Chairman, Ben Bernanke publicly announced that UK's approach is more practical.

Challenges in Moving towards a Pro-active Regulatory Regime-Recognition and Appreciation of Regulator's Position (*The Financial Regulator is Well Respected*): In some countries, financial regulator is well-respected by all stakeholders. The judiciary and legal profession take a broader view of the possible areas of regulation with an enhanced understanding of the “good faith of the regulator, secrecy provisions, the regulatory silence and the importance of the wider financial system stability”. In India, for example, the relationship between the Reserve Bank of India (RBI) and the judiciary and legal profession is worth mentioning. Most of the powers exercised by the RBI are not diligently written into its Banking Law, but it acts according to its conscious and sometimes avoids giving explanations to financial institutions as to why it does not permit certain transactions. To some this may not be a very transparent process, but the financial community willingly or unwillingly accepts the stand taken by RBI while the judiciary and legal profession respect RBI's view.

Respect for regulator has been clearly demonstrated in the recently concluded BCCI case in the UK, where the liquidator – De Loitte and Touche filed action against the Bank of England for supervisory negligence in handling the BCCI case when financial supervision was under BOE prior to 1997. UK is not a heavily legislated country. Many regulatory norms were accepted by traditions and BOE's verbal warnings to financial institutions were treated as good as law. BOE recognized that it did not have precisely detailed supervisory provisions in the Banking Act at the time of the BCCI crisis, but it asserted the view that fraudulent operations by directors cannot be remedied through legal provisions however comprehensive the laws can be. The case prolonged for almost 10 years, but the final decision was that the BOE acted in good faith. The judiciary exonerated the BOE and ordered DeLoitte and Touche, the audit company, to pay all court charges and expenses incurred by the BOE. The judgment delivered on Wednesday, 12th April 2006, stated “the case brought against BOE was a farce, myriad of hopeless inconsistencies and implausibility which had the capacity to damage the reputation of the British legal system”. This case also established the innocence of BOE's formerly accused officials. The clear message from this case is that the general public as well as other stakeholders should understand that the regulators do not have hidden agenda and that they act with the objective of safeguarding the wider financial system, while protecting the depositors' and investors' funds.

Downside risks in financial sector: External and internal shocks to the financial system are major challenges that have to be tackled by the regulators as such shocks could disrupt the wider financial system which may be beyond the control of the regulator. They can lead to institutional failures resulting in economic and social consequences and stakeholder intervention. The situation is aggravated by the fact that there is no common understanding of competitive forces and their impacts on the financial system. Rule-based supervisory systems have failed in many places. Often, bank or financial institution failures were not publicly announced, but governments have re-capitalized banks and financial institutions. However comprehensive the rules are, policy makers and regulators cannot prevent financial shocks and we can only mitigate risks which can threaten the fundamentals of the system.

“Regulatory Silence”: In these circumstances, what regulators and supervisors should do is to use supervisory authority to ensure that the core of the financial system, i.e. systemically important institutions and markets are safe and sound. More often than not, a regulator is blamed for institutional failures and loss of funds by depositors. More often than not the regulator continues to follow a “regulatory silence” which invariably disgraces him. All other stakeholders have become onlookers in this game. Given the circumstances, it is time that the regulator adopts a proactive approach in dealing with troubled financial institutions by publicly announcing the status of the institution and preventing new investors and depositors patronizing that institution. The reason for

regulatory silence by the regulator is the prevention of a regulator-initiated run on the financial institution. As long as the regulator is observing “regulatory silence”, depositors, investors, political circles, the government, the legal profession and the society at large tend to believe the stories of all aggrieved parties, depositors, creditors, shareholders, director boards and other interested parties. The truth may come out perhaps in the Courts, but the wrong doers have escaped by that time. As long as the regulator has confidentially informed the director board and the senior management of the consequences of their action over a long period of time through verbal and written communication and, if such advice is not heeded to by the parties concerned, it is appropriate to break regulatory silence to prevent more depositors going to the institution and more investors believing that the institution is a going concern. Breaking the regulatory silence at an appropriate time will also prevent magnitudes getting larger. However, the regulator on its part should not over-step in moving towards this type of action, and display its maturity and fair treatment for all stakeholders.

Lack of Preparedness for market: The increasing movement of complex market activities can cause problems to supervisory bodies if there is a lack of necessary sophistication to oversee them. Sri Lanka’s money and financial markets are not yet flooded by complex derivatives and structured products. Given the global market integration, such products will find their way to our markets and begin with smaller operations. A forward-looking systemic risk analysis is needed especially because supervision needs to go beyond the in-house due diligence and would require sophisticated modeling. It may require working closely with rating agencies. In this context, it is worth getting a core supervisory staff trained to handle external and internal risks arising from new products.

Handling of Price -Sensitive Information: Another regulatory challenge is how to deal with trading on price-sensitive information and insider tradings that are taking place in several markets, the stock market in particular. Although it is not rampant like in many developed markets, it is time that the SEC thinks about this issue as it would pose a threat when the capital market transactions begin to accelerate with the gradual opening of Sri Lanka’s capital account transactions.

Summary: Many countries have moved away from the compliance-based regulation to principles-based risk-focused proactive regulations and supervisions which are market based approaches. Countries like ours should take due care in adopting the appropriate regulatory approach as there are systemically important institutions which are significant for purposes of stability. The perception that the state owned institutions or big private banks are “too big to fail” promotes excessive risk taking by these institutions. That’s why market discipline is essential to support regulatory efforts.

Market discipline/integrity does not mean that there is “Laissez Faire” or benign neglect on the regulatory front. Supervisors must diligently ensure that regulated institutions, in particular, systemically important financial institutions that act as creditors, counter parties and clearing banks adopt and implement best practices for monitoring and managing risks. They should have compliance procedures to ensure that laws are not violated. These elements should be set clearly in the proactive regulatory framework to be articulated by the regulator.

Financial institutions and markets can be made committed in theory to principles rather than detailed rules. In practice, there can also be a stubborn attachment to particular rules that the regulator wishes to abolish. There could be instances where principles-based regulation is supported by the top management, but they may be opposed by compliance officers and lawyers, in particular, who prefer the certainty of prescriptive rules. But it is time to start the process as moving out of rule-based curative type regulation takes a longer time. In moving towards proactive regulatory approach, it is necessary for regulatory authorities to be transparent and accountable and should have regulatory, supervisory and budgetary independence which was referred to earlier.

The task of moving towards principles-based risk structure will be made somewhat easier as Basel II principles support risk -focused broader supervision based on principles. Pillar III, in particular, requires banks to provide information about their activities, performance and risks. The purpose is to enable market participants and public to exert market discipline over the activities of the bank. Banks in Sri Lanka have opted to adopt Basel II Accord and it is a good opportunity to move faster towards risk-focused supervisory regime.

It is the responsibility of the regulator to educate the public and market participants about what quantitative and qualitative disclosures mean, so that the market vigilance on financial sector can be enhanced. Regulators should announce its public policy objectives to markets and the general public, and encourage financial innovation, investor protection and the stability of the wider financial system. It may also be explained that time has come to move away from protecting shareholders, or various segments of depositors or bailing out individual institutions. In a proactive regulatory regime, regulators should resist temptation to devise ad-hoc rules for each new type of financial instrument or institution. Regulators should remain mindful that reducing constraints and freeing up institutions will pursue new products and processes and that can have significant benefits. If regulation stifles financial innovation, then institutions find ways and means to work outside regulation. Regulatory policy should be forward looking and innovative friendly. Therefore, where possible, adhoc and short fixes should be avoided. Markets will then support the implementation of principles-based, risk-focused regulatory structure. However, if enforcement is weak, markets will abuse regulatory flexibility.

Finally, many believe, regulators can serve their mission best not by second guessing, but by assuring that financial institutions with access to depositors and investors' funds effectively use risk measurement methods and management practices that keep up with ever-changing markets. While lessons from the past will be of value, it is prudent to formulate policies which will enable regulators to be proactive and concentrate on principles based on risk focused rules and regulations.

Central Bank of Zambia: Changing Role

Before Central Bank: A semblance of central banking started in Zambia through the establishment in 1938 of the Salisbury (Harare) based Southern Rhodesia Currency Board. Its jurisdiction extended to Northern Rhodesia and Nyasaland because of a monetary agreement that existed between Southern Rhodesia and these territories. In 1954, the Southern Rhodesia Currency Board was renamed the Currency Board of Rhodesia and Nyasaland when its ownership changed from the Southern Rhodesia government to the Federal government of Rhodesia and Nyasaland. Currency boards are not central banks and they do not offer banking services. Their sole function, in contrast to the multiple functions of central banks, is to issue currency. In the case of the Central African Currency Board, and its predecessor they issued the Central African pounds which were 100 percent backed by pound sterling reserves in London. In other words, if the territories' foreign exchange reserves rose, the Board increased its issue of local currency. If they declined, the local currency issued also had to be reduced.

With time the Currency Boards existence was hotly debated with some people saying that it needed to be replaced by a central bank. At the time, one of the popular views held by economists was that monetary policy could play a direct role in promoting economic growth primarily through credit expansion. The strict rules on monetary creation under the currency board, which made it conditional on developments in the balance of payments, did not accommodate discretionary credit expansion. In general, it was also considered more preferable to have a central bank which could conduct monetary policy and counter unfavorable cyclical developments. Another major criticism that was made on the currency board was that the system for issuing currency under it imposed a heavy opportunity cost on the economy. Since

the domestic currency on issue required 100 percent pound sterling cover, the utilization of foreign reserves to import capital for development was restricted.

In one important aspect, there is an important lesson to be learnt from the currency board arrangement. Firstly, it was cheap to administer. This was because it was a tiny organization. Secondly and perhaps more importantly, monetary restraint was much easier to establish under the currency board arrangement because of government borrowing, the usual source of monetary expansion in most countries, was not allowed. Maintaining low inflation rates is therefore much simpler compared to modern central banking which permits governments to print money for spending. Many central banks in the world, including the Bank of Zambia, which were forced to rapidly expand credit to their governments during the 1970s and the 1980s discovered they could do little to stop inflation. That is why in the recent years many governments are moving away from borrowing from their central banks.

The Establishment of Central Bank: As the view grew stronger that a currency board was inappropriate, the Bank of Rhodesia and Nyasaland was established in March, 1956. It was equipped with the full powers of a conventional central Bank such as conducting monetary policy, banker to government and commercial banks, manager of foreign exchange reserves and so on. The bank was also empowered to lend to the territorial and the Federal governments up to a limit based on their expected revenues in that fiscal year. The Bank of Zambia was established to take over from the Bank of Northern Rhodesia on the 7th of August, 1964 although its Act was only passed in June, 1965. The Bank of Northern Rhodesia was itself constituted from the Lusaka branch (established in September, 1961) of the Bank of Rhodesia and Nyasaland after it broke up together with the Federation of Rhodesia and Nyasaland on the 31st of December, 1963.

The Bank started operations with about 100 staff organized around only two departments, namely the Chief Cashier's or General Manager's department and the Secretary's department. The former was responsible to the Governor for monetary policy implementation, currency issue, banking, government securities, exchange control and foreign exchange management. The Secretary was responsible for personnel, administration, internal auditing and the Board.

With time, the number of departments at the Bank started to increase. One of the earliest to be established was the Research Department in 1967. The Operations Department was created in 1976, and later, especially in the 1980s, the pace accelerated when other departments such as Personnel and Administration (1977) Exchange Control, Import and Export Control, Estate and Properties (all in 1981) were created. They were followed in 1982 by Banking and Currency, Small Scale Industries, Inspection and in 1984 by National Debt, Transport, and Government Securities.

The increase in the number of departments at the Bank partly reflected the increased demand on the functions which it had to perform, most of which centered around administering government imposed regulations such as exchange controls and import and export controls. In turn there was higher demand by the Bank on support services for these core activities. In addition, however, it is also true that the Bank, like many other organizations both inside and outside Zambia then, did not make hard distinctions between core and peripheral responsibilities and, hence, utilize resources accordingly. To give a concrete example, it was an accepted practice in Zambia that employers should find accommodation for their employees and in some cases, even furnish that accommodation. Institutions therefore acquired substantial property which required manpower and organization to manage. In some cases there were economic arguments, which were considered sound then, which led to

organizational expansion. In the foreword to *Ten Years of Banking in Zambia*, a Bank of Zambia publication, former President Kenneth Kaunda wrote as follows:

"Our highest priority now is the rapid development of the rural areas where the masses of our people live. In this connection, I am confident that the Bank of Zambia would not restrict itself to the orthodox central banking concept of monetary stability only. I would like to see the banking system as a whole take the challenge and devise effective tools in order to facilitate the dawn of a new era of prosperity for the rural areas in particular and the other sectors of the country in general ...,"

As already indicated above, this was an acceptable position at the time in the developing world and one of its strongest proponents among practitioners was the Reserve Bank of India. Applied to Zambia, it included the establishment of a department for Small Scale Industries and, later, a credit guarantee scheme. The expansion of the functions of the Bank saw a rise in the number of staff from 400 by 1975, to 1226 in 1988 and to 1400 in 1994. The Bank premises therefore had to be extended to accommodate the numbers. The new building (currently corporate head office) opened in 1975 while the Regional office in Ndola opened in 1979. Annex buildings were subsequently added to Lusaka and Ndola.

This expansion resulting from this extension of functions was unfortunately, not underpinned by a strong organizational structure. Instead, and in the words of a consultant in 1989 "The Structure of the Bank has evolved over time more in response to staffing factors than the real needs of the Bank". One major cause for this has been the extreme rapid turnover of Governors. Since 1964, there have been ten appointments to the post (excluding the current Governor) over a period of 28 years making an average tenure of 2.8 years for each. With instability at the top, continuity and strategic planning for the future were bound to suffer.

The Changing Roles of Central Bank: The Bank of Zambia Act of 1965, and its subsequent amendments charge the institution with the usual central bank responsibilities such as being banker to government, issuer of currency, manager of foreign exchange reserves, controller of commercial banks' liquidity and with responsibilities for the formulation and implementation of monetary policy. Although maintaining price stability is referred to in the Act as one of the Bank's objectives, it was not considered with any particular emphasis in practice. This was not unique to Zambia. Many other central banks followed the received wisdom of the times regarding the possibility of a tradeoff between inflation and employment - the Phillips Curve idea which stipulates that higher levels of employment could be attained if higher inflation rate could be tolerated. The thinking at the Bank of Zambia - and at many other central banks - was that putting special emphasis on the central bank's objective of maintaining price stability was focusing the function of a central bank much too narrowly. Interpreting its position correctly the Bank of Zambia acquired an equity stake in the Development Bank of Zambia and in the Zambia National Commercial Bank. At one time, thought was even given to the possibility of establishing and running a commercial farm.

Meanwhile in the major central banks of the world, the idea that the main role of central banks should be the maintenance of price stability without which a stable macro-economic environment was not possible, was gaining ground. It was also increasingly being felt that there was little else that a central bank can do to promote economic prosperity and attempting to do so through easy money just led to higher inflation. As a result of this realization, Central Banks started to re-orientate their activities accordingly. This new view on the appropriate role for central banks is only now beginning to be accepted. In 1991, the Movement for Multiparty Democracy (MMD) came to power, replacing the United National Independence Party (UNIP) which had ruled for 27 years. The new government's priorities were the restoration of

economic future growth and employment to the Zambian economy. Liberalizing the economy and thereby allow market forces a greater role in the allocation of resources was to be the main means of achieving this. Price controls were abolished, as were subsidies on all consumer items.

Macroeconomic management in Zambia has not been the same since. Although the ultimate economic objective has remained the same, namely growth and employment, it is now generally accepted that investment and subsequently growth, is unlikely to take place if the economy remains characterized by macroeconomic instability such as high inflation, shortage of foreign exchange, scarcities of commodities and so on. Consequently, from 1992 the emphasis has been on creating a stable macroeconomic environment as a prelude to sustainable economic growth.

The government's focus on price stability as a key contribution to future economic growth prospects has posed a new but welcome challenge for the Bank. Hence, for example, although it reluctantly got involved in things like providing credit to Parastatal organizations, it has begun to re-orient its activities towards meeting the core objective of maintaining price stability and ensuring a sound financial system.

Changing Role of the Central Bank of Chile

A) Description of the Main Policies

Monetary Policy: Money plays an essential role in the suitable functioning of any economy. To preserve this role, the Central Bank's monetary policy must protect the value of the country's currency, the peso, seeking to keep inflation low and stable. The purpose of keeping inflation low and stable, which is how this price stability concept is interpreted in practical terms, is no mere whim of the law, but rather serves the broader objective of moving the national economy along the path of sustained growth, full employment and, in general, progress and wellbeing for the population. In fact, the Central Bank's greatest contribution to growth and progress lies in encouraging confidence in the future, which in turn is associated with price stability. This encourages saving, investment and productivity gains, all essential elements for economic growth. Low, stable inflation is, moreover, beneficial from the point of view of distribution, because it favors growth in employment and protects the income of the most defenseless sectors of society.

Monetary policy cannot influence the trajectory of long-term growth in any way other than contributing to price stability. The effects of monetary policy on economic activity and employment, in the short and medium term, arise from the different channels along which changes in monetary policy move until it actually affects inflation. Because of this, monetary policy follows a counter cyclic path, which, moreover, preserves price stability, seeking to avoid extreme changes in general expenditure or domestic demand that could lead to unnecessary risk in financial markets and difficult situations in terms of recession and unemployment. In this sense, the focus of the Central Bank of Chile's monetary policy is price stability over time, taking into account the effects this policy has on economic activity and employment in the short and medium terms.

The Central Bank's concern for price stability has translated into the application of an inflation targeting monetary approach. Although a mature inflation-targeting regime can be defined in a somewhat flexible way, it must include some essential ingredients. First and foremost, it must establish an explicit numeric target for inflation in a specific time period or horizon – the inflation target as such. Second, its commitment to this target must take priority over any other

policy objective that could come into conflict with inflation over the specific time horizon. Third, the Central Bank must have the independence necessary to use its instruments, so it is capable of applying its monetary policy to close any foreseeable gap between estimated inflation and the inflation target. Fourth, the Central Bank must have the technical ability to use reasonable empirical models to predict inflation. Today, the Central Bank of Chile meets all these requirements.

Since 2007, the explicit objective of the Central Bank of Chile is to maintain the annual inflation of the consumer price index (CPI) around 3% most of the time, with a tolerance range of plus or minus one percentage point. This objective should be permanently achieved in a medium-term horizon of two years. The Central Bank is concerned not only with scenarios in which inflation exceeds the target in the relevant horizon, but also with scenarios in which it falls too low. The Central Bank of Chile does not aim for an inflation level below the specified range because of the risk of disinflation, which could be very costly in terms of employment and production. Moreover, the horizon is consistent with the time period over which monetary policy achieves its maximum effect and is therefore the period during which monetary policy can exercise the most control over inflation.

The main merit of this regime is that, while it restricts the discretionary powers of the monetary authorities, it permits the achievement of stabilization policies. An inflation-targeting regime establishes specific objectives, providing the Central Bank with the freedom to use the instruments and policies necessary to achieve the same. Communication with the public is optimized using a simple, easily understood indicator, able to strongly influence inflationary expectations. Monetary policy can also play a role in stabilizing output over the short term, as long as it is consistent with meeting the inflation target in the medium term.

Foreign Exchange Policy: In September 1999, the nominal objective on the exchange rate – represented by the presence of an exchange rate band – was abandoned, and a free-floating regime adopted. This eliminated a possible source of inconsistency in the design of the policy regime; the Central Bank's sole commitment is now to maintain inflation within the target range, as well as reflecting the authority's confidence in the market to determine autonomously the value of the national currency. In a highly volatile world of enormous openness to capital, maintaining a foreign exchange commitment is not only a difficult task, but also, as recent experience has taught, potentially very costly. A flexible approach to the foreign exchange rate eliminates this commitment, focusing Central Bank efforts on the inflation target, which becomes the nominal anchor for the economy, avoiding any possible confusion. Moreover, the floating exchange regime provides the economy with the flexibility necessary to deal with external shocks, thus facilitating corrections that otherwise could be postponed and thereby become more complex.

Foreign exchange flexibility, however, does not mean that the Central Bank of Chile cannot intervene in the market under exceptional circumstances, if it considers that the currency is moving too far away from its equilibrium value, and costly reversions could lie in the future it would take action accordingly. These interventions, however, take the form of transparent, well-founded measures, which include explicit definitions of the periods and amounts involved, as well as the clear explanation of the reasons behind these exceptional actions.

Financial Policy: A stable economy that enjoys sustained growth requires a solid and secure banking sector that can allocate resources with an efficient blend of risk and return, thus ensuring the functioning of the payment system. The Central Bank is the economy's lender of last resort and as such provides liquidity to institutions that face temporary cash flow difficulties.

The Central Bank also has some regulatory authority over payment of interest on checking accounts and credit ratios.

Likewise, the Central Bank has directly contributed to both completing and deepening markets. The emission of instruments indexed to changes in the exchange rate has provided the market with coverage of this risk. The exchange of promissory notes payable in coupons for zero coupon notes has satisfied the demand for longer term instruments, as well as helping to build a zero coupon yield curve that serves as the axis for the functioning of a market in interest rate derivatives. For the more efficient development of the foreign exchange market, the Bank has also authorized interbank loans and pacts between financial institutions in foreign currencies. Today, the risks that banks face are suitably under control. The Central Bank has gradually introduced important improvements to regulations governing the matching of foreign currency assets and liabilities, maturities and interest rates.

Externally, the maturity of the Chilean economy, along with the adoption of the floating regime, today permit full mobility of capital, with the complete elimination of controls and restrictions on foreign capital flows. Nonetheless, the Central Bank participates in regulating bank investment abroad, both in the foreign exchange sphere and in terms of financial regulation, protecting the interests of depositors in operations such as the purchase of shares and the establishment of subsidiaries and companies, or the regulation of financial investment, and international credits. In the case of this last area, the Central Bank has its own powers, as well as sharing responsibilities with the Superintendent of Banks, to establish the equity requirements and provisions for these sorts of operation. A stable economy that enjoys sustained growth requires a solid and secure banking sector that can allocate resources with an efficient blend of risk and return, thus ensuring the functioning of the payment system. The Central Bank is the economy's lender of last resort and as such provides liquidity to institutions that face temporary cash flow difficulties. The Central Bank also has some regulatory authority over payment of interest on checking accounts and credit ratios.

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B) Pass through Mechanisms and the Policy Horizon

The pass through of changes in monetary policy to the rest of the economy occurs along different channels and takes a relatively long and variable time to materialize. Thus, several mechanisms exist to ensure that a specific policy action (reflected in a change in the policy interest rate) can affect inflation and activity.

A more restrictive monetary policy approach (reflected in an increase in the policy interest rate) leads to lower private expenditure on investment and consumption and, by this route, affects the gap between aggregate demand and potential output, and ultimately, inflation. Moreover, an increase in the policy interest rate can also affect the exchange rate (causing the peso to appreciate), thus eventually causing inflation to fall in the case of imported goods, as well as affecting external demand, and the expenditure to output gap. Policy action can also affect asset prices (by changing the relative yield for different financial instruments), which can affect real wealth and by that route aggregate demand and inflation. It is possible that the supply of credit in the banking sector may also be affected, which is particularly relevant for those firms whose access to other sources of financing is closed. Finally, policy action affects economic agents' expectations, which can be reflected in their decisions regarding consumption or investment, along with determining contracts and wages.

It can take 4 to 8 quarters for inflation to react substantially to a change in the policy rate, which operates through a set of transmission channels. This period is taken into consideration in defining the reasonable time-span that the Central Bank considers as the horizon for monetary policy. For this reason, monetary policy actions are based on the expected evolution of inflation over a period of around two years and not necessarily on its current behavior. Thus, even if inflation stands near or even at 3% at a given point in time, it may be necessary to take preventive action to avoid future deviations of inflation from the target. At the same time, isolated movements of inflation outside the tolerance range may not require policy actions if there is a well-founded presumption that the movements are very short term and that there is no risk of inflation becoming unanchored from the trend.

C) Characteristics of Monetary Policy Conduction

Transparency plays a key role in the conduction of Central Bank policies. The Central Bank is not isolated from the rest of the society and has enormous political responsibility, maintaining both the president of Chile and the senate informed of its actions. In this sense, the Board's meetings with the senate's finance commission are fundamental to keeping society informed and involved in macroeconomic policy debate and conduction, as well as ensuring that the Central Bank receives feedback on the policies applied and perceptions regarding them.

Policy decisions are made at monthly meetings, which are publicly announced six months in advance. This does not prevent, where necessary, making policy decisions at special meetings. Policy decisions are made by a simple vote of board members present at the meeting, with the governor of the Central Bank empowered to cast the decisive vote in the case of a tie. The finance minister is allowed to attend Central Bank of Chile meetings, with a voice in deliberations, and the ability to suspend for up to 15 days the implementation of any resolution, provided this has not been decided unanimously by the members of the Board. Once this period has expired, and provided the majority of Board members remain in favor, the Board's decision comes into effect with the simple publication of the resolution in the official gazette (*Diario Oficial*).

The minutes of these meetings are made public on the fifth bank business day prior to the date set for the next Monetary Policy Meeting, or the fifteenth day after the respective session if fifteen days have not passed since the last Monetary Policy session. The document reports the vote of each of the Board Members on the resolutions passed during the session. Another important element for the Central Bank's policy transparency is the publication of the Monetary Policy Report beginning in May 2000 and the Financial Stability Report since 2004.

The Monetary Policy Report (IPOM), which is published every four months, presents the past evolution of inflation, a base scenario with explicit forecasts for future inflation (and growth), and a statement on the risks that the Central Bank's Board perceives as potentially affecting the base scenario over a horizon of the next two years. This high degree of transparency allows focusing on inflation projections that are an intermediate target in and of themselves. Since the forecasts are contrasted with market expectations, credibility comes to depend more on whether the Central Bank reacts in a timely and appropriate manner to a change in these inflation forecasts, than whether a specific number is achieved on a given date.

The Financial Stability Report (IEF) is a semi-annual publication that comprises the study of the macroeconomic and financial environment in Chile and abroad, as it pertains to the stability of the financial system. It includes an analysis of the evolution of the debt and payment capacity of credit users, the situation of nonbank financial intermediaries, and the impact of alternative macroeconomic scenarios on the banking system and on the international financial position of the national economy.

D) Operational Conduction of Monetary Policy

The medium-term operational target is defined in terms of changes in the consumer price index (CPI). This indicator, however, can present a relatively high degree of month-to-month volatility, as a result of fluctuations in perishables and fuel prices. Therefore, to interpret periodic and short-term price information (up to two months), the Central Bank also considers measures of underlying or trend inflation, such as variation in the underlying CPI (the total index excluding fruits, vegetables, and fuels) maintained by the National Statistics Bureau (INE).

The Central Bank implements its monetary policy by defining a target level for the nominal interbank interest rate, which is known as the monetary policy rate (*tasa de política monetaria*, TPM). To ensure that the interbank rate falls within the desired range, the Central Bank must regulate financial system liquidity (or reserves), through the use of several instruments: open market operations, buying and selling short-term promissory notes, and liquidity deposits and lines of credits (expanded facilities). These tools also include the banking reserve over deposits, although in practice the Central Bank does not use this as an active monetary policy instrument.

Open market operations take place essentially through regular auctions of promissory notes issued by the Central Bank. Banks and financial institutions, pension fund managers, insurance companies and mutual funds can participate in these auctions. Promissory note auctions take place in the form of a single price per auction, that is the cut-off rate applies to all the winning participants in the auction, a system known as the "Dutch type". The above encourages competition among auction participants and tends to reflect more appropriately the conditions prevailing in the marketplace. In the event of deviations from the (average) interbank rate away from the desired policy rate, for example because of a lower level of liquidity than that required, liquidity is injected to reduce the interbank rate and make it converge toward the TPM. In general, liquidity is injected by purchasing promissory notes using a repurchasing clause (REPO) overnight. In the opposite situation, when excess liquidity is present and the interbank rate is

tending to fall below the target rate, the temporary excess is withdrawn by selling short-term notes. These last operations take the form of “dematerialized” documents (that is, the documents are not physically issued).

Other tools at the Central Bank’s disposal are the liquidity credit line and the liquidity deposit account. Using the first, the Central Bank provides financial institutions with one-day loans without collateral, for limited amounts and by interest rate tranche. Similarly, the liquidity deposit allows financial institutions to deposit, for one day, temporary liquidity surpluses in the Central Bank and obtain a minimum return. To suitably regulate liquidity in the financial system, the Central Bank prepares a cash flow program that covers the period during which the reserve requirement is measured. To develop the cash flow plan, both supply of and demand for banking reserves, that is bank notes and coins in the power of banks and bank checking account balances in the Central Bank, are projected. Demand is of a derivative nature that basically depends on reserve rates and trends foreseen for demand and time deposits such as the behavior of currency in the hands of the public. The supply of banking reserves depends on the behavior of currency in the public’s hands and the main sources of emission, including the expiry dates for promissory notes auctioned off during previous periods and other sources of monetary expansion that are more autonomous and require their own projections. These operations include the State’s financial operations with monetary impact.

Once the supply and demand for banking reserves has been determined, the amounts of promissory notes to be auctioned off by the Central Bank are decided. The auctions calendar is provided to the public the day before a new reserve period begins.

Daily follow-up of the liquidity projection is essential to ensure, wherever necessary, that the operations necessary to fine tune bank reserves take place, through the REPO operations mentioned above or special sales of short-term promissory notes.

Changing Role of State Bank of Vietnam

The development of the Vietnam banking system was closely linked with the national cause of revolution and construction. Before the August Revolution in 1945, Vietnam was a feudal-colonial country under the French colonialists’ rule. The banking and credit system was founded and protected by the French colonialists through the Indo China bank. It’s functioned as both the central bank of the whole Indochinese region (Vietnam, Laos and Cambodia) and a commercial bank. The bank was an effective tool for the colonial policy of the French government and enriched the French capitalists. Thus, one of the key tasks of the August Revolution then, was to build an independent and autonomous monetary and banking system. The task was fulfilled by 1950, when the anti-French resistance war grew stronger, obtaining many triumphs in the battled field, and expanding the liberalized region. In this context, the development required economic and financial activities to be improved and promoted to meet new demands.

On the basis of the new economic and financial policy set out in the 2nd Congress of the Vietnam Workers’ Party (February,1951), President Ho Chi Minh signed Decision 15/SL on the establishment of the Vietnam National Bank – Bank of the first people’s democratic state in Southeast Asia in order to carry out five urgent missions: issuing banknotes, managing treasury, carrying out credit policy in order to facilitate production and coordinating with the trade authorities for monetary management and struggling against the enemy. The foundation of the Vietnam National Bank was the result of the struggle process to develop an independent, and autonomous monetary and credit system, marking a new development step, i.e, changing the

quality of the national monetary and credit sector. Pursuant to Circular 20/VP – TH issued by the General Director of Vietnam National Bank under authorization of the Prime Minister on January 21st ,1960, the Vietnam National Bank was renamed as the State Bank of Vietnam, in accordance with the 1946 Constitution of the Democratic Republic of Vietnam. Following the liberation of the South in 1975, the takeover of the Republic of Vietnam National Bank and private capitalist banks was a starting point of banking activities all over the country under the banking activity regime of a central planning economy. In July 1976, the country was officially unified and the Socialist Republic of Vietnam was founded.

On the basis of important changes in the revolutionary directives and tasks as well as the functions, tasks and organizational structure of the State Bank of Vietnam, the development process of the Vietnam banking system could be divided into 4 periods as follows:

1. From 1951 to 1954: The Vietnam National Bank was founded and had relatively independent operations in the financial system, implementing the first important duties assigned by the Communist Party of Vietnam and the Government, i.e, issuing banknotes, retrieving poor quality banknotes, managing state treasury to help increase revenue and reduce expenditure, unifying fiscal management, developing banking credit to serve commodity production and circulation, and enhancing state – owned economic sector and fighting against the enemy in the monetary field.

2. From 1955 to 1975: The whole country launched the anti-American resistance war; the North carried out socialist construction and made great efforts to support the revolutionary liberation of the South; all socio-economic activities had to move along with the new demands. In this period, the Vietnam National Bank carried out the following principal tasks:

- Reinforce the money market, stabilize prices, contain inflation and create favourable conditions for the economic recovery.

- Promote the provision of credit for food production; enhance the recovery and development of agriculture, industry and trade, thus contributing to the implementation of the two strategic tasks, namely the development of the socialist economy of the North and the liberation of the South.

3. From 1975 to 1985: This is the ten-year postwar economic recovery after the liberation and reunification of the country. As such, Vietnam built up the new banking system under the new government, establishing a country – wide unified banking system and liquidating the banking system of the previous government in the South. Accordingly, the Vietnam National Bank of the government of the Republic of Vietnam (in the South) was nationalized and unified with the system of the State Bank of Vietnam, carrying out together the task of currency unification in the country. It issued new kinds of banknotes of the Socialist Republic of Vietnam and revoked the old banknotes in both the South and the North in 1978. In the late 1980s, basically, the state banking system did not implement the market – oriented monetary system, but still served as a budget tool. Changes in the quality of the banking system operations, the gradual move to market – based operations only started since late 1980s.

4. From 1986 up to now: Since 1986, many important events have happened, marking the significant “benchmarks” as follow:

- + **From 1986 to 1990:** the state management function was gradually separated from the commercial credit and monetary functions. The new mechanism of banking operations was built up and gradually improved. In May 1990, the Ordinance on the State Bank of Vietnam and ordinance on banking, credit co-operatives and finance companies, were enacted, thereby

officially changing the operation mechanism of the banking system of Vietnam from one-tier to two – tier system, in which each tier’s roles and responsibilities are clearly defined as follows:

- SBV implements the state management of currency trading, credit, payment, foreign exchange and banking; implements the task of a central bank, the only bank authorized to issue banknote; and acts as the bank of banks, and the bank of the state. The central bank is the agency that organizes the management of monetary policies, taking the task of stabilizing currency value as the main objective and governing specific management policies of the system of commercial banks.

- The tier of commercial banks in currency circulation, credit, payment, foreign exchange and banking services in the whole national economy comprises banks and non-bank financial institutions.

Together with the process of reforming operational mechanism of the banking system, a series of second- tier specialized commercial banks with many different ownership forms such as: state-owned commercial banks, joint-stock banks, joint-venture banks, representative offices or branches of foreign banks, credit co-operatives, people’s credit funds, finance companies,...In this period, 4 big state-owned commercial banks were established: 1) Vietnam Bank for Agriculture and Rural Development (Agribank); 2) Bank for Investment and Development of Vietnam (BIDV) ; 3) Industrial Commercial Bank of Vietnam (Incombank); 4) Foreign Trade Bank of Vietnam (Vietcombank).

+ **From 1991 up to now:** To implement the CPV's directions and policies during the period of modernization and industrialization, Vietnam’s banking system has been continuously reformed and improved to ensure its important role in national construction and economic development in the new millennium. The following benchmarks have direct links with and enhance the strong reform of banking activities.

1993: Normalizing credit relations with international monetary organizations (IMF, WB, ADB)

1995: Resolution on removing sales tax on banking activities was passed by the National Assembly; the bank for the Poor was founded.

1997: The Law on the State Bank of Vietnam and the Law on Credit institutions were passed by the 10th National Assembly of the Socialist Republic of Vietnam (dated 2/12/1997) and became effective from 1/10/1998; the Mekong Delta Housing Development Bank was established (Decision No 769/TTg dated 18/9/1997).

1999: The Deposit Insurance of Vietnam was established (on 9/11/1999)

2000: Financial and organizational restructure of the state-owned commercial banks and joint - stock commercial banks.

2002: offered VND denominated lending rate of credit institutions were liberalized - The last step to completely liberalize the credit market's interest rates.

2003: Comprehensive Operational restructure of commercial banks in line with international standards; the Vietnam Bank for Social Policies was set up as the successor to the Bank for the Poor in order to separate policy credit from commercial credit according to market mechanism; and starting to revise the Law on the State Bank of Vietnam.

2010: The 12th National Assembly (NA) passed the Law on the State Bank of Vietnam (SBV) and the Law on Credit Institutions at its seventh session in Hanoi on June 16, 2010. The two laws became effective on January 1, 2011. Accordingly, SBV is a ministerial agency of the Government and acts as the central bank of the Socialist Republic of Vietnam.

At present, the State Bank of Vietnam is implementing the roles and responsibilities stipulated in Decree 178/2007/NĐ-CP dated December 03, 2007 and Decree 96/NĐ-CP dated August 26, 2008 by the Government on functions, roles and responsibilities and structure of Ministries, ministerial agencies as follows:

1. To submit to the Government bills, draft resolutions of the National Assembly, draft ordinances and draft resolutions of the Standing Committee of the National Assembly; and draft decrees of the Government in accordance with the approved annual law – making plans of the State Bank ; and projects and schemes assigned by the Government and the Prime Minister.
2. To submit to the Prime Minister the development strategies and schemes, long-term, five-year and annual plans; national targeted programs, action plans and important projects in the banking sector; and draft decisions, instructions and other legal documents under the jurisdiction of the Prime Minister in line with law.
3. To promulgate circulars, decisions and directives under the jurisdiction of the State Bank.
4. To direct, guide, inspect and conduct the implementation of the approved legal documents, strategies, plans and important projects under the jurisdiction of the State Bank; and to publicize, disseminate and educate all the legal documents related to the areas under the State management of the State Bank.
5. To formulate the national monetary plans for the Government to submit to the National Assembly for approval; to utilize interest rates, exchange rates, reserve requirement, open market operations and other instruments in order to implement the national monetary policies; and to submit to the Government schemes on the development of the banking industry and credit institutions;
6. To grant and revoke licenses to or from credit institutions with the exceptional cases as decided by the Prime Minister; to grant and revoke banking licenses to or from other institutions; to make decision on the dissolution, renaming, separation or merging of credit institutions; and to make guidelines on the conditions of establishment and operation of credit institutions.
7. To monitor and supervise banking activities; to control credit activities; and to handle all violations in the monetary and banking activities in accordance with law.
8. In regard to foreign exchange management:
 - a) To manage the current transactions, capital transactions and foreign exchange spending in the Vietnamese territory in accordance with law;b) To manage the State foreign exchange reserves; and to control international reserves;
 - c) To determine the exchange rates of Vietnam dong versus foreign currencies; to develop foreign currency market; and to develop foreign exchange mechanism to be submitted to the Prime Minister for approval.
9. In regard to the development of the international payment balance:
 - a) To collect, consolidate, compile, forecast and monitor the formulation and implementation of the international payment balance; and to make reports on the implementation of the international payment balance in line with law;
 - b) To act as the lead entity in providing data of Vietnam’s international payment balance to domestic and foreign institutions in compliance with law.
10. In regard to the management of the borrowing and repayment of foreign loans by resident economic and credit institutions and individuals in accordance with law:

- a) To conduct State management of the borrowing and repayment of foreign loans by the enterprises and other institutions of the public sector; to monitor the borrowing and repayment of foreign loans by the private sector; to guide and supervise the guaranty for foreign debts by commercial banks and other institutions which are allowed to provide guaranty in line with law;
- b) To take the lead and co-ordinate with the relevant authorities to develop the annual quota of foreign commercial loans by the enterprises and other institutions of the public sector and forecast the annual level of foreign loans by the private sector for consolidation by the Ministry of Finance to be submitted to the Prime Minister for approval;
- c) To take the lead and coordinate with the Ministry of Finance to manage the annual quota of foreign commercial loans by other enterprises and institutions approved by the Prime Minister;
- d) To consolidate the annual borrowing and repayment of foreign loans by enterprises and other institutions of the public and private sectors to be reported to the Prime Minister with C.C. reports to the Ministry of Finance for annual consolidation of foreign borrowing and repayment of the whole country;
- đ) To guide and conduct registration of foreign loans by enterprises and other institutions of the public and private sectors (including the Government-guaranteed loans);
- e) To control cash flows related to the borrowing and repayment of foreign loans for compiling the international payment balance, managing monetary policies and controlling foreign exchange;
- g) To set up the early warning system for debt risks of the corporate sector;
- h) To conduct other tasks and powers of managing the borrowing and repayment of foreign loans in compliance with law.

11. In regard to the lending and recovery of foreign debts of the Government and economic and credit institutions:

- a) To co-ordinate with the Ministry of Finance to submit to the Prime Minister for decision on the amount, borrowing sources, types, beneficiaries and mechanism of lending and recovery of foreign debts of the Government;
- b) To stipulate the conditions, beneficiaries, forms and mechanism of lending and recovery of foreign loans for resident credit institutions;
- c) To stipulate the conditions and procedures of granting licenses and submit to the Prime Minister to decide the choice of resident economic institutions to lend and recover foreign loans;
- d) To conduct other tasks and powers of lending and recovering foreign loans in accordance with law.

12. In regard to negotiating, signing and joining international monetary and banking treaties:

- a) To co-ordinate with the relevant authorities for preparing, negotiating, signing or joining international treaties on ODA with the World Bank (WB), the Asian Development Bank (ADB), the International Monetary Fund (IMF) under the authorization of the Government;
- b) To periodically compile and inform the Ministry of Finance, the Ministry of Planning and Investment, and the relevant agencies about the disbursement and payment via the accounts of ODA programs and projects with commercial banks.

13. To represent the Socialist Republic of Vietnam at international banking and monetary institutions under the authorization of the President or the Government:

a) To conduct the functions of a member of the International Monetary Fund (IMF), the World Bank (WB), the Asian Development Bank (ADB), the International Investment Bank (IIB), and the International Bank for Economic Cooperation (IBEC);

b) To take the lead in coordinating with the relevant ministries to implement the constitutions and policies of IMF, WB, ADB, IIB, IBEC and the programs for macro- economic stabilization financed by IMF, WB and ADB in Vietnam; to provide periodical and unexpected data as stipulated by the aforesaid institutions; to make recommendations of policies and measures to the Government for promotion of the relations with the aforesaid institutions.

14. In regard to the implementation of the functions of the Central Bank:

a) To make arrangement for minting, preservation and transportation of money; and to carry out the operations of issuance, withdrawal, replacement and destruction of money;

b) To carry out refinancing in order to provide short-term credit and payment instruments for the economy;

c) To regulate the money market; and to carry out the open-market operations;

d) To organize the payment system via banks; to conduct state management of payment activities; to provide payment services; and to pursue the policy of encouraging and strengthening non-cash payment under the approval of the relevant authorities;

đ) To act as an agent for, and provide banking services to the State Treasury;

e) To develop the banking information system and provide banking information services; to manage credit information organizations; and to conduct credit rating for Vietnamese enterprises;

g) To perform other functions of the Central Bank.

15. To make decision on and carry out investment projects under its authority; to evaluate and inspect the implementation of investment projects in the banking field in accordance with law;

16. To manage its allocated financial resources and assets as stipulated by law; and to use part of the revenue from foreign exchange, monetary and banking operations in service of its own professional activities in accordance with law;

17. To promote international cooperation in the monetary and banking field in accordance with law;

18. To organize and conduct scientific and technological research and application and environmental protection in the banking field in accordance with the law;

19. To make decision on specific directions and measures and guide the implementation of operational mechanism of public-service institutions in the monetary and banking field; and to perform the State management over operations of non-productive entities under its jurisdiction in accordance with law;

20. To act as the owner of the state capital in the state-owned enterprises:

a) To submit the plan on establishing, restructuring and divesting the state-owned enterprises under the management of the State Bank to the Prime Minister for approval and guide the implementation of the approved plan;

b) To approve under its authority or submit to the Prime Minister for approval the charters of the enterprises operating in the banking field;

c) To submit to the Prime Minister for appointment, or to appoint under its authority the members of the Board of Directors, General Directors and Deputy General Directors of the State-owned Credit Institutions and other State-owned enterprises under its management;

21. To guide and monitor activities of associations and non-governmental organizations operating in the fields under the management of the State Bank; and to handle or to make recommendations to the relevant authorities to handle violations committed by associations and non-governmental organizations in compliance with law.

22. To inspect, investigate, and handle the complains and denunciations and violations related to banking and monetary field under its jurisdiction ; to fight against corruption, red tape, bureaucracy and negative doings; and to conduct thrift and anti-waste in line with law.

23. To make decision on and guide the implementation of the administrative reform program of the State Bank in line with the objectives and agenda of the Government's administrative reform program and the direction of the Prime Minister; to make decision on and guide the renovation of the working modality, office modernization and IT application in service of daily operations of the State Bank;

24. To manage ranks and grades of specialized staff and officials in the banking field:

a) To organize upgrading-civil service exams; and to promulgate professional criteria for staff in accordance with law;

b) To develop professional criteria of civil servants in the banking sector for the Ministry of Home Affairs to issue;

25. To manage the organizational apparatus and staff; to employ, train, promote, relieve, move and rotate and to apply the regime of pension, reward, penalties, salaries and other regimes for the staff under the management of the State Bank.

26. To submit to the Prime Minister for issuance of the regulations on wage policies, recruitment and employment of civil servants in accordance with the special characteristics of the State Bank;

27. To perform other tasks as well as powers assigned by the Government and/or the Prime Minister in line with the law.

During the 50 years of development, the banking system has contributed to the achievements of the revolution and national security and development. To acknowledge the remarkable contributions of the banking sector to the two resistance wars, the Communist Party and the Government have awarded many noble titles to collectives and individuals serving in the banking system. On the occasion of the 45th banking anniversary in 1996, a Ho Chi Minh Order was bestowed on the banking sector. 94 individuals were awarded the Ho Chi Minh Order or Independence Orders of the 1st, 2nd and 3rd classes. In the 4th festival of patriotic emulation of the banking sector in September 2000, banking collectives and individuals were given "Hero of Labor" titles, orders and certificates of merit for their achievements in the process of Doi Moi (reform). Notably, on the occasion of the 55th banking anniversary on May 6, 2006, the Gold Star Order, the highest award of the nation, was bestowed on the banking sector. The Ho Chi Minh Order was awarded for the second time to the banking sector on the occasion of the 60th banking anniversary on April 27, 2011.

Up to now, the banking system has become a decisive and active factor in the process of completely renovating the national economy towards modernization and industrialization as well as operating under the socialist-orientated market macro-management. Vietnam's currency civilization has gradually been recognized through value stability, diversity in non – cash payment

method and constant improvement of management technology as well as modern business technology for best serving the public. As an important factor of socio – economic development strategy of the country in the new period of challenges and trends of international integration and globalization, the State Bank of Vietnam will surely impress the Communist Party, domestic customers and international business colleagues with its strong growth and rapidly modernized directed changes in accordance with international standard as well as continuous improvement of remarkable banking traditions.

Central Bank of Kuwait-Changing Role

Objectives and Functions of Central Banks: Central Banks were primarily involved in the function of currency issuance, and although the Bank of Sweden, established in 1656, was the first to have this right from its state, the beginning of central banking is attributed to the Bank of England which was established in 1694. The central banking practice was established by the Bank of England, then followed by other central banks, including the Bank of Sweden which was founded before it. Let us consider the reason that made the State confine the right of currency issuance to banks owned by the State or at least under its control. Money changers and later the banks were accepting deposits of coins, prevailing at that time, and giving their owners receipts for their value. Gradually, these receipts became acceptable as instruments of settlement among individuals, while the gold or silver deposits were held with banks or money changers for security purposes. Having these deposits kept with them and feeling certain that the receipts they produced were acceptable in settlement, some of the money changers were encouraged to issue receipts as loans to customers, the value of which exceeded their holdings of coin deposits. Loans of this type were given increasingly to individuals, whose purchasing power thus increased, causing prices to inflate.

Depression used to happen after price inflation, when depositors needed their money that could not be repaid by banks and money changers where that money was deposited. This situation used to bring about sharp effects of depression, resulting from the failure of these institutions, a fact which led the government to confine the right of issuance to one bank operating under its control. From the above, it is evident that central banks were primarily established with a supervisory role, through exclusive right of issuing currency within appropriate limits determined in a national perspective.

When other functions started to evolve, gradually stemming from the function of currency issuance, coupled with the necessity of having to hold open accounts with all banks to supply them with money whenever necessary, or vice versa, the currency issuing bank was qualified to act as bankers' bank. These banks began to settle their interbank balances through accounts maintained with the currency issuing bank, and began to deposit their surplus funds with it, a fact that made the bank of currency issuance become the bankers' bank, and lender of the last resort.

Beside the function of currency issuance, these banks played the role of government banks, keeping the government accounts and bearing the costs incurred against the profits obtained from currency issuance operations or from the investment of funds deposited by the governments. In view of the results of historical experiments stressing the need for supervising banking systems, currency issuing banks (later called central banks) were the best to carry out this function.

Central Bank Ownership and Management: Almost all central banks are state-owned, although they began as private banks in most countries. Even when these banks were private, the governments were keen on being represented on the boards of these banks, so that the public interest would not be neglected in their decisions. It should be noted, however, that the management of these banks was not at all subordinated to governments, due to the risk of over financing government needs by these banks, if they were completely subject to their governments' desires. This would consequently lead to currency devaluation resulting from over-expansion of currency to finance deficits in government budgets.

To avert this, all international banking legislations contain regulations keeping central banks beyond the scope of their governments' control, securing for these banks independence in management and decision making. These regulations may be either in the form of clauses, curbing the right of governments to borrow or stipulating the formation of boards of directors in a manner that would enable them to take their decisions freely.

The independence of central bank decision-making is not an absolute concept, as the independence of the central bank traditionally falls within the scope of the government. To explain this it may be said that the general government objectives, regarding both development rates and the size of employment expansion, are binding on central banks. But when a government starts implementing these policies, the central bank may realize that the government estimates are not based on realistic foundations, nor are the estimated resources available to that government, which makes that government borrow from the central bank to meet the deficit in its resources. On the other hand, if the central bank finds that these loans will disturb the monetary stability and will consequently prevent the original objectives from being achieved, the central bank must reject government demands and resort to the method regulated by its governing law regarding the settlement of disputes arising between it and the government.

Role of Central Banks: Central banks are responsible for the management and implementation of monetary and credit policy in the country. The monetary policy is the policy that aims at the achievement of monetary stability in its comprehensive sense. This stability can be reached by curbing the rise in domestic prices and keeping local currency exchange rates against other major currencies within an appropriate margin. In this regard we would like to note that the central banks' responsibility for monetary policy does not mean that they are the only authority that can realize monetary stability as shown above. Policies adopted by other authorities that are responsible either for government expenditure or goods and services have significant effects on that stability. This necessitates coordination among monetary policies, the state general budget and the performance of the goods and services sectors.

The central banks' role in achieving that goal is virtually confined to maintaining the growth rate in domestic liquidity (i.e. M2 which is composed of currency in circulation and various kinds of deposits) to cope with the change in domestic expenditure (government and private). Since it is technically difficult to have direct influence on the major component of domestic liquidity, i.e. de-posits, central banks resort to using instruments that secure influence on credit, which represents a key element in creating deposits. Once the credit is under control, quantitatively and qualitatively, liquidity growth will be accordingly under control, having the appropriate size and kind.

Instruments of Central Banks: In light of the above, central banks use in one way or another the following instruments:

1- Legal Reserve Ratio: Commercial banks have to deposit with central banks a specified ratio of their deposits. If the aim of central banks is to alleviate the commercial banks' capacity in the expansion of credit, the central banks raise this ratio and vice versa. The liquidity ratio (determining a certain size of liquid assets against liabilities and deposits) may be used to achieve nearly the same goal, as changing the size of liquidity to be kept in the form of liquid assets against a certain size of deposits will affect the size of funds available to any bank for lending.

The main defects of these ratios lie in their validity for curbing expansion in a booming economy, whereas they are invalid to activate a slackened national economy, as reducing ratios and allowing banks to expand their loans will not help to activate the economy. The problem lies

in the customers themselves who reduce their activity due to low profitability of projects, and consequently their desire to have productive loans will decline.

2- Open Market Operations: Central banks absorb surplus liquidity, which commercial banks generally enjoy in boom periods, by means of selling securities to these banks and vice versa. To use this instrument efficiently depends on the availability of sufficient securities.

3- The CBK Lending and Discount Rates: This means the change in interest rates, upward or downward, on loans extended by the central bank to commercial banks according to its aim. If the central bank aims to increase the ability of these banks to grant credit, it reduces the interest rate and vice versa. However, this instrument lacks efficiency when commercial banks have sufficient funds and thus have no need to resort to the central bank, where they may be influenced by the discount rate.

4- Qualitative & Direct Measures: Central banks may intervene through qualitative measures to direct credit from one kind to another by imposing credit margins (ratio of lending on submitted collateral) or prohibiting the financing of a certain activity. Further, central banks may intervene directly and set ceilings for loans that can be extended by banks, for certain kinds of loans or for credit in general. Due to the negative effects, many central banks are reluctant to adopt or use these measures, unless when it is necessary (when market powers direct banking credit to un-favorable objectives which necessitates direct intervention by the central bank to adjust the course). The major negative effects of these measures lie in reducing the profitability of banks and consequently their endeavor to circumvent these measures, besides the difficulty on the part of central banks to follow up on banks' observance of these measures.

5- Moral Suasion: Moral suasion is generally the most important method used by central banks and may be the most important instrument in all countries. This method is the only one that has no side effects and its application only needs mutual understanding between banks and the central bank. In view of the above, as each method or instrument has side effects and certain conditions for its use, the efficiency of using monetary instruments arises from using more than one method simultaneously - in addition to moral suasion - to achieve the goal, with the purpose of not only directing the banks' decisions, but also changing the expectations of individuals.

Functions of Central Banks: The functions of central banks can be summarized as follows:

- 1- Regulating the volume of currency to meet the needs of business and individuals in general. Therefore, they are exclusively authorized to issue currency.
- 2- Carrying out government banking operations on behalf of the government.
- 3- Maintaining the commercial banks' fund needs.
- 4- Managing the State's reserves of foreign currencies.
- 5- Granting credit facilities to banks in any form whatsoever, whether through lending, discounting their commercial papers or re-lending, i.e. the central bank acts as the bankers' bank or lender of last resort.
- 6- Settling payments among banks through clearing.
- 7- Supervising credit to be qualitatively and quantitatively in line with economic needs. It implements the monetary policy adopted by the Government.

It is noteworthy to mention that none of the above functions has any priority or importance over the others. Central banks, however, cannot perform efficiently any of the above functions without performing the other functions properly.

Establishment of the Central Bank of Kuwait:

The period between the two world wars (World War I & II) witnessed a kind of monetary disorder, which locally affected certain countries. Perhaps the ineffectiveness of central banks and the limited regional outlook that governed the concept of foreign trade led to those severe effects which resulted from the Great Depression (1929-1933). Whatever the causes and factors that affected this period were, countries had mutually agreed by the end of the Second World War to establish the International Monetary Fund (IMF) and to lay down a basis for evaluating countries' currencies. They also agreed that each country should regulate its monetary affairs to maintain domestic stability (local prices), which had remarkable effects on foreign stability (exchange rate) and thereby on other countries. Therefore, the post-World War II decade witnessed the establishment of many central banks. Kuwait was not yet independent; it was dealing in the Indian rupee due to the non-existence of local Kuwaiti currency, and thus there was no need for the existence of a central bank.

In 1960 the Kuwaiti Currency Board was established by Amiri Decree No. 41 of 1960 and the Kuwaiti Dinar was put for circulation on April 1, 1961. During the post-independence period 1960-1968 four commercial banks were established, expanding banking activity which entailed the establishment of the Central Bank of Kuwait on June 30, 1968 under Law No. 32 of the year 1968 concerning currency, the Central Bank of Kuwait and the organization of banking business, to supervise banks and perform other functions of central banks.

Objectives of the Central Bank of Kuwait: Article (15) of Law No. 32 of the year 1968 stated above provided that the objectives of the Central Bank shall be to:

- 1- exercise the privilege of the currency issuance on behalf of the state;
- 2- secure the stability of the Kuwaiti currency and its free convertibility into foreign currencies;
- 3- direct credit policy in a manner that assists social and economic progress and the growth of national income;
- 4- control the banking system in the State of Kuwait;
- 5- serve as banker to the Government;
- 6- render financial advice to the Government.

The above objectives are in harmony with one another on the one hand, and in line with the international concept of central bank objectives on the other. Undoubtedly, the relative novelty in the establishment of the Central Bank of Kuwait enabled it to benefit from other countries' experiences in this respect, resulting in the above stated harmony, which means that the realization of one objective is correlated with the realization of other objectives. The currency issuance will not be efficient unless made in the light of monitoring the general monetary positions of banks and being aware of the expected government expenditure. This awareness of monetary conditions and thereby putting them in the appropriate framework will be reached by the control of the banking systems, whereas the identification or even proposing the adequate volume of the expected government expenditure will be made by the Central Bank's role as banker to the Government and by rendering the adequate financial advice to it. In this respect, light should be cast on both the functions of securing the stability of Kuwaiti currency and the control of banks, due to their importance which is almost equal to the importance of other functions.

The Central Bank Role in the Stability of the Kuwaiti Currency and its Free Convertibility: The State of Kuwait has adopted a free economy, which was stressed in the provisions of Law No. 32 of 1968 referred to above on securing the stability of currency and its free convertibility to other currencies. The laws of other central banks may seldom provide, among the objectives of the central bank, that the currency should be freely convertible to other

currencies. Legislators are generally apprehensive of the emergence of new circumstances that dictate posing restrictions on the convertibility of currency; however, the Kuwaiti legislator specified explicitly the monetary philosophy based on lucid economic principles.

This function was fairly easy for the Central Bank till the mid-1972, as exchange rates of currencies had been determined since the establishment of the International Monetary Fund (IMF) according to par values against the U.S. dollar, allowing them to fluctuate within a narrow band of 2.25% more or less. The KD exchange rate was tied to the pound sterling. This undertaking was no longer easy after the adoption of the discipline of floating exchange rates (to find a level in the international exchange market in response to the law of supply and demand without any restrictive effect of artificial support or control), particularly after the second drop of the dollar. It became evident to the Central Bank of Kuwait that an appropriate method should be followed to secure the stability of the Kuwaiti currency after the instability of its reference currencies.

During the next period, up to the beginning of 1975, the Central Bank of Kuwait passed through a transitional stage from being dependent in its exchange rate on a certain currency (the pound sterling) to a discipline of an exchange rate determined by the trade relations of Kuwait with the outside world. During this period the prime concern of the Central Bank was to eliminate the effects of the previous linkage of the KD with pound sterling. For this purpose, the Bank began to announce the KD exchange rate against the dollar and the pound sterling on a day-to-day basis. Next it maintained the KD gold value so that the KD exchange rate would not be markedly affected by the reduction in the dollar exchange rate.

The last stage began in March 1975, during which the CBK could achieve its goal represented in having a free exchange rate between the KD and the dollar. The KD exchange rate was determined by the exchange rate of a basket of currencies, the countries of which had trade relations with Kuwait.

The CBK Scope of Supervision: First, let us highlight the general concept of supervision, whether over banks or other institutions. Supervision means to adopt certain measures before, during or after operations being performed so as to minimize errors or deviation from set goals. According to this concept, it is impossible to exercise supervision that totally eliminates errors or prevents deviation from the set goals. Work always entails fault or deviation and thereby supervision becomes necessary to curtail both as much as possible. Supervision over banks, like supervision over other businesses, is a means used to achieve the following two fundamental goals:

- To ensure a certain size of finance that activates the economic sectors.
- To ensure the quality, soundness and recovery of finances.

The growing importance of supervision in banking since the Great Depression in 1929-1933 made some authors define central banks as those performing the function of a credit organization and supervision over it. It should be noted that the financial institutions subject to Central Bank supervision are not similar in nature and objectives, by which the nature of their resources and their utilization of the same are determined. Therefore, each kind of bank or financial institution should have its appropriate method of supervision. This leads us to point out the major characteristics of each type of institution.

Major Characteristics of Institutions Subject to the Supervision of the Central Bank:

A- Commercial Banks: The most important characteristics of the commercial banks are:

- 1- Their main resource of funds is represented by various deposits; current deposits which are drawn by cheques, time deposits or savings accounts.
- 2- As the major part of these banks' resources is either sight deposits drawn at any time by their depositors or time deposits for a fixed maturity, less than one year in general, these funds should be invested for appropriate maturities, which are short in general.
- 3- In addition, extending credit by itself leads to an increase in total deposits with the banking system (whether in the same bank or in other banks), which is called "deposit creation". This means that loans obtained by customers is to be used for settlement return again to banks, after one turnover or more in the market, in the form of deposits, either for the same persons or for those dealing with them. And unless credit expansion is associated with an increase in the supply of goods and services, prices will increase owing to a growth in money not associated with similar growth in goods and services.

Therefore, the adequate performance of commercial banks will take place within a framework realizing a pro rata ratio between liquidity and profitability. Investment of funds will not take place on account of liquidity, and if liquidity and profitability are in conflict, liquidity will have priority. Further, good investments and their refundability in due course should be taken into account, whether by the settlement of extended loans and facilities or by the easy sale of financial and real estate investments.

At any rate, these institutions should not freeze their funds in long term real estate investments, but their possession of real estate should be confined to the appropriate levels of necessary fixed assets such as the bank buildings, places of accommodation and recreation for its employees. Furthermore, banks should not expand the possession of securities that might jeopardize the security necessary for depositors.

Within the previous context, banking legislation lays down rules for commercial banks aiming at the maintenance of bank liquidity and credit-worthiness. These rules also specify the activities that banks are prohibited or not entitled to perform, without the Central Bank's prior approval to keep these banks away from taking the risks that are beyond the nature of their business, as specified in articles 66, 67, 69 and 70 of Law No. 32 of 1968 referred to above.

It may be beneficial, while discussing the above articles, not to be satisfied only with being aware of the immediate meaning of these articles, but also to deduce the concepts within the framework of which these articles were formulated, among which are the following:

- 1- The Central Bank does not reject buying the shares of commercial companies, which may be necessary for the national economy. However, banks should take into account that their possession of these shares is within half their fixed financial resources owned by their shareholders. If they have to exceed that limit for national considerations, they must refer to the Central Bank.
- 2- It is common in banking business that shares and other collateral assets are transferred to the bank in settlement of debts on clients, but unless banks dispose of these assets by sale, they may gradually shift to practice other activities they are not eligible to, especially as they are dealing with funds of others.
- 3- when the members of bank boards of directors borrow money from their banks, it might involve use of their influence and authority. To avoid such a possibility, they are required to obtain the approval of the bank's owners (general assembly) before these facilities are rendered to them.

B – Specialized Banks: These banks are characterized by the following:

- 1- They have been established to finance certain economic sectors, whether this finance is short, medium or long term.
- 2- In contrast to commercial banks, resources of specialized banks are determined by the quality of the extended finance. While in commercial banks the kind of finance and its maturities are determined by type and maturity of deposits, specialized banks manage to secure their resources in accordance with the quality of the finance provided by them.
- 3- The basic resources of these banks are represented either in government's contributions and long-term loans, in low interest long-term loans obtained from international financing organizations or in medium and long-term loans obtained from the financial market. Due to the nature of their operations, these banks cannot depend on deposits as a major financing source because they have to maintain a pro rata ratio between sources of funds and their uses.
- 4- Basically these banks were established to take on active part in economic development, represented in participating in the construction of projects and the support of the infrastructure in the country.
- 5- Nothing prevents these banks from extending short-term finance, if necessary, provided that they do not neglect their main job.

Going on demonstrating the most important features of the financial system structure, we demonstrate the major characteristics of investment companies.

C- Investment Companies: During the 1970's, commercial and financial activity grew in Kuwait and thus companies in these sectors expanded. The main aim of these companies is to activate the financial market through trading in financial assets for their own benefit or for others by means of holding their own investment portfolios and other investment portfolios which they manage on behalf of other investors who have confidence in these companies and their ability to manage these investments.

The major characteristics of investment companies are as follows:

- 1- Their main resources consist of equity funds (funds of their owners) and loans from others, whether in the form of bonds issued by these companies or loans with fixed maturities. They are not allowed to accept deposits; otherwise their activities are changed into banking, a fact which obligates them to move in the direction that gives them this capacity, either with regard to registration or supervision regulations specified by the law.
- 2- The main investments of these companies are in various kinds of securities. They may have deposits with banks. But whenever these companies go beyond the scope of their main objectives shown above, expanding their possession of different goods for sale or freezing their funds in real assets and becoming vulnerable to the circumstances prevailing in the real estate market, they deviate from their main objective as financial investment companies.

It is significant to note in this regard, that due to the absence of rules regulating the scope of work of these companies, when established, many of these companies include in their articles of associations activities (trading and real estate business) other than their main activities (financial).

- 3- If these companies exercise both financial and non-financial activities, it will be impossible for them to follow up their financial activities unless they separate these activities and allocate certain units to carry them out.

4- Fund management carried out by the company on behalf of others should be separated from the company's own activity lest the outcome of operations be mixed up, giving rise to negative effects by letting somebody bear consequences of an activity for which he is not responsible.

Despite the absence of rules regulating the business of these companies at pre-sent, the CBK is monitoring their activities to ensure that they have sound financial positions and that they abide by their articles of association. In addition, the CBK supports the credit-worthiness of these companies.

Last but not the least, we come to money-changing companies to demonstrate the most important features and characteristics of their activities.

D- Exchange Companies or Money-Changers: The free Kuwaiti economy which entails free convertibility of currency in Ku-wait's market, coupled with the growing economic activity in the country, led into increasing the role of exchange institutions and thereby other economic units. Money-changing means the replacement of foreign currency with local currency and vice versa, against a fixed ratio of profit. Undoubtedly, the existence of several nationalities in Kuwait gives exchange institutions an important and vital role. It was noticed, however, that the expanding activity of certain money-changers encouraged them to practice banking business such as accepting deposits, ex-tending loans and representing foreign banking institutions. Therefore, in March 1984 a ministerial resolution was passed regulating the profession of money-changing by specified rules limiting this business to the activity of changing currencies, travel cheques, drafts, trading in precious metals, collecting cheques and foreign drafts, prohibiting money-changers from practicing banking business, either locally or by representing a foreign bank. Exchange companies were granted a grace period to observe the above mentioned decision and to adjust their positions and abstain from any actions violating the provisions of this decision.

The CBK Supervisory Role: After demonstrating the similarities and differences between units operating in the financial or banking field, it is time to highlight the instruments of supervision. Article 72 of Law No. 32 of 1968 referred to before, authorizes the CBK board of directors to set rules and regulations that should be observed by all banks to ensure their liquidity and credit-worthiness at ratios and relations between resources of banks and their investments. Further, these regulations specify the method by which banks should invest their funds and determine their applicable interest rates. At present, all financial institutions mentioned above are subject to CBK supervision. The most important instruments used currently by the Central Bank of Kuwait are the following:

Liquidity Ratio: This ratio is to determine certain components of assets to be in liquid form, corresponding with the maturities of liabilities and deposits. Perhaps this ratio was first thought of as an endeavor to ensure bank liquidity and to maintain the ability of banks to meet any contingent obligation. This concept has been expanded at present in many countries and is being used to curb risky bank expansion. This means that central banks may oblige banks to keep a certain amount of liquid assets over what is required to cover their needs. By this, central banks aim to prevent banks from credit expansion. This ratio has been used in Kuwait since the mid-1970's. Banks provide the Central Bank of Kuwait with fortnightly data indicating their liquidity.

The Central Bank Lending & Discount Rate and Debit & Credit Interest Rate: The rates of discounting and rediscounting of commercial papers range between 6% on 3-month papers and 6 ³/₄% on one-year papers, in accordance with a system specifying the papers that might be rediscounted at the CBK. Further, the maximum interest rate on loans to customers is determined at 10%, with maximum sub-rates on loans extended for guaranteed productive purposes at 7% and at 8.5% on non-guaranteed productive loans. A minimum interest rate of

4.5% is determined on savings deposits. Rates stated above are not valid for interest rates on interbank transactions within the money market, as sometimes short-term money surpluses are available at certain banks, while other banks have liquidity shortages. Interest rates in this market are determined by the volume of overall supply of surplus banks and the overall demand for funds by the deficit banks. The CBK very carefully monitors rates in that market and intervenes with a supply of or a demand for funds at appropriate rates when rates begin to fluctuate widely opposing the CBK aim of monetary stability. And since this intervention directly influences the volume of liquidity at banks and the cost of their resources, it is regarded as a form of open market operations and almost realizes the same goal achieved by the traditional method, with a slight difference only in the form of procedure corresponding to the movement of deposits between the Central Bank and banks.

Rules of Credit Rationalization: The rules of credit rationalization were set in the light of banks' tendency to grant the major portion of their loans without collateral. Therefore, a lending ceiling was decided for banks' unsecured loans at a certain ratio of total loans granted to customers. The banks' expansion in granting unsecured loans together with the banks' failure to follow up the use of these loans in accordance with the objectives they were originally granted for, led to non-performing loans. Therefore, the CBK had to enact the credit rationalization rules to maintain the effectiveness of bank credit, safeguarding it as much as possible from any side effects.

Setting a Ceiling for Loans that One Customer Might Obtain from One Bank: This procedure was similar to procedures adopted by many countries in the world to keep banks from taking the risk of lending money to a customer more than a certain limit determined by the bank's own funds or its capital. The system adopted in Kuwait aims at safeguarding any bank against the risk of over-drafts or unsecured loans granted to one customer.

Method of Supervision: As mentioned above, supervision originates from objectives, within which the frameworks of policies are formulated. Then the method of work should be drawn in a manner that guarantees these banks to abide by the adopted policies. Methods of supervision may take the form of office or field supervision, as follows:

- **Office Supervision:** It means to provide the Central bank regularly with periodic data indicating:

- How far the concerned bank is adhering to the Central Bank's instructions (to follow up on decisions such as liquidity data).
- How far the components of data items are consistent with the required ones (to follow up on the relative distribution of these items and the relative importance of each one of them).
- Soundness of the investment policies (to follow up on the change in resources and uses).
- The discovery of certain violations by checking the relevant data.

- **Field Supervision:** It means moving to banks' premises to verify figures and data sent by these banks, their regular books and their observance of central bank instructions. Article No. 78 of the Law No.32 of 1968 referred to above provided that the Central Bank may at any time inspect banks and financial institutions subject to Central Bank supervision.

Towards More Effectiveness by the Central Bank: To increase the Central Bank's effectiveness the following should be done:

1- Gradual improvement in all banking fields, either regarding the efficiency of financial positions of units subject to its supervision or the policies it adopts.

- 2- Building up provisions necessary for the settlement of bad debts and adjusting the financial structures of financial institutions.
- 3- Reviewing bank lending policies to reach sound bases that would protect banking business in the future.
- 4- Co-ordination with the government so that the State's policies are complimentary to one another, either in the monetary, fiscal or real field.

Fortunately, the Kuwaiti economy possesses the elements of strength that should enable it to overcome problems. These elements are represented in an integral infrastructure in addition to a continuous rise in the ratio of non-oil GDP. Added to this, seriousness in tackling problems, coupled with optimal utilization of the available reserves, would make facing any problem with the least side effects quite possible.

Central Bank of Bangladesh: Changing Role

After the liberation war, and the eventual independence of Bangladesh, the Government of Bangladesh reorganized the Dhaka branch of the State Bank of Pakistan as the central bank of the country, and named it Bangladesh Bank. This reorganization was done pursuant to Bangladesh Bank Order, 1972, and the Bangladesh Bank came into existence with retrospective effect from 16 December 1971.

After the Liberation War of 1971, the Dhaka branch of “State Bank of Pakistan” was immediately renamed ‘Bangladesh Bank’ and marked as the Central Bank of Bangladesh. There were 17 other large banks, 14 smaller commercial banks and 3 foreign banks in the country. At the same time, all banks were nationalized and renamed. Foreign banks were given permission to continue their operation. The insurance companies were also turned into state-owned companies. The government understood their potential to the economy of the country. As the government focused more on agriculture in the late 70’s and the 80’s, the banks changed their lending strategies keeping the agricultural sector in mind. Bangladesh Krishi Bank, a bank specializing in the sector of agriculture, made sure that the loan opportunities for farmers and fishermen were increased.

The 1971 regime ran a pro-socialist agenda – in 1972, the government decided to nationalize all banks in order to channel funds to the public sector and to prioritize credit to those sectors that sought to reconstruct the war-torn country – mainly industries and agricultural sectors. This was compounded by the fact that loans were handed out to the public sector without commercial considerations, that banks had poor capital lease, provided poor customer services and didn’t have any market-based monetary instruments. But mostly, because loans were given out without commercial sense, and because they took a long time to call a loan non-performing, and once they did so, recovery under the erstwhile judicial system was so abjectly expensive that their loan recovery was abysmally poor. While the government made a point of intervening everywhere, it didn’t set up a proper regulatory system that would diagnose such problems and correct them. Hence, banking concepts like profitability and liquidity was alien to bank managers, and capital adequacy took backseat.

In 1982, the first reform program was initiated, where the government denationalized two of the six nationalized commercial banks and permitted local private banks to create competition in the banking sectors. In 1986, a *National Commission on Money, Banking and Credit* was appointed to recover the problems of the banking sector and a number of steps were taken for the recovery targets for the nationalized commercial banks and development financial institutions and prohibiting defaulters from getting new loans, yet, the efficiency of the banking sectors could not be improved.

The Financial Sector Adjustment Credit (FSAC) and Financial Sector Reform Programme (FSRP) were formed in 1990, upon contracts with the World Bank with the objective to remove government distortions and lessen the financial repression. The policies made use of the McKinnon-Shaw hypothesis which stated that removing distortions will augment efficiency in the credit market and increase competition. The policies therefore involved banks to provide loans on commercial basis, enhance banks’ efficiency and to limit government control to the monetary policy only. FSRP forced banks to have a minimum capital adequacy, to systematically classify loans and to implement modern accounting systems and computerized systems. It forced the central bank to free up interest rates, revise financial laws, and to increase supervision in the credit market. The government also developed the capital market, which too was performing poorly.

However, FSRP was expired in 1996 and afterward the Government of Bangladesh formed a Bank Reform Committee (BRC) whose recommendations largely remained unaddressed by the then government.

Functions: Bank performs as Balait wishes all the functions that a central bank of any country is expected to perform, and such functions include maintaining the price stability through economic and monetary policy measures, managing the country's foreign exchange and the gold reserve and regulating the banking sector of the country. Like all other central banks across the globe, Bangladesh Bank is both the Government's banker and the banker's bank, a "Lender of the Last Resort". Bangladesh Bank, like most of the central banks of different countries, exercises monopoly over the issue of currency and the banknotes. Except for the 1 and 2 taka notes, it issues all other denominations of Bangladeshi Taka. Credit control, Clearing House, Control Money Market, Job creation, Agricultural development, Industrial development, and Natural resources development are also the functions of Bangladesh Bank.

Reform Chronology: Bangladesh, after independence in 1971, inherited an undiversified and undeveloped financial system dominated by commercial banks. The then government nationalized all financial institutions except for a few foreign banks. Bangladesh Bank was established in 1972 and the financial sector was under a regime of rigid government control. Government dictated the interest rates, direction of credit to Public Sector Enterprises and priority sectors with little regard to loan quality. Bank branches were expanded with an objective to increase access of the rural people to the formal banking sector. The government till 1982 owned all the financial institutions. Bank branches were opened ignoring the viability aspects and socio-economic considerations were given more priority in credit analysis and decision. Lending rates were low and did not cover the risk and actual cost factors. Unsophisticated and immature accounting and poor banking standard coupled with poor loan recovery started to afflict the banking sector. The operational efficiency declined and the customer service also deteriorated during this period (Chowdhuy & Raihan, 2000).

The reform process was first initiated in 1982 when two of the six nationalized commercial banks were denationalized and a number of licenses were awarded for private sector commercial banks. The objective on part of the government was to show its desire to encourage the private sector and create competition in the banking sector. The customer service of the banking sector has shown signs of improvement but the credit management was observed to have deteriorated. It transpires from various studies that denationalization and the privatization process failed to create desired impact due to lack of central bank's capacity of strict supervision and rigid economic regulation for the sector (Bhattacharya and Chowdhury, 2003).

The reform measures failed to create an impact, as the operational efficiency did not improve. Vested interest groups emerged influencing the credit decision of the banks, both national and private sector banks. Accounting standard and practices of the commercial banks were not standardized and the reporting requirements were not up-to-date. As a result, profitability of the banks came down (Chowdhuy & Raihan, 2000).

The second phase began hand-in-hand with the IMF/WB Structural Adjustment Program (SAP) as the government appointed the National Commission for Money, Banking and Credit. In 1986, the commission submitted a long list of recommendations to address problems in the banking sector. Among other findings and recommendations, Bangladesh Bank's supervisory handicap, overall structure of the banking sector and Non-Performing Assets (NPA) were given due importance. Subsequently, recovery targets were set for the banks to improve the NPA situation along with barring defaulters getting fresh loans (Chowdhuy & Raihan, 2000).

At the beginning of the 1990s a wide range of reforms in the banking sector were initiated under Financial Sector Adjustment Credit (FSAC), the World Bank consultative mission. The Finance Sector Reform Project (FSRP) was also initiated in 1990 to assist in the implementation of the reform measures, which ended in 1996. In this attempt measures were taken to liberalize interest rate, enhance the capacity of loan classification and provisioning, capital restructuring and risk analysis, strengthening central bank and improving the legal system and framework for loan recovery. It an attempt to increase efficiency of the financial market, the FSAC of the WB came up with the following: gradual deregulation of interest rate, improvement in the debt recovery climate, strengthening the Capital market, adoption of appropriate monetary policy, making subsidies more transparent. The FSRP ended in 1996 but the reform measures continued to be pursued (Chowdhuy & Raihan, 2000).

The six-member Banks Reform Committee followed FSRP in 1996, which presented its report to the government in 1999. The committee gave highest priority in improving the regulatory and supervisory capacities of the central bank, along with strengthening legal framework and effective restructuring of central bank. Issues related to Bangladesh Bank Board, NCB boards and political influence on these were also addressed (Bhattacharya and Chowdhury, 2003).

In March 2003, the parliament passed three bills in its attempt to bring massive reforms in the banking as well as the financial sector. The key one was the Bangladesh Bank Amendment bill 2003, which gave the central bank autonomy in terms of its own operations and monetary policy formulation. This issue will be discussed in detail in the following section on autonomy.

Introduction of the Central Bank Strengthening Project (CBSP) in 2003 jointly funded by the World Bank and GoB is another important phase in the reform process. The objective is to achieve a strong and effective regulatory and supervisory system for Bangladesh's banking sector. The project intends to assist BB in three broad areas:

- (i) Strengthening the legal framework,
- (ii) Reorganizing and modernization of BB by focusing on
 - (a) Functional reorganization
 - (b) Automation
 - (c) Human Resource Development
- (iii) Capacity building of BB by focusing on
 - (a) Strengthening the research department
 - (b) Strengthening prudential regulations and bank supervision
 - (c) Strengthening Accounting and Auditing

Autonomy: Central bank autonomy refers to the extent to which the bank can carry out its operations independent of executive and legislative control. Generally, the degree of autonomy largely depends on the political will of the government. The Bangladesh Bank, since its inception, was not free of government influence. It was under the Ministry of Finance till 2003. Bangladesh Bank Order of 1972 cited (a) price stability, (b) exchange rate and (c) economic growth and employment among major goals. According to this charter the broad objectives of the Bank were to:

- (a) regulate the issue of the currency and keeping the reserves
- (b) manage the monetary and credit system with the view of stabilizing domestic monetary value
- (c) preserve the per value of taka
- (d) promote and maintain a high level of production, employment and real income
- (e) foster growth and development of the country's productive resources

The central bank has a dual role in the economy. On one hand, it has regulatory and supervisory authority on the country's financial sector and also has a role to play in economic development. Throughout the 70s and early phase of 80s all the financial institutions were nationalized. The central bank lacked proper check and balance facilities to maintain financial sector discipline.

The central bank is awarded with autonomy through legislative measures and it is a significant reform of this decade. In March 2003, the parliament passed three bills in its attempt to bring massive reforms in the banking as well as the financial sector. The key one was the Bangladesh Bank Amendment bill 2003, which gave autonomy in terms of bank's own operations and monetary policy formulation and implementation. It is conceived that this will ensure greater independence to the central bank in maintaining financial sector discipline. The 2003 order mandates the central bank to:

- (a) formulate and implement monetary policy
- (b) formulate and implement intervention policy in the foreign exchange market and also maintain the official foreign exchange reserve
- (c) advise the government on the interaction of the monetary with fiscal and exchange rate policy, on the impact of various policy measures on the economy and to propose legislative measures Bangladesh Bank considers necessary or appropriate to attain its objectives and perform its functions
- (d) promote, regulate and ensure a secure and efficient payment system, including issue of bank notes
- (e) regulate and supervise the banking companies and financial institutions

In line with the international practice for strengthening corporate governance, an Audit Committee comprising four members of the non-executive directors was formed in 2002. The Audit Committee will assist the Board of Directors in fulfilling its oversight responsibilities for the financial reporting process, the system of internal control over financial reporting and audit process (Bangladesh Bank Annual Report 2004-05).

The Board of Directors: The Board of Directors for the central bank has nine members along with a secretary. The bank governor is the chairman of the Board with four members from civil society, three members from the Executive branch of the government along with one deputy governor. Participation from the Executive branch of the government in the Board is very high for the Bangladesh Bank in comparison to the central banks of India, Sri Lanka and Pakistan. In the above three countries only the Secretary for the Ministry of Finance is appointed as a Board member. The governor, deputy governors and the Board members all have a fixed tenure in the above countries.

Appointment and Tenure: The government selects and appoints the governor, deputy governors and the members of the Board of Directors as per the central bank charter. The practice is very much centralized and ad hoc. The governor is selected and appointed by the government for tenure of 4 years and is eligible for re-appointment provided that the governor

shall not hold office beyond the age of 65 years. The governor is the Chief Executive Officer and, on behalf of the Board, directs and controls the affairs of the central bank. The government can also appoint one or more deputy governors but their tenure is not specified in the charter. Government also nominates one of the deputy governors as a member of the Board. The tenure of the Board members who come from the Executive branch is under the discretion of the government. It is worth mentioning that Bangladesh Bank Order, 1972 had a fixed tenure for the deputy governor but the 2003 amendment order does not specify any tenure for the position. The members of the Board, who do not come from the Executive branch, are appointed by the government for tenure of three years and are eligible for re-appointment. The whole process is indicative of the role that the government has in selecting the Board as well as the governor and deputy governors and shows that the government has enough discretion to control and influence the Board.

The past trends show that the central bank governor is changed with a regime change especially since 1991. While appointing a governor, government maintains secrecy and there is no formal selection procedure. Respondents during the interviews informed that there is no formal selection committee, which would officially select a number of competent candidates and then make a formal suggestion. The incumbent government makes the decision, which usually comes from the top end. This again indicates towards a highly centralized, non-transparent and ad hoc selection process.

A more recent trend shows that the central bank governors are usually chosen on the basis of their academic qualification, preference is given to candidates with a PhD in Economics. Only one governor in the history of the central bank was a career central bank. Informants told us that there are instances where the governor and the deputy governors lobby to remain in the current office.

The government also appoints the deputy governors as per the central bank charter and the trend indicates towards a degree of inconsistency. There were deputy governors, who were appointed from the commercial banks and also from the executive branches of the government. Informants told us that appointment of bureaucrats as deputy governors took place as a result of politics amongst the bureaucrats and this also indicates towards the control of the government on the central bank. One of the existing deputy governor is appointed from the private sector commercial banking sector. He is the first one to join the central bank with banking background in a foreign commercial bank. This appointment is perceived as an attempt to inject new thinking & practices, transfer of knowhow from the commercial sector in the working environment of the central bank.

Accountability of the Bangladesh Bank: According to Bangladesh Bank Order 2003 the governor reports to the Parliamentary Standing Committee for the Ministry of Finance instead of directly reporting to the Ministry of Finance. A ruling party MP chairs the committee and most of the committee members are incumbent government MPs along with the finance minister. As per the parliamentary rules and procedures all the standing committees should sit at least once a month but the Parliament Watch report published by the Transparency International, Bangladesh shows that it is not a regular practice. As per the report of 2005, the standing committee for Ministry of Finance has sat only 7-9 times in 2005. This indicates that the parliamentary committee is not free of criticism in its own performance. It seems the parliamentary standing committee is not fully effective and lacks transparency and accountability.

Leadership is a key element in the effective functioning of the central bank. The autonomy largely depends on the governor and the deputy governors' capability to handle both outside and inside interferences. There are political, administrative and business pressure groups that lobby the incumbent government on various aspects of the financial sector, which often falls within the

jurisdiction of the central bank. For example, the Employee Union of the central bank has shown defiance of the management. The union has political connections both with the incumbent government and opposition. There is limited evidence of a strong stance taken by the top management in such situations and such failures can be attributed to political connections of the union. An independent source of income is another aspect of central bank autonomy. The central bank has its own source of income sufficient to meet operational expenses. However, it cannot re-structure the pay scale without prior approval from the Ministry of Finance.

Monetary Policy Formulation: The ability to formulate and implement monetary policy free of influence from the government is a key indicator of central bank autonomy. The Bangladesh Bank (amendment) Order of 2003 gives greater independence to the central bank in pursuing the monetary policy. A separate unit for this was established within the central bank in 2003 known as the Monetary Policy Department (MPD). Previously the department was known as the Monetary Management and Technical Unit.

The broad objectives for monetary policy are outlined in the Bangladesh Bank Order, 1972 which comprises the goal of achieving price stability, maintaining high levels of production and employment and economic growth. As per the central bank charter, the Policy Coordination Council, this is headed by the finance minister, coordinate monetary and fiscal policy. The governor of the central bank is a member of the council and the charter clearly sets out the role of the central bank in the council. The charter also defines the role of the Ministry of Finance and Commerce in the monetary policy formulation process. This policy coordination council in effect could limit the central banks' independence to formulate and implement monetary policy.

In the 70s and 80s, monetary policy was conducted with full direct control of the central bank on interest rates and exchange rates. The central bank used to dictate the deposit and lending rates with a pegged exchange rate regime that served as nominal anchor for prices. The central bank also controlled the volume and direction of credit as per government instruction. The situation began to change in the 90s through the Financial Sector Reform Programs (FSRP). Interest rate liberalizations, privatization of the banking as well as non-bank financial sectors, introduction of the Securities & Exchange Commissions were related to the efforts to financial sector deepening in Bangladesh. A market oriented interest rate policy was adopted in 1990s under the Financial Sector Reform Program. The central bank changed its stance from directly dictating the market rates, both for deposits and advances, to indirect means. The process was gradual, as a number of sectors were kept beyond these reforms in the initial years. On 31st March 2003, Taka was floated as central bank adopted the flexible exchange rate regime. Since both the interest rate and exchange rate are market driven an ex-ante monetary policy stance has assumed importance in anchoring inflation expectations and dictating the monetary aggregates to the target level. Since January 2006 central banks have started to publish the "Half-yearly Monetary Policy Statement" in their attempt to create ex-ante influence on the money market as well as on inflation.

In recent years, the central bank has been using indirect tools of monetary policy rather than directly dictating them. Key policy rates, that is, Treasury bill/bond auction yields, repo and reverse repo interest rates have been raised and maintained on upward trend. This, in turn, had affects on other banking sector rates. The structure of the financial sector in Bangladesh is such that interest rate intervention cannot alone influence the aggregate monetary variables and due to the low level of financial sector deepening, the market rates are yet to gain sufficient depth and liquidity to respond to these changes. To compensate for this inadequate responsiveness to interest rate changes, the interest rate policy is supplemented with changes in the Cash Reserve Requirements (CRR) and the Statutory Liquidity Ratio (SLR) in an attempt to influence volume as well as the cost of funds. Recently, the above two rates were raised from 4.5 percent and 16.0

percent to 5.0 percent and 18.0 percent respectively (Half-yearly Monetary Policy Statement, Jan. 2006). In the pursuit of monetary policy the central bank puts greater reliance on monetary targeting on variables such as broad money (M2), reserve money etc. In doing so, estimates of GDP growth, CPI are also used. However, aggregates like the GDP is calculated annually but many of the evaluations are done quarterly using quarterly values of the other variables. During the interviews it came out that the data obtained from other government agencies lack reliability and there is a lag, which affects the aforesaid analysis required for monetary policy formulation. Informants also indicated that there is also a lack of specialized personnel for conducting such high level analytical and empirical tasks necessary for formulating monetary policy.

The policy stance (especially, the cautionary stance to curb inflation) taken by the central bank is not free of criticism and informants opined that at times they are government and donor dictated. In light of shortcomings in financial sector deepening, there is an element of doubt as to the efficacy of interest rate elasticity's on private savings and money demand behavior (Policy Notes Series, 2005, Bangladesh Bank). Investment credit is a small share of total private sector credit and Ahmed & Islam (2006) argue that aggregate investment spending is not responsive to interest rate changes. In the disaggregate level it is still non-responsive except for private sector investment category which is only moderately responsive from the lenders' point of view in the short run. The stance to curb inflation is not free of criticism as many argue that the current inflationary pressure is due to supply side problems and is not a monetary phenomenon. In a recent television interview, the Finance Minister also agreed to the fact that the current inflationary pressure is due to market distortions created by the rent seeking behavior of the business sectors. Rising fuel prices also had a role to play in the inflation situation in Bangladesh. The central bank stance is based on the 'Quantity Theory of Money' assumption, that is, to restrain money demand through increasing the cost of holding money and thus affecting excess demand arising from inflationary expectations. But the cause of current inflation invalidates such transmission mechanism implemented through contractionary monetary policy.

Ministry of Finance and multi-lateral donor organizations are criticized for influencing monetary policy formulation. In fact, a number of changes within the monetary sector, namely the interest rate deregulation, exchange rate regime change, ex-ante monetary policy statement etc. are donor dictated. Many believe, including both former and current central bankers, that the central bank does not have freedom in formulating the monetary policy independently.

It came out during the interviews that the research department of the central bank lacked the analytical capacity to conduct in depth research on the economy. The research department under the central bank was not an attractive job placement for bright researchers because of low pay scale and low career profile. Policy Analysis Unit (PAU) has been established within the Research Department of the central bank to enhance the research capacity. PAU was establishment as an initiative of capacity building within the central bank under the CBSP, which is again a donor dictated change. Although the inception of this unit created a new impetus and the unit started producing proper research reports on the economy as well as on the financial sector, there are some problems associated with PAU. Its research findings do not directly contribute to the monetary policy formulation by the central bank. The Monetary Policy Department is a separate unit and there is a lack of proper coordination between the two in terms of feedback. The researchers recruited for the PAU have a separate pay scale, which is higher than the regular central bank staff. These new breed of researchers, however, do not consider this is as a permanent placement for their career. Further, there is no mechanism to transfer their skills to the regular research department staff members. In this circumstance, the long run sustainability and capacity building of the Research Department will depend on the ability of the central bank to integrate PAU and MPD.

Government borrowing & the Central Bank: A key element in determining central bank autonomy is whether or not the central bank can refuse the government credit. This decision crucially affects the volume of money available to the central bank. Bangladesh Bank directly participates in the primary market for government bonds and the central government borrows from the bank to finance its budget deficit. The government borrowed a total of Taka 256.33 billion (approximately US\$ 4175.45 million in 2005 from the banking sector through T-bill auctions of various durations, government savings certificates and prize bonds. This also includes various advances made to various ministries (Bangladesh Bank Annual Report 2004-05). The bank is compelled to lend to the government to finance its budget deficit, which limits the money supply. The government borrowing from the banking sector has two effects. On one hand it raises interest rate and reduces economic activity and, on the other hand, it reduces available funds for the private sector. The latter further reduces economic activity through crowding out effect. Hence, the central bank loses the freedom to choose monetary policy tools independently.

Autonomy of Bangladesh Bank: The argument presented so far allow us to determine the type of autonomy of the Bangladesh Bank as per the two definitions described earlier. The analysis of the Bangladesh Bank Order (1972) and Bangladesh Bank (amendment) Order, 2003 along with the “Half Yearly Monetary Policy Statements” of Bangladesh Bank suggest that the bank has “Target Autonomy”. This is considered to be one of the strongest forms of central bank autonomy in terms of the monetary policy formulation. Now it is important to investigate the operational aspects as well. Hence we use the Grilli, Masciandro and Tabellini (1991) index. The calculated GMT index, based on the above analysis, indicates poor operational freedom for Bangladesh Bank. The GMT score for Bangladesh Bank are compared with Arnone et al (2005) estimates. The latter define GMT index for three broad categories: advanced economies, emerging markets and developing nations and take the mean scores for political, economic and overall autonomy.

Legal Framework Reforms: A sound banking system requires an effective legal framework, which enables the central bank to supervise and/or regulate the money market with sufficient authority to maintain money market discipline. This should also enable the central bank to maintain an honest and disciplined lender-borrower relationship to facilitate loan recoveries and discourage defaults with provisions of punishment when default is willfully made. A strong and effective legal framework would enable the central bank to function properly and with confidence that there would be prompt and effective recourse in case any party feels wronged and aggrieved.

Legal weaknesses and/or constraints are considered to be a key drawback of the Bangladesh Bank’s efficacy in terms of maintaining a sound-banking sector. The World Bank study titled “Strategy for Establishing a Sound and Competitive Banking Sector” identified three basic problems afflicting the financial system in Bangladesh. These are (a) a weak central bank, (b) poor governance and (c) a deficient legal framework. A key objective of the CBSP, initiated by the World Bank and Bangladesh Government, is to strengthen the legal framework for Bangladesh Bank.

The major pieces of legislations concerning the banking sector are-

- Bangladesh Bank Order, 1972
- Bangladesh Bank (nationalization) Order, 1972
- Negotiable Instruments Act, 1981
- Bank Companies Act, 1991
- Securities and Exchange Commission Act, 1993
- Financial Institutions Act, 1993
- Deposit Insurance Act, 1999
- Money Laundering Prevention Act, 2002

Impetus created by competition among the financial intermediaries and the fast changing banking environment along with the financial sector developments require more appropriate regulatory and supervisory framework. Poor loan recovery or loan default can be attributed to the legal weakness of the banking sector. Bangladesh Bank annual report 2004-05 cites “.....the banks were reluctant to write off the historically bad loans because of poor quality of underlying collaterals and to avoid any possible legal complication due to lacunas in the judicial framework”. Chowdhury (2002) found the existing and newly formulated legislative measures, in light of the experience of their application, inadequate to deal with the problems of the banking sector.

The following section largely draws on from the Financial Sector Review (2006) that maps the recent reforms on the legal framework for the banking sector. Bangladesh Bank was given regulatory power by the Bangladesh Bank Order (1972) and the Bank Companies Act (1991). In order to provide greater operational and policy autonomy amendments of the Bangladesh Bank Order (1972), Bangladesh Bank (Nationalization) Order (1972) and Bank Company Act (1991) were ratified by the parliament in 2003. Amendment of the Bangladesh Bank Order (1972) redefined central bank functions in a more focused way by awarding enhanced authority and making it accountable for its performance. Bangladesh Bank (nationalization) order amendment was done with a view to improving governance of the NCBs. Amendment of the Bank Company Act (1991) gave Bangladesh Bank more authority and increased powers to regulate and supervise the banking sector. In addition, a new Financial (Money) Loan Court Act (2003) was setup to deal with problems of bad loans or loan default; and Money Laundering Prevention Act was formalized in 2002 to deal with the problems that have severe impact on the country’s money reserves. Financial Institutions Act (1993), Deposit Insurance Act (1999), Securities and Exchange Commission Act (1993) were designed to improve the money market discipline.

Bangladesh Bank has hired a local law firm, which has international cooperation, to strengthen the legal framework of the bank and to enhance capacity building of the in-house counsels. The firm is reviewing existing related laws and started compiling and rationalizing the circulars, directions and legal instruments issued by the bank. Human resources with law backgrounds are hired and are groomed to give legal counsel as well as to train the staff on legal matters associated with the financial sectors (Bangladesh Bank Annual Report 2004-05, Chapter 11).

However, the weaknesses in the legal framework persist and can broadly be defined into two categories based on the review of the existing literature and the information obtained during the interviews. The first one is lack of enforcement on part of the central bank and the second one is lack of compliance on part of the commercial banks and other financial institutions. The banking and financial sector in Bangladesh is currently very diverse and is changing fast. The informants opined that the laws associated with this sector should change accordingly and-if necessary- new tools, and procedures and laws should be developed. The banking law permits the central bank to punish any commercial banks for any malpractice or non-compliance with current rules and procedures. There are examples where the central bank has fined commercial banks for such things but the amount is so meager that it often fails to create an impact: the central bank has fined Islamic Bank and Jubok Finance for irregularities. But newspaper report suggests such actions failed to create any impact. The central bank dissolved the Board of Directors of the Oriental Bank and appointed an Administrator very recently. It was considered as a problematic bank since 1994 and the central bank has been overseeing it from the beginning. Newspaper report indicates lack of compliance on part of the Oriental Bank. During the interviews, some informants indicated that there exists some form of collusion between the central bank officials and the commercial banks to overlook such anomalies. Another dimension to this problem is that a number of the private sector commercial banks have current or ex lawmakers and influential business people with political contacts in their Board of Directors. Loan default or bad loans are afflicting the banking sector and the issues of politicization are often considered as one of the root causes of loan default or bad loans.

Bangladesh Bank has put into place rules and procedures to improve off-site and on-site supervision of the commercial banks and non-bank financial institutions. In the recent years, the central bank has formulated new corporate governance guidelines, prudential regulations and some other guidelines for the commercial banks and non-bank financial institutions, guidelines for core areas of risk management under the jurisdiction of the central bank. These are designed to structure the banking sector and harmonize them with international standards. The system is yet to become full proof, as there are loopholes. There are issues with lack of compliance on part of the commercial banks. One such area is the insider-borrowing problem. Collusion between corrupt commercial bank officials and businessmen also contribute to the problem of bad loans. Political interference, rampant insider borrowing, lack of impunity and frequent examples of arrogance by the defaulters towards the regulators/supervisors caused the decay of the system. Nationalized commercial banks (NCBs), owned by the government, have different governance structures. These new rules and procedures have limited applicability and effectiveness on the NCBs. However, the central bank has introduced new procedures on loan classification and provisioning along with other aspects of this problem to be discussed in detail in the following section.

The Money Loan Court was established as per the Money Loan Court Act of 1991. It is yet to make a mark on the loan default scenario. Raihan and Chowdhury (2000) in the SAPRI study found that the settlements of suits have increased but amount recovered has been stagnant. They also indicate that suits with small amounts were settled but the powerful large borrowers were out of reach, which points to the political influence. Islam (1999) revealed empirical evidence of collusion between politics and loan defaulters. The analysis shows that prior to implementation of SAP, the degree of political affiliation of the key person of the defaulted organization was higher than in the post-SAP period.

Regulations and Supervision: Supervision and regulation are the functions of the central bank and an effective legal framework provide the central bank with necessary power to supervise and regulate the banking sector. Bangladesh Bank, the watchdog for the banking and financial sector, has formulated new guidelines and also introduced some acts in its attempt to improve its supervision of the financial sector. The main objective of such reforms is to improve the soundness of the banking sector. The central bank also has the authority to give new licenses for new banks and no existing bank can open a new branch in or outside the country or shift any branch from one place to another without obtaining a license/permission. Prudential regulation guidelines are developed to improve both on-site and off-site supervision and regulatory capacity of Bangladesh Bank. We discuss these issues in the following sections.

Loan Classifications and Provisioning: Gross and/or net non-performing assets or loans (NPA/NPL) are considered the most important indicators identifying problems with asset quality. The high concentration of NPL's is a major problem inflicting the banking system. Governments dictated the credit disbursement in the early years and political influence also played its part in the decision making for loans from the banking sector. Besides, State Owned Enterprises also borrowed from the banking sector and these loans were never fully repaid. In the recent past the NPL situation has worsened partially due to borrowing by the Bangladesh Petroleum Corporation from the NCBs. Some steps were taken by the central bank to improve the scenario and the share of NPL has been coming down in the past few years, yet, there are issues that require immediate attention.

There is a tendency of provisioning of the existing default loans before the elections because loan defaulters are not allowed to participate in the parliamentary election. According to a newspaper report, there are instances where a few default loans were provisioned several times. As the regular repayments were not done in a timely manner they become classified again. Few requests of provisioning were turned down by the banks and the defaulters have rescheduled their loans by repaying an amount.

The loan classification system that used to be in operation in Bangladesh was more lenient than the international standard. They were not sufficient or even up-to-date with the rest of world in maintaining credit discipline and improving the recovery scenario. In literature, the problem of bad loans or loan default is considered to be a major problem afflicting the country's banking sector. In its attempt to strengthen credit discipline and to bring loan classification in line with the international standards, Bangladesh Bank has introduced new guidelines. Credit Information Bureau (CIB) was set up, in 1992 under FSRP, to maintain the credit discipline. The objective was to minimize the extent of further loan defaults by providing more accurate information about the loan applicant to the banks. At present, a certificate from the CIB is necessary to obtain new loan from any commercial bank (Bangladesh Bank Annual Report 2004-05).

As part of strengthening the prudential regulations and supervisions Bangladesh Bank has introduced a new loan ledger and an International Loan Ledger (IAS-30) for the scheduled banks. An attempt has been made to improve the loan classification and provisioning system and to harmonize this with the international standards. Bangladesh Bank has revised "Large Loans Rules" in 2002 to improve the loan classification situation. The new rule prescribes that the banks with net classified loan of up to five per cent will be allowed to sanction a maximum of 56 percent of the total loan and advances as "large loans". Earlier, with a comparable classified loan (<5 percent), a bank could lend up to 80 percent to large loan category. The banks with net classified loans between five percent and ten percent can now lend 52 percent of their portfolio as large loans against the previous allowable limit of 70 percent. The banks with net classified loans between 10 and 15 percent can lend up to 48 percent as against the previous 60 percent of their portfolio. For the next slot of up to 20 percent, the allowable large loan is 44 percent instead of the previous 50 percent (Bhattacharya & Chowdhury, 2003). In a recent Bangladesh Bank circular on loan classification both the objective and qualitative criteria are used to evaluate the loans and advances. Interest earnings are evaluated separately and are included for classification and provisioning. Loans are categorized as (a) Continuous loans, (b) Demand loans, (c) Fixed term loans and (d) Short-term agricultural and micro-credit loans. Broadly, the loans and advances are categorized as unclassified and classified loans. Unclassified loans are further categorized as standard or under the Special Mention Account. A continuous credit, demand loan or term loan, which will remain overdue for a period of 90 days or more, will be put into SMA. Interest accrued from this loan will be credited to interest suspense account instead of the income account. However, this will not be reported to the CIB. The loans in SMA should be reported to the CIB. However, it is also reiterated that loans mentioned under the SMA will not be treated as default loans as per the Bank Companies Act, 1991. The classified ones are categorized as Sub-standard, Doubtful and Bad loans using repayment time as the criterion.

Qualitative judgments are also introduced for classifications. If loans are illogically or repeatedly re-scheduled or the norms are violated or if a propensity to frequently exceed the loan limits are noticed or if legal action is lodged for recovery of the loan or if the loan is extended without the approval of the competent authority, or if situational changes occur on the part of the borrower-qualitative judgment will have to be used in classifying such loans or advances.

Corporate Governance of Banks: The banking sector is a highly regulated industry all over the world, as the interest of the depositors as well as the shareholders needs to be protected. In countries where separate institutions are not in place to regulate and supervise commercial banks, the central bank does the job. In Bangladesh, corporate governance of commercial banks has been a problem area for many years. In the recent past many significant reforms have taken place to improve corporate governance of banks. For example, the number of directors in a board has been reduced to 13 and one person can be a board member for only one bank. Near relations

cannot be in the board of the same bank and the roles of the advisor, board members and chief executives are redefined and restructured in a more pragmatic manner. “Fit and Proper Test” criteria are developed for board members, chief executive and advisors. Audit standards are developed and banks need to submit key information about their financial statement at least in two of the prominent newspapers. The effort is made to improve on the transparency and accountability in the private sector banking industry. Guidelines to manage the core risk for banks and financial institutions were introduced by the Bangladesh Bank. These guidelines lay out policies, procedures, processes and structures to core risks. Information Technology security guidelines, prudential regulations for banks and procurement guidelines were also put into place to improve supervision.

Even with all the provisions at hand, during the interviews many experts opined that there could be separate agencies to regulate and supervise the private sector banking activities in Bangladesh. A number of agencies can be set up and each would look into a number of aspects related to private sector banking. Under the current system, the commercial banks and financial institutions have to report to and are to a certain extent supervised by the Securities and Exchange Commission, when they register with the stock exchange.

Anti Money Laundering Measures: The formal banking channel was often used for transactions related to illegal activities. The international “Financial Action Task Force” formulated 40+9 requirements, which are to be followed by the banking sector of any country. Any country that does not comply is considered under the “Non-compliant countries and Territories” and eventually affects the country’s banking sector adversely. The Anti-money Laundering Unit (AMLU) of Bangladesh Bank was established in 2002 under the Anti Money Laundering Act (2002). The unit has the authority to investigate a suspicious account with the acquisition of money laundering. If convicted, a written complaint from the money laundering unit is required to prosecute the accused by the money laundering court. The AMLU itself did not prosecute, rather, referred cases to the Anti-corruption Bureau. However, once the Anti-corruption Bureau was dissolved and replaced by the Anti-corruption Commission in November 2004, the latter refused to prosecute such activities. The Criminal Investigation Department of Police is now handling money-laundering cases despite the fact that AMLU can do the same as per the act. An amendment of the current act is proposed along with a proposal to create a separate organization to handle these activities with officers from the central bank, police and the attorney general’s office.

To closely monitor money laundering and illegal financing and to prevent such activities, Bangladesh Bank has instructed all commercial banks to report through Suspicious Transaction Report. Furthermore, all commercial banks are instructed by the central bank to submit a Cash Transaction Report of both deposit and withdrawal of BDT 0.5 million or above (US\$ 7500 approximately) in a single account after reviewing the daily transaction. The central bank made “Know Your Client” policy mandatory for all commercial banks and financial institutions and has also instructed them to preserve all contact details of the customer along with a transaction profile (Bangladesh Bank Annual Report 2004-05, Bangladesh Bank Financial Sector Review-2006).

Bank supervision has gained a new dimension since the establishment of this unit. However, experts still believe that legal weakness might limit the efficacy of this unit, as it cannot prosecute any person under the current system. Any suspected account or person has to be surrendered to the law enforcement agency for prosecution. (Annual Bangladesh Bank Report 2004-05, Bangladesh Bank Financial Sector Review-2006)

Automation: A key objective of the Central Bank Strengthening Project is to modernize and reorganize the central bank. Automation is one of the means designed to achieve this. It is widely accepted that the automation of the central bank would increase efficiency through proper utilization of the facilities that will be available through better networking.

The private sector commercial banks were the first to introduce automation in the banking industry. In the early 90s, some of the private sector commercial banks (especially foreign banks) in Bangladesh introduced IT and communication technology in the banking business. The local private commercial banks soon followed the trend. Although, not all private banks went for a complete automation the use of computers and IT increased in the past decade. The state-owned commercial banks (Nationalized Commercial Banks) are yet to be automated but several private sector banks are now successfully using the automated banking system. The central bank has recently introduced the IT Guideline for the Commercial Banks.

The central bank itself is yet to adopt its own automated network. As mentioned earlier under the CBSP, the central bank has taken initiative to introduce IT and communication technology to improve its operations. The project is still in progress and has been divided into six different packages. A network integrator will be hired to integrate the whole system. Sources said the project was divided due to political influence. It was also opined that this splitting up would make the integration difficult in the future.

Role of Media: *The print and electronic media, by giving due coverage on central bank activities have definitely improved the transparency and accountability of the central bank. Newspapers have been regularly reporting on various issues related to central bank supervision and regulation of the commercial banking sector. This has contributed significantly to improving the accountability and transparency in the banking sector.*

Various kinds of information regarding the central bank also improved. In the past, the governor needed approval from the Ministry of Finance to meet the press. The rule has been abolished and the governor is more open to the public both through print and through electronic media.

The bank has developed a new website and has been posting a lot of information about its activities, thereby, bringing a welcome change from the past. All the information and manuals related to the commercial banking are uploaded on to the website. The “Repo” and “Reverse-Repo” auction results are also available on the web. The annual and monthly reports are published regularly and are made public through the website. All the research reports of various departments of central bank are now made public as well and are accessible on the website.

A very recent innovation is the publication of “Half Yearly Monetary Policy” statement, which is a standard practice by the central banks of other countries. It is expected that this would act as a catalyst in improving transparency and accountability of the central bank in Bangladesh.

The Official Secrecy Act, if replaced by Right to Information Act, would definitely improve accountability and transparency of central bank operations. This would reinforce the central bank autonomy sought through legislative changes back in 2003.

Changing Role of Central Bank of Bangladesh

Period	Nature of Political Rule	Economic Philosophy	Role of central bank
1972-75	Parliamentary system	Socialist	Rigid control and nationalization of financial, commercial and industrial sector. Government control over central bank to implement post war rehabilitation and implementation of 1970 election pledges.
1975-86	Military rule	Shift to Market Economy	Pushing forward political agenda of ruling government and implementation of dictated agenda in the financial and industrial sector. Denationalization of 2 out of 6 nationalized commercial bank. Restarting the closed Stock Exchange facilitating opportunity for capital market development
1986-91	Military rule with limited civilian	Foundation for Market Economy	Laying foundation for Market Economy. Implementing scheme for gradual transformation from command to market economy. Implementation of massive privatization, introducing new bank company act, introduction of VAT, reforming exchange regulation, establishment of Board of Investment introducing fiscal reform and reforming industrial policy considering private sector and engine of growth.
1991-2001	Parliamentary system	Transition to Market Economy	Changing structure of banking sector. Application of IAS and IFRS and financial reporting frame work, standard practice of loan classification and formation Banking Commission, Liberalization of interest rate and foreign exchange rule.
2001-onwards	Parliamentary system	Transition to Market Economy	Implementation of BASEL 1 & II in commercial banks. ISA based BB financial auditing and IFRS based financial reporting of central bank. Emphasis on risk based audit and risk management of scheduled banks. Introducing Credit Rating of Commercial Banks as institutions and borrower Credit Rating.

Section Nine: Summary and Conclusion

1. This paper evaluated the origin, motivation and context of creating the central banks. Sweden is the first country to create central bank followed by England, France, Germany and others in north America, South America, Africa, Asia and in the Middle East. Originally, financing the war was the objective and later on the objective included meeting fiscal need of the government. It was the politicians who created central and used to dictate central bank to follow the government instruction. The 18th century politicians allowed, monopoly power to central bank would be both willing and able to offer cheaper credit to the government in return. The 19th century central banks were usually created by the politicians to serve fiscal needs of the government. The 20th century central banks were established political pressures as well. Sometimes for governmental fiscal needs, sometimes for other particular reasons.

2. *Play a critical role in the economic management of all modern states:* Many organizations have evolved to change the environment in such a way that now sub-serve important goal-some of them even have a vital role in modern economies. Central Bank is one of such organizations that play a critical role in the economic management of all modern states. Usually, Central Banks could not come into existence without government power behind them. The theory and experience also show that there might be strong incentives for government to abuse central bank. That is why there is strong pressure to make some potential organization like Central Bank independent of government. In reality check, it is the politicians who have created Central Bank to serve the fiscal needs of the government. Kane (1980) said for the Federal Reserve System “after all, the Fed is a political institution designed by the politicians to serve the politicians.

3. *Politicians created Central Bank to obtain credit in favorable terms:* Historical evidence shows that the politicians in 18th and 19th century created Central Bank to obtain credit in favorable terms. The obvious way to get credit in favorable way is done by giving central banks some privileges or monopoly power. Such bank would be willing and able to offer cheaper credit to the government in return. Central Bank has no inherent goal, only goals are given by the government. But the same does not for its managers. The Central Bankers are the agents of the government and of the public but poorly constrained ones. It is pertinent how Central Bank and its governor shifting from anticipation of political independence towards notions of the central bank as a part of the politically controlled bureaucracy and the governor as a loyal civil servant. In the given circumstances, how Central Banks respond to the changes and to what extent did the Central Bank Governor and his officials take new expectation of political loyalty into account in dealing with the issues while running the operation.

4. *Governors and Deputy Governors are usually appointed by the Government.* In Europe, for example, The Bank of England, from its very earliest days it could appoint and nominate its own personnel. The Governor, Deputy Governors and directors were chosen every year between March and April (Elgie and Thompson 1998, p.36). Independence was guaranteed because the Committee of the Treasury was created comprising the Governor, Deputy Governor and the most senior of the directors with responsibility for preparing proposals for the election of Governors and Directors. For 1931, a lower score on the overall index of independence is recorded because the degree of economic independence of the Bank fell as result of its responsibility for selecting the instruments of monetary policy being withdrawn. An attempt to measure the political independence of Bank of England has been made using the Grilli, Masciandro and Tabellini (1991).

5. *Central Bankers enjoyed privilege from the Government.* Central bank obtained special rights and privileges that allowed them to conduct monetary policy and objectives are given by the government through a bureaucratic management and work as agent of government. Periodic comparison of the role of central bank indicate in Victorian era beginning from 1840 – until 1914 governments tended to run surpluses in peace time years and deficits were generally functions of war. Decades of government control is observed during 1930 until end of 1960s. During this period politicians dictated the monetary policy in the central bank. During the triumph of markets from 1980–2007 the central bank independence has got prominence, including mandated capital requirement, risk managements, corporate governance and reduction of government intervention. After World War II spread of socialism resulted in the nationalization of central

banks excepting the Federal Reserve Bank of USA and the role of central banks were changed and remained under control of government.

6. *Bureaucratic behavior of central bank.* First of all, a central bank seeks to keep its operations secret. It usually resists offering information about its actions. Such secrecy not only raises the prestige of the bank, but it also protects it against criticism (Friedman, 1982, and Acheson–Chant, 1972, 1973, 1973). Second, for the same reasons a central bank usually opposes any ironclad rules and sticks to incomplete discretionary policies, and complex instrument-mixes, because it further lowers the ability of outsiders to monitor the actions of the bank—and thus to criticize it for a poor performance. Third, the theory predicts that a central bank will struggle for its independence. If a bank is independent, and its responsibility for the monetary policy is not shared with other agencies, its prestige is ceteris paribus higher.

7. *Central Banks are given explicit macro-prudential mandate* as regards both crisis prevention and crisis management and implementation of price stability oriented monetary policy conducting micro-prudential supervision. Central Bank played its role in post crisis period. In the post crisis period the central bank independence act risky. Historical data reveal that during crisis time index on central bank independence falls down with exception of US Federal reserve bank during 1694-1998.

8. *Nationalization and Central Bank Independence.* Evidences show that almost all of the central banks in Europe and Asia Pacific were nationalized between 1936 and 1950s including the Reserve Bank of India. Study on the central bank independence indexes during 1694 – 1998. Findings of the study reveal that Bank of England index of independence was 6 in 1694 which reduced to 5 in 1931, further reduced to 1 in 1946 – 1992 and in 1998 it increased to 3. The index of independence of Bank of France was 5 in 1800, 4 in 1808, 2 in 1945, 2 in 1992 and 5 in 1993. The history independence index of Germanbundes Bank was 7 in 1880 very minimal or no independence during 1939 and again it rose to 5 in 1997 which is considered as best index of independence since World War II. The independence index of Federal Reserve Bank marked 2 in 1913 and 1939 it was 3 and in 1997 the index was 5. This shows a signal of greater independence of central bank when transition take place in economic management from command, mixed and market system. Periodical context up to the mid 1940s. Nineteenth and early twentieth century central banks had considerably more independence than they currently possess. During mid 1940's and mid 1970's government became increasingly active in managing economy and links between central banks and governments in the conduct of macro-policy become much closer. In post 1970s, the revival of independence and policy of granting greater independence to central banks became popular during with greater autonomy.

9. *Shift in Central Bank Mandates.* Mandates of central banks were shifted from time to time on interest rates and credit combination. Carment, Rainhart and Rogoff (2013) submitted evidendence on the 100th anniversary of Federal Reserve Bank of USA for 92 years from 1921-2012. It reveals that FED for 8 years followed *Unambiguous Easing* with declining interest rate and accelerated credit growth and for 25 years it followed *Mixed Easing* with declining inetrest rates and unchanged decelerating credit growth. For 12 years continued with *Neutral to Easing* following unchanged interest interest rates and accelerated credit growth and 2 years *Neutral* with unchanged interest rates and credit growth. Neutral to Tighter policy continued for 11 years with unchanged interest rates and decelerating credit growth. *Mixed Tightening* with rising interest rate and unchanged/accelerating credit growth existed for 21 years and *Unabbiguous Tightening* prevailed with rising interest rates and decelerating credit growth prevailed for 13 years.

10. *From secrecy to open communication.* Central bank communication policy changes from secrecy to increased openness with which central bankers speak in public about policy decisions that they have made and that they are likely to make in future. Shift toward greater transparency and more active communication about policy decision and intentions is not a mere passing pad, but a fundamental change with important consequences for success with which monetary policy can be used to maintain economic stability. Central banking is not like steering an oil tanker or even guiding space craft, which follows a trajectory that depends on constantly changing factors. Anchoring Inflation Expectations is one of the expectation that the central bankers should seek to influence is the public expectation regarding the rate of inflation over next several years. Steering interest rate expectations for effective monetary policy requires not only that certain aspects expectations remain relatively constant in the face of transitory turbulence. It

is also important that certain aspects of expectations change with the changing circumstances, but in the proper way. Forecast targeting as a policy framework for shaping expectation of market participants through central bank communication requires more, however, than a mere willingness of the central bank to be forthcoming about its thoughts.

11. *There are at least three other roles of central banks that are less considered.* One is the *distributive* role of central bank policy. Central banks' policies can have differential impacts on different classes and groups: workers and capitalists, debtors and creditors, finance and industry, those operating in traded and non-traded goods. Linking this to the political economy of central banking, for example, bankers may oppose expansionary monetary policy because it might lower real interest rates and raise inflation, whereas workers and industrialists may prefer looser policy. A second less-known role is the *political* role of central banks. These days, this role is primarily discussed in the context of whether or not the central bank is *independent* of the government (as opposed to being *integrated* into the government) with a focus, primarily, on the impact of central bank 'independence' on inflation. But the political role of central banks is much more multi-faceted than this. During the period of decolonization following the Second World War, it was recognized that by promoting financial unification, central banks can play an important political role in helping to establish national sovereignty and unity. More recently, central banks which are relatively independent from government often represent and promote particular interests, constituencies and ideologies in the public and private spheres and thereby affect the color and tenor of overall political debate over economic policy (Epstein, 1982). In recent times, these have often been aligned with those in financial circles, including external actors like the IMF, in promoting financial liberalization, inflation targeting and the elimination of capital controls. By contrast, central banks that are more integrated into government are more likely to promote policies and procedures that are framed more closely by government priorities and reigning ideologies. *A third underappreciated role is the allocative role:* central bank policy can deliberately or inadvertently affect the profitability and access to credit of different industries. This developmental role is currently under-emphasized, relatively to the other two. In short, historically central banks have played many and diverse roles: Central banks have accumulated these roles in fits and starts, some first as private, government connected banks, some as 'proper' public institutions. In any event, it is clear that the neo-liberal version of central banking has picked a highly truncated version of this list.

12. *Future role of central banks and essence of central banking.* Capital, liquidity and leverage ratios, the traditional focus of stabilization has been the central bank's capacity to lend, and thus to create liquidity, either to an individual bank, as the lender of last resort, or to the market as a whole, via open market operations. *Interactions with government:* One of the attractions, to many economists and others, of the standard inflation targeting regime was that the choice of interest rates could be made independent of government, in order to achieve an objective democratically mandated. *The bank tax:* The analogy, which Perotti (2010) makes, is with the inflation tax and seigniorage. There is a temptation for politicians to make excessive use (from an overall social welfare standpoint) of the inflation tax. *Sanctions:* The systemic supervisor in each country will have to engage with their own government to get the appropriate pattern of sanctions (and taxes) applied. Regulators have consistently tried to avoid such engagement. That should not continue.

Debt management: For over three centuries (1694–1997), a prime function of the Bank of England was to manage the national debt. But as that debt declined, both as a percentage of GDP and in relation to the size of the financial market, debt operations became simpler and standardized, falling into a routine pattern. Much the same happened in other countries. *Bank resolution:* A central bank can only provide liquidity; it cannot provide capital. If liquidation of a failing bank cannot be allowed and the market will not provide more capital, then the only remaining recourse is to taxpayer funding. *Interest rate setting:* Many have argued that liquidity management is integral to the management of systemic stability and the essential core of the operation, and *raison d'être*, of a central bank. *Interactions with other regulators/supervisors:* The regulator in charge of systemic stabilization should also be a direct supervisor of the main systemic financial intermediaries. *Structural development in the financial sector:* Direct government intervention in the financial sector in our second epoch, the 1930s to the 1960s.

13. *Central Bank of Bangladesh:* After the liberation war, and the eventual independence of Bangladesh, the Government of Bangladesh reorganized the Dhaka branch of the State Bank of Pakistan as the central bank of the country, and named it Bangladesh Bank. This reorganization was done pursuant to Bangladesh Bank Order, 1972, and the Bangladesh Bank came into existence with retrospective effect from 16

December 1971. The 1971 regime ran a pro-socialist agenda – in 1972, the government decided to nationalize all banks in order to channel funds to the public sector and to prioritize credit to those sectors that sought to reconstruct the war-torn country – mainly industries and agricultural sectors. This was compounded by the fact that loans were handed out to the public sector without commercial considerations, that banks had poor capital lease, provided poor customer services and didn't have any market-based monetary instruments. But mostly, because loans were given out without commercial sense, and because they took a long time to call a loan non-performing, and once they did so, recovery under the erstwhile judicial system was so abjectly expensive that their loan recovery was abysmally poor. While the government made a point of intervening everywhere, it didn't set up a proper regulatory system that would diagnose such problems and correct them. However, the following table presents chronology of changes.

Changing Role of Central Bank of Bangladesh: 1972-2013

Period	Political Rule	Economic Philosophy	Role of central bank
1972-75	Parliamentary system	Socialist	Rigid control and nationalization of financial, commercial and industrial sector. Government control over central bank to implement post war rehabilitation and implementation of 1970 election pledges.
1975-86	Military rule	Shift to Market Economy	Pushing forward political agenda of ruling government and implementation of dictated agenda in the financial and industrial sector. Denationalization of 2 out of 6 nationalized commercial bank. Restarting the closed Stock Exchange facilitating opportunity for capital market development
1986-91	Military rule with limited civilian	Foundation for Market Economy	Laying foundation for Market Economy. Implementing scheme for gradual transformation from command to market economy. Implementation of massive privatization, introducing new bank company act, introduction of VAT, reforming exchange regulation, establishment of Board of Investment introducing fiscal reform and reforming industrial policy considering private sector and engine of growth.
1991-2001	Parliamentary system	Transition to Market Economy	Changing structure of banking sector. Application of IAS and IFRS and financial reporting framework, standard practice of loan classification and formation Banking Commission, Liberalization of interest rate and foreign exchange rule.
2001-2006	Parliamentary system	Transition to Market Economy	Implementation of BASEL 1 in commercial banks. ISA based BB financial auditing and IFRS based financial reporting of central bank. Emphasis on risk based audit and risk management of scheduled banks.
2007-2008	Military backed interim Government	Transition to Market Economy	In the absence of Parliament continued earlier policies no new policies and programs in the economic management. Mostly engaged in maintain law and order and for conducting postponed parliamentary election. However, contributed to the strengthening of Regulatory organization like, Election Commission, Energy Regulatory Commission, Anti Corruption Commission, Financial Reporting Act, Information Commission and many regulatory institutions were developed to strengthen the pillars for establishing transparency and accountability system to support the market.
2009-2014	Parliamentary system	Transition to Market Economy	Introducing Credit Rating of Commercial Banks as institutions and borrower Credit Rating. Stringent regulatory system on the commercial banks, improved corporate governance in state owned and private sector commercial banks, emphasis on off site and onsite supervision. ICT application in central bank and commercial banks has significantly improved. Banking reform is taken as continuous and ongoing process. Changes in loan classification system, emphasis on SME loans, significant achievement in banking the unbanked, Interest rate changes, BASEL-II implementation, Enhancing minimum Capital Adequacy, Enhancing supervisory and regulatory functions. Separation of Conventional and Merchant Banking taken place. Rules and procedures developed for operation Merchant Bank subsidiary companies to deal with conflict of interest among the stakeholders. Demutualization of Stock Exchanges has taken place to address the conflicting situation of existing Stock Exchanges run under mutual system. Green Banking has been popularised among the banking community. Financial Reporting Act drawn in line with Sarbanes Oxley Act of USA customized to Bangladesh is in implementation process which would ensure improved and reliable financial reporting which is essential for Public Interest Entities of Bangladesh.

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