New Perspectives on Political Economy Volume 1, Number 2, 2005, pp. 50 - 75

Independence and Responsibility of Central Banks

Michal Kvasnička*

JEL Classification: E52, E58, E59, E60

Abstract: A strong information asymmetry may exist between central bank managers and both the public and the government. Therefore managerial discretion of the central bank managers is possible. On the other hand the government is able to constrain, or threaten it better than anyone else. For this reason the central bank can neither be fully controlled by the government, nor fully independent of it. The actual level of dependence may differ from the formal one, and may not be observable. There can also be many special-interest groups in the economy that can try either to bribe or threaten the central bank managers. The strength and aims of these groups may change through the time. For this reason the generally optimal level of the central bank formal independence might not exist.

^{*} ESF MU Brno, qasar@econ.muni.cz

1 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 governmental power behind them, and in some cases they would disappear if their governmental protection ended.¹ Nonetheless, many of these organizations have evolved through the time (and sometimes they have changed their environment as well) in such a way that now they subserve 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 shows us that such organizations might be dangerous for society if 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. But with independence new problems arise: the accountability, responsibility, and legitimacy of these organizations are questionable.

This is precisely what has happened in the case of central banks. 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 evidence appeared showing that the government can benefit from an abuse of the monetary policy or the central bank itself. This brought a strong movement toward the independence of the central banks, later

¹ The type of organization we have in mind is slightly different form "political firm" (see Eggertsson, 1990, p. 149). "Political firm" denotes "any organization owned by a local or national political unit that employs labor services and material inputs to produce commodities." It includes all firms that are run by a government no matter whether they could be operated in the same way as private firms, or not. Water and sanitation company is an example of a firm that is often operated as a political firm, but could be as well operated as a private firm. We have in mind an organization that has a governmental protection of some kind and is given a privilege or power of some kind to be able to provide some services that could not be provided without the protection and privilege or power. Imagine a public television (having a privilege to be financed from taxes), or a central bank (having a monopoly over bank notes issue).

strengthened by an apparent correlation between the central bank independence and a low rate of inflation. Nowadays most central banks are much more independent of the government then ever before. But voices come out that the central bank independence violates the democratic control over the monetary policy and lets one of the most powerful governmental organization subject to non-elected individuals.

At first glance it seems that we have a choice, or even a trade-off between the independence and responsibility. A more independent central bank may carry out better monetary policy (whatever it means) because it is not pushed by potential special interests of the present government. On the other hand the lack of democratic control is also higher, which may make the actual monetary policy worse. It seems that there must be an optimal level of independence. Such an optimal level is presumed, for instance, by most advocates of the inflation targeting. They usually suppose that the optimal level of independence of the central bank means that the government sets the ultimate inflation goal while the central bank is free to use any tools to achieve it. In other words, the central bank is fully operationally independent and fully goal-controlled by the government.

This view assumes too much. It assumes that the *actual* level of policy independence is the same as the *formal* one. It also assumes that the government always wants to abuse the monetary policy while the central bank managers are benevolent agents of the public always struggling for the best available outcomes. Moreover, it neglects also the fact that there may be special-interest lobbies different form the government. These presuppositions are not often questioned. The goal of this paper is to question them on the basis of the positive theory of agency, the theory of bureaucracy, and the theory of bureaucratic behavior of central banks.

Our hypothesis is as follows: The management of a central bank is by definition a bureaucracy that has its own goals. Some of these goals are compatible with the government's goals, while others are not. There can be also special-interest groups different from the government that can try either to threaten or bribe the central bank's bureaucracy to act in favor of them. There is a great information asymmetry that can make it difficult both for the government and the public to check the central bank's actual performance. This information asymmetry may open the central bank's management to informal silent influence of the government, therefore making the expected benefits of the independence questionable. In the same way it can open it to a silent influence of

other lobbies as well. Under such an institutional setting the actual performance of the central bank is determined not only by the degree of its formal policy independence of the government, but by much broader spectrum of influences. A general solution may not exist (perhaps except privatization of the central bank, i. e. its destruction).

In the paper we will try to expose this hypothesis in more details and search for the major players, identifying their interests, possible strategies, and constraints. We will also try to show which of the conflicting goals will be achieved and to what extent. We will not try to offer a formal model at this stage since the problem is not yet ready for that. We will also not try to test the hypothesis yet, for the reasons that will be clear when the hypothesis is exposed in more detail. We will focus on the case of a central bank, because it could be seen as a model example of an organization created for the particular interests of politicians, and because the question of its independence of a government is both interesting and widely discussed. We hope that it is possible to extend the hypothesis to many more examples.

The structure of the paper is this: First we analyze the bureaucratic nature of a central bank, and some of its consequences (section 2). Then we identify the incentives of the central bank management (section 3), and of special-interest groups that can affect its behavior (section 4). We try to analyze in what way their goals can influence the behavior of the central bank managers, and how conflicting goals can be handled by them. In the end we summarize the hypothesis, and draw some conclusions (section 5).

2 Central Bank as a Bureaucratic Organization

First of all we have to carefully analyze the nature of a central bank. To understand a modern central bank we have to keep in mind its origin. White (1999) shows 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 politicians who have created central banks to serve their goal. 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 outcome 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 can understand the nature of the central bank even better if we compare it to a spontaneously evolved organization, e. g. a firm. There are many dimensions in which a central bank can be compared to a private organization. Let us mention some of them.

Goal of the central bank

Private organizations usually have a simple well-defined goal for which they were established. In a case of a firm the goal is profit, or more precisely to maximize of the present value of all its future profits. All constituents (principals) of the firm (e. g. stockholders) prefer a higher profit to a lower one. The only controversy could arise over the timing of dividends, for different stockholders can have different time preferences. This controversy could be solved easily in the case of public companies, where the stockholder can have a positive cash flow even if all the profit of the company is reinvested to make more profit in the future. He or she can simply sell part of his or her stocks, the price of which is increasing over the span of time. It is possible to reconcile the interests of the firm owners, even in the case of a proprietorship or a closed corporation simply by choosing a firm with the desirable timing of income flow. The same holds for other organizations, e. g. private non-profits as well (see Fama–Jensen, 1985). In other words, private organizations have an inherent goal (they were created to achieve this goal) and their ultimate principals force these organizations to achieve it.

A central bank as an artificially constructed organization lacks an inherent goal (if we neglect the goal to support any special interest of the present government). Moreover, its goal cannot be derived from the preferences of its ultimate principals—the public. There is a great diversity among individual households' preferences for the central bank goal, and no way to reconcile them. For example, pure debtors prefer unexpected inflation while pure creditors may prefer a moderate unexpected inflation; savers prefer high interest rates, investors low ones, et cetera. To carry out a "socially desirable" monetary policy we need to know a social welfare function, which cannot be constructed (see Roth-

bard, 1956). In other words, no inherent goal of the central bank exists, and its ultimate principals are not able to unify to push it to achieve it.

If a central bank does not have (and cannot have) any inherent goal, what goal is it supposed to achieve? In the real world, many (at least in the short run) conflicting goals are imposed to the central bank by the government (in a broad sense including the parliament), or by the central bank itself. In such a case we have to learn what goals is the central bank given on different occasions, and to what extent it tries to carry out each of the conflicting goals. We can expect when the goal is commanded by the government it would reflect government's interests. If it is commanded by the central bank managers (e. g. because the bank is fully independent of the government, or the government is not able to control its behavior fully), we may expect it would reflect the interests of the managers. We will explore what their interests are in the section 3.

Strategies of the central bank

In a deterministic world of full knowledge management would be an easy task. Under such hypothetical conditions, decision making means mathematical optimization. In the actual world of uncertainty, mathematical optimization is much less useful since probabilities of all possible outcomes cannot be stated (in many cases, all possibilities are not even known). Under such conditions unattainable "optimal behavior" must be replaced by attainable "sufficient" strategies. Alchian (1950) have shown that economic environment selects through competition those strategies that under the given conditions imitate optimal choice better.

Alchian (1950) argues that in an uncertain world, a manager of a firm cannot be certain that his or her actions are optimal. If his or her action has been better than average (for any reason, even because of a good luck) compared to a competitor, then his or her firm earns a higher profit than average. Such profit allows the firm to survive. Profitable firms (i. e. better fitting to the actual environment) survive while loss-making firms "die out". This way the environment choses through competition those who follow rules that better fit the actual environment. Managers tend to imitate the successful managers—this way the successful rules spread out through the economy. Both conscious and unconscious (and even random) modifications of the rules serve (from the social point of view)

as a mutation. The market process lets the "positive mutations" survive while the "bad ones" die out. This way the rules adapt themselves to the changing economic environment. Thus Alchian shows that the competitive market process precisely corresponds to the Darwinian evolutionary process. Alchian (1950) puts it in this way: "The economic counterparts of genetic heredity, mutations, and natural selection are imitation, innovation, and positive profits."

One consequence of Alchian's theory is that on competitive markets a simple rule based behavior might correspond to an optimizing behavior predicted by the economic theory. For this reason we may model private firm behavior "as if" they equalize the marginal cost to marginal revenue to maximize their profits. They do not do it consciously, because the marginal cost and revenues are not actually known-their managers simply follow the rules that were successful assuring survival in the past. For this reason we may believe with a reasonable degree of certainty that the strategies applied by private competitive firms are (or tend to be) optimal, i. e. best achieving their goals. The same holds true for other competitive organizations as well.

A central bank is absolutely different in this respect. There is no competition among central banks. A central bank cannot go bankrupt. Moreover, a central bank's profit is not derived from the well-provided monetary policy at all (the opposite might be true since the central bank's profit is earned from inflation). This is why we have no reason to believe that the actual rules followed by a central bank are close to the optimal one. They may be, or need not be-but there is no proof they are. We can believe such a statement with a much lower degree of certainty.

Environmental complexity of the central bank

The problem of central bank strategies is even more complex because the environment of a central bank itself is in one sense much more complex than the environment of a competitive organization. Actions of a competitive non-privileged organization change its environment only in a marginal way. From its point of view the environment is reasonably stable in respect to its own actions. But it is not true in the case of a central bank. A central bank is strong enough to change its own economic environment. When a central bank changes its strategy, all subjects in the economy have to adapt to its new

strategy. The result is that the behavior of the economic system changes as well. Therefore, it is much more difficult for the central bank to learn from past experience than it is for a competitive organization. This is the heart of the ingenious Lucas' critique, see Lucas (1976).

The environment in which a central bank operates is quite complex even in many other senses too. This complexity is probably the reason why we have so many contradictory theories of monetary theory and policy that still were not falsified. That is why the monetary management of a central bank is so difficult and subtle work. Another consequence is that it is extremely difficult to evaluate the performance of a central bank and especially its managers.

Personnel of the central bank

The choice of a central bank personnel, especially its top management, poses a problem similar to the choice of a central bank strategy. Romer and Romer (1996) show that the choice of central bank managers is a key factor for the efficiency of the monetary policy. The question is how to find the optimal managers, i. e. the managers that are able to achieve the goal of the central bank best. It is obvious that it is much easier to find a good general director of a corporation (either profit or non-profit one) than a good president of a central bank. The reasons are many, a main one being that the goals of these competitive organizations are expressed better.

Moreover, there is a market for managerial services in the case of competitive organizations. The market evaluates managers based on their former performance, i. e. the extent to which they were able to achieve the organization's goal. It is the easiest in the case of a profit corporation where the level of the "goal-achievement" can be stated in numerical terms (as a profit, or a yield etc.).

It is much more difficult to find a good central banker because there are very few potential candidates (i. e. the market is thin). Moreover, they can hardly be evaluated on their former performance. Firstly, if they are chosen from outsiders (i. e. not central bank personnel), there is no prior performance to be observed. (Note that it is quite often that members of the board of directors of a central bank are appointed from such outsiders.) Secondly, the outcomes of the bank policy may be biased by external or

internal shocks. The same is true for the competitive organizations, but in their case there is a benchmark for the comparison, that being the average of the industry. No similar benchmark exists for a central bank. Thirdly, a central bank is usually made responsible for many potentially conflicting goals (private competitive organizations usually have just one goal). The necessary multi-criteria evaluation is more difficult than a profit-based evaluation of a firm manager.

Managers are usually appointed by their nearest principals. In the case of the central bank it means that its managers are appointed by the government (in the broadest sense). Since the evaluation of potential candidates is difficult, the government has to choose them on the basis of an ill-defined, obscure criteria. This allows the government to choose managers that would be willing to seek any goals the government prefers, even its special interests.

Managerial discretion

A manager that is not in the same time the only residual claimant may have an incentive to act in his or her own interest even at the expense of his or her principals rather than in their best interest. Such actions are called "managerial discretion." A great part of positive agency literature focuses on the managerial discretion and tools used by both the principals and the agents to handle it to lower the agency cost. The classical positive theory of agency was built up by Jensen, Meckling, and Fama, see e. g. Jensen-Meckling (1976), or Fama-Jensen (1983). Among others, they have shown how managerial discretion is constrained within private organizations, both profit and non-profit ones. The threat of bankruptcy is the lowest bottom line of the managerial discretion. The threat of a takeover presents another one. The stock market and the market for managerial services are other protections of the residual claimants (or donors). The stock market evaluates the price of the firm instantly which lowers the monitoring cost for most firm owners. It lowers the transaction cost of a takeover of poorly managed companies. The managers labor market does the same for the wages of managers. The managers not acting in the best interest of their principals may expect that their price on the market for managerial services would be lower if they got fired. Beside of these low-level bottom lines there are usually other protections: expert boards, hierarchical control, mutual monitoring, et cetera. All these protections guarantee with a good degree of certainty that most managers try to act in the best interest of their principals.

We have almost no such guaranties in the case of a central bank. First of all, the survival of a central bank is not connected to its performance. A central bank cannot go bankrupt (at least the central bank issuing fiat money cannot go bankrupt), and its profit is not derived from the well-provided monetary policy (see above). Neither there exists a direct link between the survival of a central bank management and its performance.² Central bank managers could be dismissed in some countries if the outcomes of their monetary policy do not satisfy the policy objective (e. g. inflation target on the New Zealand), but it is by no means a common practice. Moreover, there are usually many exceptions that allow the bank avoid any punishment even when such a formal rule exists.

An information asymmetry between a central bank management and its principals (the government and the public) is another cause of a low accountability of the central bankers. It is very costly (and often even impossible) for them to monitor the actions of the central bank properly to learn whether its actions were following their interest.³ Special knowledge possessed only by few monetary theorists is necessary to evaluate the central bank performance. Most of these theorists work directly (as employees) or indirectly (through the system of research grants) for the central bank, so their judgment is far from being independent. Most of the rest of them usually work (directly or indirectly) for a government, which is supposed to be a possible threat for the monetary policy. The only potential independent critics are those few monetary theorists at universities and research organizations that take no part in central bank or governmental research grants.

A central bank may also take steps to increase the information asymmetry. Good-friend (1986) analyzes the tendency of central banks to conceal important information about their monetary policy. No matter if the central bank secrecy makes its policy easier, or not, it certainly lowers the accountability of the bank. Moreover Chant–Acheson (1972) show in the case regarding the Bank of Canada that a central bank has a tendency

² The bottom line for the central bank management is not only much weaker than the bottom line of a commercial firm, but also than that of a government since a government may not be reelected if its performance is regarded as poor by the majority of voters.

³ We are speaking about particular interest of those individuals (or about some arbitrary goals). As we have shown above there is neither a common, or "social" interest in the monetary policy, nor an inherent goal of the central banks.

to choose its instruments (and their mix) in such a way that lowers the transparency of its policy. In their other paper (1973b) they argue that a central bank may even create a "mythology" to lower its accountability. The reason for such behavior will be presented in the section 3.

For all these reasons, the only threat the central bankers face in most countries is a possibility that they would not be reappointed, or that the central bank status, rights and privileges would be altered. There is only one power able to do it, that of the government. Because of the information asymmetry and all the problems stated above, the government has to choose the central bankers on the basis of very incomplete information. On the one hand it increases the central bankers potential for managerial discretion, but on the other hand it also makes it easier for the government to force the central bank to act on its own behalf because it can threaten the central bankers. If it blames the central bankers, there is no simple way how to learn whether the bank is right or wrong. The government can punish the bank simply on the basis of its blame.

Bureaucratic nature of the central bank

We have seen above that the central banks were created by politicians to serve their special interests, but through the time they obtained special right and privileges that allow them to conduct the monetary policy. This was made possible by the governmental power that guarantees these rights. In 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. We will summarize its findings in the next section.

3 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 that 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 practice 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

⁴ Friedman (1982) even hypothesizes that the central bankers have an interest in a macroeconomic instability since in times of macroeconomic instability their services are seen as more important by the public, i. e. their prestige rises. (We do not think this is a real problem.)

bank is necessary for their own job safety, and also for their 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 to offer information about its actions. Such secrecy not only rises 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 opposes any ironclad rules and sticks to incomplete discretionary policy, and complex instrument-mixes, because it further lowers the ability of outsiders to monitor the actions of the bank-and this way 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).⁵

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. Moreover, a higher degree of independence allows the bank to protect itself–a more independent bank can got into

⁵ We do not share the idea that the monetary policy could be replaced by an automaton reasonably-we do worry that such a change could under the present regulatory system destabilize the banking system.

more conflicts with other organizations or special interests groups, but it also has a better chance to handle these conflicts (ibid).

Fourth, a central bank has an incentive to avoid any conflict with a group that is able to alter its social status, especially to threat its independence, or even self-preservation, i. e. with a group that has superior understanding of its actions, and that has a power over the bank. This group is usually identified with the government.

Among others, it means that when the bank is given conflicting policy goals, it aims most eagerly to achieve the goals that are identified with the bank most (i. e. the responsibility is shared with other agencies least), the goals, the achievement of which can be most easily observed and monitored, and those that are most important for the group that can threat the bank's (and central bankers') safety (ibid).

One might ask why the government allows the bank to carry out the nontransparent incomplete monetary policy, especially if it lowers its control over the bank. Kane (1980) offers a simple and radical answer: It is because such policy is beneficial for the government as well. First of all, it allows the bank to obey informal commands of the government–even those aiming at the government's special interests. We will analyze this possibility in the next section. Second, it allows the government to use the bank as a scapegoat to be blamed in hard times. When an economic slowdown occurs the government can blame the bank not to loose the public, and the bank is still safe–its failure cannot be proved and no steps against its officials are taken because it is formally independent of the government. In other words, the information asymmetry enhanced by the bank and the possibility of managerial discretion is mutually beneficial both for the government, and the central bankers.

We accept all the incentives presented above, and there is one more: Given that the central bank managers are utility maximizers and in the same time they are poorly constrained agents, we can expect that they can be "bribed". The "bribes" can include an offer of a future important position (e. g. in diplomacy or in an international organization, or simply renewal of their appointment), an offer of prestige within a group of people delimited either by a profession, or geographically (exploiting the central banker's patriotism) etc.

We can see that neither the central bank, nor the central bankers have an inherent goal. The central bankers are bureaucrats that are hired to pursue the goals given by the politicians. The information asymmetry between them and both the government and the public make managerial discretion possible. For this reason the actual monetary policy may deviate from the formal goals given the bank by the government. They may seek the policy to rise their prestige, and to secure the bank and their own self-preservation.

The theory predicts that the behavior of the central bankers (bureaucrats) is influenced by the interest of strong special interest groups (or stakeholders) which are able either to threat, or bribe them (including offers of prestige). Traditionally the theory explored interactions between the central bankers and the government, which is the strongest subject that can affect the central bankers. But we will show in the following section that many more relevant special interest groups may exist. It means that we have to analyze both incentives and powers of these groups to understand the actual behavior of the central bank.

4 Incentives of Other Stakeholders

In this section we will explore the interests of selected stakeholders, and their power to influence the behavior of a central bank. We will look at these stakeholders: the public, the central and local governments, baning and industrial pressure groups and other possible special interests. We will contemplate over the role of media as well. The mutual relationship of these stakeholders is illustrated in a simple diagram.

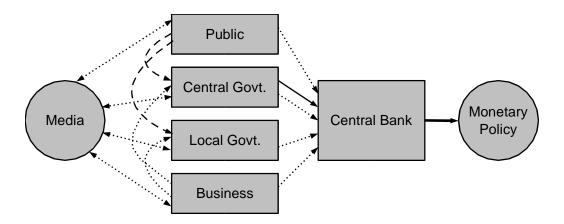


Diagram: Mutual relationships of stakeholders. Solid lines illustrate a direct control, dashed lines indirect control through elections, and dotted lines an informal influence.

The Central Government

Let us define the central government as the government that has power over the central bank, i. e. that is the nearest principal of the bank. The central government (in the broadest sense including the parliament etc.) is definitely the most important stakeholder influencing the monetary policy. It is the nearest principal of the central bank and it has power over it. The central government sets the formal goals for the bank. It is able to change the bank's social status, and lower its independence. It appoints the bank management, and so on. The central government has the best opportunity to "bribe" the central bankers too (e. g. offering them future attractive jobs). The government has also the best ability to monitor the actual actions and performance of the bank.

Economists usually suppose that the ultimate goal of the government of a democratic country is reelection. If we take it for granted, we can expect the government to carry out the policy that maximizes the probability of its reelection.⁶ To be reelected the government can do three different types of actions:

First, it can carry out a systematic policy that is preferred by the public (more precisely, by the majority of voters). This is or course what the government is supposed to do. The systematic governmental policy changes through time because the public preferences change over the time. For example, it is probable that in times of high unemployment the public sensitivity to unemployment is high while its aversion to inflation is much lower than in inflationary times of full employment. The public preference may depend on the economic theory too; thus for instance the public may be less averse to inflation when it is generally believed that a stable trade-off between the inflation and unemployment exists.

The government translates its policy (i. e. the majority preferences) into the formal goal of the central bank. We can therefore hypothesize that the lower inflation rates

⁶ The policy of a given government may be biased by its ideology. However, in general we may neglect the ideology as a separate factor because a government seeking for ideological reasons a policy that people do not agree with would not be reelected. Either the government carries the policy that the majority of people prefers, or the government is replaced by another one.

achieved nowadays are not an outcome of a higher independence of central bank, but the lower inflation and the independence of bank are joint-outcomes of the public preference for a more stable price level.

Another governmental instrument to win voters can be called hyperbolically "bribing special groups." The government can carry a policy that is beneficial for a special interest group, either a social group that forms the voters of the present government or an industry that is important for the government (e. g. it sponsors the present government's election campaign). A policy in favor of labor unions can be other example. This kind of policy may also affect the monetary policy the government prefers. For example, it can press the central bank to lower its interest rates in favor of an industry connected with many voters (the example mentioned by Kane, 1980), or it may raise funds for transfers from the seigniorage. We can expect that such a policy is more beneficial for the government if it is not publicly known (because it could raise animosity of other special interests groups). Therefore we can hypothesize that the government would not set these objectives to the central bank as its formal goals, but it would press the bank to achieve it informally. The higher managerial discretion the bank has, the easier it is for the government to press it informally because the actual instructions cannot be easily guessed from the policy. The bank has a strong incentive to obey the actual governmental instructions because it is the government that can threaten the central bankers most effectively.

The third way the government may try to win voters can be hyperbolically called "fooling voters." The government can (at least in the short run) "improve" the performance of the economy creating a political business cycle. For example, lowering of interest rates usually (at least temporarily) lowers the unemployment rate-usually at the expense of rising inflation in the long run (and perhaps creating other problems as well). Such a policy may be beneficial for the government especially before the elections. This policy is successful (from the point of view of the government) only if it is not expected. As in the previous case, the government has an incentive to press the central bank to achieve this objectives informally.

The three types of policies described above are generally inconsistent. For example, the public may prefer stable price level, so the systematic monetary policy winning the majority of voters is aimed at little inflation. However, before the elections the government may try to "cheat the public" by rising inflation to stimulate the economy. We can

expect that the government chooses that mix of the three types of policies mentioned above, which under the given conditions maximize the number of its voters, or at least ensures its reelection. Some of the conditions affecting this choice of policies are beside others the following: First, how easily can the government force the bank to achieve the objective, second, how easily can the policy be concealed, and third, how much is the objective associated with the government's reputation.

Governmental policies of the first type are usually viewed as "proper" economic policies, while the policies of the second and the third types are seen as an "abuse" of the governmental control. It is widely shared that a higher independence of the central bank diminishes the government's ability to abuse the monetary policy. However, the conclusion is not straightforward. A higher independence lowers the government's formal power over the bank. Informal control is still present, as there is no way how to abolish it (except to change the bureaucratic nature of the central bank). To simplify the matter, let us suppose that a higher independence of the bank of the government actually lowers the governmental control over the bank. At the same time, it rises the benefit of the government from "abusing" the monetary policy because it lowers the responsibility of the government for the monetary policy and its outcomes, and the ability to monitor the central bank actions. The total effect of an increased independence of the central bank is thus ambiguous.

The Local Government

Let us define the local government as the government of any level that has no direct power over the central bank, e. g. a state government within a federal country. The local government has incentives similar to the central government (including a potential "temptation to abuse" the monetary policy), but it is usually supposed to have no direct way how to influence the central bank because of the lack of power over it. This barrier disappears if we admit its ability to bribe a central banker by perhaps offering attractive future positions, or appeal to his or her patriotism. A very effective "bribe" involves a coalition of important local governments, which can this way bias the monetary policy to their own benefit.

The "temptation to abuse" the monetary policy may be even stronger for a local than for the central government because the local government can earn all benefits of such a policy shifting the negative consequences to the central bank and perhaps to the central government too because local governments are not typically responsible for the outcomes of a monetary policy.

This influence may be negligible in most cases, at least in small homogeneous countries, but it can have an important impact on the monetary policy in great heterogeneous countries or their confederations. The European Union can be such an example. The formal policy independence of the ECB does not insulate it necessarily from informal pressures from the member countries. On the contrary, the lack of responsibility to a central government creates an opportunity for local governments of the member countries to bias the monetary policy in favor of their countries.

The Public

We have discussed public preferences above. Here we will discuss only the ability of the public to influence the central bank policy. It seems at the first glance that the only possibility of the public to influence the monetary policy is through the central government motivating it to carry out the systematic policy aiming the objectives of the majority of voters. But this is not completely true. The public has more to offer to the central bankers directly. First, it can offer them prestige, and second, it can offer them safety (at least sometimes).

When the central bank is given an inconsistent mix of objectives (both formal and informal ones) it chooses those which maximize its prestige within the constraint of self-preservation. This means that the action taken by the bank can be biased in favor of public preferences if they are different from the goals given the bank by the government. We can expect that usually the deviation between the actions of the bank and the actions desired by the government is not significant since the central government has an ultimate power over the bank. However, in some cases they may differ, for example in situations when the government cannot threaten the bank because the public is willing to support the bank. The government would loose voters if it tried to force the central bank to achieve objectives that are resisted by the public in such a case. Empirical evidence is

necessary to learn how often is the public able to protect the central bank management from the informal political pressure. The theory suggests that such cases can be quite rare because of information asymmetry, and a transaction cost of organizing the public.

Banking and Industrial Pressure Groups

We have mentioned above that there are many potential stakeholders, e. g. industries sensitive to interest rates, and the banking industry. The industrial special-interest groups may try to bias the monetary policy in favor of them. We can expect that they are not able to influence the central bank directly, but only through the central, or local governments. The only exception may be the banking industry and financial markets generally. Since there is a close relationship between commercial bank and financial markets institutions and the central bank, and this industry is often very concentrated, it is possible that it might be able to "bribe" the central bankers-offering its managers professional prestige, attractive future jobs etc. However, this direct influence is rather speculative, and some empirical research is necessary to establish it before it is taken for granted.

Other Special Interest Groups

Simply for the sake of completeness we have to mention a possibility of other special-interests groups that try to affect the monetary policy, most probably indirectly through the central or local governments. Such groups can be quite specific and no systematic theory of their behavior can be found. An example of such a group is the inflationist movement in the 19th century in the United Stated described by Friedman (1994).

Media

Beside direct stakeholders there is one more powerful element in the game, that of the mass media.⁷ We do not know of any systematic theory regarding the mass media influence, but it is obvious that perhaps all stakeholders can use the mass media for their own benefit. The government (both the central and local ones) can use it to blame the central

⁷ We are deeply indebted to Paul Cwik for this observation.

bank for present macroeconomic problems, and to press it to adopt a policy preferred by it. It can also try to persuade the public to support the governmental policy through the media. The industrial and banking pressure groups can use the media in the same way to win the public support for their special-interest goals (see Rothbard, 1999 for an example). This may bring about a monetary policy that would be otherwise seen by the majority of voters as undesirable.

The mass media can also monitor the performance of the bank and of the government, and help to organize to public lowering the transaction cost too. In some cases the government or other stakeholder may be forced to give up their plans, because of the mass media campaign against it. Thus although the concrete role of the mass media in any particular event is unclear, it can nonetheless be a powerful player that must be taken into account.

5 Summary of the Hypothesis

In this paper we have challenged the traditional view that central bank's formal independence lowers the government's potential to "abuse" the monetary policy. This view stems from the assumption that the central bank managers are benevolent agents of the public seeking the policy optimal from the public's point of view.

We presented another hypothesis based on the positive theory of agency, the theory of bureaucratic behavior of central banks, and the theory of bureaucracy. According to these the central bank is a governmental bureaucracy, and its managers are governmental bureaucrats. Their independence means simply a potency for managerial discretion. Their incentive is not to achieve the "optimal monetary policy" (which is an ambiguous term referring to the fallacious social welfare function theory), but to maximize their prestige within the constraint of self-preservation. As bureaucrats they are hired to follow the instructions of the actual government. This link can be weakened by the central bank formal policy independence, but cannot be totally removed. The government appoints and re-appoints the central bank managers, and always can reasonably threaten the social status of the bankers and even the independence of the bank.

⁸ This is especially true if the media is owned by the government. Note that public television and public broadcasting are another instances of a bureaucratic state-owned organizations.

The central bankers are poorly constraint managers, especially because of a great information asymmetry (often consciously increased by the bank's actions). For this reason the governmental control of the bank is never complete. Residual managerial discretion is always present. The managerial discretion of the central bankers may lower the governmental control of the bank, but the discretion rises it (in another dimension) in the same time because it lowers the public ability to monitor and evaluate the central bank performance, and in this way it allows the government to press the central bank to achieve even its special-interest objectives (e. g. to create a political business cycle).

Moreover, the full formal independence means that the government cannot be blamed for the monetary policy outcomes that the public (i. e. majority of voters) regards as undesirable. It may intensify the incentive of the government to "abuse" the policy to win voters e. g. by the political business cycle since its negative (from the public's point of view) future consequences will not be attributed to the government, but to the "independent" central bank.

There may also be other stakeholders influencing the monetary policy there. The actual outcome of the "game" is influenced by their changing objectives, and their relative power. The most important stakeholder is the public. It influences the central bank usually indirectly through the government, but in a special cases it can influence it also directly. Since the government itself is an agent of the public (constrained by elections) we may expect that the systematic part of the central bank goals (and consequently its policy) is aimed to achieve the outcomes preferred by the majority of voters (whatever it may be). The decrease in inflation rates achieved in the last decade or two thus can be explained rather by a change in the "tastes" of the public than by a sole fact of the banks' higher independence of the government. However, there still may be non-systematic deviations of the central bank policy and the public's desires when the government of other stakeholders are strong enough to push their interests.

For all of these reasons, it seems that the overall impact of raising the central bank independence is ambiguous. It can both decrease, or increase the gap between the monetary policy preferred by the majority of voters, and the actual one. Therefore the traditional view that the formal independence of the central bank itself ensures that the monetary policy cannot be "abused" by the government is not correct. We should use it neither as a building block of our theories, nor of our practice. Definitely, we are still far from creation of a "Positive Theory of the Central Bankers' Behavior", but some general comments might be done: Firstly, we are certain that both the positive and normative theory of central banking must take into account a broader range of factors than only the central government, and the formal central bank's goals. We have to carefully analyze the institutional frameworks and actual political and special-interests forces operating in the economy. Secondly, the possibility of "abusing" the monetary policy seems to be inherent in the nature of the central bank itself. It must not be possible to get rid of it unless the nature of the central bank is changed, unless it is either subdued to an ironclad rule, or removed. Thirdly, the above presented hypothesis might give a new perspective to the rules vs. discretion, and central bank vs. free banking debates.

Bibliography

- [1] Acheson, K.-Chant, J. F. (1973a): Bureaucratic Theory and the Choice of Central Bank Goals, *Journal of Money, Credit and Banking*, 5(2): 639-655.
- [2] Acheson, K.-Chant, J. F. (1973b): Mythology and Central Banking, *Kyklos*, (2): 362-379.
- [3] Alchian, A. A. (1950): Uncertainty, Evolution and Economic Theory, *Journal of Political Economy*, 58(3): 211-221.
- [4] Bagehot, W. (1873): *Lombard Street*, Henry, S. King & Co., The Library of Economics and Liberty.
- [5] Chant, J. F.-Acheson, K. (1972): The Choice of Monetary Instruments and the Theory of Bur Bias eaucracy, *Public Choice*, 12: 13-33.
- [6] Eggertsson, T. (1990a): Economic behavior and institutions, Cambridge University Press, ISBN 0-521-34891-9.
- [7] Eggertsson, T. (1990b): The Role of Transaction Cost and Property Rights in Economic Analysis, *European Economic Review*, 34(23): 450-457.

- [8] Fama, E. F.-Jensen, M. C. (1983): Separation of Ownership and Control, *Journal of Law and Economics*, 26(2): 301-325. Also at SSRN.
- [9] Fama, E. F.-Jensen, M. C. (1985): Organizational Forms and Investment Decisions, *Journal of Financial Economics*, 14(1): 101-119.
- [10] Friedman, M. (1971): Government Revenue from Inflation, *Journal of Political Economy*, 79(4): 846-856.
- [11] Friedman, M. (1982): Monetary Policy: Theory and Practice, *Journal of Money*, *Credit and Banking*, 14(1): 98-118.
- [12] Friedman, M. (1994): Money Mischief: Episodes in Monetary History, Harvest/HBJ, ISBN 015661930X.
- [13] Friedman, M.-Schwartz, A. J.(1963): A Monetary History of the United States 1867-1960, National Bureau of Economic Research, 1971, ISBN 0-691-04147-4.
- [14] Furubotn, E.G.-Richter, R. (1998): *Institutions and Economic Theory (The Contribution of the New Institutional Economics)*, The University of Michigan Press, ISBN 0-472-08680-4.
- [15] Goodfriend, M. (1986): Monetary Mystique: Secrecy and Central Banking, *Journal of Monetary Economics*, 17(1): 63-92.
- [16] Hayek, F. A. (1945): The Use of Knowledge in Society, *The American Economic Review*, 35(4): 519-530.
- [17] Jensen, M. C.-Meckling, W. H. (1976): Theory of the Firm: Managerial Behavior, Agency Cost and Ownership Structure, *Journal of Financial Economics*, 3(4): 305-360. Also at SSRN.
- [18] Kane, E. J. (1973): The Central Bank As Big Brother: Comment, *Journal of Money*, *Credit and Banking*, 5(4): 979-981.
- [19] Kane, E. J. (1980): Politics and Fed Policymaking: The More Things Change the More they Remain the Same, *Journal of Monetary Economics*, 6(2): 199-211.

- [20] Kirzner, I. (1997): How Markets Work: Disequilibrium, Entrepreneurship and Discovery, IEA Hobart Paper no. 133, The Institute of Economic Affairs.
- [21] Lucas jr., R. E. (1976): Econometric Policy Evaluation: A Critique in Brunner, K.-Melzer, A. H. (eds.): *The Phillips Curve and Labor Markets*, Carnegie-Rochester Conference Series on Public Policy 1: 19-46.
- [22] Mises, L. (1944): *Bureaucracy*, Yale University Press, The Mises Institute, ISBN 0-910884-34-X.
- [23] North, D. C. (1990): *Institutions, Institutional Change and Economic Performance*, Cambridge University Press, ISBN 0-521-39734-0.
- [24] Romer, Ch. D.-Romer, D. H. (1996): Institutions for Monetary Stability, *NBER Working Paper*, no. 5557.
- [25] Rothbard, M. N. (1999): The Origins of the Federal Reserve, *The Quarterly Journal of Austrian Economics*, 2(3): 3-51.
- [26] Rothbard, M. N. (1956): Toward a Reconstruction of Utility Welfare Economics in Sennholz, M. (ed.): On Freedom and Free Enterprise: The Economics of Free Enterprise, Van Nostrand, www.mises.org.
- [27] Smith, V. (1936): Rational of Central Banking, LibertyPress, 1990, ISBN 0-86597-087-4.
- [28] Toma, M. (1982): Inflationary Bias of the Federal Reserve System: A Bureaucratic Perspective, *Journal of Monetary Economics*, 10(2): 163-190.
- [29] Weber, M. (1997): Byrokracie (Bureaucracy) in Škoda, J. (ed.): Autorita, etika a společnost (pohled sociologa do dějin), ISBN 80-204-0611-5. Sorted out from Weber, M. (1972): Wirtschaft und Gesellschaft. Grudriss der Verstehen Soziologie, Tübingen.
- [30] White, L. H. (1984): Free Banking in Britain (Theory, Experience, and Debate 18001845), Cambridge University Press, ISBN 0-521-25859-6.
- [31] White, L. H. (1999): *The Theory of Monetary Institutions*, Blackwell Publishers, ISBN 0-631-21214-0.