What Tasks Should Central Banks Be Asked To Perform?

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Abstract

There are only a few "core tasks" that central banks have been deliberately chartered to perform. In deciding whether or not to ask a central bank to undertake an additional task, the question of whether that task would enhance or impair the performance of these high-priority core tasks is important. The distinctive governance structure of a central bank is designed with its core tasks in mind, and *prima facie,* lower-priority tasks to which that structure is ill suited ought to be handled by a different institution.

1 Introduction

The central banks that are held in high regard today—both by the constituencies in their own countries and by the international community of central bankers—are varied in terms of their scope of activities. Particularly to an economist who thinks that "passing the market test" is an important indicator of success, therefore, it seems unlikely that some particular scope of activities is appropriate for central banks in

*Federal Reserve Bank of Chicago, U.S.A. This note is largely a summary, and formulation in slightly more general terms, of the argument presented in Green and Todd (2001). The author is indebted to Carrie Jankowski for research that is abstracted in sections 2 and 5.1. The views expressed in this paper are solely those of the author, and do not necessarily reflect the views of the Federal Reserve Bank of Chicago or the Federal Reserve System.

all countries and circumstances. Nevertheless there is a point to thinking about the appropriate scope of central bank activities. Whatever their current scopes, all central banks are regularly faced with decisions about adding new activities or discontinuing old ones. They require a framework for thinking coherently about these decisions. Outlining such a framework—perhaps a more modest project than the title might suggest—is what I will attempt here.

Especially in the context of thinking about central bank efficiency, raising the question of which tasks are appropriate poses a dilemma. A concept of central bank efficiency surely does involve considerations of what are the appropriate services to provide, as well as of how those services can be produced at least cost. The concept resembles economists' standard concept of efficiency, which envisions that resources are used to produce goods and services that people actually want, as well as that production is done in a way that is not technically wasteful. Once this point has been conceded, though, it becomes problematic to confine a discussion of efficiency to a fruitful realm. For example, the question of whether supervision of commercial banks is best done by the central bank or by a separate public agency would not be made any more tractable by being reformulated mechanically as a question of efficiency. Rather the challenge is to attain a refined understanding to what extent considerations of efficiency may play a role (albeit probably a subordinate one) in deciding an overall issue. With this concept of the project, I now turn to analysis.

I am going to make a three-part argument. First, I discuss a handful of widely acknowledged "core tasks" of the central bank. Second, I note several institutional features—particularly governance arrangements—that are characteristic of central banks and that seem crucial to carrying out the core tasks effectively. Third, I propose that a question of assigning a further task to a central bank should be decided on the basis of two criteria: is undertaking the additional task conducive to carrying out the core tasks successfully, and can the additional task be carried out better by an institution with the features of a central bank than by a differently designed institution?

2 Central banks and their original tasks

I will define a central bank to be an institution that[1]

- has both the government and banks as account holders;
  - The term 'banks' should be understood to refer to some set of financial institutions, including most or all of those with which firms and households hold accounts that can be used for making and receiving payments.
- can influence overall interbank credit market conditions, through its credit policies toward account-holding banks and its intermediation on behalf of the government;
- has been given lead public policy responsibility for achieving credit market conditions that foster prosperity and economic stability—price stability in particular.

Central banks have been organized predominantly to accomplish four types of task.[2] First, the central bank provides fiscal services to the government. Specific services have included issuing currency, holding tax receipts on account, issuing and transferring government debt at home and abroad, making interest and redemption payments on government debt, making payments for government operating expenses, and conducting foreign exchange operations.

Second, in some cases, the central bank historically has been established as a creditors' agent. This was typically done in circumstances where the government had been unable to borrow on reasonable terms because it could not credibly promise to repay unorganized, individual lenders, but where lenders collectively would have sufficient power to compel repayment. Thus, establishment of an institution that strengthens creditors' *ex post* bargaining position relative to the government was advantageous to the government *ex ante.* The task to safeguard creditors' interests has evolved over time. Contemporary central banks have a more nuanced task. They are charged with managing the monetary system in a way consonant with the government's explicit or implicit contract with the public regarding the real value of public debt and the long-term acceptability of money as a medium of exchange.

[1] This definition follows Green and Todd (2001).

[2] Cf. Goodhart 1988, Smith 1936, North and Weingast 1989

Third, one reason to charter a central bank has been for issuance of short-term credit to the banks, specifically in order to facilitate settlement of interbank claims.

Fourth, several central banks have been chartered with explicit responsibility to provide lender-of-last-resort support to banks in crises. A few have been chartered in order to institutionalize work-out arrangements, after failing banking systems have already been subsidized.

These last two roles, provision of short-term credit in the payment system and of lender-of-last-resort support, are also played by private (usually mutually owned) bank clearinghouses.[3] Several reasons have been offered, why a central bank might be able play these roles better than a private clearinghouse would do.[4]

- The government's fiscal agent is a natural candidate to serve as the apex of a correspondent-banking system, because virtually every bank needs to make transactions with the government. Being able to transact conveniently with the government is a business imperative for banks because their customers must do business with the government, at least to the extent of paying taxes.
- A central bank might be better able to issue credit because it is better able to collect debt, due to explicit statutory powers that a private clearinghouse lacks or to greater, albeit informal, deference from the judiciary than a private clearinghouse suing a debtor would receive.
- Central bank obligations (that is, banks' funds in accounts at the central bank) might be backed *de jure* or *de facto* by the taxing authority of the government, while clearinghouse obligations would be backed only by collateral or the resources of the clearinghouse or its members. For this reason, the public might regard a credit in a central bank account as being a superior settlement asset to a credit in a clearinghouse account.

[3] Freeman (1996a, 1996b) and Green (1997) provide a formal theory of the payment-credit role. They show its allocative equivalence to the operation of a bank clearinghouse, in abstraction from differences in legal powers or governance arrangements.

[4] This is a list of proposed advantages, which have not necessarily been established beyond doubt. Indeed, economic historians including Smith and Weber (1999) and Kroszner (1999) have documented regimes in which private clearinghouses in the banking and securities industries have served effectively.

- Alternatively, the public might want to supplant a private clearinghouse that is perceived to have an implicit government guarantee. A central bank, with a governance structure designed to ensure that control rights are exercised on behalf the broad public, might be perceived as mitigating a moral hazard problem posed by the clearinghouse owned by potential direct beneficiaries of a government subsidy. In contrast to the previous explanation, this one is most convincing if central-bank and private-clearinghouse obligations are reasonably close substitutes. That is, the explanation envisions that people regard an institution with preferable governance structure as being able to provide substantially the same asset as its alternative would provide.
- A central bank may also be chosen to supplant a private clearinghouse that is perceived to create competitive inefficiency or inequity.[5] As in the previous explanation, the a central bank is thought to have a more appropriate governance structure from a public policy standpoint than a bank-owned clearinghouse has.

3 Two more putative tasks

The foregoing list of tasks that central banks were originally chartered to accomplish will strike many readers as reflecting a somewhat old-fashioned view of central banking. Today, most people's view of central banking has been heavily influenced by two twentieth-century developments. Since the world's major monies have become fiat, floating-exchange-rate monies, the view that the central bank should manage the value of money or its rate of return has been widely adopted. Also the view that monetary policy can and should be used deliberately to damp business-cycle fluctuations has gained adherents. Now I argue that, at most, these currently emphasized tasks complement rather than superseding the older ones.

3.1 Nominal policy goals

The value of money can be measured against three standards, to each of which corresponds a possible rate-of-return goal for monetary pol-

[5]The New York Clearing House was so perceived in the United States after its conduct in the Panic of 1907, althhough a case can be made that the actions of the clearinghouse actually had nonpredatory business motives. Cf. Moen and Tallman (2000).

icy. These three standards are a basket of goods, a foreign money, or a future payment of money. The corresponding rate-of-return goal for monetary policy are respectively an inflation rate, an exchange rate, and a nominal interest rate. While considerable attention is devoted to the relative merits of these goals against one another, the observations relevant to my topic apply equally to all of them.

A goal is more fundamental than a target. A statistic might be designated a target merely because it is a reasonably precise, easily measurable proxy for a fundamental goal of the central bank in some task. While contemporary discussion is couched in terms of targeting, it really seems to be about goal setting. Discussions of 'targeting' may refer to overall economic welfare as the goal, but that is a trivial goal since there is no competing goal at the same level of abstraction that would be entertained in an economic discussion of this topic.

In fact, two of the tasks of central banks that I have mentioned can explain how these various targets might reasonably be adopted. If the central bank is to serve as creditors' agent to safeguard the value of government bonds, then it might attend to the inflation rate on behalf of domestic creditors and to the exchange rate on behalf of foreign creditors. If a high short-term interest rate primarily reflects urgency of banks' liquidity needs, then a central bank's effectiveness in facilitating settlement of interbank claims by its provision of short-term credit seems likely to be reflected by low short-term interest rates. Someone who advocates that meeting a nominal policy target should count as a separate, fundamental task of the central bank has a burden to explain why the creditor-agent or settlement-facilitator account of the target is inadequate. Otherwise, by Occam's Razor, the list of fundamental tasks should not be enlarged.

Moreover, the task of hitting a nominal target may be beyond the capability of any central bank if the equilibrium nominal value of money is indeterminate or subject to "sunspots," as it is in two classes of models (overlapping-generations and random-matching trade) that take the fiat nature of money seriously. (Cf. Azariadis 1981 and Green and Zhou 2002) In a standard version of the overlapping-generations mode, for example, it is true that the inflation rate must at least equal the constant growth rate of the money stock, but it is false that holding the money stock constant will guarantee price stability or, indeed, any bound on the rate of inflation. (Cf. Azariadis 1993, pp. 450–451.) To put this point in perspective, though, let me acknowledge that economic theorists differ among themselves about how satisfactory those models are and about how seriously their implication of indeterminacy should be taken. Nevertheless, it should be recognized that nominal-policy-goal advocates are implicitly taking a position on this scientific issue.

3.2 Damping business cycle fluctuations

The same two general points just made regarding nominal targeting apply as well to the putative central bank goal of damping business cycle fluctuations. First, a central bank that provides sufficient interbank credit and forestalls self-fulfilling crises of confidence in the banking system probably contributes to an economic environment in which business cycles are less severe than they might otherwise be. The question is not whether a central bank should accomplish tasks that tend to mitigate the business cycle, but whether it should take on tasks that would only be justified by establishing the damping of business cycles as a separate goal. Second, opinion on this more ambitious question is divided. Consider two eminent scholars of central banking and macroeconomics. On one hand, Lars E. O. Svensson (1999) writes that "...the appropriate loss function both involves stabilizing inflation around an inflation target and stabilizing the real economy..." On the other hand, Robert E. Lucas, Jr. (2003) writes that "...technology shocks...[alone account for] nearly the same variability in production and consumption as we see in the postwar U.S. time series. ... [I]f technology shocks are all there is to postwar business cycles, resources are already being allocated efficiently and a variance-reducing monetary-fiscal policy would actually be welfare *reducing.* [Italicized by Lucas] Even if the equilibrium is inefficient,...an optimal monetary and fiscal policy will surely be associated with a positive level of consumption variance." Lucas goes on to state that whether or not the central bank should deliberately damp consumption variance depends critically on the magnitude of the optimal level of variance, rather than on the mere fact that it is positive.

4 Core tasks and their governance implications

I have suggested that a central bank has four well established, crucial tasks, and have acknowledged that some people regard two further tasks as core tasks as well. To recapitulate, these are

- Serving as the government's fiscal agent;
- Safeguarding legitimate interests of the government's creditors and the holders of money issued on the government's behalf;
- Facilitating interbank payments by means that include extending short term credit;
- Serving as lender of last resort;
- Attempting to control some measure of the value of money or of its rate of return;
- Damping business-cycle fluctuations.

Although my definition of a central bank does not state anything about organizational or governance structure, almost all central banks share some distinctive governance arrangements including the following.

- The residual profits go to the public treasury rather than to shareholders.
- The charter largely restrains the central bank from going into businesses in which it would compete directly with banks.
- Selection of the governing board is made primarily through some public process, rather than being controlled or dominated by the banking industry.
- Through various devices, such as the design of the appointment process for members, the governing board is insulated to a substantial extent from partisan politics.

It has long been understood that governance arrangements such as these result from institution-design decisions that optimize the success of the central bank in carrying out its core tasks. For example, there is an obvious need for an institution that serves as the government's fiscal agent while also safeguarding the interests of private persons against the government to have some insulation from partisan politics. Moreover, most of the reasons for thinking that a central bank might be preferable to a clearinghouse that operated as a joint venture of banks seem to have to do implicitly with governance. For example, if it is good public policy for a central bank to have broader legal powers to facilitate interbank payments than a private clearinghouse would have or for judges to give greater deference to a central bank than to a clearinghouse in this regard, and if central banks and clearinghouses play equivalent payment-system roles in narrowly economic terms, then difference in governance seems to be the leading candidate to account for why a difference in treatment is warranted.

On the other hand, there are tasks to which the governance structure of a central bank is arguably ill suited. For example, the analogy between a central bank and a public sector enterprise is sufficiently close that one might hesitate to assign a highly risky, entrepreneurial task.[6]

5 Considering further tasks

Some tasks that nearly all central banks undertake, and some tasks that various central banks have made opposite decisions about whether or not to undertake, have not been mentioned yet. These include

- Making regulations for the banking and payment systems to promote financial-system stability (prevalent);
- Enforcing those regulations by examining and supervising banks (diversity of practice now, but formerly prevalent);
- Operating a real time gross settlement (RTGS) payment system or other, highly secure and resilient system for interbank payments (prevalent, but not so widespread until the past 10–20 years);
- Operating various "retail" payment systems (unusual).

As in the case of any proposed task for a public or quasi-public institution, there is threshold question of whether there is a market failure that justifies a departure from laissez-faire. If the answer is affirmative, then whether or not a central bank undertakes the task should depend on two considerations. First, is the task complementary to the core tasks, or at least does it not interfere with accomplishing them. In economists' parlance, is there an economy of scope between the task and the central bank's core tasks? Second, are the distinctive governance features of a central bank a help or a hinderance to it, relative to other institutions, in doing the task. In economists' parlance, again, does a central bank have an organizational comparative advantage in undertaking the task?

[6] Jevons (1883) provides an insightful and convincing discussion of task characteristics that determine whether there is a good prospect for a public agency to undertake.

For illustration, let us consider one of the tasks on the list above in these terms. To focus on economies of scope and considerations of institutional comparative advantage, stipulate that the threshold question of need for public intervention does have an affirmative answer. The following sketch of arguments is an exercise in applying the logic suggested here, rather than an attempt to provide a definitive answer to a difficult question.[7]

5.1 Examining and supervising individual banks

In current discussion of whether central banks should examine and supervise individual commercial banks, prominent questions are (1) whether the lender of last resort has incentive to treat commercial banks more leniently in a crisis than in ordinary times, and (2) if so, whether such state-contingent leniency is advisable. This pair of closely related questions, concerning the relationship between the task in question and a core task (that is, being the lender of last resort), are formally about an economy of scope. However, it is not a typical economy-of-scope question regarding whether doing one task would intrinsically enhance or impair ability to do another, but rather a question about the consonance of incentives. The current formulation, which puts incentives rather than scope at center stage, would not be improved by mentioning scope explicitly. If this issue of state-contingent leniency is the most important question regarding the advisability of central banks supervising commercial banks, then (as suggested in the introduction) the efficiency issue with which this section deals is not the main question.

However there are three subordinate efficiency issues, one of which has to do with a possible institutional comparative advantage and the other two with possible economies of scope.

First, if the central bank is supposed to lend only to banks that are solvent, albeit illiquid, then knowing whether or not a bank is solvent is crucial to being the lender of last resort. The central bank can know this either by finding out directly—that is, by examining the banks to which it might be called upon to lend—or by being told by a separate examination agency. Which alternative to prefer is a

[7] Green and Todd (2001) is a more ambitious attempt to apply this logic to central bank provision of payment services.

question of institutional comparative advantage.

Second, particularly if a central bank and a specialized government agency do not differ *per se* in their examination and enforcement ability, there is an economy-of-scope issue that communication between departments of the central bank might be more prompt and candid than than communication from a separate agency to the central bank would be.[8] Resolution of that issue depends on the satisfactoriness of arrangements that have been made in various countries to ensure forthright communication, such as structuring the governing boards of the central bank and the supervision agency to have overlapping membership.

Third, if one thinks that damping the business cycle is a core task of the central bank, then there is a possibility that information that the central bank can only discover by "hands-on" examination of banks (as opposed to receiving information from a separate examination agency) would improve the accuracy of business cycle forecasting and thus, indirectly, enhance the central bank's ability to damp the business cycle. That situation would constitute an economy of scope. Peek, *et al.* (1999) have recently provided statistical evidence that such an economy of scope exists with respect to forecasting, but Feldman, et al. (2003) have provided contrary evidence and have also pointed out some statistical problems to which all studies in this area (including both Peek *et al.* and their own) are subject.

6 Conclusion

I have made two main points. First, in thinking about which tasks a central bank should be asked to perform, it is crucial to prioritize the tasks. In deciding whether or not to ask a central bank to undertake a lower-priority task, the question of whether that task would enhance or impair the performance of higher-priority tasks is important. Second, the distinctive governance structure of a central bank is designed with its highest priority tasks in mind, and *prima facie,* lower-priority tasks

[8]Like the question of state-contingent leniency, this is an economy-of-scope question that turns on an incentive issue. In this case, though, the agency cost of outsourcing an intermediate good or service is a standard consideration in firms' "make or buy" decisions. Especially if it would be helpful to consider analytic studies or business practice regarding this issue, framing the question explicitly in terms of an economy of scope seems to facilitate analyzing it.

to which that structure is ill suited ought to be handled by a different institution.

In the discussion above, I have envisioned a two-level system of priorities (that is, core tasks and others), have made some proposals about which tasks are the core tasks, and have characterized several specific features of central bank governance as being relevant for the suitability of a central bank to undertake various noncore tasks. One might differ with my judgment about any of these particulars, and still accept the high-level logic that I have just summarized.

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