# Why Do Institutions Matter?

## An Audience-Cost Theory of Institutional Commitment

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Institutions constrain political choices and thus commit the future path of policy. Well-designed institutions square the circle of generating commitment that is both credible and flexible. This essay develops an audience-cost theory of flexible commitment that addresses some vexing questions. Where does institutional commitment comes from? Why is institutional commitment feasible when policy commitment is not? How can an institution achieve credible and flexible commitment without flexibility undermining credibility by opening the back door to defections? How does partial commitment work, or how is it possible for defections to occur in an equilibrium with credible commitment? Why do policy-makers sometimes respect institutional constraints and other times defect on institutional commitments? Why are some defections punished severely, while others are instantly forgiven and forgotten?

## INTRODUCTION

Fiat money is a wondersome thing. Today a person is willing to accept dollars for a cow because she believes that tomorrow she can use those dollars to buy a pig because she believes that the owner of the pig believes that he in turn can use the dollars he gets for the pig to purchase a bunch of chickens because she believes that he believes that the owner of the chickens believes…Fundamentally, the value of fiat money relies on a vast system of iterated beliefs: it is common knowledge (everybody believes that everybody believes…ad infinitum) that little green pieces of paper are a store of value.

Fiat monetary institutions—independent central banks staffed with conservative central bankers, monetary and inflation targets, currency boards, fixed exchange-rate arrangements such as the gold standard, the European Monetary System (EMS), the European Monetary Union, and dollarization—are even more wondersome. They are created by political fiat, they can be done away with by political fiat, and yet they constrain the policy-makers who have created them and who can do away with them.

Even so, fiat monetary institutions have political bite only up to a point. They credibly commit the future path of monetary policy even while they accommodate political pressures, renege on promises, and change their institutional stripes. They are prohibitively costly to remove, but when they become obsolete, they often go gently into that good night.

Like fiat money, fiat monetary institutions derive their existence and workings from a system of beliefs. The purpose of this essay is to characterize some of the properties of this system of beliefs and to address two puzzles about institutional commitment: where does it come from, and how is partial commitment possible?

Consider first the question of where institutional commitment comes from. When policy-makers create an institution by political fiat, the institution is credible only if something stands in the way of policy-makers getting rid of it by political fiat (Lohmann 1998a). That something can be a physical or transaction cost barrier, or a political cost. I define *fiat institutions* as institutions whose credibility derives from a *political cost.*

In conceptualizing the political cost, there is an urgent need to move away from two extreme and incompatible views that are represented in the literature on the design of monetary institutions: institutional commitments are set in stone (they constrain policy-makers in full), on the one hand, and institutions are purely epiphenomenal and have no independent bite (they do not constrain policy-makers at all), on the other (Forder 1996).

The reality of central banking contradicts the standard assumption that institutional commitments are written in stone. Policy-makers shape and redesign institutions all the time. They change central bank laws, fire central bankers, and twist central bankers' arms. They promise to stick to a simple rule and then renege. Monetary institutions—think of monetary targets or exchange-rate regimes—are well within the scope of what elected politicians can and do legitimately meddle with.

On the other hand, there is no question that institutions have staying—and constraining—power. It is just plain silly to say that the Federal Reserve is up for grabs every day in every way. Similarly, countries committed to the gold standard or the EMS could, of course, exit at will; but the fact that their governments were often willing to make great sacrifices to hang in there suggests that policy-makers expected something horrible to happen if they gave up, or were seen to give up, on the fixed-exchange-rate regime.

The two incompatible views of monetary institutions coexist because the reality of central

banking generates observations that support both sides. Policy-makers meddle with some institutions, but not others, and they meddle with some institutions some of the time, but not all of the time. Some institutional defections undermine the credibility of the institution in question, whereas others do not register—or nobody cares enough to make a fuss. In the quest to develop simple models of the real world, one group of scholars goes to the extreme of assuming, in effect, that the political cost of doing away with or overriding a monetary institution is infinite (Rogoff 1985), while another believes that the political cost is zero (Posen 1993).

This article takes a middle ground. I develop an audience-cost theory of institutional commitment that explains the peculiar "partial bite" of institutions. I take as a starting point the idea that a well-designed institution combines elements of credibility and flexibility (Section 2). I argue that the institutional design problem largely boils down to a problem of managing people's trigger-strategy punishment beliefs, or *audience costs*, for short: an institutional commitment has bite only if it is made vis-à-vis an audience that can and will punish institutional defections (Section 3). My audience-cost theory can explain how monetary institutions can achieve some degree of credible commitment while retaining some degree of flexibility to respond to uncertain developments—namely, when the political commitment to the institution is backed up by an audience that can and will execute state-contingent trigger-punishment strategies. Other strategies that I explain include accommodation and *Sollbruchstelle* (Section 4). I propose that well-designed monetary institutions are complex collections of subinstitutions monitored by audiences with different stakes, attention cues, and information sets (Section 5). In conclusion, I apply my audience-cost theory to multilateral organizations and address some possible reasons for their poor performance (Section 6).

## CREDIBILITY VERSUS FLEXIBILITY

Two sets of problems beset monetary policy and drive the design of monetary institutions. I discuss some problems that are due to lack of commitment, then problems that arise because the future is deeply uncertain and requires flexible responses.

Discretionary monetary policy is subject to a time-consistency problem that results in an inflation bias. This problem arises when economic agents in the private sector, expecting the central bank to inflate, write an inflation markup into their nominal contracts, which the central bank is then forced to accommodate so as to avoid depressing employment and output (Barro and Gordon 1983; Kydland and Prescott1977). The time-consistency problem that arises in the context of nominal wage contracts figures prominently in the literature, but many other types of time-consistency problems exist (Cukierman 1992).

The time-consistency problem is not a political problem; it besets the proverbial benevolent dictator just as it does elected politicians. A special—political—vulnerability of monetary policy arises when democratic policy-makers have incentives to manipulate the money supply for electoral or partisan purposes. An opportunistic political business cycle obtains when incumbent policy-makers expand the money supply before elections to stimulate the economy and thereby increase their chances of re-election (Lohmann 1998b, 1999a; Nordhaus 1975; Persson and Tabellini1990). Inflation and unemployment then vary over time as a function of the electoral cycle. A partisan political business cycle arises when one political party caters to a constituency with preferences for low inflation, while its competitor represents a constituency that is better off with a high rate of inflation (Alesina1987; Hibbs 1977). Inflation and

unemployment then vary over time as a function of the party in power. Either way, the political incentives to use monetary policy for electoral or partisan gain lead to excessive inflation or variability of inflation and excessive variability in aggregate economic outcomes.

Rational expectations imply that systematic attempts to stimulate output are futile in equilibrium and come at the cost of causing excess inflation. Policy-makers are better off credibly committing in advance not to inflate or create pre-election monetary surges. Political parties who take a long-run view and know they may be in power today, out of power tomorrow, are better off committing themselves to avoid partisan swings in monetary policy. Credible commitment—which typically takes institutional form—is the solution to the various time-consistency and political problems that beset monetary policy.

So far I have discussed problems of credible commitment. Monetary policy is also beset by problems of deep uncertainty. The fundamental source of deep uncertainty is the complexity of the world political economy and of the human brain. Because the world political economy is complex, unforeseen contingencies occur and economists' models regularly turn out to be wrong (or rather, they turn out to be bad simplifications). Because the human brain is complex, the behavior of the human beings populating an institution is not fully predictable, and the aggregate behavior of the institution can have emergent properties (it has the potential to surprise).

What is foreseeable is that unforeseen contingencies will occur. This type of deep uncertainty arises because we do not have a deterministic model of everything that can predict innovations and technological change, or foresee German unification and the Asian exchange-rate crisis. And even when we know that change is afoot, we do not know which random variables are relevant and which distributions apply. We cannot straightforwardly calculate the expected effect of the Internet on the banking industry. Who knows what will happen to the

money multiplier as an industrial economy evolves into a service, information, and biotech economy? And if we need to work with some expectations—because, after all, we need to make decisions—our monetary institutions had better be designed to be open to the idea that we might be wrong.

If there is another thing we know for sure, it is that our mental models of how the macroeconomy works will shift over time, as the structure of the economy changes and new arguments and evidence accumulate. This type of deep uncertainty arises because the economy is a complex system. The models of the economy we come up with are necessarily simple—necessarily because of the cognitive limitations of the human brain (we cannot hold a complex model in our heads). We simplify by fixing parameters that in truth are variable and by forming linear approximations of highly nonlinear relationships among variables. Our simplifications are the result of habit, history, and partisan leanings, in part, and of the available argument and evidence as well. New theoretical insights that make sense of the evidence in a more elegant or sparse way can occasionally sway us, just as new evidence can change our mind. And, of course, the economy itself changes over time, with the result that some models of the economy become obviously untenable. Once again, what follows from deep uncertainty is not the prescription to burn all models, but for us to design institutions keeping in mind the possibility that the economic models we take for granted might turn out to be wrong.

Problems of deep uncertainty also arise because the human beings who inhabit monetary institutions are themselves complex. Even if we lived in a world of well-behaved economic shocks drawn from well-defined distributions, even if we had an accurate model of how the economy works, we would still experience surprises, because the monetary institutions that shape monetary policy are themselves thick. Their workings are determined not only, or even

primarily, by formal rules or structures, but by norms and expectations. The soft stuff in the interstices of formal institutions defies direct observation, systematic study, and prediction. Because of deep uncertainty, institutions will almost surely not work in exactly the way they were designed to work. And if it is hard for us to modify institutions once they are in place, it makes sense for institutions to be designed to self-correct or break down when appropriate.

In summary, an institution is supposed to solve two sets of problems: credible commitment and flexibility. Yet these two problems stand in a tension to each other. On the one hand, we would like to make an institutional commitment that leaves the back door open for flexible responses; on the other hand, we do not want the institutional commitment to unravel in full because a back door exists.

Suppose a policy-maker instructed a central bank to follow a two-percent inflation target. A steady two-percent inflation rate is obviously not a sound monetary policy under all circumstances—think of recessions, bank runs, natural disasters, war, and much besides. So the policy-maker would really want to instruct the central banker to follow a two-percent inflation target and to deviate from it when the circumstances justify a deviation. The problem is that "much besides" could mean a lot of things, including the central bank helping out when the policy-maker is up for re-election.

The next section of this article addresses the first part of the puzzle: How can fiat monetary institutions be credible at all, given that they can be done away with by political fiat just as they were created by fiat? What is the nature of the political cost? The section after that covers the second part of the puzzle: What explains the "partial bite" of fiat monetary institutions? How is it possible for the political cost to be state-contingent or to be waived depending on the circumstances?

## AUDIENCE COST

Fiat monetary institutions are credible because a policy-maker who would renege on them pays a political price—an audience cost. To understand the concept of an audience cost, it is useful to consider first some alternative solutions to commitment problems: physical and transaction cost barriers that deter defections.

The general who commits his army to fight by destroying a bridge and thereby making it impossible for his soldiers to flee is creating a physical barrier. Hostage-taking is a physical commitment mechanism that has enjoyed considerable popularity in the history of warfare. In money and banking, we find ridges on the edges of coins. Ridges deter coin producers from devaluing the currency by (quite literally) shaving coins for their silver and gold. Destroyed ridges make such currency manipulations all too visible to the casual user of coins, who stops accepting them or accepts them at less than their nominal value.

Dollarization can be thought of as a fixed-exchange-rate regime that creates a physical and transaction cost barrier to defection. If the private sector in a country outside of the United States is using the U.S. dollar as its currency of choice, the domestic government cannot use monetary policy to stimulate employment and output. True, the government could create a central bank and a new currency and pass laws prohibiting foreign currency holdings. But, as a practical matter, the government cannot do all of this in a couple of weeks or in complete secrecy, and by the time it is done, nominal prices will have adjusted. In a dollarization regime, surprising the private sector is simply not a feasible option. But there is more to this example. By dollarizing its economy (or tolerating its dollarization), the government creates an audience for a devaluation or an exit from the fixed-exchange-rate regime. If the government takes action to

reverse the dollarization, everybody who uses money to do business—everybody, that is—will notice and wonder what the government is up to. And this audience may end up imposing political costs: some people might be more likely to vote the government out of office; others might shift their capital out of the country.

This is the core idea of my audience theory of institutional commitment. An institution enjoys some degree of credibility if the act of institutional creation attaches the institution to an audience that can and will monitor the integrity of the institution and impose audience costs on the policy-maker who would dare to mess with the institution.

Creating an institution draws a line in the sand that focuses the expectations of an audience: voters, wage setters, financial markets, other policy-makers. The line in the sand is a public focal point that allows hundreds, thousands, or even millions of people to coordinate their beliefs about the trigger-punishment strategies that will be executed in the event of an institutional defection.

The dismissal of a central banker, a devaluation, the failure to achieve a monetary target—all of these are institutional defections that generate an audience cost. Voters may vote the policy-maker out of office; wage setters may write high inflation markups into nominal wage contracts; financial markets may engage in destabilizing speculation or shift investment capital to other countries; cooperative understandings with other policy-makers on other dimensions of public policy may break down (the defecting policy-maker experiences a "loss of political capital"). It is the audience cost—or the threat of a trigger-strategy punishment—that makes the policy-maker's commitment to the institution credible.

Compare two situations. First, a man and a woman sit together in a restaurant, and the man asks the woman how she would feel about marrying him. Second, a man and a woman stand

together in a church in front of an audience of relatives; a priest asks each of them in turn whether they want to marry the other; and each of them says yes. In the first situation, there is no audience, and it is easy for the man and the woman to disagree on the question of what exactly, if anything, was promised. In the second situation, there is an audience, and there is a line in the sand, and these two ingredients explain why the degree of commitment is higher is the second situation than in the first. Similarly, a policy-maker who moves his or her lips might ex-post wriggle out of a policy promise, saying that he or she was misinterpreted or misquoted.

By way of comparison, it is close to impossible for a policy-maker who dismisses a central banker because he refused to do her bidding to argue convincingly that it was all just a big misunderstanding. And it is close to impossible for the policy-maker to avoid the political fall-out; dismissed central bankers have an awkward way of making front-page news.

In sum, the defining characteristic of a monetary institution is its audience. When economists discuss the pros and cons of various monetary institutions on narrow technocratic grounds, they miss an important point: different institutions invoke different audiences. By selecting a monetary institution, the policy-maker in effect selects an audience, with implications for the costliness of an institutional defection.

For example, the EMS was tied to the *Bundesbank* (the deutsche mark was the de-facto anchor currency of the system), and both the EMS and the *Bundesbank* came attached to a lot of audiences: voters, wage-setters, financial markets, and elected politicians in central and regional state governments. A devaluation or exit from the EMS came at a political cost: the offending policy-maker lost popularity with voters; wage-setters modified their inflation expectations and wrote higher inflation markups into their nominal wage contracts; financial markets engaged in destabilizing speculation and shifted investment capital to other countries; and exchange-rate

crises spilled over to other dimensions of European integration and influenced the prospects of cooperative agreements on dimensions unrelated to monetary and exchange-rate policy.

When the French government committed to peg the value of the franc to the value of the deutsche mark (which it did, in effect, when it joined the EMS), it thereby put itself into a situation where a devaluation or exit had the potential to trigger nationalistic sentiments among French voters: woe to the French government that not only fails its voters but disappoints in competition with and in comparison to the Germans!

In contrast, a monetary target does not generally trigger strong emotions: it is hard for voters to get excited about M3, in part because they have no idea that their central bank is tracking M3, in part because they have no idea what M3 is. A monetary target is necessarily monitored by a relatively small and specialized elite audience of central-banker watchers. These two audiences—a mass electorate and a specialized elite—can both hurt the government, but in very different ways, obviously. The two institutions—the exchange-rate peg and the monetary target—come attached to different prices (audience costs) of defection (Lohmann 1996, 1999b).

## EXCUSED DEFECTION, ACCOMMODATION, AND *SOLLBRUCHSTELLE*

But there is more to the example we just discussed. The two audiences differ in another important respect: the degree to which they are attentive and informed and can understand and excuse defections justified by the circumstances.

Voters can impose the ultimate political cost: they can vote a government out of office. They can observe the dismissal of a central banker because it makes front-page news. Voters in a small, open economy attend to news about devaluations, which in a small, open economy make

news. But they are generally inattentive and ill informed about the details of monetary policy. As a result, their trigger-punishment strategies are simple (not—or not highly—state-contingent). A mass electorate can distinguish, at most, a small number of states of the world. Voter trigger-punishment strategies are simple, not only because of the information problem, but also because voters face a coordination problem: voters are large in number, and in practice it is impossible for millions of people to coordinate their beliefs on a complex (highly state-contingent) trigger-punishment strategy.

Suppose, once again, that the French government pegs the value of the franc to the deutsche mark. But then German unification occurs, and the *Bundesbank*'s monetary policy is driven by domestic considerations. In this case, France imports a monetary policy that does not meet French needs, and France may well be justified in defecting on the peg. But French voters are unlikely to understand this justification: they are not going to sit still and listen to the French government explaining itself. Those who do so will not have the economic expertise to follow the explanation, and those who have that expertise are not a mass audience but an elite audience that is specialized, well informed, and small in number. It is the negative reaction of the large mass of voters that the French government fears.

An elite audience—trade-union and employer organizations who negotiate wage contracts, banks and other big players in financial markets, academic economists—can monitor the fulfillment of a monetary target like the *Bundesbank*'s *Zentralbankgeldmenge* (central bank money stock) even while they appreciate the *Bundesbank* "excuses" when it misses its target. The audience knows that the target exists; it has the expertise to understand the economic implications of the target; it has an interest in tracking whether the *Bundesbank* is on target; it observes economic and political developments that justify a deviation from the target; and, in the

case of justified defections, it waives the punishment. In short, an elite audience can execute a state-contingent trigger-punishment strategy and forgive justified defections.

Optimal institutional design consists, in large part, of setting up a monetary institution so as to put in place the ideal, or close-to-ideal, audience: the guardians of the guardians should have the ability and will to inflict an audience cost on the policy-maker in the event of an institutional defection, thereby generating credibility, but they should also have the ability and will to excuse defections when extreme shocks or unforeseen contingencies occur, thereby allowing for flexible policy responses while minimizing the probability and cost of costly institutional breakdown.

What is truly desirable is flexibility that applies at low cost, or even costlessly. Ideally, the policy-maker would make a commitment vis-à-vis an audience that can impose a political cost but is well informed enough to excuse defections that are justified in the light of the circumstances. The credible threat of an audience cost generates that credibility because policy-makers cannot run over the institution with a truck costlessly and under all circumstances; and yet the cost is waived, allowing for a flexible response, when the circumstances call for it.

Two other design principles have the potential to improve the credibility-flexibility tradeoff: accommodation and *Sollbruchstelle*.

Accommodation involves delegating monetary policy to a thinking person—say, a conservative central banker (Rogoff 1985), rather than a rule. A central banker, recognizing extreme or unusual circumstances, will accommodate the policy-maker's demands up to the point where the central banker is indifferent between accommodating and getting dismissed or overridden (Lohmann 1992). In equilibrium, the central banker is never dismissed or overridden, and yet the central bank caves in—not all the time, and not all the way, but some. Thus, some

degree of flexibility is achieved at zero cost—the audience cost that comes attached to dismissing or overriding the central banker is never incurred in equilibrium.

Well-functioning monetary institutions embody the design principle of *Sollbruchstelle*. This German engineering term stands for the part of a machine that is designed to break down when the machine comes under stress. Its breakdown deflects damage from other parts of the machine. It is fixed easily and at low cost (Lohmann 2000).

In the context of monetary institutions, the idea of *Sollbruchstelle* is justified as follows. Deep uncertainty implies that the policy-maker cannot know for sure what the ideal audience is. The trigger-punishment strategies of the ideal audience may well implement the "truly optimal" central-bank reaction function, but what that reaction function looks like is not known in advance. Thus, a given audience, however well chosen, will react suboptimally under some circumstances. For this reason alone, if for no other, it makes sense for institutions to have a built-in capacity to self-correct and break down graciously.

To illustrate the power of *Sollbruchstelle*, it is useful to compare the gold standard and the postwar German central banking system. The gold standard credibly committed countries not to inflate, and it did offer some flexibility (countries could and did go on and off the gold standard). But the very simplicity of the gold standard implied that the exercise of flexibility and the eventual breakdown of the gold standard were extraordinarily costly for the economies involved. In comparison, the postwar German central banking system went through major institutional changes in 1957 and 1992 with no disruptions to the German economy. German voters did not track these changes (the details were too complicated and boring for the mass public to pay attention). The conflict was played out between the central government that sought the changes and the audience that resisted them—mostly regional state policy-makers jealously

guarding their appointment prerogatives. The central government ultimately got the institutional changes it sought, or something close, but only with a delay and only after paying significant transaction costs and political costs (Lohmann 1994, 1998c). What is important to note is that the costs were incurred in the political sphere, not the economic sphere: politicians suffered (they mostly survived), but nothing "real" did.

## INSTITUTIONAL COMPLEXITY

Audiences differ in the kinds of defections they can identify with and care about; they differ in their definition of justified defections (which are excused) and unjustified defections (which are punished), in the probability that the punishment is executed "in equilibrium," in the quality and severity of the punishments they can dole out, and in the distribution of the punishment burden (that is, who pays). Because the world is extraordinarily complex, the ideal audience would execute an extraordinarily complex trigger-punishment strategy that would implement the ex-ante desired central-bank reaction function.

In practice, it is impossible to put the ideal audience into place. I discussed one reason earlier: because of deep uncertainty, we cannot know in advance what the truly optimal central-bank reaction function is and thus cannot identify the ideal audience. Perhaps more importantly, the policy-maker who seeks to enter an institutional commitment must work with the audiences that are out there. The policy-maker might want to commit vis-à-vis an audience that can generate a huge audience cost but at the same time is well informed enough to excuse institutional defections in a variety of situations. And yet the policy-maker's choice-set is restricted. On the one hand, there is the mass electorate that can impose a huge audience cost, but

the trigger-punishment strategies it can execute are very crude, because the mass of people does not have the attention span, the information, or the education to make the appropriate distinctions. On the other hand, there is the elite audience that can make the most exquisite distinctions, but it cannot impose much of an audience cost, perhaps because it is too small in number to make a difference in an election.

Policy-makers must make use of the audiences that are available to them. In a small and very open economy ("Belgium"), anything having to do with exchange rates and exchange-rate regimes will make front-page news. Here, an exchange-rate peg offers itself as a commitment mechanism with a built-in audience that can impose significant political costs but is also quite well informed and understanding. An exchange-rate peg will not work in the same way in a large, closed economy with inward-looking voters who do not know what an exchange rate is and can barely place Europe, let alone Belgium, on a world map.

Along the same lines, an country that is embedded in the world economy and cooperates with other countries on many policy dimensions can "export" credibility from one dimension to another via linkage politics: a defection on one dimension is punished by a breakdown of cooperation on other dimensions. The EMS and the European Monetary Union, which are embedded in the larger enterprise of European integration, are excellent examples of fixed-exchange-rate regimes that rely on functionally unrelated linkages (Lohmann 1997).

If the ideal audience is not available, the policy-maker can nonetheless piece together a collection of audiences that together approximate the ideal audience. A well-functioning monetary institution typically consists of a messy collection of subinstitutions and sub-subinstitutions that are monitored by audiences with different stakes, attention cues, and information sets. Collectively, these differentiated audiences create a complex menu of audience

costs. They allow the monetary institution to accommodate at zero cost—up to a point, to deviate from a rigid decision rule at a political price that is just low enough that it is sometimes worthwhile paying the price and just high enough that it is not always worthwhile, to change when its audiences insist that it has become dysfunctional and obsolete, and to do so forgivingly and at low social cost rather than breaking down, violently ripping apart the fabric that holds together society.

The *Bundesbank* is an example of an extraordinarily complex institution that is monitored by multiple audiences. Its very messiness allows it to respond flexibly and to go with the times without trailing huge deadweight social losses in its wake.

For starters, the *Bundesbank* has a mass audience—the general public—that serves as a referee of sorts in the event of a public conflict between the *Bundesbank* and the federal government. German voters are ready to impose political costs on the central government if inflation runs out of control, which provides a low-inflation anchor to the German central-banking system. But this mass audience has its limitations. It played no role whatsoever in the two historical debates about degree of centralization and independence of the German central banking system, in 1955–1957 (the fully decentralized and independent *Bank deutscher Länder* was replaced by the partially decentralized and independent *Deutsche Bundesbank*) and 1990–1992 (after German unification, the East German regional states were integrated into the German central banking system, as a result of which the *Bundesbank* became a more centralized institution) (Lohmann 1994, 1998c).

The regional state governments, on the other hand, are quite inattentive when it comes to inflation, but they are hyperattentive whenever the central government threatens to mess with the *Bundesbank* institution. The reason is quite simple. The *Bundesbank* is embedded in the

federalist structure of the German political system. Its central-bank council consists of a minority of central government appointees and a majority of regional state government appointees. The regional state governments are jealous guardians of their appointment powers. Just as importantly, changes to the *Bundesbank* law, which guarantees the *Bundesbank*'s legal independence, require the acquiescence of the second house of Parliament, which is controlled by the regional state governments. For both reasons, the regional state governments serve as political veto players in the event that the central government threatens to change the *Bundesbank* institution or its independent status. It is possible for the central government to change the structure or legal status of the *Bundesbank,* but the presence of federalist veto players generates delay, transaction costs, and political costs, as noted before (Lohmann 1994,1998c).

But there is more to the *Bundesbank*. Every year since 1973, the *Bundesbank* has announced a monetary target to discipline the inflation expectations of German wage-setters. The *Bundesbank* has regularly failed to achieve the target, and whenever it does it explains why to an understanding elite audience of *Bundesbank* watchers. As a result, its reputation has not suffered.

In sum, the *Bundesbank* is an exceptionally well-functioning central bank, and not because it is a simple, transparent, or apolitical institution. On the contrary, the *Bundesbank* "works" because it is complex, messy, and political. The institution speaks to informationally segmented audiences, with the result that some aspects of its operations are transparent to some audiences and opaque to others. Audience scrutiny generates credibility, but not everything the *Bundesbank* does is scrutinized by everybody all the time, which is what generates flexibility.

When policy-makers set up a central bank from scratch, they often follow the example of another country whose central bank is perceived of as a success story. The institutional design of the *Bundesbank* fed into the formal institutional design of the European Central Bank. My

audience-cost theory suggests, however, that the effects of countries mimicking other countries' formal institutions are less than straightforward. Formal institutions do not always carry over, precisely because it is not the formal institutions per se that are doing the work of generating credibility and flexibility: it is the audiences they come attached to, and those audiences do not necessarily travel well.

## CONCLUSION

Together with the problem of collective action, the problem of institutional commitment is one of the two great problems of political science. A society that solves these two problems can improve its welfare at zero resource cost. There may be no such thing as a free lunch in economics; in politics, beliefs that sustain collective action and institutional commitment can lift up a society for free.

Interestingly, some of the best-performing monetary institutions—best-performing in historical and contemporary perspective—are located in modern mass democracies. This poses a puzzle. After all, to many economists, mass democracy (or the electoral and partisan politics that are an inevitable byproduct of regular free elections in a regime characterized by mass suffrage) is seen as the devil who has a hard time keeping his paws off monetary policy.

More specifically, we find sound monetary policies and great central banks in mass democracies that come attached to highly developed economies and mature political systems. In contrast, less developed economies and nondemocracies have an uneven record, to say the least, when it comes to supporting sound monetary policies or well-functioning monetary institutions (Cukierman 1992). If one set of countries—the highly developed democracies—have figured out

how to isolate monetary policy from the pressures of electoral and partisan politics, why can another set of countries—the less developed democracies and nondemocracies—not simply follow their example?

The reason is, quite simply, that sound monetary policies and well-functioning institutions are politically embedded. It takes multiple heterogeneous audiences—people with different stakes, attention cues, and information sets—to support good policies and institutions. This is where mass democracy, in its institutionally mature variant, enters. Highly developed and institutionally dense economic and political systems deliver audiences. A developed economy is highly specialized: people do different things, and as a consequence they have different stakes; they pay attention to different cues; they know different things. An institutionally dense political system contains a highly structured network of overlapping and partially independent centers of power that are accountable to different constituencies, have access to different resources, and make decisions in different ways. Mature democracies have more, more powerful, and more varied audiences. An institutionally thick democracy can enter a complex institutional commitment (the *Bundesbank*) where an institutionally thin tinpot dictatorship must resort to primitive commitment mechanisms (machine guns).

The theory also sheds light on the poor performance of multilateral institutions such as the International Monetary Fund (IMF) (Willett 2001). IMF conditionality is a case in point. The IMF regularly lends money to developing countries conditional on those countries committing themselves to macroeconomic stabilization measures negotiated with IMF staff. IMF conditionality has an audience: banks operating in international financial markets often condition country loans on the existence of IMF-approved stabilization plans. Indeed, developing countries may well go along with IMF conditionality, not so much because they desire an IMF loan, but

because the IMF stamp of approval opens the door to larger—and economically more important—private loans.

The snag in this story—IMF conditionality as a commitment mechanism—is that the IMF has a very poor record of securing compliance with its program. There are two puzzles here. Why is the IMF's record so poor in the first place? And why would banks condition their loans on a stamp of approval that has such a poor record?

My audience-cost theory proposes two distinct explanations that complement each other. First, my theory suggests that the poor record of IMF conditionality could be a sign of flexibility. As with the *Bundesbank*'s monetary target regime, the observation of slippages and breakdown is consistent with the presence of excused defection, accommodation, and *Sollbruchstelle*. This interpretation of the IMF's poor record also explains why banks make use of the IMF stamp of approval—the commitment to an IMF-approved stability plan has partial bite, even if full commitment fails.

Second, and perhaps more importantly, the IMF as a multilateral organization does not have access to the "deep" audiences of mature mass democracy: audiences that have the stake and the information and the power to execute complex state-contingent trigger-strategy punishments are not readily available in the international sphere. The IMF member governments do not care all that much about IMF activities, mostly because their electorates do not care, and their electorates do not care because they do not have the information (or attention) to keep track of IMF activities. International financial markets care—but they care about profits, and not about the plight of the people in developing countries. In short, who cares if, after several decades worth of IMF activities, many of the developing countries under IMF "care" are not better off—and in some cases are much worse off—than they were starting out? According to my theory, it

is precisely the lack of an audience that would impose an audience cost to "regulate" IMF activities that explains the IMF's poor performance. The "Seattle protest" groups that are forming in developed and developing countries and making an issue of the values and workings of multilateral institutions are a healthy correction.

The call for multilateral institutions to become more transparent and accountable contradicts the idea that economic experts know best. Among economists, the idea that elected politicians cannot be trusted is widespread. It follows that political institutions that have the power to set economic policy should be isolated from the temptations and corruptions of democratic politics. The prescription is to delegate power to an independent bureaucracy staffed with economic experts. Left to its own devices, this select group will do the right thing. Elected politicians, organized interests, and voters will only mess things up. By shrouding its operations in secrecy, the bureaucracy minimizes counterproductive outside influences. Secrecy is thus a Good Thing.

My audience-cost theory suggests that the either-or quality of the debate about transparency and accountability versus independence and secrecy is beside the point. The true political-choice variable, so to speak, is the structure of informational segmentation about the activities of an institution. A complex institution speaks to multiple audiences in an informationally segmented way. Some of what the institution does is an open book to some audiences, a closed book to others. One audience monitors the performance of the institution on one dimension, ignoring other dimensions that are salient to other audiences. The menu of audience costs that all of these audiences produce collectively shapes the overall functioning and performance of the institution. A well-functioning institution is neither fully transparent and accountable nor totally independent and secretive.

REFERENCES


Alesina, Alberto. 1987. Macroeconomic Policy in a Two-Party System as a Repeated Game. *Quarterly Journal of Economics* 102:651–678.

Barro, Robert J., and David B. Gordon. 1983. Rules, Discretion and Reputation in a Model of Monetary Policy. *Journal of Monetary Economics* 12:101–121.

Cukierman, Alex. 1992. *Central Bank Strategy, Credibility, and Independence.* Cambridge, MA: MIT Press.

Forder, James. 1996. On the Assessment and Implementation of "Institutional" Remedies. *Oxford Economic Papers* 48:39–51.

Hibbs, Douglas. 1977. Political Parties and Macroeconomic Policy. *American Political Science Review* 7:1467–1487.

Kydland, Finn E., and Edward C. Prescott. 1977. Rules Rather than Discretion: The Inconsistency of Optimal Plans. *Journal of Political Economy* 85:473–491.

Lohmann, Susanne. 1992. Optimal Commitment in Monetary Policy: Credibility versus Flexibility. *American Economic Review* 82:273–286.

Lohmann, Susanne. 1994. Designing a Central Bank in a Federal System: The Deutsche *Bundesbank*, 1957–1992. In Pierre Siklos, ed., *Varieties of Monetary Reform: Lessons for European Monetary Union*. Dordrecht: Kluwer Academic Press.

Lohmann, Susanne. 1996.Quis Custodiet Ipsos Custodes? Necessary Conditions for Price Stability in Europe. In Horst Siebert, ed., *Monetary Policy in an Integrated World Economy*. Tübingen, Germany: J.C.B. Mohr (Paul Siebeck).

Lohmann, Susanne. 1997. Linkage Politics. *Journal of Conflict Resolution* 41:38–67.

Lohmann, Susanne. 1998a. Reputational versus Institutional Solutions to the Time-Consistency Problem in Monetary Policy. In Sylvester C. W. Eijffinger and Harry P. Huizinga, eds., *Positive Political Economy: Theory and Evidence*. New York: Cambridge University Press.

Lohmann, Susanne. 1998b. Rationalizing the Political Business Cycle: A Workhorse Model. *Economics and Politics* 10:1–17.

Lohmann, Susanne. 1998c. Federalism and Central Bank Independence: The Politics of German Monetary Policy, 1957–1992. *World Politics* 50:401–446.

Lohmann, Susanne. 1999a. What Price Accountability? The Lucas Island Model and the Politics of Monetary Policy. *American Journal of Political Science* 43:396–430.

Lohmann, Susanne. 1999b. The Dark Side of European Monetary Union. In Ellen Meade, ed., *The European Central Bank: How Decentralized? How Accountable? Lessons from the Bundesbank and the Federal Reserve System*. Washington, DC: American Institute for Contemporary Germany Studies.

Lohmann, Susanne. 2000. *Sollbruchstelle*: Deep Uncertainty and the Design of Monetary Institutions. *International Finance* 3:391–411.

Nordhaus, William D. 1975. The Political Business Cycle. *Review of Economic Studies* 42:169–190.

Persson, Torsten, and Guido Tabellini. 1990. *Macroeconomic Policy, Credibility and Politics*. London: Harwood Academic Publishers.

Posen, Adam S. 1993. Why Central Bank Independence Does Not Cause Low Inflation: There Is No Institutional Fix for Politics. In Richard O'Brien, ed., *Finance and the International Economy* 7. Oxford: Oxford University Press.

Rogoff, Kenneth. 1985. The Optimal Degree of Commitment to an Intermediate Monetary Target. *Quarterly Journal of Economics* 100:1169–1189.

Willett, Thomas D. 2001. Understanding the IMF Debate. *Independent Review* 5:593–610.