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On the design of monetary policy committees

by

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# **On the Design of Monetary Policy Committees**

**by**

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**August 27, 2007**

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As the opening speaker, I may perhaps be permitted a short trip down memory lane. The trip is purposeful, and it will be mercifully short. While preparing my Marshall Lectures for delivery at Cambridge in 1995, I asked the Federal Reserve staff, for I was Vice Chairman at the time, to research what had been written about monetary policymaking by committees—as opposed to by individuals. Although they were (and remain) a knowledgeable and thorough bunch, they unearthed almost nothing. So when I subsequently delivered the Robbins Lectures at the London School of Economics the following year,<sup>1</sup> this is what I concluded on the subject:

My own hunch is that, on balance, the additional monetary policy inertia imparted by group decisionmaking provides a net benefit to society...

But my main point is simpler: My experience as a member of the FOMC left me with a strong feeling that the theoretical fiction that monetary policy is made by a single individual maximizing a well-defined preference function misses something important. In my view, monetary theorists should start paying some attention to the nature of decisionmaking by committee, which is rarely mentioned in the academic literature.

(Blinder, 1998, p. 22)

I made reference in that lecture to only one paper on the subject, Faust's (1996) clever model of the seemingly-odd construction of the FOMC, though I should have cited Waller (1992) as well. (*Mea culpa.*) My point is that there had been hardly any research on committee decisionmaking by that time.

Fortunately, that is no longer so. By the time of my 2002 Okun lectures at Yale, published as Blinder (2004), the subject merited a whole lecture, including references to about ten papers on the subject—and I know I missed some. The literature has continued to grow since then, including seven papers at the Netherlands Central Bank's conference in 2005 and the eleven papers prepared for this conference. The study of central banking by committee thus appears to be a growth industry, albeit a small one.

In this short paper, I try to take stock of what we think we know—and what we do not know—about several questions that have been asked in this still-very-young literature. I also pose a few new questions. My jumping off point is two stylized facts.

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<sup>1</sup> These were eventually published as Blinder (1998).

1. There is an unmistakable trend toward making monetary policy decisions by committee rather than by individuals (Blinder, 2004, Chapter 2), which suggests that committee decisions are, for some reason(s), perceived to be superior.
2. Monetary policy committees (MPCs) come in a wide variety of shapes and sizes, suggesting either that (a) the principal determinants of optimal committee design have yet to be pinned down, or that (b) some of these determinants vary across nations.

Regarding Stylized Fact #1, the choices made by a number of countries in the last 15 years or so indicates an evolving consensus that (a) the committee-versus-individual choice matters for monetary policy and (b) committees make superior decisions, on average. But Stylized Fact #2 reveals that there is as yet no consensus on a host of important design issues. So I begin with #1 and then proceed to #2.

### **1. Are committee decisions different? Better?**

Do the decisions of monetary policy committees differ systematically from the decisions of individual central bankers? Notice that my opening quotation strongly suggested that they do and that, in particular, committee-based decisions are *more inertial* and, for that reason, possibly better. But is it true?

Subsequent experimental research by John Morgan and me (Blinder and Morgan, 2005, 2007) has been kinder to the last part of this presumption than to the first. In two different experiments, one with 100 Princeton University students and the other with 252 University of California, Berkeley students, we found clear evidence that committees (of sizes 4, 5, and 8) outperform individual decisionmakers in making simulated monetary policy. So did Lombardelli et al. (2005) in a near-replication of our work using students at the London School of Economics.

However, it does not appear that committees acquire their edge by being more inertial, as I had suggested back in 1996. In fact, the most stunning finding of Blinder and Morgan (2005), which was then replicated in Blinder and Morgan (2007), is that committees do not react more slowly (nor more quickly) to demand shocks than individuals do. Instead, the reason for their superior performance is that they make fewer

mistakes—without taking longer to reach decisions.<sup>2</sup> One strong suggestion coming from the experimental results is that there are genuine gains from group interaction. Committees do not just reflect the average opinions of their members. Nor do they simply follow the median voter rule. Nor are they dominated by their most skilled members.<sup>3</sup> Instead, the group seems to foster some sort of collective wisdom that makes the whole (a bit) greater than the sum of its parts.

Anne Sibert (2006) has recently disputed this conclusion, at least conceptually. She suggests two reasons why committees in general, and MPCs in particular, might underperform individual decisionmakers. One is free-riding on the public-goods nature of macroeconomic information, or what psychologists call “social loafing”—letting someone else do the work. The other is what is commonly called “group-think.”

Doubtless, there are many areas in which social loafing on a committee is important—just think of the work of any faculty committee. But, in my view, it strains credulity to apply this idea to a monetary policy committee, which is typically the most important duty that each committee member has in his or her professional life. Rather than fostering social loafing, life on a MPC seems more likely to create an atmosphere in which one-upmanship is the order of the day. In my personal experience on the FOMC, members prepared assiduously for each meeting in order to make the most telling points and thereby, hopefully, to influence the opinions of other committee members—or at least to sound smart.

Group-think is less easily dismissed. Sibert (2006) quotes disapprovingly my hunches that committees “laboriously aggregate individual preferences; that they need to be led; that they tend to adopt compromise positions on difficult questions” (Blinder, 1998, p. 20)—all of which suggest that committees moderate the possibly-extreme views of individual members. Instead, she observes, group-think can sometimes lead committees to decisions that no one would call moderate—as numerous military and foreign-policy misadventures attest. There are, no doubt, examples of

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<sup>2</sup> “Longer” in this context refers to how much *data* the decisionmaker requires before changing interest rates, not to the number of minutes of *clock time* that elapse in the experiment. We judged this to be the more relevant concept of time lag in the monetary policy context. Who really cares how many minutes the MPC meeting lasts?

<sup>3</sup> These are three findings from Blinder and Morgan (2005).

group-think in monetary policy. Alan Greenspan (but not, it seems, Ben Bernanke) certainly encouraged it on the FOMC; and some of us have a hard time believing that all 19 members of the ECB Governing Council *always* agree on *everything*. But, that said, I have a hard time thinking of examples in which group-think led a central bank to pursue horrendous monetary policy.<sup>4</sup>

So I am not persuaded that we should let Sibert's *a priori* arguments trump the experimental evidence to the contrary—not to mention the perceived successes of the Federal Open Market Committee, the former Bundesbank Council, and the ECB Governing Council.

If committees really do outperform individuals, where and how do they acquire their edge? In Blinder (2004, Chapter 2), I suggested four main avenues:

1. Policy made by a committee is apt to be less volatile—which, however, is not borne out by the experimental evidence.
2. Committees are less likely to adopt extreme positions, Sibert's group-think hypothesis notwithstanding.
3. A committee pools the knowledge of its members, leading to better decisions.
4. Committee members bring different ways of processing information (decision heuristics) to the table, which benefits the group.

Without conceding the point on #2, I am inclined to put the greatest weight on #3 and especially #4. Economists like to think of central bankers as minimizing a *well-defined* (and quadratic!) social loss function subject to a *known* (at least up to stochastic elements) model of the economy that is *stationary*. But each of the three italicized words in this sentence is wildly at variance with reality. No one really knows the loss function, and committee members may not agree on it.<sup>5</sup> Certainly, MPC members do not know—nor even think they know—the true model of the economy. Nor, when pressed, would anyone really defend the stationarity assumption. Ill-defined optimization problems with unknown objective functions and unknown (and possibly

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<sup>4</sup> Some might claim that the inflationary policies followed by the Federal Reserve before Paul Volcker were an example of harmful group-think. But other central bankers, acting as individuals, were making similar mistakes at the same time. Nor were the attitudes of the pre-Volcker FOMC out of step with contemporary received wisdom.

<sup>5</sup> Eliminating the possibility of disagreements over goals is one of the arguments for inflation targeting.

changing) constraints do not lend themselves to classical optimization techniques, nor to perfect solutions. Rather, they are likely to benefit from the application of different decision heuristics (Hong and Page, 2004).

Having tentatively concluded that committees are (a) different and (b) probably better, I turn in the rest of the paper to issues of committee design. What kind of committee is likely to make the best monetary policy decisions?

## **2. Types of monetary policy committees**

Committees differ along a number of dimensions. In this section, I deal briefly with five: the degree of consensus achieved (or enforced), the strength of the committee's leader, the committee's size, its composition between "insiders" (that is, full-time employees of the bank) and "outsiders," and how committee members are selected.

### *Degree of consensus*

In a series of papers beginning with Blinder et al. (2001), I have suggested the following three-way classification of MPCs. An *individualistic committee* is founded on the principle of individual accountability. It does not worry terribly much about achieving consensus, but rather makes decisions by something approximating true majority vote. It also often speaks with multiple voices. The Bank of England and the Swedish Riksbank seem to be two examples of this stereotype. By contrast, a *collegial committee* is founded on the principle of group accountability. It strives for a consensus decision that everyone on the committee can embrace, and it may or may not hold a formal vote. Such a committee generally speaks (figuratively, if not literally) with a single voice.

I have further suggested subdividing collegial committees into two types, according to how the consensus is achieved. On an *autocratically-collegial* committee, the chairman more or less dictates the consensus, and the other members fall in line. The FOMC under Chairmen Burns, Volcker, and Greenspan (but not, it seems, Bernanke) were clear examples.<sup>6</sup> On a *genuinely-collegial* committee, the chairman is less dominant. Members basically agree in advance to reach a group decision, and then they accept the result even if they are not entirely happy with it. The ECB Governing Council is the most prominent contemporary example of this type.

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<sup>6</sup> FOMC votes do allow for dissenters, however.

Which system works best? There is probably not a single answer that works for all times and places. But I suggested in Blinder (2004) that an individualistic committee is probably best suited to exploiting the advantages of committees over individuals—if it can solve the “cacophony problem” of speaking with too many (possibly conflicting) voices. Toward that end, it may be wise to throw a dash of (genuine) collegiality into the mix.

*Does strong leadership improve decisionmaking?*

In choosing among individualistic, genuinely-collegial, and autocratically-collegial committee structures, one important consideration is how important it is to have a strong leader.<sup>7</sup> Almost by definition, the committee chairman has the most power in an autocratically-collegial committee and the least in an individualistic committee, with genuinely-collegial committees somewhere in between. But which arrangement leads to the best performance?

There is no simple answer to this question. I have just suggested, on conceptual grounds, that something between an individualistic and a genuinely-collegial committee structure might be optimal. That blend would seem to imply having a chairman who does not dominate the proceedings. But even that tentative conclusion could easily be overturned by evidence that an MPC needs a strong leader in order to function well. Is there such evidence?

It is possible to read the good track records of the Fed under, e.g., Volcker and Greenspan, and of the Bundesbank under, e.g., Poehl and Tietmeyer, as evidence in favor of this proposition. Indeed, the Fed has a longstanding tradition of dominance by its chairman. But it appears that the ECB, during its short history to date, has not been dominated by its two presidents—and yet has performed quite well. And the highly-successful Bank of England MPC has even seen its chairman, Mervyn King, on the losing side of votes. So real-world “data” do not speak to this question with any clear voice.

John Morgan and I (Blinder and Morgan, 2007) recently attacked the leadership issue experimentally. We found, much to our surprise, that ersatz MPCs comprised of Berkeley students did not achieve higher scores when they had designated leaders

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<sup>7</sup> Heads of MPCs are variously called chairman (Fed), governor (BoE), or president (ECB). To economize on words, I’ll employ the American usage: *chairman*.

versus when they did not. Whether this laboratory result applies to real-world MPCs is an open—and important—question which Blinder and Morgan (2007) discuss extensively. But resolving it econometrically seems a daunting (possibly impossible) task.

#### *Committee size*

Real world MPCs vary greatly in size, ranging from a low of three members (at the Swiss National Bank) to a high of 19 (both the Federal Reserve and the ECB), and the ECB’s Governing Council will soon grow even larger. Table 1 shows the size distribution of monetary policy committees across a wide range of central banks. While the distribution is quite spread out, there appears to be a pretty strong mode in the 7-to-9 member range.

**Table 1**  
**Size Distribution of Central Bank Policy Boards**

<b>Number of Members</b>	<b>Percentage of Banks</b>	<b>Number of Members</b>	<b>Percentage of Banks</b>
3 or fewer	4	5 or fewer	23
4-6	28	6-10	67
7-9	50	11 or more	10
10-12	10		
13 or more	8		

*Source:* The two lefthand columns come from Lybek and Morris (2004, Table 5) and are based on a sample of 50 central banks. The two righthand columns come from Fry *et al.* (2000, Chart 7.4) and are based on a sample of 82 banks.

What determines optimal—or even actual—MPC size? The answers likely depend on a number of factors, including:

- the committee’s composition. If you want different types of people (e.g., economists, bankers, businesspeople,...) on the committee, you will need a larger committee. (More on this below.)

- the desired degree of consensus, which I have just discussed. It is probably easier to achieve consensus with a smaller committee.
- the size of the country. Especially if there is rapid turnover among board members, small countries with large committees may find themselves exhausting the available talent pool.
- the nature of the government that appoints it. For example, the multi-national character of the ECB probably dictated a large committee, as did the dispersed federal structure of the United States in 1913.

A cross-sectional empirical study of *actual* (not necessarily optimal) committee size by Berger *et al.* (2006) found that MPCs tend to have more members in larger and more heterogeneous countries, those with democratic institutions, and those with flexible exchange rates. All this makes sense.

Suppose the advantages of group decisionmaking derive largely from sharing information and employing different heuristics. If information sharing were literally costless and devoid of coordination problems, bigger committees would necessarily be better.<sup>8</sup> But the implied enthusiasm for large size needs to be tempered by several mitigating factors. Obviously, coordination problems arise in very large committees; even the sharing of information and opinions can become cumbersome. In addition, as just noted, if consensus is deemed important, very large committees may find that goal elusive. (However, the Fed and the ECB seem to find the task manageable.)

Blinder and Morgan (2007) tested the performance of four-member versus eight-member committees in an experimental setting, and found very small differences in either strategy or performance. (A slight edge went to the larger committees, though it was generally not statistically significant.) Sibert (2006) suggested, only half tongue-in-cheek, that five-person committees are optimal. If she is right, Table 1 reveals that most MPCs are too large. Alternatively, Table 1 can be taken to suggest that Sibert is wrong.

### *Committee membership*

What sorts of people should sit on a monetary policy committee? One part of the answer is simple: Since we want central banks to be independent, monetary policy

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<sup>8</sup> The Condorcet jury theorem, if taken literally, suggests committees of infinite size.

should be made by technocrats, not by politicians. So members of the government should not be on the MPC. But beyond that, what can we say?

Some of my fellow economists believe the answer is simple. Contrary to the old adage that war is too important to be left to the generals, they believe that monetary policy should be made by a bunch of skilled, technical economists who know how to minimize the expected value of a quadratic loss function subject to a linear, stochastic model—people like Ben Bernanke, Mervyn King, Stanley Fischer, and Lars Svensson, to name a few real-world examples. I hate to dissent from this self-satisfied view, and in some sense I don't. And besides, the real-world trend does appear to be moving in that direction.<sup>9</sup>

However, before we macroeconomists become too smug, let me point out two things. First, if you believe that the main benefits from having decisions made by a committee (rather than by an individual) derive from different ways of thinking, then having only Ph.D. macroeconomists may not be the best recipe. Second, concentrating on accomplished research economists retroactively would have eliminated both Paul Volcker, who was a government official for many years, and Alan Greenspan, who was a business economist with tight political connections, while letting in the distinguished academic, Arthur Burns. So, happy as I am to see my brilliant friend Ben Bernanke at the helm of the Fed, I don't necessarily believe that publishing a lot of notable scholarly work on monetary economics is the best possible credential for a central banker.

Neither, of course, did the founders of the Federal Reserve, which has the world's oldest central bank committee. The Federal Reserve Act (1913) directs the President of the United States to appoint the seven-person Board of Governors in Washington with “due regard to a fair representation of the financial, agricultural, industrial, and commercial interests, and geographical divisions of the country.” That doesn't sound much like a description of the NBER macro group to me. Appointments of the 12 district bank presidents are even more complicated since each is chosen (with the approval of the Board of Governors) by the bank's board of directors: a

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<sup>9</sup> When President Bill Clinton appointed me as Vice Chairman of the Fed in 1994, I believe I was only about the fourth or fifth career academic (depending on how you define that term) to be appointed to the board in its 80 year history. Since then, there have been seven more academics out of 12 new appointments. This looks like a regime change to me.

nine-person body comprised of three directors “chosen by and representative of the stockholding banks,” three directors “designated by the Board of Governors... with due but not exclusive consideration to the interests of agriculture, commerce, industry, services, labor and consumers,” and three members “who shall represent the public” and are to be chosen with those same interest groups in mind. Whew!

In short, the founders of the Fed sought to entrust its decisions—no one would have called it “monetary policy” in 1913—to “men of affairs”—no one was thinking of women then—with a broad variety of life experiences and points of view. The Maastricht Treaty, which came almost 80 years later, placed more faith in the virtues of specialists. It specified that ECB Executive Board members should be “persons of recognized standing and professional experience in monetary or banking matters.”

In thinking about the choice between technical monetary economists and others, it is worth pointing out that each member of the Fed’s Open Market Committee and of the ECB’s Governing Council has other duties to perform, apart from monetary policy. And specialists in monetary economics probably have no particular comparative advantage in, say, bank supervision or administration. Nor are the Fed and the ECB unusual in this respect; giving central bankers multiple roles is the norm, not the exception.<sup>10</sup> And my own experience on the Federal Reserve Board taught me that it is useful to have colleagues with more experience in banking, and in financial business in general, than academics normally have—even if they don’t understand linear-quadratic models.

The fact that most central bankers perform a variety of tasks leads to a related question: Should all members of the MPC be officers of the bank (“insiders”), or is it better to have some “outsiders” who have specialized knowledge of monetary policy? Practices in this regard clearly vary. The British MPC is explicitly divided into five internal and four external members. At the Fed, all 19 FOMC members are “insiders,” as long as you count the 12 district bank presidents that way (as you should). In fact, a number of the presidents are typically Fed careerists, whereas relatively few governors in Washington are.<sup>11</sup> The ECB’s insider-outsider structure is less clear. The six-member Executive Board works at headquarters in Frankfurt, but they are not ECB careerists. The other members of the Governing Council are the heads of the 13

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<sup>10</sup> The Bank of England’s MPC seems to be the most prominent exception.

<sup>11</sup> At present, the only one is Donald Kohn. And he is the first in many years.

constituent national central banks—a mix of careerists (at their own institutions) and non-careerists.

Which mix works best? I find this a hard question to answer. On the one hand, real benefits—such as the avoidance of group-think—accrue from bringing fresh, diverse points of view into the committee room. That observation suggests including some outsiders who are less loyal to the bank’s party line; and indeed, outsiders do dissent more frequently than insiders on the British MPC.<sup>12</sup> On the other hand, I find it hard to see how a part-time outsider, who is still pursuing some other occupation, can fully insulate him- or herself from what might be called incidental conflicts of interest (e.g., everyone is affected by interest rates) and/or from making news inadvertently while outside the cocoon of the central bank. So if there are to be “outsiders” on an MPC, they should be full-time public servants. The Fed’s practice of regularly appointing non-careerists to the (full-time) Board of Governors may be one reasonable way to balance these two considerations.

#### *Appointed by whom?*

Methods of appointment to monetary policy committees also vary widely across central banks. I just mentioned that seven of the members of the FOMC are appointed by the President of the United States. But 12 are not. Similarly, six members of the ECB’s Governing Council are appointed “by common accord” of the heads of government, while the other 13 are appointed by national authorities—in a variety of ways. In the UK, the Chancellor of the Exchequer appoints the entire MPC.

Here I do have a clear opinion. To imbue policymakers with political legitimacy, and for the sake of democratic accountability (which is related), I believe it is important that policymakers be appointed by the politically-responsible authorities. That could mean either the president or prime minister (or, as in the British case, his agent) or the legislature or parliament. But it rules out self-perpetuating oligarchies.

This view may seem to undermine the doctrine of central bank independence, but I think it does not. Certainly in a democracy, central bank independence cannot be absolute. There must, for example, be some ultimate political check on the authority of the central bank—for example, by giving the elected government the ability to take

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<sup>12</sup> See, among others, Gerlach-Kristen (2007). District bank presidents also dissent more frequently than governors on the FOMC. See Meade and Sheets (2005).

back some of the central bank's power under extreme circumstances.<sup>13</sup> But since this “nuclear option” will rarely, if ever, be invoked, it seems wise to have some milder way to mitigate the “democracy deficit.” Giving the power to appoint central bank officials to politicians who win elections seems a good option.

### 3. Committees and communication

In a recent paper (Blinder, 2007), I made a fairly obvious point, but one that seems not to have been made before: Because monetary policy committees are so different, they probably need to communicate in different ways. In particular, central banks with individual decisionmakers, autocratically-collegial committees, genuinely-collegial committees, and individualistic committees probably each need different styles of communication. A few examples will illustrate why.<sup>14</sup>

Start with the *statement* released immediately following a monetary policy meeting and the subsequent release of the *minutes*. I pair these two because, in a real sense, they are substitutes.

An autocratically-collegial committee should be capable of delivering a pretty detailed, coherent explanation of its action immediately. After all, the chairman almost certainly knew the outcome before the meeting started. If the statement is sufficiently long and detailed, there is less need for detailed minutes and no rush to produce them. The minutes will not contain much market-relevant information, anyway.

But things may be quite different at the end of a meeting of a genuinely-collegial committee. First, the chairman may not have known the outcome of the meeting in advance, which clearly would have prevented him from drafting an explanatory statement prior to the meeting. Drafting a detailed statement in real time is a real challenge. Second, while the committee members may agree on the decision, they may not all agree on the reasoning behind it.<sup>15</sup> If so, issuing a detailed statement right after the meeting may be too difficult, leaving a terse statement as the only viable alternative. In such cases, the minutes assume greater importance and need to be released sooner and to be more detailed.

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<sup>13</sup> On this, see Lohmann (1992). In the US case, extreme circumstances are not even required. The Congress can end the Federal Reserve's independence any day it chooses.

<sup>14</sup> For more details, see Blinder (2007, pp. 116-120).

<sup>15</sup> Indeed, the true rationale for some members might be “because everyone else wanted to.”

The immediate communication problem is even more acute for an individualistic committee, whose decisions are apt to be non-unanimous. Even when everyone votes the same way, members are likely to disagree over the rationales. In a situation like that, agreeing on an immediate explanatory statement might prove impossible. In the absence of such a statement, the entire burden of explanation falls on the minutes, which must therefore be quite detailed and should be released in short order.

A second example is the disclosure of forward-looking information, up to and including a projection of future central bank decisions—which the central banks of New Zealand, Norway, and Sweden now publish. In principle, this task is far easier for an individual central banker acting alone, or for an autocratically-collegial committee, than it is for either of the other two types. The chairman of an autocratically-collegial committee presumably has a good idea of what he is likely to do in the future, and he can reveal information about it if he so chooses. Late in his tenure as Fed chairman, Alan Greenspan did this regularly, albeit in his own stylized way.

The chairman of a genuinely-collegial committee is in a less commanding position. When decisions are tough, he may not be able to predict with much confidence where the committee is headed, nor when. And other committee members almost certainly will not want him to close off their future options. Since no central bank can be expected to reveal what it does not know, such a committee may be limited to offering only vague indications of its “bias” or perceived “balance of risks,” which is what the ECB and the Fed typically do.

Revealing forward-looking information is, of course, most difficult for an individualistic committee, where members not only *may* but probably *do* hold different views on where monetary policy should be heading—some of which may have been made public. Agreement on future plans certainly cannot be revealed if it cannot be reached. On the other hand, the votes of an individualistic committee may be much more informative than the votes of collegial committees. They should therefore be published immediately, naming names.

The size of the committee may also affect an MPC’s communication strategy. While the difficulties are often exaggerated, it *is* harder for a larger group to agree on wording. Indeed, this appears to be a current problem for the 19-member FOMC, which issues a brief statement after each meeting. Even though these statements are terse and often stylized, committee members reportedly have a hard time agreeing on the precise wording—leading to the exchange of numerous drafts. It could be that,

say, a 500-word statement is simply beyond the FOMC's capabilities. Of course, this conundrum, if it is genuine, does raise a chicken-egg issue. I have spoken as if the decision on committee size dictates some aspects of the communication policies. But if a monetary policy committee is too large to communicate clearly, effectively, and honestly, maybe its size should be reduced.

#### **4. Whose forecasts?**

One type of information that most central banks release, at least occasionally and partially, are forecasts of key macroeconomic variables such as inflation, unemployment, and output (or even output gaps). When decisions on monetary policy are made, whether by an individual or a committee, forecasts of the outlook *under both changed and unchanged monetary policy* are among the most crucial inputs. So, in the interest of transparency, it seems entirely appropriate for central banks to release those forecasts.

That said, committee decisionmaking raises some specific, and vexing, issues. For starters, whose forecast should be released? A first distinction is between forecasts of the committee, if they exist, and forecasts of the central bank staff. To the extent that they differ, the former are presumably more tightly linked to policy decisions than the latter. So let's start there.

In what sense can a committee, especially a large committee like the FOMC or the ECB Governing Council, actually be said to make a numerical forecast, especially a detailed one? This is a good question, and the answer is related to some of the issues raised earlier: how large should the MPC be?, what sorts of people should be on it?, etc.

At the technical level, macroeconomic forecasting is almost always done in teams. So a relatively small MPC comprised of technically-minded economists should be able to agree on a forecast and "own it" collectively. In that case, the MPC's forecast is surely the right one to release. But if the committee is large and/or if its members lack expertise in macroeconomics and forecasting, agreement on the forecast can become either elusive or illusory—perhaps both.

Current FOMC forecasts, which are released twice a year in conjunction with the Fed's semi-annual *Monetary Policy Report to the Congress*, are a good example. The published committee forecasts are supposed to represent the range and *central tendency* (whatever that means) of the forecasts submitted by each of the 19 FOMC

members. But members never meet (nor even email) to try to iron out (or even understand) the differences among their forecasts. Instead, they each generate forecasts under their own favorite (and often unstated) assumptions about exogenous variables such as oil prices, government spending, and foreign economic growth. They even make their own assumptions about future monetary policy! Oh, and by the way, while the district bank presidents each have large staffs to do their forecasting work, the governors in Washington (other than the chairman) do not.

The resulting “FOMC forecasts” are a curious hodge-podge which are hard to interpret and which may have little relevance to actual monetary policy decisions. Could the forecast exercise be done better? I am sure the answer is yes.<sup>16</sup> But the fact remains that a 19-member committee will have a hard time agreeing on a long list of numbers, even if most of them are Ph.D. economists, as is true on the FOMC today. If you add a bunch of people who carry dramatically different intellectual baggage into the room, agreement may become even more elusive. In such cases, the staff forecast might be a sensible focal point.

## 5. A Summing Up

It seems likely that more thinking has gone into the question of what a monetary policy committee should look like over the last decade than over the preceding century. While we have not yet reached agreement on *everything*, and may never do so, one way to sum up this talk is ask what might be considered “best practice” right now. If you were a country currently thinking about redesigning its monetary policy apparatus—as Norway did in 2001—what sort of monetary policy committee would you design? Posing this question is probably also a good way to get the workshop’s debate rolling.

To begin with, I think you would choose to have a MPC rather than a single policymaker. The weight of theory and evidence—plus, of course, international precedent—points strongly in that direction. The optimal size for your MPC is less clear. While 7-9 members seems to be the most popular choice around the world, a small country might find it challenging to staff a committee of, say, nine, especially if

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<sup>16</sup> Indeed, the FOMC under Bernanke’s leadership is now trying to change the process to make the FOMC forecasts more meaningful.

turnover is rapid.<sup>17</sup> You also must not make the committee so large that it finds it difficult to communicate clearly and in some detail. As I have mentioned, your communication strategy—including the type of forecast you publish—needs to be custom-tailored to the nature and structure of your committee.

In terms of committee type, I believe you would try to strike a balance between the virtues of diversity that are the hallmark of an *individualistic* committee and the clarity of communication that is the virtue of a *genuinely-collegial* committee—that is, wind up somewhere between the Bank of England and the ECB. The need for diversity suggests that not all members should be specialists in monetary economics. The virtues of collegiality, plus the research I have mentioned, suggest that it is not essential to have a dominant chairman.

All committee members should be appointed by the government, although *precisely* what that means must depend on the details of the country's system of governance.<sup>18</sup> I also believe that every MPC member should be a full-time employee of the central bank—which is certainly the international norm. However, it is probably best if bank careerists constitute only a minority of the committee's membership. (This is a safeguard against group-think.) A committee comprised of a healthy blend of monetary policy specialists and others is probably advisable in most cases.<sup>19</sup>

Many of you are now probably mulling over how your own country's MPC stacks up against this abstract “best practice” standard. In the case of the United States, the comparison looks pretty favorable to the FOMC, but with four exceptions. First, the Fed chairman may have been too dominant, and the committee too passive, historically. Interestingly, Ben Bernanke seems to be changing that. Second, a 19-member committee is probably too large. Third, only a minority of the FOMC membership is politically appointed. And fourth, the Fed does not communicate often or clearly enough.

It need hardly be said that all of these judgments of what constitutes best practice are tentative, based partly on the research to date and partly on experience. Further

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<sup>17</sup> The UK, which is not a small country, has had foreign nationals and foreign residents on its MPC.

<sup>18</sup> In the US, it would mean presidential appointment with Senate approval, which is how Governors in Washington, but not District Bank Presidents, are appointed.

<sup>19</sup> A notable exception would be if monetary policy is the committee's sole responsibility.

research may temper or even overturn some of them. And more research is certainly needed—starting with this workshop, which I applaud the Bank of Norway for holding.

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