ECONOMIC SCENE

A study shows committees can be more than the sum of their members

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Published: December 7, 2000

WHEN Alan Blinder returned to academia from his post as vice chairman of the Federal Reserve Board, he was convinced that the committee nature of the Fed made it slow to recognize and respond to changes in the economy. There was no research on the topic. So he and a Princeton University colleague, John Morgan, conducted an experiment to test whether committees performed worse than individuals.

Their results pointed in the opposite direction: At least in a laboratory setting, groups were just as quick as individuals to detect changes, and their collective judgment was substantially better than that of the individuals who made up the groups.

The researchers actually carried out two experiments. To highlight the decision problem in as stark a way as possible, the first was quite artificial. The second mimicked the type of decision the Fed's Open Market Committee makes regularly. The results of both experiments, which were strikingly similar, are reported in their study, "Are Two Heads Better Than One?" (available from the Web site, www.princeton.edu/ rjmorgan/working.htm).

In the first experiment, a computer randomly drew a series of red and blue balls from an electronic urn, with equal probability on each draw. Subjects were told that sometime in the first 10 draws the chance of drawing a red or blue ball on subsequent draws would change from 50-50 to 70-30 -- but they were not told in which direction or in which round the change would take place. The computer randomly selected the round and direction.

As the game was played, subjects endeavored to infer whether a change had taken place, and whether the odds had shifted in favor of red or blue balls. They were rewarded for the speed with which they detected a change, and for their accuracy in predicting the direction. (Speed was measured not by the clock, but by the number of draws requested -- i.e., the amount of information received -- before a change was alleged.) Players were penalized if they guessed early or late. The incentives were set so that a large premium was paid for accuracy relative to speed, reflecting the view that it is better for the Fed to get the direction right than to get it fast.

After a practice period, subjects played the game 10 times individually, and then 30 times jointly in groups of five. Groups were instructed to make decisions by unanimous consent or by majority rule. This process was repeated, alternating individual and group play, and unanimous consent and majority rule. In all, 100 subjects participated, generating 1,200 outcomes for groups and 3,000 for individuals.

Contrary to their expectations, the results indicated that groups and individuals reached decisions equally quickly. Professor Morgan was also struck that unanimity and majority rule seemed to make no difference in group decision making.

The groups were a third less likely to guess the wrong color than were the individual players; the groups, on average, erred just 11 percent of the time while as individuals they were wrong 16 percent of the time. Checks indicated that these results were not an artifact of the order in which the games were played.

Their second experiment placed subjects in the role of the Fed, and asked them to navigate the economy through a turbulent course. A small-scale macroeconomic model simulated inflation and unemployment. The economy faced a series of random shocks and, at some random point, a large shift in unemployment that also affected inflation with a lag. Subjects selected the nominal interest rate to stabilize unemployment and inflation at low levels. The would-be central bankers were rewarded for achieving low inflation and low unemployment, and penalized for making frequent interest-rate adjustments.

Despite the different setup, the results mirrored the initial urn experiment: groups made decisions as quickly as individuals, and more accurately.

Robert MacCoun, a social psychologist from the University of California at Berkeley, said of the results, "There is no intrinsic tendency for groups to be more cautious than individuals, absent any prior history or explicit hierarchy in the group."

Interestingly, a group's performance was not well explained by the average, median or best performance of its members as individuals. "What the results suggest," Professor Blinder said, "is that the interaction that takes place in a group does improve the decision making, so a group should not just have one person decide."

Because of the politicking, hierarchical structure and strongly held beliefs of members, the study's applicability to an organization like the Federal Reserve Board may be limited. Nevertheless, Laurence H. Meyer, a Fed governor, called the study "absolutely fascinating" and said it "definitely has relevance to the Fed."

The Clinton administration, believing the Fed chairman calls all the shots, has not made filling vacancies on the board a top priority. One plausible implication of the Blinder-Morgan study is that appointing Fed governors with economic expertise and independent views should be a priority. The next president will immediately have three openings to fill -- two vacant ones and one now occupied by the vice chairman, Roger Ferguson, whose term has expired -- and one more in a year when Mr. Meyer's term expires. Mr. Ferguson, who has served just three years, deserves to be reappointed to a full term for his Year 2000 stewardship and efforts to make the Fed more transparent.

Bob Woodward's best-selling book "Maestro" depicts the Fed chairman, Alan Greenspan, as God on a good day -- rarely making a mistake and winning over recalcitrant governors. This view is ubiquitous: a taxicab driver told me last week that as long as Mr. Greenspan is in charge, the economy will do fine, so it doesn't matter who is president.

Yet the Blinder-Morgan study suggests even a maestro performs better with an orchestra than without. Another reason for the next administration to appoint serious macroeconomists to the Federal Reserve is that the new governors' terms will almost certainly extend into a post-Greenspan Fed, where it is likely that decision making will be more diffuse and the chairman less adroit at economic forecasting than Mr. Greenspan.