What Operating Procedures Should Be Adopted to Maintain Price Stability—Practical Issues

Chairman: Andrew Crockett

Mr. Crockett: Thank you, Don. I propose what we do now is perhaps eat into ten minutes or so of the coffee break, which gives us almost fifteen minutes for observations from the floor. I will try to favor those who have not had a chance to express their views before. With the panel's permission, I will ask them to reply only if there are very important points so that we have the benefit of as much as possible from the floor. Lars Svensson, I know, had asked to make a point—which breaks my rule not to ask people who have spoken before. But, Lars first.

Mr. Svensson: Needless to say, I am in full agreement with Chuck's framework. I find his paper full of useful observations and good advice. I have a question, though. Can one summarize what you say as a general rule that when shocks arrive or there is a change in expectations or anything, one should basically look at how the two-year inflation forecast is affected and then take the necessary action? Is that a brief summary of your paper?

Then, another point: I think the framework that Chuck lays out and the framework that I agree very much with, has an additional potential—namely, to improve the quality of the monetary policy debate within the media. Often it is rather populistic, unfortunately. But in principle with this framework, one can distinguish debate about the targets, about the model, about the information available, about assumptions made, and about the resulting forecasts. If you

can separate these points, then you can perhaps debate on a somewhat higher level than is often the case.

Finally, again the opportunistic approach to disinflation. If you look up "opportunistic" in a dictionary it means "without regard to principles." In general, a standard framework with reasonable loss functions and objectives like those that have been laid out in the papers of Stan Fischer, Mervyn King, John Taylor, and Chuck Freedman give no support whatsoever for the opportunistic approach. What you need is a steady leaning toward the long-run target. That is what the standard framework and reasonable preferences support.

Mr. Crockett: Mr. Lieberman.

Mr. Lieberman: That was an excellent paper by Chuck Freedman, and the comments by Don Kohn anticipated some of my comment. I thought there were some interesting and critical issues raised. If forecasts of inflation are crucial in formulating policies, as Chuck and Don and the entire previous session discussed, those of us who make a living forecasting understand how tenuous that can be. And forecasting inflation also can be very counterproductive for a central bank. Consider a very simple hypothetical case of where the unemployment rate is roughly at the NAIRU or perhaps below it, growth is above trend (above potential), and inflation is near the upper end of the central bank's target or market expectations; then a central bank head who projects a slowdown in activity can have a big impact on market expectations—especially if the central bank enjoys a lot of credibility. That would encourage the market to drive up bond prices and interest rates down, and a drop in interest rates might then be inconsistent with the projected slowdown in activity. In that case, you would get a counterproductive result of where expectations of moderating growth and continued good inflation performance actually contribute to stronger economic activity and an unfavorable outcome of higher inflation. The implications of that kind of a framework are four: (1) Central bank credibility is dependent upon forecast accuracy; (2) market expectations can be very misleading in other words, you can fool all of the people some of the time, and as a result, can be counterproductive; (3) as the Chairman's com-

ments yesterday suggested, there is a substantial role for expectations in the formulation of policy, but if the market expects inflation to be well-behaved, that can be problematical—after all, forecasts can be wrong, including the central bank's forecasts; (4) if forecasts are used, then, by definition, policy should consistently try to be preemptive.

Mr. Crockett: Thank you. Larry Summers.

Mr. Summers: An observation on opportunistic disinflation. I suspect efforts to model this analytically will be more fruitful if, instead of focusing on what loss function justifies it, instead focus on the learning behavior of economic agents. And what is really being captured is that you are at a point where you do not want to inflate because you will lose credibility, but there is no need to disinflate. And being seen to be consciously affecting inflation is very much damaging to a central bank's credibility. I also wanted to just touch on this zero nominal interest rate floor and to argue that it really does require considerable further study and thinking. If we all succeed in bringing down budget deficits in a way we hope to, equilibrium real interest rates will presumably fall and will therefore make the zero interest rate floor a more relevant issue in the future than in the past. Second, I think there are low nominal interest rate effects that do not figure in our models. One of the important sources of resistance in Japan to lower interest rates was that there were a lot of people who lived on the income from their bonds and were not very impressed with a 0.5 percent nominal yield. And as long as there is a distinction between income and eating into principal, the level of nominal interest rates will make a difference. Similarly, to reflect another concern, those who borrow in order to finance speculative positions, I suspect, pay rather more attention to the nominal interest rate than to the underlying rate of inflation in the country in which they are borrowing. For that reason also, nominal interest rates of a one-quarter or a one-half percent understandably raise legitimate concerns. Last, just to stress the point, the issue is not whether you need negative real interest rates. If price stability is being targeted with zero inflation, then half the time there will be negative inflation. At that point, it is not possible to get to a zero real

interest rate, even if the nominal interest rate is lowered to zero. And, as Chuck Freedman and I have discussed, the open economy aspects of this problem require a good deal more consideration.

Mr. Crockett: Mickey Levy.

Mr. Levy: This has to do with forecasting and targeting. As we know, several central banks do have explicit inflation targets and the Federal Reserve does not. However, twice a year, in its semi-annual report to the Congress and the Humphrey-Hawkins testimony, the Federal Reserve provides its central tendency forecasts for real GDP growth, nominal GDP growth, the CPI, and the unemployment rate. What I have found going back since its inception about fifteen years ago is an extraordinarily close correlation between changes in the federal funds rate and deviations of actual performance from these Fed central tendency forecasts. This correlation holds symmetrically: the federal funds rate rises when real and nominal growth are above the Fed's central tendency forecasts and falls when these variables are below the central tendency forecasts. In the last couple years, we have experienced a relatively stable rate of inflation. The Federal Reserve's central tendency forecasts have actually done a very good job of forecasting actual inflation. Accordingly, all of the changes in the federal funds rate have been associated with periods when nominal and real GDP deviated from the Fed's central tendency forecasts. Market interest rates move accordingly. That is why the market seems to move so much on a lot of these measures of real performance. Now, one issue is that the Fed's central tendency forecast of inflation has been stuck around 2.75 to 3 percent. Does the Fed plan on lowering it? This is important insofar as the Fed's central tendency forecasts provide a lot of information about the Fed's comfort range, if not its target. Secondly, I think the way the Federal Reserve conveys information about the inflation process is extraordinarily important. I know there is a lot of discussion now about what is potential growth and what is the NAIRU. One of the problems with identifying real growth and the unemployment rate as the sources of rising inflation is that it conveys misleading information to financial markets and the public, and complicates the Fed's pursuit of price stability.

Mr. Crockett: Allen Sinai.

Mr. Sinai: A couple of questions for you, Chuck, on your excellent paper that deals candidly and explicitly with key topics of the conference. It was a terrific paper. You say that, typically, the focus has been on the core rate, excluding food and energy. Did you mean this to be Canada only, or do you include central banks in the United States and other places where inflation targeting is going on? The "core" notion, I believe, came from the severe shocks of the 1970s and 1980s where there were clear exogenous shocks to the inflationary process. But these two components are really a significant part of prices and the inflationary process in the normal course of events. So, yet another question. Should not a central bank differ in its assessment of a target inflation rate where the CPI is used in the tracking of its progress? Should we be looking at food and energy prices in terms of whether they are endogenous to that situation or exogenous shocks, such as in the 1970s and 1980s? And a related observation to the choice of the inflation measure: A lot of attention is paid to the core rate in markets, mainly because of the belief that the central bank pays attention to it in its policymaking. If the central bank were to announce its inflation guide was the chain-weighted GDP deflator, say in the United States, regardless of what the Humphrey-Hawkins testimony requires, then markets would not react to the core CPI hardly at all. Long-term bond yields would react to the current chain-weighted GDP deflator measure in the United States—which is substantially different from the CPI. Longterm bond yields would probably go down significantly right away. And there is a second comment and question on the issue of wage rigidity where you cite evidence, but you don't cite the Akerlof, Dickens, and Perry paper—where they found evidence that there is not downward wage rigidity. You do not mention that. Anecdotally, I think there is support of what you say, that we have massive re-engineering in the United States, massive substitutability of new vintage labor for old vintage labor, which carries with it lower wages and wage compensation and in many cases higher productivity. And that has been a very significant part of the low wage inflation in the United States, not just job insecurity which has been frequently cited as the reason for low wage inflation for a long time.

Mr. Crockett: Last, and if he can promise to keep within 60 seconds, Peter Kenen.

Mr. Kenen: Let me revert very quickly to the debate about zero and negative real rates and raise this question. If an inflation rate of 2 percent satisfies what we probably must now call the Volcker/Greenspan test that the inflation rate does not substantially affect economic behavior, then for all practical purposes, the real and nominal rates are the same. In which case I see no advantage in having the scope to get the measured real rate down to, say, minus 2. It seems to me, the issue between 2 percent inflation and zero inflation is the set of issues raised by Akerlof, Dickens, and Perry concerning the costs in real terms of moving lower and staying lower and concerns about measurement error. The extra flexibility that one has at 2 percent versus zero in terms of the real rate, it seems to me, is nil if indeed 2 percent is too low to affect economic behavior.

Mr. Crockett: Thank you very much. I will give Chuck Freedman just a very brief period of time to respond to the major points that were raised. Some of the specific questions, I think, could be taken up bilaterally. Chuck.

Mr. Freedman: Thank you very much. In response to the comment by Lars Svensson, I think the notion of shocks affecting the two-year or one-and-a-half-year out forecast is a good way of looking at it. I would want to emphasize the point, though, that it is not mechanistic. I hope I did not leave the impression that when we talk about a forecast, it is what comes out of a model. There is a lot of judgment that comes in. That is why central bank governors are paid what they are. In a sense, at the end, those decisions are the tough ones. What is the forecast of inflation now? What kind of bands are there in terms of uncertainty? Should we be acting? Are there too many risks, etcetera, etcetera? So I think with that qualification I agree with the way you phrase it. In fact, I would add one further question: Should the forecast be published? Some central banks do publish-Don Brash, of course, at the Reserve Bank of New Zealand and the Bank of England—most all the rest do not. And there is an interesting question as to whether it should be published. I'll just mention that

core versus total CPI is a very important point. We use the core as the operational measure. We make it very clear if the core diverges in any trend fashion from the overall, it is the overall that counts. I think that is important for the credibility of the policy—if food and energy prices result in wiggles in the CPI they are not taken into account in policy. But if, for example, food and energy prices were growing substantially faster in the way of trend, they would have to be taken into account in policy; and then the target for the core CPI would be below the target for the overall CPI. I do mention Akerlof, Dickens, and Perry in the newest version of my paper. I had not received it when I wrote the first version. It raises interesting issues, but I think in a sense this becomes a very empirical point, as we have heard throughout this conference. Finally, I guess I would take a bit of issue with Don Kohn regarding the question of whether you can have more or less flexibility in response to inflation moving up, when you have an explicit target. I would argue you probably have more flexibility if you have an explicit target, because then you can explain to people that you think these are transitory upward movements of inflation, but that you are still adhering to the target, and the trend will soon turn down. If you do not have an explicit target, there is always the risk that people will be interpreting policy as moving away from the overall goal. But I think that is a debatable point.

Mr. Crockett: Thank you. Don Kohn, briefly.

Mr. Kohn: In regard to Lars, I entirely agree that the standard framework does not produce opportunism, and I am not sure opportunism is right. But I think we need to be clear as economists whether that standard framework, which is so tractable in our models and operates in such nice ways, is a real representation of the public's preferences.