General Discussion:
What Do Budget Deficits Do?

Chairman: Gordon Thiessen

Mr. Thiessen: Thank you, Allan (Meltzer). Well, that really leaves us quite a lot to deal with. I must say, I did find myself wondering whether there was a huge difference between those of us who come from more open and smaller economies and those who come from the United States. I wondered whether that kind of hard conclusion that Laurence Ball and Gregory Mankiw alluded to and that Allan Meltzer mentioned, about there not being much of an impact on the exchange rate coming from deficit and debt accumulation, isn't somehow a uniquely American result. I must say, in more open economies we certainly worry about the net accumulation of foreign liabilities that comes from running an ongoing public deficit and public debt. And, of course, as you accumulate those net foreign liabilities, you have to service them over time. And, what that leads to, of course, is a depreciating exchange rate to generate the trade surplus that you need. So, in the long run, you expect an accumulation of public debt to lead to an accumulation of net foreign liabilities and a weaker currency. The other thing that tends to happen is that at some point the perfect substitutability hypothesis doesn't seem to hold. You get buildup of risk premiums in your interest rates. And that, in turn, adds an effect on your currency, so that efforts to reduce public debt and deficits in open economies do have an impact on the currency that you don't seem to be able to find in the United States. Okay, on to questions...

Mr. Giovannini: I wanted to raise one political aspect of deficit reduction which might be of some interest. There are examples of countries that in the mid-1980s reduced their deficits and improved their financial positions very dramatically. Those are the cases of Denmark and Ireland. One question that I would like to ask the authors on the political aspects of these adjustments is whether size might matter in terms of the ability of a country and a government to organize a large fiscal adjustment. Thank you.

Mr. Ball: It's an interesting hypothesis. I think quite possibly yes, in the sense that obviously a lot of the problem in the United States is a deadlock involving various competing interests who don't want to give up their goodies. So presumably, a more homogeneous country with fewer diverse interests would have an easier time reaching some kind of solution, and size is, in general, probably somewhat correlated with homogeneity.

Mr. Mankiw: A related consideration, which we mentioned briefly in the paper, has to do with size and whether your debt is internal or external. Orange County, California, may be more eager to default, because most of its debt is not held in Orange County; whereas in the United States, much of the debt is held internally, and that might affect incentives to default and therefore risk a hard landing.

Mr. Greenspan: Let me follow along by adding to the central bankers' view of this relationship between deficits and exchange rates. The issue in the United States, I don't think, is terribly different from the issue in Canada or in the more open economies, as you put it, the smaller ones. We have data only for about twenty years on flexible exchange rates. The exchange rate is not strictly a spot rate. We have a term structure of exchange rates, which is implicitly constructed in a covered manner by working off the spot rate and various different debt maturities as you go out one year, two years, five years, ten years. Clearly, the covered exchange rate ten years out is essentially the spot rate adjusted by a ten-year zero coupon bond differential in one currency versus another. It also follows that as you strip out the term structure of interest rates and move increasingly to distant forward exchange rates, interest rates differentials

by definition have increasingly less impact. At the limit—the very long run—we are looking only at purchasing power parities—in effect, stipulating that it is the purchasing power of the currency twenty, thirty, fifty years out, which ultimately determines the long-term exchange rate. The problem is that we cannot know the portfolio demand for a currency at various maturities. Many of us who are central bankers expect that a substantial reduction in the long-term prospective deficit of the United States will significantly lower very long-term inflation expectations vis-à-vis other countries. The belief is that the demand for the U.S. dollar at the longer maturities can exceed the demand for the dollar at the shorter maturities. But let me go back for a minute. I will grant that, if you have a significant reduction in the budget deficit, short-term and intermediate interest rates will fall and, other things equal, the exchange rate will fall. But, the unanswered question is whether the portfolio demand at the long end based on purchasing power parity overwhelms that short-term change, and since there can only be one term structure for exchange rates, those rates must be arbitraged backward and forward. I think the point that central bankers are making is that lower long-term inflation expectations can significantly overwhelm the short-term interest rate effects, and through arbitrage back to the spot rate, firm it. Now if you are arguing that is very difficult to prove, I will stipulate that. The data are not there. However, I suspect we're going to get a series of data points over the next several years, and this argument will be largely resolved. It isn't, as you point out in your paper, that we are looking at the most recent weaknesses of the dollar as being the consequence of the budget deficit; that's not the argument. What is causing the current weakness of the dollar is a different discussion, in which our degree of ignorance will become terribly exposed. The notion that central bankers are making—one I would consider to be a non-textbook argument—is based on the evaluation of the exchange rate, not as a spot rate, but as a term structure with exogenous shifts in portfolio demands. In that context, I think the results are conceptually indeterminate.

Mr. Thiessen: Laurence...

Mr. Ball: Yes, I think we certainly agree one can't prove anything with the evidence, and the charts like Allan Meltzer has shown us

are interesting to look at, but as always in economics, there are lots of things going on. Certainly, for example, if you look at year-to-year changes in exchange rates, monetary policy is very important. We just don't have enough evidence or enough identifying assumptions to really look at the data and say what happened. So you have to tell stories and judge what is plausible and what is not plausible. You provide an example of how you can tell a reasonable story in which deficits might have a perverse effect relative to the textbook effects on exchange rates. In judging what kinds of stories are plausible or not plausible, I think one thing to think about—which is fairly convincing for us—is the implications for the trade deficit. So, suppose that one tells a plausible story in which reducing the deficit in the United States will lead to a stronger dollar—the opposite of the textbook wisdom. Therefore, if balancing the budget of the United States leads to a stronger dollar, that also seems to imply that it will lead to a larger trade deficit, unless we also want to overturn some very basic ideas in trade theory.

Mr. Greenspan: I grant there are other forces which affect the exchange rate, but even granted that, the issue I'm arguing, which central bankers tend to raise, is the question of very long-term expectations as they work their way through the market, and the implications of the fact that we have a term structure for exchange rates. It doesn't necessarily conflict with what the short-term trade current account balance is.

Mr. Mankiw: I remain somewhat puzzled by your story. I just don't understand it. I'd like to talk to you about it more. But even if it's true that deficit reduction did lower long-term expectations of inflation, I don't fully understand how that would translate today...

Mr. Greenspan: I'm talking prospectively.

Mr. Mankiw: Prospectively. Expected inflation in the future. I understand that purchasing power parity pins down the real exchange rate at infinity, or even in five years, ten years. I can accept that, but I don't see how it follows...

Mr. Greenspan: Well, suppose you have a very significant change in expectations of long-term inflation in the United States vis-à-vis Germany, and that, therefore, there is a significant demand for U.S. dollar-denominated instruments vis-à-vis deutsche mark-denominated instruments in the longer end of the market, which would very significantly increase the demand for dollars vis-à-vis deutsche marks, say, ten, twenty, thirty years out in the maturity schedule.

Mr. Mankiw: The long-term nominal rate?

Mr. Greenspan: Yes. And what I'm basically arguing is that you cannot say abstractly which is greater: the increase in the demand for dollars in the long run from a decline in long-run inflation expectations, or the decrease in the demand for dollars in the short run from a decline in short-term interest rates. What I'm trying to say is that one can't demonstrate which is greater.

Mr. Meltzer: Depends on how you do it.

Mr. Mankiw: Will real rates fall as well in your story?

Mr. Thiessen: Okay, other people want to intervene here. Rob Johnson first.

Mr. Johnson: I'd like to address that portrait of long-term expectations that Chairman Greenspan just presented. It seems to me that if our long-run peg is purchasing power parity and what we're doing is resetting the nominal exchange rate to achieve a certain real exchange rate at that terminal point, we have to somehow believe that the reduction of that medium-term or that longer-term deficit and accumulated debt path will not induce the monetary authorities to ease more. Because in the long run, inflation looks like a monetary phenomenon and so somehow perversely cutting the deficit would put us on to a tighter expected trajectory of monetary policy. I think in the short run most of the papers—and I look forward to John Taylor's work which suggests there would be short-run easing—but in the long run I don't see, unless you think we're coming back from

the brink where induced monetization of the debt is the concern, why that long-term expectation would necessarily follow.

Mr. Thiessen: Allan Meltzer, do you want to add something?

Mr. Meltzer: I just wanted to say that it depends very much on how you close the budget deficit. You certainly don't think it's going to be the same if you, for example, were to raise tax rates rather than cut expenditures. Or that the response of the market would be the same if you put a tax on capital as compared to putting a tax on consumption. And, those effects, I would say, are vastly more important for the United States—both short and long term—than the effect of closing the deficit itself on the expectations that you are talking about.

Mr. Thiessen: Okay. I see some other hands. Let's start with Lawrence Lindsey.

Mr. Lindsey: I'm going to try a translation here—from *central bankese*. Suppose, Greg Mankiw, that you substituted the phrase "default risk" for "inflation expectations" in the Chairman's story. If I understand what would happen, if default risk were to suddenly increase, then you would have an increase in both nominal and real rates, but perhaps not in the real-default-risk-adjusted rate. And so, it might be that we use the term "inflation expectations" as a substitute for "default risk" because that is the most common method of default. But if you believe what I think the paper said, that default risk is more important than the textbook explanation—and certainly Rob Johnson and Allan Meltzer's story reinforces that—then I think the story the Chairman told goes through.

Mr. Thiessen: Okay. Do you want to respond to that?

Mr. Mankiw: Very briefly, yes. We sketched that out in footnote 2 for the very close readers of the paper. The question is whether there is a change in the probability of a hard landing.

Mr. Thiessen: Okay. I'd like to get a non-American view here. Anybody from a smaller, open economy want to comment?

Mr. Darby: Maybe the non-American view can come next? First, I just want to emphasize some things Allan Meltzer suggested and bring them further. About eight years ago, my then-boss Treasury Secretary James Baker wanted to know why savings—personal savings, private savings—were so low. Were they unexpectedly lower? I returned to the old consumption function literature, which most of us have forgotten, and discovered it wasn't unexpectedly lower. The old consumption function worked pretty well, even without extending the estimation period. In that literature, it makes a big difference whether you increase government spending on goods and services or whether you decrease taxes or increase transfer payments. It is very easy, then, in terms of the estimated consumption function, to reduce the deficit by increasing taxes more than you increase expenditures on goods and services and still reduce national savings. So again, in terms of Allan's "How do you do it?," it makes a big difference whether you do it by expenditures on goods and services or by taxes. And it seems to me there is another question—particularly as we have had this change in defense spending and this movement toward transfers quite generally—should we reexamine the question: Are negative transfers the same as taxes? That was sort of resolved in the 1950s, when Friedman explained why we could all have the same marginal propensity to consume. It hadn't really been looked at again. And we may have to look at three categories: government expenditures on goods and services, transfer payments, and taxes. It seems to me that, in terms of the logic underlying our models, we have to go back to the consumption function and look at savings.

Mr. Brinner: Let me try and address Alan Greenspan's issue and also something that Robert Johnson raised. When I look at exchange rates, I think of similar term structure where the real spot exchange rate is positively linked to the real future by real interest rates. Alan posited that, if you are looking twenty to fifty years in the future, the real future exchange rate is fixed by purchasing power parity. If you are a large-enough economy so that deficit reduction influences the balance of savings and investment and your nation's cost of funds, then your real interest rates would drop, hence your real spot exchange rate would also have to drop. Given that real spot commodity

prices are fixed, this would mean your nominal exchange rate would also have to drop. Inflation expectations should be neutral if you go to this long-term view. The inflation premium in the nominal interest rate would drop by the same amount that the inflation expectations are dropping in the foreign exchange markets. Any such drop in *inflation premia* would be in addition to the decline in the *real scarcity premia* due to deficit reduction. Therefore, you still get to the traditional view that the nominal exchange rate would decline with budget-balancing efforts.

Now, Robert Johnson raised an interesting question about which interest-sensitive sectors would respond to this decline in real interest rates that I just posited. And there certainly is a controversy about whether producer-durable spending would respond. I think I'm on one extreme—thinking it would respond quite a bit—and you have people at Brookings, Stanford, and Hickman-Cohen, who try to argue there is little or no effect. But that is a very important issue, and it might be that a large burden has to fall just on housing and some consumer durables. In which case, if you're trying to maintain full employment, the real interest rate has to fall even farther because you're leveraging against fewer sectors, and hence the nominal exchange rate would have to fall even farther to maintain full employment. Thank you.

Mr. Stiglitz: I just want to take a point that Allan (Meltzer) raised, and put it in a slightly different context. It is true that how you reduce the deficit makes a great deal of difference. His focus was on consumption expenditures. Part of the current policy debate is what fraction of the deficit reduction will come out of investment expenditures on education, research and development, technology, and basic research. If you put those changes in the context of the Ball-Mankiw paper and add the point that Allan raised—that in fact what we're looking at here is not the elimination of the debt, but a reduction in the deficit—the debate really is over things like what to do in seven to ten years. You realize that the growth effects of the direct deficit reduction are negligible, whereas the growth effects of the potential investment effects from reducing investments in the public sector could be quite significant: the wrong way of doing

deficit reduction could have severe adverse effects on economic growth. I actually think that your paper probably overestimates some of the magnitudes of the direct effects for a couple of the reasons that have already been raised, but also because the kinds of marginal real returns to capital that you have, 12 percent, is a lot higher than a lot of people think. One other point I wanted to raise, which I might have raised earlier but I think fits into this context as well: If you look at the period 1980-84 when our deficits increased in the United States, this was a little bit different from other countries. The deficit increase really wasn't due to increases in social expenditures, as the [Masson and] Mussa paper points out in their table. In that period, education, welfare, and health as a percentage of total government expenditures decreased by 5 percent. So you can't look at social expenditures as the source of the increase in deficits in the United States.

Mr. Thiessen: Okay. Over there.

Mr. Sinai: On the issue of deficit reduction and exchange rates, I don't think *a priori* we can say that the dollar will go down with a reduction in budget deficits. Part of this is due to the reason that Alan Greenspan gave, but another has to do with two effects: nominal interest rates will go down with a deficit reduction and that would hurt the dollar against other currencies, other things being equal. But a credible long-run deficit-reduction plan that had foreign investors believing as they should that inflation, on average, would be lower than it would have been otherwise, should then reduce the risk of holding U.S. assets in terms of an inflation-adjusted calculation. And then, because inflation is lower than it would otherwise be in the United States compared to other countries, the exchange rate should also do better, which would probably improve investors' perceptions of the currency and inflation-adjusted risk of holding U.S. securities relative to other securities. And, depending on the empirical significance of this, you could have something that was stronger than the effects of lower interest rates on the U.S. dollar from deficit reduction. You really leave this notion that Alan Greenspan and I have described out of your analysis of budget deficits and exchange rates, and that omission doesn't let you allow for this notion. Now, out

there in the world, when I talk to foreign investors, they care a lot about how we do on budget deficits because, I think, the history of the world is filled, as you have noted, with countries who've run large deficits, accumulated debt service, and gotten into a very risky situation. And all investors are aware of this. It is safer for the United States to think that the United States won't get that bad. A hard landing for the United States has really very low odds; a hard landing for Mexico is a different story. If investors were convinced that deficits were going to be removed or stay down forever, the power of their money flows—in terms of what that might mean for the dollar after adjustments on long-run inflationary expectations versus the negative effects of lower interest rates on the dollar—could be quite strong.

Mr. Thiessen: Okay. I want to take just one more question and then let the panel respond to all this.

Mr. Pardee: Let me work a little more on this to try to get across what the market people are saying and what Chairman Greenspan is saying. I talk a lot with Japanese investors who have a long-term time horizon. Some two years ago, one of them was looking at the differential between U.S. and Japanese 10-year bonds. With the exchange rate then at some ¥105, the investor calculated that by investing in U.S. Treasury 10-year notes, he could lock in the interest spread between the U.S. and Japanese bonds and not lose money unless the dollar fell to ¥80 over the 10-year period. As it turned out, the dollar dropped to ¥80 earlier this year (making Marty Feldstein right in his forecast for a time). Japanese investors who have bought U.S. Treasuries in recent years have lost money; many have lost their jobs. Last month I made the same calculation for the next ten years when the dollar-yen was at ¥92, and the 10-year interest rate spread was such that the break-even exchange rate would have been ¥65. I cannot commit myself to long-term investors that the dollar will not fall to that level over the next ten years. Japanese investors are holding back in the face of such uncertainties. They have different time horizons from hedge-fund players. And that is why the response to a cut in the U.S. fiscal deficit is indeterminate; different market participants respond to different kinds of calculations.

Mr. Thiessen: Thanks. All right. Let all the various panelists respond to all of this.

Mr. Ball: Maybe just one more comment on the deficits and exchange rate issue. I think, as Greg pointed out, one clear theoretical story about why deficits might weaken the dollar involves an increased probability of a hard landing. If higher deficits increase the probability of a hard landing enough, that can outweigh the direct effect of deficits in textbooks. I think, though, we were thinking about this issue in context of the last year. And, this just doesn't strike us as actually fitting the facts of what's been going on in the last year, because if you ask, "In 1995 did the perception of the probability of a hard landing go up?," our gut feeling is no. The development in 1995 is that there seems to be a greatly increased interest in balancing the budget—both in Congress and the administration. So these things are obviously impossible to measure. But if we had to put some odds on the probability of a hard landing, we might say it's gone down a little bit, because there is more chance of getting the house in order. So the story—although it makes sense theoretically—doesn't ring true to us as an explanation for the last year.

Mr. Thiessen: Rob?

Mr. Johnson: A couple of thoughts. First, regarding Governor Thiessen's comment, I think we have to discriminate between foreign debt and domestic debt in the relationship to the current account and exchange rate adjustment. Regarding this question of exchange rates and deficits, I tend to side with Larry Lindsey, that what we're looking at is subjective variations in risk premia.

Mr. Thiessen: Allan?

Mr. Meltzer: I agree with the last comment that Robert just made, that there is a big difference in the United States. There are two big differences—one that he mentioned, that we finance our deficits with domestic debt not foreign debt. The other one is that we have a lot of assets to sell here, and we have been selling them at a pretty good rate.