LIMITED DISTRIBUTION ONLY

INTERNATIONAL MONETARY FUND

Minutes of Executive Board Seminar 87/2

10:00 a.m., October 23, 1987

R. D. Erb, Acting Chairman

| Executive Directors | Alternate Executive Directors |
| --- | --- |
| A. Abdallah | E. T. El Kogali |
| | Jiang H. |
| | D. C. Templeman, Temporary |
| J. de Groote | |
| | E. V. Feldman |
| M. Finaish | I. Zaidi, Temporary |
| | B. Goos |
| | J. Reddy |
| A. Kafka | J. Hospedales |
| | D. A. Woodward, Temporary |
| | D. McCormack |
| | A. R. Ismael, Temporary |
| Y. A. Nimatallah | I. A. Al-Assaf |
| G. Ortiz | L. Filardo |
| | M. Fogelholm |
| | D. Marcel |
| | G. Pineau, Temporary |
| G. A. Posthumus | G. P. J. Hogeweg |
| | I. Sliper, Temporary |
| G. Salehkhou | O. Kabbaj |
| | A. Vasudevan, Temporary |
| K. Yamazaki | |
| S. Zecchini | |

L. Van Houtven, Secretary and Counsellor
K. S. Friedman, Assistant

Also Present

Asian Department: S. Shah. Central Banking Department: L. M. Koenig, Deputy Director. European Department: O. P. Brekk, D. Gottlieb. Exchange and Trade Relations Department: J. T. Boorman, Deputy Director; S. J. Anjaria, C. Atkinson, E. Brau, G. G. Johnson, P. Leeahtam, G. Oliveros, C. Puckahtikom, P. J. Quirk, M. Xafa. External Relations Department: D. D. Driscoll, H. P. Puentes. Fiscal Affairs Department: V. Tanzi, Director; H. Bierman, M. I. Blejer, A. Cheasty, K.-Y. Chu, A. Ize, E. S. Kreis. IMF Institute: M. Hernández, P. Radó. Legal Department: J. V. Surr. Middle Eastern Department: K. Nashashibi. Research Department: A. D. Crockett, Deputy Director; M. Goldstein, Deputy Director; E. R. Borensztein, P. Isard, M. S. Kahn, P. J. Montiel, E. L. Rojas-Suárez, H. H. Zee. Secretary's Department: C. Brachet, Deputy Secretary. Treasurer's Department: M. Bhuiyan. Western Hemisphere Department: S. T. Beza, Director; M. Caiola, Deputy Director; E. V. Clifton, M. S. Lutz, D. C. Ross. Bureau of Statistics: J. B. McLenaghan, Deputy Director; M. Catello-Branco. Advisors to Executive Directors: A. A. Agah, P. E. Archibong, E. Ayales, A. Bertuch-Samuels, A. G. A. Faria, G. D. Hodgson, A. Ouanes, P. D. Péroz. Assistants to Executive Directors: F. E. R. Alfiler, J. R. N. Almeida, H. S. Binay, E. C. Demaestri, F. Di Mauro, S. K. Fayyad, L. Hubloue, J. M. Jones, K. Kpetigo, M. A. Kyhlberg, T. Morita, C. Noriega, L. M. Piantini, S. Rebecchini, G. Schurr, Wang X., R. Wenzel.

## 1. HETERODOX APPROACHES TO RAPID DISINFLATION

The Executive Directors considered staff papers entitled "Rapid Disinflation and External Adjustment" (EBS/87/154, 7/9/87) and "High Inflation, 'Heterodox' Stabilization, and Fiscal Policy" (SM/87/141, 6/25/87). They also had before them a paper entitled "Case Studies of Programs of Rapid Disinflation" (EBS/87/144, 7/7/87).

The Director of the Fiscal Affairs Department made the following statement:

> The Board papers prepared for the seminar on programs of rapid disinflation (EBS/87/154, 7/9/87; SM/87/141, 6/25/87; and EBS/87/144, 7/7/87) mention the difficulties in drawing clear-cut conclusions from the experience with these programs, partly as a result of the complexity of the situations at the time these programs were implemented. It would nonetheless be useful to try to draw some tentative lessons for the design of Fund-supported adjustment programs in situations of high inflation. In this regard, among the issues that Executive Directors might want to focus on in the discussion are the following:
>
> (1) The importance of correcting fundamental imbalances in order to provide a lasting reduction in inflation. Fund-supported adjustment programs place emphasis on this objective. This has not been always the case with some of the shock programs.
>
> (2) The role of "heterodox" policies in helping to achieve rapid disinflation with relatively small costs in terms of forgone output. Some shock programs included nontraditional policy elements which have not often figured in Fund-supported adjustment programs. These included wage and price freezes and fixed exchange rates, and were aimed at correcting inertial and expectational elements in inflation. Issues in this area include (i) the role of pre-equilibrating measures (such as price and exchange rate adjustments) prior to the freeze; (ii) the demand-management stance under which these policies might prove a useful complement to more traditional stabilization policies; (iii) the specific conditions which may result in a positive and durable effect of these measures, including their appropriate synchronization, preannounced exit rules, and flexibility in the implementation of the freeze; and (iv) the potential risks involved in the use of freezes and controls, the limited room they allow for policy slippages, and the temporary constraints they may place on the implementation of structural reforms.
>
> (3) The role of temporary fiscal measures in the transition to a low-inflation environment. Quick-yielding fiscal measures (such as forced savings schemes) have reflected the emphasis in shock programs on announcement effects and quick results. These temporary measures have been implemented, in some cases, with the

implicit understanding that they will be replaced later by more durable policies on either the revenue or the expenditure side. In other cases, temporary overshooting of fiscal adjustment might have been intended to create room to implement long-run, growth-enhancing structural changes.

(4) The appropriate conduct of monetary policy in abrupt disinflaiton. Reductions in inflationary expectations can be expected to result in an increase in the demand for money, but the magnitude of the increase is difficult to project. Given this uncertainty, how should credit expansion be determined? What is the scope for moving nominal interest rates toward "noninflationary" levels?

(5) The role of deindexation measures in the transition to a low-inflation environment. Widespread wage and financial indexation adds a downward rigidity to the rate of inflation that may limit the effectiveness of traditional demand restraint. In such cases, an appropriate stance of macroeconomic policies would need to be complemented by action on the institutional aspects. Beyond the issues involved in the modification or temporary suspension of indexation arrangements, the question arises as to whether there should be a more decisive move toward market forces and away from government intervention in wage and price determination. The way these issues are resolved may have implications for the ability to achieve a lasting reduction in inflation.

Mr. Ortiz made the following statement:

The basic rationale for the adoption of the so-called heterodox programs is that, in addition to the traditional source of inflation-excess demand--there is an important inertial component that tends to replicate previous price increases. Inertia means that inflation in the current period is essentially a reproduction of the previous one, and this is due mostly to the existence of widespread formal or informal indexation interacting with the staggered setting of wages, some important prices and/or contracts.

There are two points that should be noted in connection with the design of stabilization policies in the context of high, largely inertial inflations. The first is that indexation arrangements, and especially backward-looking wage settlements, are asymmetric with respect to external or internal shocks, in the sense that these arrangements represent a floor to inflation, but there is no upper limit to price increases in response to excess demand or to supply-induced price hikes. Thus, under these arrangements, inflation tends to be highly unstable over time. The second point, obviously related to the first, is that--as recognized in the papers prepared for this seminar--reducing inflation through demand restrain alone is exceedingly difficult, since the short-run output/inflation trade-off becomes very steep.

Once these points are recognized, it is apparent that an effective anti-inflationary strategy--and by this I mean one that is socially tolerable--must include some sort of incomes policies in order to shift expectations to a new reference inflation rate in setting prices and establishing contracts. The coordinating device utilized in the programs analyzed was a system of wage and price controls (except in Bolivia) and the fixing of the exchange rate.

Conceptual issues

From a conceptual viewpoint, there appears to be little disagreement in the emerging literature on this subject on the rationale behind the heterodox disinflation strategy, or on the conditions that must be secured for its successful implementation. I would certainly not dispute the staff's central conclusion that the heterodox component of programs alone will not have a durable effect on lowering inflation if its fundamental causes are not adequately dealt with. It is evident that controls (or other forms of incomes policies) are no substitute for the elimination of inflationary deficit finance. It is also true, however, that "impact policies" (as the heterodox elements are called in the papers) can play an essential role as a coordinating device in breaking inflationary expectations.

These issues, which are quite transparent at the theoretical level, become very difficult to resolve at the operational level, posing serious problems for the successful implementation of this type of program. Although the papers prepared by the staff bring out the problems faced by the various countries that applied shock programs in a very useful and comprehensive fashion, there are some omissions and insufficient emphasis on some key points, which, in my view, limit the scope of the analysis.

First, there is no direct reference in the papers prepared by the staff to the transfer problem associated with debt payments in the discussion of the reasons why inflation accelerated prior to the adoption of programs, or in the examination of the difficulties encountered in their implementation. The staff does mention that inflation accelerated partly as a result of the large devaluations needed to reduce the balance of payments deficits in the face of a sharp curtailment in external finance. Then the staff adds that..."as policies in other areas did not succeed in slowing the rate of increases of wages or other prices, the adjustment of relative prices was reflected in further rise in the general price level" (EBS/87/159, page 6). But this begs the whole question. It is obviously extremely difficult to prevent a surge in inflation when a country is suddenly confronted with the need to transfer 5 percent or 6 percent of GDP abroad in the form of interest payments.

Second, an additional aspect of this question is that the debt is owed mostly by the public sector. It is obvious that the public will resist the attempts by the government to extract real resources from society in order to effect the transfer abroad, leaving the authorities little choice but to resort to the inflation tax.

Third, the staff correctly places strong emphasis on the credibility of the policies pursued. It is clear, on the other hand, that viability is an essential ingredient of credibility. Although from an economic viewpoint some measures may be needed to correct macroeconomic disequilibria, these measures may be beyond the government's ability to implement them. But even if the government succeeds in re-establishing equilibrium in a flow dimension, stock imbalances--such as excessive debt--may render a program unviable. In this sense, there is an essential difference in the conditions of implementation of the programs in Israel and Bolivia versus those prevailing in Argentina and Brazil (which is not brought out in the papers) that may have had an important bearing on the relative success of the stabilization efforts in the first two countries. Whereas the external disequilibria in Israel and Bolivia were credibly covered by external finance (largely grants) and the accumulation of arrears (widely regarded as nonpayable), in the latter two cases it was not possible to announce a program of external financing that would provide assurances to the private sector that the program would not collapse. This issue is the more important, since the figures indicate that adequate external finance appears to be even more important than the fiscal correction.

Fourth, the relationship between the income distribution targets of the government and the role of incomes policies in the design and implementation of shock programs is another key question that deserves more attention. Although, in theory, incomes policies should play the essential role of a coordinating device to tackle the inertial component of inflation, in some programs--such as the Cruzado Plan--this policy came to be viewed as an objective in itself. Furthermore, in the case of Brazil, this objective turned out to be incompatible with that of economic stabilization. The Cruzado Plan was intended to be a "neutral shock"; that is, the set of incomes policies and conversion rules was ostensibly designed with the objective of preserving the pattern of income distribution existing previously to the implmentation of the plan. One problem was that at the time the program was launched, inflation was on the rise and, consequently, the pattern of income distribution was changing to the extent that indexation mechanisms were not being uniformly applied to all income sources. In this sense, the objective of "neutrality" in income distribution remained elusive, since it provided for real gains well in excess of productivity.

Fifth, at a more general level, the consequences on income distribution resulting from what would appear to be an inevitable fall in real wages and a rise in interest rates must be carefully assessed and, to the extent possible, counterbalanced by the "quality" of the fiscal adjustment. In this sense, the insight provided in the paper dealing with fiscal aspects (SM/87/141) seems particularly relevant.

Operational aspects

With the benefit of hindsight, it seems clear that among the basic essential elements that must be in place for a heterodox program to work are:

(a) initial conditions that ensure the existence of aggregate equilibrium in the goods market (or, preferably, some degree of excess supply);

(b) a minimum dispersion of relative prices, so that the initial price freeze will not produce excessive windfalls or losses in a context of staggered price setting, and then avoid the appearance of shortages that could threaten the effectiveness of price controls;

(c) adequate conversion rules for the valuation of existing wage contracts, financial operations, and other types of transactions that need to be synchronized;

(d) a sufficient level of foreign exchange reserves to lend credibility to the maintenance of a fixed exchange rate in the relevant time horizon (and it should be hoped, as mentioned earlier, a sustainable balance of payments position over the medium term);

(e) a perception of political commitment on the part of the government to eliminate inflation, which should be reflected in actions tending to effectively brake inflationary expectations.

From the papers dealing with the case studies, it is evident that programs were applied under very different circumstances; in some cases, essential "objective" necessary conditions were met, while others were wrongly perceived to be in place. Among the latter, the reduction of the public sector deficits resulting from the implementation of the program were severely miscalculated in most cases due to the complex interactions between inflation and fiscal policy. These complexities are thoroughly analyzed by the staff and stem largely from the loss of the inflation tax when inflation is sharply reduced, and the different elasticities of the various budget items with respect to inflation. In view of these difficulties, and given the positive "announcement effects," I concur with the staff that temporary fiscal measures may play a valuable role in propitiating an initial "overshooting" of the fiscal correction, which should go beyond the perceived sustainable or desirable level in the medium term. This may be important to help establish the conditions of excess supply necessary to sustain the initial stages of impact policies. In addition, the provision for some margins or reserves that may eventually be distributed in the context of incomes policies seems to be particularly important.

At the operational level, one of the basic issues is the implementation of shock policies in a way that minimizes the costs of relative price distortions, while preserving the role of a signaling device aimed at braking inflationary expectations with minimum output loss. A key problem in this regard is the dispersion of relative prices at the time the price freeze is implemented. Although it is necessary to align key relative prices, it is obviously impossible to align all prices at equilibrium levels prior to the freeze. Three points should be noted in this connection. First, it may be the case that a successful price freeze may be possible only in the context of high but relatively stable inflation rates; a price freeze in the context of rapidly rising inflation rates, and imperfect indexation would result in a wide dispersion of relative prices around equilibrium levels. Second, it may be necessary to provide both some flexibility with the freeze as well as clear and preannounced rules regarding how the freeze may be lifted. One obvious lesson is that this is not possible in the context of excess demand. Third, it seems important, then, to keep in mind that an initial reduction in demand (and possibly some contraction in economic activity) may have to be accepted.

In conclusion, the recent experience with stabilization programs in the four countries under review today provide extremely important lessons for the development of Fund programs. While it is true that there does not seem to be a truly "painless" way to eliminate inflation, the cost associated with stabilization policies would conceivably be drastically reduced with more refined "shock programs" that benefit from previous experience. There is no question that inflation has been one of the most intractable and difficult problems to deal with in the context of Fund programs with highly indebted countries. Much more research and discussion is needed on this subject, and I view this seminar as an important step in this direction.

Mr. A. R. Ismael made the following statement:

The staff analysis covers all the relevant aspects of the shock programs that have been implemented recently in four countries to address the problems associated with hyperinflation. I will draw five conclusions on the basis of the staff's analysis.

First, the staff studies indicate that the shock programs, with their hetertodox measures, had an immediate impact on the momentum of inflation. In the month after the programs were introduced, inflation fell from a monthly rate of 30.5 percent to 6.2 percent in Argentina and from 22.4 percent to -0.9 percent in Brazil; moreover, the lower rates held for at least the first few months of the program period. These are clearly noteworthy results. However, the studies also indicate that to be successful--achieving a lasting reduction in the rate of inflation--these measures need to be strongly supported by other measures that address the fundamental imbalances. Otherwise, inflationary expectations will surge again, as is happening in some of the countries concerned.

Second, the adoption of the heterodox approach was based on the assumption that it would prevent a recession. While a large and sudden compression of output may have been avoided, inflationary expectations have not been completely eliminated; therefore, one cannot say for certain that this approach has been successful. On the whole, it is difficult to see how an economy that has suffered from hyperinflation can make the adjustment to a situation of little or no inflation without suffering a loss of output. During the period of rapid inflation, distortions appear in the economy. Furthermore, in many of the countries concerned, goods and services produced by public enterprises are sold at prices below their true market value. This activity is designed partly to reduce the rate of inflation, but it causes disequilibrium in the markets. An economic and financial program aimed at eliminating inflation and correcting imbalances would inevitably lead to a readjustment of the economy, but for a while, before the economy completely adjusts to market forces, there will inevitably be a loss of output.

Third, temporary fiscal measures are used in response to the fear of a major reduction in output. The presumption is that the public will accept a larger cut in the deficit, if the cut is thought to be temporary rather than permanent, as the expectation is that the associated loss of income will be temporary. However, it appears that the results are ambiguous. While temporary fiscal measures have had some short-term positive effects, their longer-term effects are practically nil. Such measures need to be followed immediately by credible plans aimed at restructuring the budget and at reducing the fiscal deficit; in other words, the additional measures need to affect permanent income. Otherwise, the introduction of temporary fiscal measures will add to the problems facing the economy.

Fourth, the staff papers indicate that any program that is aimed at eliminating inflation will need to pay great attention to the fundamentals if the program is to be successful. The policies that are implemented will have to include tight monetary policies and will have to be maintained for a relatively long period. A nonaccommodating monetary policy seems to be the key to a successful disinflationary program.

Fifth, once the transition to an environment of low rates of inflation has been achieved, deindexation measures need to be introduced quickly. Any prolongation of the indexation system can only lead to rigidities that will make the elimination of inflation more difficult. In fact, it is evident from the staff papers that if the rate of inflation should start to increase, the existence of an indexation system would only make matters worse, especially if the economy is at or near full employment.

The staff's study seems to show that in cases of hyperinflation shock programs of the types that the staff has discussed can make an important contribution to breaking the inflationary momentum. However, such programs have to be strongly supported by credible traditional measures if they are to have a lasting effect.

Mr. Goos made the following statement:

The staff papers are very useful because they provide important indications for the effective design of stabilization programs. I acknowledge the difficulty in drawing general conclusions from a limited set of countries, given the complexity of the situation involved and the limited time horizon of the analysis. However, there seems to be compelling evidence that a lasting reduction in the rate of inflation and a return to stable domestic and external economic conditions can be achieved only on the basis of consistent and firm stabilization efforts that are directed at the elimination of the fundamental causes of the existing imbalances. As the staff's analysis reveals, those causes are mainly expansionary fiscal and monetary policies. Accordingly, fiscal correction combined with appropriate monetary restraint has to be the core of any meaningful adjustment strategy. This conclusion is confirmed by the experience of the four countries studied by the staff. In those cases, the most rapid progress in reducing the rate of inflation has been made in the countries that have placed fiscal adjustment at the center of their stabilization effort. At the same time, the lack of significant progress in correcting fiscal imbalances occurred in countries that recorded less satisfactory results in curbing inflation. In that connection, the most obvious example is Brazil, where the failure to implement sufficiently tight fiscal and monetary policies created inflationary pressures that eventually could no longer be kept in check through administrative price controls. The opposite occurred in Bolivia, whose program has demonstrated that a decisive market-oriented strategy can be quite successful in building credibility and in breaking a vicious inflationary circle even in the absence of price controls and other heterodox interferences with market mechanisms.

Therefore, I wish to emphasize the staff's conclusion that the experience with the stabilization programs under consideration "demonstrates the importance of attention to the fundamental of macroeconomic adjustment if disinflation is to be achieved." I acknowledge, of course, that in high-inflation countries heterodox policies can play a useful supplementary role in breaking inflationary expectations and inertia or in improving the acceptability and credibility of adjustment efforts. However, I fully agree with the staff's conclusion with respect to the potentially substantial costs that such policies can entail in terms of economic efficiency and longer-term growth potential, as well as possible negative effects on the fiscal position. Moreover, the freezing of prices is bound to complicate the task of policymakers. That approach reminds me of the doctor who discards the thermometer while attempting to prescribe the appropriate dosage of medicine to fight a fever. From these conclusions, it follows that the use of heterodox measures should be limited in duration as much as possible, and that such measures should be introduced only after the elimination of existing price distortions.

The staff concluded that in cases in which a prolonged freeze of the exchange rate is required, it might be important to provide for a substantial "overshooting" of the initial exchange rate correction. While I understand the rationale behind this argument, I would caution against the use of such excessive corrections, which would be bound to intensify the existing inflationary pressures, thereby necessitating even tighter demand-management policies. Moreover, the deliberate recourse to over shooting corrections could undermine adjustment discipline, as the resulting margins or reserves that were gained in the process could weaken the authorities' alertness to policy slippages.

I will now make three additional points of emphasis. First, a great deal of inflationary inertia observed in the four countries under study seems to be linked to wage indexation. Therefore, the introduciton of a wage freeze in those countries was logical. However, it is difficult to understand why all the countries concerned have reinstated indexation mechanisms despite their negative experience with those mechanisms. Given the encouraging experience of Bolivia and other countries, Fund-supported programs should place more emphasis on market forces in the determination of wages and of prices.

Second, I strongly endorse the staff's views on the role of monetary policy in abrupt disinflation programs. Indeed, given the difficulties in ascertaining the extent of inflationary expectations, attempts at fine-tuning monetary policy, or the size of the fiscal deficit that can be safely financed by money creation, run a very high risk of failure. Economic models like the so-called inflation tax model presented in one of the staff papers, might be intellectually appealing, but the experience of member countries, especially Brazil, raises serious doubts about their practical relevance. The same conclusion is applicable, as I repeatedly stressed on previous occasions, to the various inflation-corrected concepts of the fiscal deficit. Therefore, I agree that monetary policy--which is influenced by the fiscal position--should err on the side of caution. The validity of this conclusion is clearly borne out by the experience of Bolivia. It is also supported by the stabilization efforts of Germany during the hyperinflation of the 1920s. The success of that stabilization effort is attributable in the first instance to the major fiscal reform that was combined with the introduction of legislation prohibiting central bank financing of the budget.

A standard argument that is used in support of heterodox measures is the importance of confidence building and the restoration of the credibility of the authorities' adjustment effort. Measures to that effect are typically needed after a long history of inflation and repeated failures of disinflationary policies. However, it is important to note that heterodox measures--as well as temporary shock approaches--are bound to lose their effectiveness if they have been tried and abandoned repeatedly before stabilization has been achieved. Such unsuccessful on-and-off attempts at stabilization could be particularly harmful to the authorities' credibility, because the potential effectiveness of heterodox measures derives largely from their psychological effect on expectations and actual behavior. These considerations underline again the critical importance of firm and sustained adjustment policies.

Mr. Woodward made the following statement:

This is a welcome opportunity to discuss a set of issues that are of great importance for a number of developing countries, particularly in view of the major developments of the previous few years. Since this is a seminar, rather than a formal Executive Board discussion, my intervention is based on my own views on the issues involved and should not be interpreted as reflecting the official position of my authorities.

There seems to be little doubt that very high rates of inflation initially arise largely because of inappropriate policies and the failure to adjust to changes in external circumstances. However, it is interesting to note the importance of the dramatic reduction in external financing of fiscal deficits that occurred after 1983 in the Latin American countries under consideration. It was very largely the failure of the governments concerned to adjust their fiscal policies to this change in circumstances and the consequent increase in domestic financing of the deficits, which, in association with previously existing inflation problems, gave rise to the very high rates of inflation. The unduly large fiscal deficits before this period, for which such substantial amounts of external financing were required, were a major factor in the difficulty of full adjustment to the change in circumstances.

However, the question of how high rates of inflation developed is not the main issue for this discussion. The important question is how to restore a stable situation, given that the restoration of the financing conditions prevailing prior to 1983 is now neither feasible nor desirable, owing to the excessive levels of debt that have been accumulated by many countries.

One of the major problems in tackling very high rates of inflation is the self-perpetuation mechanism that inflation brings to bear on an economy. I doubt whether the term "inertial inflation" is fully appropriate, since to a large extent this self-perpetuation mechanism appears to push inflation to ever higher rates rather than simply sustaining it at the existing rate.

The first element of the perpetuation mechanism applies to the fiscal accounts. High rates of inflation imply much higher nominal interest rates on domestically held public sector debt for a given level of real rates, which pushes up the overall fiscal deficit. This problem is compounded if a tight monetary policy is maintained, thereby pushing up real interest rates and increasing the operational deficit. Another element is the lag in the collection of revenue from some taxes, which erodes the real value of taxation receipts, thereby increasing the primary deficit. Therefore, for given rates of taxation and real expenditure on goods and nonfinancial services, a higher rate of inflation gives rise to a larger public sector borrowing requirement.

On the monetary side, in addition to the effect of larger fiscal deficits, increasing inflationary expectations give rise to a substantial increase in the velocity of circulation, so that a given rate of monetary expansion causes higher rates of inflation. A tighter monetary stance, by increasing real interest rates, further complicates the fiscal problem.

The perpetuation mechanism also operates on the external side of the economy, particularly if the economy is operating under an external financing constraint. In order to maintain competitiveness, the authorities must adjust the exchange rate in line with domestic inflation, thereby adding a cost-push element to the problem. This problem is of course even more difficult if the economy starts from an uncompetitive position or if the terms of trade are deteriorating, as these factors imply the need for a real devaluation.

Hence, there is a vicious-circle effect: a high rate of inflation itself breeds still higher rates through fiscal, monetary, and exchange rate effects, even without indexation, which is a symptom as much as a cause of high rates of inflation. This is not to dispute that indexation may be a significant element in hindering efforts to reduce inflation when the indexation hampers changes in relative prices. Rather, it is to say that escalation of already high rates of inflation can take place without indexation and even with what might at lower rates of inflation be regarded as a sustainable fiscal policy.

It is in some cases possible to tackle very high rates of inflation purely on the basis of orthodox fiscal and monetary policies, as has been demonstrated in Bolivia. However, in this respect, as in so many other respects, Bolivia is something of a special case. The rate of inflation had reached far higher levels in Bolivia than in the other countries covered by the case studies prior to the anti-inflation program. In fact, by my estimation, at its peak in February 1985 the annualized monthly rate of inflation in Bolivia reached in excess of 26 million percent. The demonetization of the economy had also gone substantially further than in the other cases, and the use of the parallel dollar exchange rate as an effective index for prices was much more prevalent. Furthermore, an important element in the success of Bolivia's program appears to have been the effective financing of the fiscal deficit through the accumulation of external arrears. While this approach helped to reduce the rate of inflation, it also involved a substantial increase in outstanding obligations on commercial terms on even harder terms. Such an approach would clearly be inadvisable for countries that hope to obtain further commercial lending in the future.

However, while tackling high rates of inflation by using orthodox policy instruments may be easier once the hyperinflation stage has been reached, it is in general better to stop the inflationary process at an earlier stage, ideally before even the inflation rates experienced by Argentina, Brazil, and Israel are reached.

In theory, a gradualist approach would be possible. However, this would involve a very sustained adjustment effort, which few governments last long enough to attempt, even if they have the political will and authority to follow through on such a commitment. Confidence and expectations are also major factors: not only must the adjustment effort be sustained, but also its continuation must be confidently expected. This is particularly problematic in cases in which governments have in the past been unwilling or unable to sustain adjustment policies, as is likely to be the case in most countries suffering from very high rates of inflation; and in cases in which imminent elections raise the possibility of a change in government early in the implementation of the program.

The need to tackle inflationary expectations, and thus to end or reverse the escalating velocity of circulation, applies equally to shock treatments. There is a critical need for policies to be not only adequate, but also credible. If anti-inflation policies are not expected to work, then they will not work, as the velocity of circulation will continue to rise, counteracting any effective adjustment effort.

Another essential part of any anti-inflation program is achieving a substantial reduction in the fiscal deficit. In theory, this reduction could be achieved by running a very large operational surplus, but this would imply drastic changes in effective rates of taxation and public expenditure which would almost certainly prove to be politically impossible. Seeking to improve the operational balance by reducing real interest rates would obviously be counterproductive because of its monetary impact. What is left is the largest element of the overall deficit, namely, the inflationary component of domestic interest payments.

Therefore, what is needed is a sharp reduction simultaneously in the rate of inflation and in inflationary expectations. This objective can be achieved through an effectively implemented wage and price freeze. However, this is not enough in itself. If an anti-inflation effort is to be both effective and credible, there must be a substantial additional reduction in the fiscal deficit and a tightening of monetary policy. Given the increase in real interest rates that such a monetary policy would imply and the fiscal implications of such an increase, there is a need for a substantially greater improvement in the public sector primary balance.

A wage and price freeze clearly brings its own problems, particularly in terms of relative price rigidity. It is therefore important that relative prices be appropriate before the freeze is implemented and that the implementation of the freeze be sufficiently flexible to ensure relative price adjustments when necessary. Since nominal prices and wages are unlikely to be downwardly flexible to any significant extent, there is a trade-off between relative price flexibility and the rate of inflation during the freeze. This fact reinforces the importance of ensuring that relative prices are appropriate before the freeze is initiated.

As is noted in SM/87/141, the equilibrium set of relative prices is different in environments of high and low rates of inflation. While some effort might be made to adjust relative prices to their postfreeze equilibrium levels, there is clearly a limit to how far this can effectively be done. It will be interesting to hear whether the staff, during its research in preparation of these papers, studied the pattern and extent of changes in equilibrium relative prices during the transition from high to low rates of inflation.

In the light of the factors that I have mentioned, there is a clear need for some price flexibility during a freeze, and this is likely to give rise to a significantly positive rate of inflation, thereby reducing the beneficial effects of the freeze on the fiscal and monetary position. However, this conclusion should not be taken to imply that a freeze is necessarily inappropriate. High rates of inflation themselves cause price and other distortions within an economy and, as is noted in SM/87/141, an economy's growth potential may be far greater without inflation relative to its performance with high inflation than is usually recognized. Therefore, even if a price and wage freeze causes some distortions during its operation, these may be less than the distortions implied by the previously existing high rate of inflation, and may more than compensate by the improvement in the long-term growth potential.

A wage and price freeze is not in itself sufficient to end high rates of inflation; macroeconomic policies must support the anti-inflation objective. It is clear that the direct impact of a lower rate of inflation on the overall public sector borrowing requirement is not adequate in itself and must be supplemented by additional measures in other areas, including an effective and supportive monetary policy. Clearly the considerable change in the velocity of circulation associated with the substantial decline in inflationary expectations is a serious problem. It would not seem appropriate to seek to maintain the very high velocity of circulation associated with high rates of inflation; but at the same time, it is important that liquidity should not be allowed to build up in the economy to the extent that it would jeopardize the initial reduction in the rate of inflation once the wage and price freeze was removed, as appears to have happened in Brazil.

There is inevitably a temptation to include the exchange rate in a price freeze. Such action would remove one element of cost-push inflation and, if there were a net outflow of foreign exchange from the public sector, it would have a favorable impact on the fiscal accounts. In addition, it might be seen as having a significant effect on reducing inflationary expectations. However, in the absence of a particularly strong external position, the maintenance of competitiveness is probably a more important consideration.

A lasting reduction in inflationary expectations is clearly likely to take a substantial length of time to achieve. However, given the distortions and other negative economic effects of wage and price freezes, it would not be appropriate to sustain such policies beyond the very short term. Once the initial impact has been achieved and has fed through into the fiscal and monetary accounts, it should be possible to sustain the gains which have been made by using more orthodox policies. Therefore, it is essential not only that the adjustment efforts made during the freeze be sustained, but also that corrective measures, including further adjustment if necessary, be taken as appropriate. This need is perhaps most clearly demonstrated by the Brazilian case, in which corrective measures were unduly delayed once it became apparent that the rate of inflation was rising once again.

Perhaps the most important point to make about the use of heterodox policy packages for tackling very high rates of inflation is that they represent a once-in-a-lifetime opportunity. Because of the critical importance of expectations to the success of such packages, an earlier failure of a similar approach seriously undermines the credibility of a second attempt. Therefore, it is essential to get everything right the first time, and governments that undertake such policies would be well advised to err on the side of too much, rather than too little, orthodox adjustment in their programs.

The inclusion of other objectives, such as improving the distribution of income, complicates anti-inflation programs and may well prove to be seriously counterproductive. Distributional aspects of such programs should clearly be taken into account, as they are likely to have a substantial effect on the political sustainability of the program and, therefore, on its credibility and effectiveness; but it would seem advisable to defer any attempt to tackle chronic distributional problems until after the anti-inflation program has been completed.

In sum, heterodox approaches to very high rates of inflation--particularly wage and price freezes--may well be appropriate in some cases. However, they should be seen as a supplement to, rather than a substitute for, more orthodox policy approaches. In addition, it is essential that they be carefully planned and effectively implemented, and that they include sufficient flexibility to avoid undue distortions of relative prices.

Mr. Ortiz remarked that Mr. Woodward and Mr. Goos had suggested that inflation in Bolivia had been effectively contained through market mechanisms and without resort to heterodox policies. However, it was useful to note that before the Bolivian authorities' anti-inflation program had been implemented, the rate of inflation had been accelerating so rapidly that it had been impossible to use any indexation mechanisms. In that sense, there was a significant difference between the kind of inflation that had been evident in Bolivia and the kind that had been apparent in Brazil and Argentina. In addition, Mr. Goos had suggested that Bolivia had managed to stabilize its economy merely by introducing a fiscal shock, without a price freeze shock. However, in Bolivia, as in Germany in its period of hyperinflation, there had been a total suspension of debt payments. Germany had suspended both internal and external debt payments, while Bolivia had had no significant internal debt.

Mr. Sliper made the following statement:

> The staff papers offer useful insights, and the staff has been forthright and frank in reaching conclusions. Recent economic developments in Argentina and Brazil have strengthened the conclusions in both the summary and analytical papers.
>
> In examining the causes of high rates of inflation and hyperinflation, it is useful to recall that in the 1960s and early 1970s economic theory was reasonably accommodating about inflation: the common conclusion was that a little inflation was a good thing. However, in the 1970s, in both developed and developing countries inflation reached double-digit levels. This experience brought home the damaging effects of high rates of inflation in terms of both investor confidence and unintended wealth effects. At that time, the theory of expectations entered into the mainstream of economic literature, and by the latter part of the 1970s, both theory and country experience re-emphasized the vital importance of achieving price stability.
>
> Another trend in experience with high rates of inflation and hyperinflation is that they are closely related to the intervention stance of governments. Inflation has tended to accelerate the more involved governments were and are in the economic decision-making process. This conclusion applies particularly to situations in which the government became deeply involved in wage fixing. The country experience that is described in the staff papers, in addition to the experience of many industrial countries in the late 1970s and early 1980s, shows that government intervention in wage fixing is potentially a can of worms from which it is very difficult for a government to extricate itself. Once a government has moved in this direction, there are pressures for the state to protect all segments of society through a range of indexing mechanisms. In the end, of course, this process means that the ability of the economy and economic agents to respond to external events, as all sectors clamor to the government to protect shares or established positions. This trend has a snowballing effect, with the result that there is little flexibility or responsiveness left in the economy. This pattern was clearly in evidence in the indexation arrangements for Argentina, Brazil, and Israel, and the key problem facing these economies is still how governments can move out of the indexation arrangements and concentrate on the fundamentals.

The more theoretical paper entitled, "High Inflation, 'Heterodox' Stabilization and Fiscal Policy," is fairly cautious about the use of heterodox solutions in the adjustment process. It rightly reminds us that freezes, controls, and incomes policies are not costless. Moreover, it warns of the dangers of imposing freezes on prices and wages in situations in which there are fundamental disequilibria. I would have thought that the staff would have been more pessimistic and critical about the use of heterodox policies in hyperinflation situations than it was, say, 18 months or two years ago. In rereading the article on adjustment in the December 1986 issue of Finance and Development, I discerned a less enthusiastic endorsement of incomes policy than seemed to be implied in the present staff papers. The article was written by World Bank economists, but it did not seem then that both the World Bank and Fund staffs were suggesting that wages and price controls provided a useful supporting role in the adjustment and disinflation process. It is my impression that this conclusion is not now as firmly held by the Fund.

In any event, there can be little argument with the central conclusions of the staff papers: any disinflation program must attack the fundamentals, particularly by ensuring that the budget position is closely in balance and by adopting a tight monetary policy; and disinflation is a long-haul process that requires a government to implement comprehensive adjustment programs that will produce results only over time.

The conclusions drawn from the staff papers can be usefully supplemented by examining the experience of many countries in the 1970s and the early 1980s that adjusted from situations of double-digit inflation; I have in mind the United Kingdom, many European countries, Australia, and New Zealand. This country experience adds up to an overwhelming case in support of orthodox measures. Strong economic growth, coupled with reasonable price stability, can best be achieved and sustained through conservative demand-management policies plus structural adjustment measures that promote the opening of markets and outward-looking trade and exchange policies. In addition, the country experience shows that countries that have introduced more radical shifts in economic policymaking, especially in structural adjustment areas, have made more progress in the medium term. Another lesson of the country experience is the advantages of having government step back from the wage and price fixing process wherever possible. The evidence is probably not clear cut, but it seems that responsiveness and flexibility are enhanced when governments are not directly involved in wage and price fixing and the economic agents themselves have to determine these factors, bearing in mind trends in a particular industry or sector.

Mr. Salehkhou made the following statement:

I wish to make some general comments on the analytical aspects of the design of so-called shock programs. The term "shock program" is befitting of all four case studies; the rapid disinflation programs were designed only to absorb the shocks caused by hyperinflation rather than to deal with its real fundamental causes. Although all four shock programs experienced relative success for a time, none of them succeeded in eradicating the hyperinflation. One general factor identified at several different points in the staff papers is the "complexity of the situations" in all four cases. This complexity was enhanced when the importance of the fundamental imbalances were given less attention and the measures were designed only to correct inertial and expectational elements of the inflation. In short, the experience of the four shock programs shows that a durable reduction in inflation rates may be possible only if the fundamental structure of the economy is well understood and an appropriate fiscal, monetary, and external policies are adopted.

As to the role of monetary policy in rapid disinflation, I agree that inflationary expectations cannot be eliminated quickly, particularly if one does not have a clear handle on the process of the formation of these expectations. However, experience shows that the strengthening of the balance of payments in any situation, particularly in an environment of high inflation and severe external imbalances, depends mainly on exogenous factors related to, inter alia, unfavorable terms of trade, unstable foreign exchange rates, and high international exchange rates. The maintenance of a viable exchange rate policy, which the staff considers to be essential for the success of rapid disinflation programs, depends on several external forces that cannot be controlled domestically.

The evidence from all four shock disinflation programs shows that rapid disinflation without severe or prolonged recession may be possible if the necessary attention is paid to the socioeconomic fundamentals, and if the exacerbating inflationary pressures are curtailed simultaneously, often through costly fiscal, administrative, and political measures. In SM/87/141, some fundamental issues are treated superficially while others are ignored. The most important of those fundamental issues are the analysis of inertial inflation, and the income distribution impact of the implementation of shock programs. The staff paper asserts that the inflation inertia is caused by inflationary expectations and by accommodating monetary policy. This conclusion is an example of the inability of economic analysis to deal with the fundamentals of a problem, which in turn leads to policies that treat the symptoms through surgery while the root causes of the disease go unchecked. In fact, there is not yet either an adequate theoretical or empirical framework that enables us to place any confidence in analysis that relates price inertia to policy expectations. Expectations can be formed about either policies or the fundamental structure of an economy. In this connection, the main question is this: if expectations are in fact only policy related and if people are rational about policy formulation, why should such massive doses of shock treatment be needed to change the expectations?

The persistence of inflation inertia, even in the face of policy changes, suggests that perhaps these expectations are related to some fundamental structural issues in the economy. While one need not deny the existence of policy-related expectations while admitting the existence of structural dimensions in inflationary expectations, ignoring the latter will emphasize the former and will not solve the problem of inflation inertia. If sufficient attention is not paid to the fundamentals of the structure of the economy, the real forces generating inflationary inertia will lay dormant until they have an opportunity to reassert themselves.

I realize that the staff paper could not adequately treat the question of price inertia. However, this is a crucial issue that should be addressed so that we may understand the underlying forces that cause inflationary expectations. In doing so, policymakers can formulate proper policy guidelines without resorting to shock treatments that admittedly involve heavy costs.

I was surprised that the staff papers all but ignore the income distribution impact of shock programs. The very reference to these policies as "shock programs" implies a recognition of the seriousness of the circumstances and the intention behind their implementation. It is therefore curious that the distributional impact of such policies, which reveal the real costs of such surgical operations, could be ignored so casually. The danger in so doing is that the apparent relative success of the shock treatments may lead some to believe that a real cure is at hand. Failure to consider the distributional impact of policies violates the first rule of economic policy, namely, that such policy should be the subject of cost-benefit analysis.

I appreciate some of the main points in the staff's observations about the experience with programs of rapid disinflation and some of the conclusions on pages 25-30 of EBS/87/154 and pages 23-24 of SM/87/141. At the same time, I have reservations on some other points, such as the Fund's heavy reliance on demand management, exchange rate devaluation, and domestic policy measures. In this connection, I would submit that basic issues and problems discussed and recommendations regarding the correction of external imbalances and economic adjustment with growth that are addressed in detail in the report of the Deputies of the Group of Twenty-Four on the Role of the Fund in Adjustment with Growth are most relevant.

Mr. Feldman made the following statement:

In today's discussion, we are faced basically with two kinds of problems or sets of questions. The first is empirical in nature, as it involves the attempt to compare the recent stabilization experiences of four countries that are very different in many respects, including their degree of development, recent growth--or lack of growth--the degree of openness of their economies, the degree of unionization, and the size of their public sector. The social and economic structures of these economies are very different from one another, as are the intensity of social and economic conflict within each country, and the record of inflation. These differences do not rule out the possibility of useful analysis, and in its papers the staff has done well in providing analysis and gathering information. I welcome this discussion in a seminar, as the subjects at hand have major implications for the design of Fund-supported programs.

The second set of questions is more analytical and conceptual in nature. It refers to the central issue of the seminar, namely, whether incomes policies are necessarily a complement to demand-management policies in the effort to achieve rapid disinflation and minimize the loss of output in the early stage of a stabilization program, or whether heterodox measures improve the efficiency of stabilization efforts.

I fully agree with the staff's conclusion on the crucial importance of tackling the fundamentals. Experience has shown that an appropriate stance of fiscal, monetary, and external policies is a necessary condition for rapidly achieving a lasting retreat from high rates of inflation--but it is not a sufficient condition for countries like Israel and Argentina; this is my major point of departure from the staff's conclusions.

I also fully agree with the staff that shock programs based exclusively on impact policies--direct wage controls and price freezes--can achieve a dramatic and immediate fall in the rate of inflation, but are inevitably doomed to fail if they are not combined with demand-management policies. The countries that the staff studied provide several examples of failure along these lines. In 1974, Argentina imposed a freeze on various macroeconomic variables without correcting fiscal and monetary imbalances; as a result, as the country experienced hyperinflation in mid-1979 and again in February 1987. In Israel, the so-called package deal--a series of income policy agreements between the Government, the Histadrut, and the Association of Private Employers--was started in the fall of 1984 and slowed inflation only temporarily; the Government continued to devalue the sheqel, to increase the prices of controlled goods, and to validate wage increases with a highly accommodative monetary policy. The results of the package deal raised serious credibility issues and convinced policymakers that a serious stabilization effort would have to include a combination of incomes policy and strong corrections of the fundamentals. Brazil's Cruzado Plan of early 1986 is another example of a program that was excessively biased toward impact policies. I agree with the staff that expectation-changing policies are not a substitute for adjustment of fundamental variables and can succeed only in conjunction with traditional demand-management policies. At the same time, I disagree with the staff that heterodox programs have not revealed any practical or significantly painless way of cutting high inflation rates. In countries with a long history of indexation practices rooted in their economic agents' behavior and with backward-looking wage and other price determination mechanisms built into expectations, the role of incomes policy is essential to mitigate the costs of adjustment.

I wish to elaborate briefly on this argument. In this connection, the case of Israel is a good one, because Israel has been the most successful of the four countries concerned in reducing inflation, and its success has been based on excellent program design--especially the synchronization of nominal variables--its broad political consensus, and strong external support. A basic premise that influenced the program design was that the program had to stop inflation quickly without too large an increase in employment. Otherwise, the political consensus needed to implement the program would disintegrate, leading to a loss of credibility and eventually to the abandonment of the program. Such a constraint was clearly not as strong in Bolivia. As two economists--M. Bruno and A. Cukierman--involved in Israel's plan have emphasized, there was a strong risk aversion with respect to the social costs that the program might entail and which led the program designers to use every feasible opportunity to increase nominal stability by fortifying the program with as many nominal anchors as possible.

The rationale for implementing a wage, price, and exchange rate freeze in Israel was as follows. At the inception of the program, inflationary expectations were very strong because of the strong inertial inflation element embodied in wage contracts. Without a freeze, it was very likely that some wages and prices would have been adjusted upwards. In the absence of any monetary accommodation, the wage increases would have resulted in a rise in unemployment. Furthermore, the increase in free prices would have made subsidized goods--which are important in Israel's consumption basket--cheaper, would have increased the demand for those goods, thereby forcing the need for a larger budget subsidy. Aversion to unemployment would have triggered some monetary accommodation, thus validating the initially strong inflationary expectations. Alternatively, the Government would have had to impose additional fiscal measures to match the increase in subsidies. On the other hand, if the price level were frozen until inflationary expectations declined, the undesirable process could be avoided from the outset. If a freeze is credible, expectations will decline immediately, and, after a while, the freeze can be lifted without any increase in the rate of inflation, as the link between the prestabilization strong inflationary expectations and the poststabilization level of accommodation can be broken by the freeze.

A second strong argument in favor of a freeze is its use in avoiding unnecessary strains on the economy stemming from overadjustment to an earlier fiscal imbalance. It is apparent that this kind of stabilization substitutes the collection of the inflation tax for a set of explicit and sometimes more progressive taxes. If the inflation rate had remained high for a significant period after the shock and there was some remonetization of the economy, the Israeli Government would have collected the new taxes and simultaneously would have kept collecting the inflation tax, which would have caused the recession to be unnecessarily deep and would have endangered the continuation of the stabilization effort.

In analyzing the costs of shock programs in terms of forgone output, one of the staff papers mentions that the deepening of Bolivia's recession was surprisingly mild. I wonder whether such a description is accurate, since Bolivia experienced six consecutive years of GDP decline; the level of GDP at the end of 1986 was 21 percent lower than in 1980, and per capita income was one third lower. In addition, real wages over the previous three years dropped 45 percent, while 22,000 miners out of a total of 27,000 have been dismissed, employment in the public sector has decreased by about 10 percent, and about 25 percent of rural teachers have abandoned their schools, according to the estimates in a paper prepared by G. A. Morales of the Universidad Católica de La Paz. Still, the Bolivian economy is showing positive results of its program, and the society accepts the program, which, it is fair to stress, has been implemented by a democratically elected government. However, one cannot imagine the introduction of a pure orthodox plan like Bolivia's in Israel or Argentina. I agree with the staff that one of the problems with some of the heterodox programs, like Argentina's, is the temporary nature of some of the fiscal measures. The nonrecurring nature of some of these measures has been the main cause of the slippages in Argentina and Brazil's programs. However, I have doubts about the viability of a program the design of which implies an extremely large departure from the values that some macroeconomic variables had before the implementation of the shock program.

Before concluding, I wish to make three brief points. The first is that there is a close relationship between a stabilization program's credibility and the availability of foreign financing. The case of Israel ideally illustrates this point, as the economic agents in the country realized from the start of the program that it was going to be supported by external financing, the quality and quantity of which would undoubtedly give flexibility to Israel's fiscal measures in particular. Bolivia, too, has had a rather flexible external framework, as it has suspended the payment of private debt service and has received some foreign grants. In contrast, Argentina and Brazil are experiencing the uncertainties that stem from the present debt strategy; the certainties have negatively affected expectations and the program's credibility by resulting in higher real interest rates in the domestic financial markets of those countries.

The question of how much to remonetize an economy after a stabilization plan has been implemented is difficult to answer. It seems that immediately after the inception of such programs, the supply of money needs to grow significantly to match an otherwise excess demand for money that could cause interest rates to become too high. After all, the economy would have experienced demonetization during the period preceding the shock and liquidity would have to be restored rapidly; thereafter, the rate of growth of money would have to return to very low rates. The continuation of a permissive monetary policy long after the inception of the Austral Plan--especially in April-September 1986--seems to have been a main source of the subsequent difficulties with the Plan.

Another difficult question is how to lift controls without reigniting inflation. In this connection, it is useful to stress that a country must not only persist in the implementation of consistent short-run macroeconomic policies, but also be able to remove structural distortions that affect long-run resource allocation; the latter is clearly of crucial importance. Israel was in an optimal position to lift its freeze not only because the political consensus was still holding, but also because of the significant degree of openness of the economy.

Heterodox policies, combined with conventional demand-management policies, provide new alternatives to traditional stabilization policies and should be carefully considered in the development of Fund programs. In that context, much more analysis and the consideration of additional cases are necessary. This seminar has been useful, and we should continue discussing these issues.

Mr. Pineau made the following statement:

I share most of the basic conclusions that have been drawn by the staff. Those conclusions should be of some help in designing new Fund-supported programs. I doubt whether the main lesson of the staff paper concerning the so-called heterodox component of anti-inflationary programs, which rely primarily on direct controls, could be controversial: the approach that is aimed at breaking the inertial component of inflation cannot be a substitute for more conventional action to affect domestic demand. However, it seems sensible to consider that, given a political or institutional setting that is characterized by a high degree of indexation, a sharp break in inflationary expectations can prove to be a decisive supplement to a full-scale stabilization program. At the same time, unorthodox programs have, to say the least, not been fully successful in deindexing economic variables. In all the cases reviewed by the staff, the authorities have not been in a position to resist strong pressures for inflationary pay raises and the reintroduction of some new forms of indexation. That failure is certainly a major obstacle to the restoration through unorthodox measures of a credible, noninflationary environment. In two of the countries that have been implementing shock therapy, this weakness in their programs was compounded by a lack of fiscal tightness. The staff papers contain rather balanced views on this matter with respect to the expenditure and revenues side. However, with the benefit of hindsight, it seems that a lasting fiscal retrenchment is more likely to be achieved at an initial stage through expenditure reduction measures. A timely and complete implementation of any significant tax package appears to be difficult in the context of changing income distribution patterns owing to rapid disinflation. The main drawback, which is to be avoided, in cutting public expenditure is obviously the placing of an excessive burden on investment.

In the monetary policy area, I fully endorse the cautious approach that is called for by the staff. It is true that moderation of inflationary expectations normally must be reflected in a relative remonetization of the economy. However, it remains very difficult to adjust the rate of growth of monetary aggregates to the noninflationary demand for money. Accordingly, the monetary authorities should retain a cautious approach by maintaining adequately positive real interest rates over a sufficiently long period.

At the same time, the staff's position on foreign exchange policy seems to be rather restricted. In my view, a stable exchange rate, together with stabilizing financial policies, can effectively contribute to disinflation in very open economies. Israel is a good example, even if some recent wage developments there could pose a potential threat to the economy's competitiveness. Similarly, the Bolivian authorities have been able to stabilize the exchange rate without calling into question the positive results of their program.

The persistent low level of investment in the four countries under review is a symptom of the difficulty in restoring a climate of confidence. Even if the authorities in those countries do not face similar problems, they must maintain their confidence-building efforts in order to re-establish conditions that are more conducive to sustained economic growth.

Mr. Zaidi made the following statement:

My comments focus on three points: (1) inertia in the inflationary process; (2) gradualism versus shock therapy in the control of inflation; and (3) implications of rapid disinflation on income distribution.

It is well known that, in the presence of nominal wage and price rigidities, high rates of inflation are likely to introduce relative price distortions, resulting in inefficiencies that impede medium-term real output growth. One way to overcome the inflation problem is to maintain contractionary fiscal and monetary policies with sufficient vigor to deflate the economy and reduce capacity utilization until there is no excess demand. However, an important constraint in the implementation of anti-inflationary, aggregate demand-management policies is that such policies could entail significant short-run real output losses. Analyses based on new classical macroeconomic models that embody the assumption of rational expectations imply that a credible and well-understood, anti-inflationary aggregate demand policy should succeed in reducing the rate of inflation at little cost in terms of forgone real output. In other words, the pain associated with taking anti-inflation medicine may be minimized by adopting a well-articulated and believable package of restrictive policy measures.

There can be no denying the importance in the inflationary process of shifts in expectations due to a perceived change in future monetary growth and to variations in aggregate demand pressures. This analysis can be challenged because it does not sufficiently emphasize the crucial issue of persistent or inertial inflation that causes the decrease in inflation to occur with a lag. In economies with extensive wage and price indexation, this inertial inflation is due not only to the reluctance by firms and workers to reduce their demands for price and wage increases as they expect inflation to continue, but also to the fact that firms and workers are precommitted to price and wage increases under formal and informal contracts that cannot be easily broken. Therefore, the speed at which inflation will decelerate during a cyclical downturn depends importantly on whether long-term contracts are a major factor in the inertia in inflation.

The staff notes in the introductory section of SM/87/141 that many studies have concentrated on the role of freezes and other attempts to deindex an economy, and that through those studies attention has been diverted from the behavior of traditional fundamental policies, including monetary and fiscal policies. It is also noted in the concluding section of the same paper that, while the manipulation of expectations may significantly affect the outcome of an adjustment program, expectation-changing policies are not a substitute for adjustment of fundamental variables and may be successful only in conjunction with traditional demand-management policies. This conclusion is self-evident, because expectations about rates of inflation in an economy cannot be changed unless the country's large fiscal deficits and high rates of monetary growth are reduced; the key issue is to convince workers and firms that the government is committed to fiscal and monetary restraint and that future monetary policy will therefore not be accommodating.

Even if there is a marked and sudden destabilization of the price level and the exchange rate following an abrupt change in policy regimes, the question remains whether this evidence is relevant for reducing more moderate inflation rates like the ones faced by most developing countries. During periods of very high inflation rates, policy regime changes do not significantly disrupt economic activity because long-term contracts denominated in nominal terms are not prevalent. When the inflation rate becomes so high that business and labor are reluctant to enter into commitments whose values change from day to day, a major source of persistence in the inflation process is then eliminated. In cases of milder inflation, however, the existence of long-term nominal contracts is a source of momentum that makes it costly in terms of real output and employment to end inflation quickly by making sharp changes in fiscal or monetary regimes. To avoid increases in unemployment, the deflationary policies must take into account the persistence of nominal wages and prices built in by the old contracts. Thus, the strategies for controlling moderate inflation with minimum unemployment costs would be based on a gradual tightening of monetary and fiscal policies; how gradual this process would be would depend on, inter alia, the overlapping structure of the multiperiod wage and price contracts.

My final comment is on the implications of rapid disinflation for income distribution--an important issue that is largely ignored in the staff papers. In the immediate context of demand restraint, in which the overriding aim is to lower the rate of inflation through fiscal and monetary policies as well as through controls on wages and prices, the disincentive effects of controls and income distribution issues may appear to be of secondary importance. However, this ceases to be true over the medium term, because government intervention may not only have adverse effects on efficiency and productivity, but may also worsen industrial relations or do no more than impose a temporary equilibrium upon underlying conditions. A very high rate of inflation may be due to such causes as mistakes in fiscal and monetary policies, external price developments or inflationary expectations; but it may also be caused by the competing claims of various organized groups for a larger share of the national income. In these situations, given levels of employment and output become associated with high rates of inflation and money incomes, and if these pressures are not validated by the monetary authorities, there may be serious problems, including a breakdown of industrial relations and declining output in important sectors of the economy. Therefore, wage and price control policies must pay particular attention to the need to work out a compromise between the competing claims of the different income groups. The staff could have usefully discussed in detail the importance of having a consensus on appropriate income shares and the related issues of wage and financial indexation, as well as the impact of the wage-price freeze on lower-income groups.

Mr. Kafka made the following statement:

Of the four shock programs under discussion, the Israeli and Bolivian programs seem to have achieved a degree of durable success. This conclusion is applicable, however, only if one accepts that inflation can be successfully stabilized at about 2 percent a month. The other two programs must be regarded as being in a state of flux, and, therefore, it is particularly difficult to draw any conclusions about them.

When we return to this subject, as I hope we do, it would be interesting to include in the staff papers an examination of the post-World War I and post-World War II stabilization programs, which were introduced mainly by advanced industrial countries. Some interesting comparisons could be drawn with the more recent programs.

I will now make some specific comments in response to the questions raised in the staff's opening remarks. The first point that is worth commenting on is that in three of the programs, monetary stabilization had to be combined with balance of payments adjustment. Obviously, as Mr. Ortiz has said, this circumstance made everything more difficult and is not given proper weight by the staff. In Brazil, a balanced current account had been achieved before the start of the program. After an interruption of several months, current account equilibrium is again being approached in Brazil. In addition, the first Cruzado Program, perhaps mistakenly, and certainly excessively, aimed at some income redistribution.

The next question that should be addressed is the importance of correcting fundamental imbalances. This is not a difficult question to answer. There can be no durable success without addressing the "fundamentals." Perhaps a more interesting question is why it was possible in the case of one country, Bolivia, to achieve relative stability by dealing only with the fundamentals. In this connection, several points come to mind. Bolivia was the only country that came near or even achieved what one might call hyperinflation. One can speculate that the hyperinflationary chaos made almost anything else acceptable. Therefore, heterodox elements that would otherwise have been essential could be dispensed with. Alternatively, one could say that heterodox elements were not really dispensed with, but that prices were frozen at international levels through the freezing of the exchange rate and the freeing of international trade. In addition, over the previous 15 years there had been a number of episodes of relatively low rates of inflation in Bolivia. The memory of low rates of inflation perhaps made a drastic program designed to return to lower rates more acceptable than it would have otherwise been. It is sometimes stressed that the Bolivian program was introduced by a new set of legitimately elected authorities; but that was also the case elsewhere. Similar factors as in Bolivia were important to the success of the post-World War I and post-World War II stabilization efforts. There are other similarities between the Bolivian and postwar experiences on which I will comment later in my remarks.

Another question is the role of heterodox measures, including price, wage, and exchange rate freezes. The purpose of these measures was of course to destroy the memory of past high rates of inflation that determine present and future inflation. The alternative would be a more gradual, more painful destruction of the memory of inflation in those cases in which the special conditions of Bolivia or postwar Europe are not present. The removal of fundamental imbalances is essential to the success of not only an orthodox program, but also a heterodox one. However, there is a second condition that the staff rightly stresses, namely, the need for pre-equilibration measures to establish a sustainable structure of relative prices; this is part of the general synchronization problem characteristic of these programs. However, even such measures are not enough to ensure the success of heterodox programs. Since mistakes are bound to occur in the establishment of the new relative price structure, it is also necessary to have sufficient flexibility almost from the outset to correct major mistakes and to provide for an early exit from the freeze; except, perhaps, in an economy that is expected to remain stagnant, even the most perfect price freeze cannot prevail successfully for long.

Fiscal measures with a rapid impact must be deployed to eliminate the fundamental imbalances. A choice may have to be made between measures that may have to remain temporary but are quick acting, and measures that are durable but which achieve their results more slowly. It would be hard to dispense with either. In this connection, EBS/87/141 seems to prefer expenditure-cutting over tax-raising measures. It is by no means clear that a more detailed analysis of the question would yield the same conclusion. For example, nothing is as difficult, and is financially less effective in the short run, as the dismissal of public sector workers. In general--Bolivia is the outstanding exception--attrition of the number of public sector staff is a more certain, if slower, recipe than dismissals. As for other expenditures, reductions of subsidies, like raising indirect taxes, is apt to be inflationary. Interrupting debt payments, as in Bolivia, is a different matter. On the other hand, direct taxes are quick acting, probably are noninflationary, and have an enduring effect as distinct from forced savings.

Monetary policy has a crucial role to play, particularly as it can be quick acting, although most likely at the expense, initially, of investment and the private sector. It may even be necessary to accept a degree of overshooting of monetary restriction in order to create a degree of slack in the economy that will make it easier to transfer factors of production in accordance with the new structure of production that is required. In fact, that overshooting may lead for a time to extremely high interest rates, because the credibility of the reduced rate of inflation may not be immediately established. The experience of the four countries under study suggests that in all cases inflationary expectations exceeded the annual rate of inflation. The right stance of monetary policy is perhaps the most difficult problem in shock programs. The question may be asked whether a degree of confiscation of real liquidity, such as occurred most dramatically in the post-World War II German stabilization, cannot accelerate the re-establishment of noninflationary credibility. If it did, it might be less costly in the end, in terms of output, than a less radical approach.

An important factor is the foreign assistance in cases in which the stabilization program starts from a balance of payments deficit that cannot be sustained without such assistance. Debt has made the need for foreign assistance particularly important. There is no question that the Israeli program was significantly assisted by the availability of foreign assistance. The very successful Bolivian stabilization program of 1956 was similarly helped by generous assistance from the United States. In the present case of Bolivia, the ability of the country to finance a large current account deficit--although by unorthodox means, i.e., arrears--was also very helpful. The post-World War I, and in a sense, the post-World War II stabilization programs in Europe and Japan also were able to count on foreign assistance, the first in the form of League of Nations loans--although they were rarely drawn--and the second through the Marshall and Dodge Plans.

I have already noted the the heterodox programs' results with respect to inflation. In other areas, all the countries, except Bolivia, retained positive economic growth after the programs, except in some short periods. The restructuring of the Bolivian economy was undoubtedly the one that, under any circumstances, had to be the most severe, and the resulting loss of output need not be blamed on the program. Among the disappointing results of the programs is the fact that there was no quick reversal of inflationary expectations even when the programs were implemented with a degree of steadiness. This outcome contrasts with the miraculous effect of the post-World War I and post-World War II stabilization programs. It is important to remember, however, that the programs under discussion in the staff papers dealt with economies that in most instances are more fragile and in all cases have a history of much greater instability.

In sum, our judgment of the influence of heterodox instruments of stabilization must be positive although not unqualified.

I have not touched on a number of specific questions that I will take up with the staff on a bilateral basis.

Mr. McCormack made the following statement:

There is a good deal of common ground in the various staff papers under discussion, even though one paper is essentially theoretical in nature and the other does not have an explicit theoretical basis. As a matter of procedure, future discussions on similar issues would be helped if the staff provided a single paper, although I recognize that such a task would be difficult in practice.

I agree with previous speakers who stressed the importance of correcting fundamentals in order to reduce rapid rates of inflation. There could be a danger that in stressing the need to mitigate the effects of orthodox policies, as is the case in shock programs. One might raise questions about a government's ultimate willingness to persevere with those policies. As is noted in a footnote in EBS/87/154, changes in fundamental policies are, provided they are convincing, the major force in changing expectations. That point cannot be overstressed. Given that approach, the role of heterodox policies is essentially one of a possible complement to a thorough disinflation program based on orthodox policies. We must be cautious in assessing such programs, as countries have different institutional frameworks and histories of inflation. Heterodox policies may well be helpful and, in practical terms, perhaps even necessary in some countries; however, they are by no means the necessary and sufficient conditions for the success of anti-inflation programs.

Heterodox policies in a shock program must be implemented effectively the first time. Inadequate implementation would undermine the authorities' credibility for a substantial period, especially in countries where there is a record of long periods of rapid inflation and successive policy failures. I agree with the various qualifications that the staff has mentioned with respect to the use of heterodox policies, especially the importance of flexible administration of these policies and the need for measures to establish equilibrium before the policies are introduced. Even then, heterodox measures are at best a complement to a basically credible orthodox policy program. This conclusion seems to be supported at the theoretical level by modern rational expectations theory, Fund experience, and economists, such as Keynes, who analyzed experience in the 1920s.

Temporary fiscal measures are not a substitute for long-run measures, but they can provide room in which to implement required structural changes. The staff rightly concluded that the announcement of structural changes in advance is helpful, but the value of such an announcement depends greatly on the plausibility of the structural measures. In addition, the early announcement of structural measures provides room in which to implement quick-yielding measures and, therefore, to provide valuable guidelines for private planning. The staff also correctly emphasizes the need to create the firm conviction that the authorities have moved permanently to a new regime in which everyone can depend on the maintenance over time of low rates of inflation, because the basic mechanisms that caused the high rates of inflation will have been eliminated.

Perhaps the most difficult issue raised by the use of heterodox programs is the appropriate role for monetary policy. This issue was not given as much attention in the staff papers as it seems to require. The considerable number of interesting footnotes in the staff papers on this and other issues implies that much more can be said on these general subjects. I agree with Mr. Goos that, on the monetary side, it is best to err on the side of caution during the disinflation effort. There is admittedly a danger of monetary overkill and, in that connection, the monetary authorities clearly walk on a knife-edge. Moreover, in order to reinforce the credibility of a new regime and to ensure the success of an adjustment program in the longer run, there might well need to be a number of institutional changes--for example, strengthening the role of the central bank vis-à-vis the treasury; such changes were part of Germany's approach to handling hyperinflation. However, this question raises difficult issues for the Fund: the recognition by the Fund of the need for such institutional changes would bring the Fund into the political process of individual member countries. Still, it seems necessary to have strong central banks if member countries are to avoid the recurrence of rapid rates of inflation.

> The degree of deindexation in the countries studied by the staff was minimal. This outcome is not surprising for countries that had a history of rapid inflation. At the same time, detailed intervention in the wage determination process does have a cost, and, to the extent possible, governments should stand back from wage determination so that market forces are allowed to work in the interest of the most efficient allocation of resources. Such an approach could well coincide with the development of private indexation practices until lasting changes in the inflationary environment have been achieved.

Mr. Nimatallah noted that little attention had been paid thus far to the issue of the growth of output. Comments by Mr. Kafka and Mr. Feldman on the availability of financing while anti-inflation measures were introduced seemed to imply that financing was needed in order to accelerate output growth. He wondered whether Mr. Kafka felt that additional financing was essential to the success of programs designed to reduce very high rates of inflation. Did external financing help a member country to open its economy and reduce controls?

Mr. Kafka responded that it was useful to recall Bolivia's experience with its stabilization program of 1956. At that time, the Bolivian economy was much simpler than at present; most economic activity had dealt with imports and exports, and the small amount of assistance provided by the United States had made it possible slightly to increase the volume of consumer goods in the economy. That development had dramatically changed expectations in Bolivia; soon after the substantial devaluation at the end of 1955, there had been a sudden increase in the availability of supplies in Bolivia. There had probably been a similar change in expectations when League of Nations' loans had been made available in the post-World War I stabilization period. There apparently had not been a sharp increase in the flow of resources into Bolivia. In Israel, however, the assurance of continued external assistance--especially grants that had undoubtedly had a positive effect on expectations and possibly on the available supply of goods in the economy. The problems that occurred with the anti-inflation programs in the countries other than Bolivia were probably traceable in part to the need of those countries to reduce domestic absorption in order to pay transfers of interest abroad.

The Acting Chairman noted that in some African countries--for example, Ghana--large capital inflows had supported major adjustment efforts.

Mr. Feldman commented that the availability of extra external financing enabled the authorities to moderate the fiscal adjustment that was needed as part of the anti-inflation program. At the same time, the external financing made a significant contribution to the credibility of the program, particularly in countries like Argentina and Brazil that were under considerable strain because of debt problems.

Mr. Nimatallah remarked that in developing countries, particularly debtor countries, additional external financing was a key factor in enabling the countries to be able to simultaneously continue servicing their external debt, maintain positive economic growth, and attempt to contain very high rates of inflation. Maintaining economic growth played a key role in gaining and keeping control over inflation as well as in opening up the economy, which made an important contribution to the effort to control the inflation.

Mr. Yamazaki made the following statement:

> The staff papers shed light on key points with respect to the complex issue of rapid disinflation in the four countries under study. The authorities in those countries made an effort to maintain a sustainable rate of growth and achieve balance of payments objectives while attempting to suppress high rates of inflation. Those requirements together made the programs complex and difficult to keep on track. Each of the four countries had a different economic situation when they began their disinflation programs, and, therefore, it is natural that each program consisted of a different combination of policies. However, the programs seem to have achieved some common results.
>
> It is essential that a program of rapid disinflation contain comprehensive measures. Of course, there is no denying the fact that the inertia factor contributed greatly to the hyperinflation in the countries under study; accordingly, the measures to break the inertia, such as deindexation, were rightly stressed under the programs under study.
>
> However, a comparison of the experiences in Bolivia and Brazil clearly shows that heterodox measures alone cannot solve the problem of very high rates of inflation; measures designed to correct fundamental imbalances in the economy should play a much larger role. Measures designed to break inertia should be seen as treatments of symptoms; the staff has correctly stressed the importance of treating the fundamentals. Programs designed to achieve rapid disinflation should be comprehensive and should include consolidation of the public sector, curtailment of monetary growth, and appropriate price, incomes, and external policies. Of course, all those policies must be mutually consistent. At the same time, it is difficult to subdue very high rates of inflation solely by using orthodox corrective measures designed to deal with the fundamental imbalances. It is difficult to formulate and implement credible and achievable programs when the rate of inflation is very high. For example, it is difficult to set ceilings on variables when there is great uncertainty about the likely rate of inflation in the coming period. Moreover, it is difficult to keep such a program on track when it is impracticable to keep public expectations about

inflation under control. If orthodox measures are to be implemented successfully, the economy must be at least manageable. In this context, the heterodox element of anti-inflation policies is nevertheless important and justifiable. Therefore, a main issue is how to break the inflation inertia. Deindexation or a price freeze can be effective and useful tools.

However, I have some concerns about such measures. First, as the staff has noted, it is important to achieve the desired equilibrium through some preparatory measures before the authorities introduce a price freeze. Otherwise, the economic situation is likely to deteriorate further. Second, the period in which a freeze is imposed is important. Even if the authorities impose the freeze after achieving equilibrium, a large change in the economic environment might occur. The price freeze will prevent such changes from being reflected in relative prices, thereby causing a distortion in the economy.

The credibility of the authorities' policies is also an important element in the effort to break the inflation inertia. In that connection, the introduction of a Fund-supported program has a favorable announcement effect. Furthermore, the case studies show that the need to cut the current account deficit seems to have, in a sense, triggered the acceleration in the rate of inflation in such circumstances. Capital inflows will be of great help to the adjustment efforts. A Fund-supported program is also helpful, and it is the Fund's great responsibility to formulate a reliable program and monitor it in an appropriate manner.

In sum, the heterodox policy approach has a role to play in the adjustment programs of countries that are suffering from hyperinflation. However, correcting the fundamentals is much more important. In this sense, heterodox policies are not a substitute for efforts to correct the fundamentals; instead, heterodox policies are supportive of orthodox adjustment policies.

Mr. Zecchini made the following statement:

The country cases that have been examined have in common very high rates of inflation that are close to what is often referred to in the literature as hyperinflation. The features of developing country hyperinflation heavily colored the subject of this seminar, the analytical approach followed by the staff, and the general validity of the conclusions drawn. In this connection, it is important to define the scope of the issues under consideration and the normative value of the findings.

The first issue at hand is the choice between rapid and gradual disinflation. The staff papers do not tackle this issue, because the staff rejects the gradual approach in the specific circumstances of the countries under study--and perhaps under any circumstances in any country. However, there is ground for questioning the advisability of using a shock therapy, particularly if due account is given to the specific mix of factors that are at the root of the inflationary process.

A second issue is the nature of the inflation that is to be curbed. The staff does not fully analyze this aspect of the issues, since it takes the too straightforward position of considering inflation to be basically and exclusively a monetary phenomenon that occurs in the context of self-fulfilling inflationary expectations. However, a more comprehensive explanation of inflationary pressures is needed for the middle-income developing countries. In particular, the structure of markets for goods and services, as well as structures of production and the type and extent of government intervention in the market have an important bearing on the inflationary process.

A third issue has to do with the instruments used to obtain disinflation in the particular circumstances that I have mentioned. Since the economic literature has dealt at length with hyperinflation and disinflation with reference to classic cases, like Germany's hyperinflation of the 1920s, our interest should be focused on the new elements introduced by recent experience. In particular, we should examine whether recent evidence indicates that there is a need to revise old truths about approaches to economic policy. The new elements of the policy approaches are shock stabilization measures involving controls on wages, prices and incomes, monetary reforms, exchange rate pegging, and structural changes in market behavior. Can these new elements replace the customary macroeconomic tools for correcting macroeconomic imbalances? The evidence provided by the staff does not support this contention. In contrast, the two sets of measures--namely, the orthodox and the heterodox--serve distinct purposes. The former are to provide the basic thrust for the adjustment of underlying imbalances in the fiscal, monetary, and external areas, while the latter are to deal with the transition cost in the process of adjustment minimizing them by aiming at a quick change in the expectations of economic agents. In such a framework, the two sets of measures appear complementary rather than as alternatives to one another.

Still, while the effectiveness of the orthodox approach is beyond doubt, the effectiveness of the heterodox approach in the absence of orthodox policies still has to be proved. I will now comment on some aspects of the heterodox measures to show that their efficacy ultimately depends on their complementarity to and consistency with macroeconomic adjustment of fundamentals.

As to the area of exchange rate changes, contrary to the standard Fund prescription of depreciating the exchange rate, there may be circumstances in which stabilizing the rate may quicken the pace of adjustment. This conclusion is valid for several reasons. First, pegging the exchange rate can provide an anchor for domestic price setting and for inflationary expectations. Second, it may make an incomes policy more socially acceptable. Third, it may limit the impact that depreciation has on the budget as a result of the increase in the burden of servicing external public debt.

However, pegging is justifiable only if the level of the pegged rate can be considered a reasonable approximation to the equilibrium level. The experience of Bolivia is illuminating in this respect: Bolivia allowed, first, a free fluctuation of the exchange rate in order to identify a sustainable level of the exchange rate, and, subsequently, once fiscal reforms and policy tightening had started to produce the expected results, the exchange rate was successfully stabilized.

This example stresses the overriding importance of appropriate macroeconomic policies in underpinning a given level of the exchange rate. In addition, it shows that both depreciation and exchange rate stabilization may be appropriate if they are applied at different stages of the disinflation process; this problem of the timing of different measures that has not been adequately explored thus far by the Fund in designing programs.

The problem of timing is crucial in the approach of the Fund to two courses of policy action, namely, macrostabilization, and liberalization of domestic markets. Macrostabilization may require more drastic measures at an early stage in order to check domestic absorption and to enhance external competitiveness if the macrostabilization is accompanied by sudden liberalization of external trade and capital movements.

To be credible over the longer term, disinflation cannot avoid including a lasting correction of perverse trends in public expenditure and revenues, and the correction of fiscal imbalances requires a durable disinflation. Both inflation and disinflation affect the various components of budget expenditure and revenue to different degrees. As the staff correctly argues, the inflation tax cannot be levied beyond a certain real level of the fiscal deficit. Similarly, rapid disinflation might well swell real revenues with a tax system that has not adjusted the fiscal drag; instead, the rapid disinflation might lead to minimal revenue gains if the fiscal system has been adapted to the high rate of inflation, as in the recent experience of Brazil. Moreover, public expenditure may react in an asymmetrical fashion to the rise and fall of the inflation rate, thereby making possible overshooting in expenditure cuts. All these effects have to be taken into consideration when attempting to make a deficit cut a major intermediate target, in order to slow the acceleration of inflation that is fueled by excess demand in the domestic markets.

Apart from this intermediate goal, if tax or expenditure changes have a different impact on inflation, there is an optimal mix of fiscal measures that can support the anti-inflationary policy stance. In a shock program, the authorities tend to achieve their anti-inflationary objective also by freezing wages, incomes, and prices. In this connection, there is a risk that inflation might not be eliminated but simply concealed. In such cases, inflation will manifest itself in shortages of goods or in the development of black markets. Consequently, it is crucial that pre-equilibrating adjustments in relative prices and/or subsidies take place before the introduction of the controls on wages and prices. The size of these adjustments does not have to run counter to the need to reduce domestic absorption, as has happened to Brazil under the Cruzado Plan. Can these controls or temporary fiscal measures minimize output losses that are generally associated with stabilization programs involving expenditure cuts?

The staff seems to suggest that tax and price-changing policies affect aggregate demand less than public expenditure cuts. This conclusion provides some justification for the introduction of these policies in the initial phase of the disinflation program, but it does not warrant a prolonged use of these policies, which would eventually lead to distortions in the price structure and to new inflationary tensions once the freeze is lifted.

A more fundamental improvement would be the discontinuation of all indexation schemes in the economy. Although the schemes might be used to check the dynamics of wage demands, they ultimately tend to firmly establish inflationary expectations and to reduce the scope for corrections in domestic absorption. Therefore, deindexing the economy tends to reduce the inertial components of inflation.

Excessively rapid disinflation may also lead to a drastic and protracted rise in real interest rates. This phenomenon is generally associated not only with unaccommodated increases in the real demand for money, but also with lags in the adjustment of expectations. In that event, it would not seem to be advisable to aim at a rapid reduction in the real level of interest rates, which might weaken disinflationary expectations. A lagged reduction in real rates in response to declines in the rate of inflation seems more justified. At the same time, the monetary authorities should aim at improving mechanisms for credit allocation in order to support a more productive use of costly financial resources.

In sum, shock therapies are not a replacement for sound macroeconomic management. Nevertheless, such measures, if fine tuned, are essential to catalyze a broadly based adjustment of the economy, as they affect directly and rapidly the behavior of the economic agents, which is the ultimate targets of any macroeconomic stabilization program.

Mr. de Groote made the following statement:

I generally agree with the staff's approach to inflation, especially the inclusion of built-in inertia and the emphasis on the importance of the fiscal deficit.

At the start, I wish to comment on what distinguishes the case of Israel from the other cases that were studied. Israel is different because political factors have always dominated economic factors in external economic policy, and because indexation is the only feature that Israel has in common with the other cases that were studied.

As to the other countries, because of their income distribution characteristics and delicate balance of domestic powers, growth has always been their major objective. They have generally strived to achieve this goal through strategies that assume that the government will be the major motivating force in the country's economy; the government is usually the largest customer of the private sector and, by virtue of its wage intervention, generates domestic and import demand. Under these conditions, it is necessary to run a fiscal deficit in order to keep the economy running. However, when these fiscal deficits were being financed through external borrowing, the breaking effects of inflation were never felt, and for a long time it was unnecessary to manipulate the relative price structure or the direction of the economy. Trouble arose only when the inflow of foreign capital-external savings--slowed or even reversed direction.

The appropriate corrective actions are of course a change in relative prices to make exports competitive in world markets, and the reorientation of inward-looking economies to make them outward looking. Adjusting of an economy is not an overnight process, however, and it depends on both external and internal conditions. The contraction of world trade, the deterioration in the terms of trade, and the lack of either external or domestic financing have forced governments to monetize their deficits in order to secure domestic investments during the adjustment period.

Once expectations of the continuation of external financing dry up, the need to service external debt leads to domestic economies. As a means to survival, and all layers of the economy start buying and selling on credit, thereby speeding up the erosion of the assets of the financial institutions. Fueled by hope, the cycle of debt and monetarily financed government debt gives the public a purchasing power that is unrealistic in comparison to the relative price levels that an outward-looking orientation would impose.

The turning point, at which the society's monetary illusion begins to affect real assets, occurs when the financing of the deficit through inflation-tax revenues becomes inefficient. At that point, inflationary expectations begin to be reinforced by every individual transaction, and money substitutes--real estate, foreign currency, gold, or even consumer durables--become more attractive as hedges against inflation. At that point, manufacturing sector wholesalers and retailers begin building up stocks of inputs and outputs as their credit permits. Moreover, hard currency disappears as a medium of transactions, and wealth and profits become slippery; they no longer appear on the books of companies, which makes them harder to tax. If the exchange rate contributes to the situation by appreciating in real terms, the pressure on imports immediately increases. Moreover, if the government is unable to satisfy the demand for foreign currency, smuggling becomes a regular profession; because of expectations of shrinkage of government expenditure, or because of the fear that monetization will be used to finance domestic adjustment, any available funds will be used to build up stocks or will be invested abroad instead of domestically.

Since inflation cannot be separated from other structural factors of an economy when long-term growth is considered, any measures taken to curb inflation should also serve to meet the goal of achieving structural adjustment. In this context, the domestic and external equilibrium of relative prices is particularly important. In high-inflation countries, where indexation has existed for a long time, the closeness of relative prices to equilibrium depends on the adjustment capacity of economic factors and on the inflation rate; this raises the question how this equilibrium can be made to serve the goal of changing the economy's orientation. Attempts at correction should therefore seek to establish the equilibrium that is externally dictated by relative prices.

With respect to traditional demand-management policies and the demand for inflation hedges, the government might try to benefit from the excessive demand for various goods before announcing a heterodox program. Depending on the elasticities of demand and supply, imposing a value-added tax or raising the rate of such a tax could discourage consumption and speed up the reallocation of resources, correct relative prices, or at least increase government revenues. Overcorrection of the exchange rate, combined with an increase in tariffs on imports of consumer durables, could serve the same purpose. Other temporary preprogram measures that could be helpful in stabilizing the economy and in reallocating resources include raising interest rates while taxing money substitutes and the yields on foreign currency holdings, and increasing the tax on real estate transactions.

Heterodox programs can trap an economy in the doldrums created by the existence of nonconvertible assets, such as excess stocks of inputs and excess supply created in some sectors with the aid of short-term credit from the financial sector. If there is little possibility of exporting these excess stocks, or if the external aspects of the program are not stressed, the government will be forced to intervene to save the financial sector from total disruption, even though such intervention can provide only a short respite from the stagnation that will soon re-establish itself.

Mr. Fogelholm made the following statement:

Because of the different economic experiences of and situations in the four countries that were reviewed by the staff, I agree with the staff that one has to refrain from making excessively broad generalizations. However, there certainly are conclusions to be drawn that might prove to be helpful in the design of Fund-supported adjustment programs and in the pursuit of economic policy in other countries experiencing high rates of inflation together with a large balance of payments deficit.

The staff correctly strongly emphasizes the need to correct fundamentals in connection with programs to reduce inflation. Heterodox measures aimed at a radical change in inflationary expectations should not be separated from measures that are designed to influence the fundamentals. In the long run, heterodox policies alone cannot reduce the rate of inflation. In the short run it is not possible to break the inertia inherent in inflationary expectations without combining heterodox stabilization measures with measures that are aimed at adjusting fundamentals, thereby enhancing the credibility of the authorities' anti-inflation strategy. Therefore, heterodox policies should be seen primarily as supplements to traditional restrictive monetary and fiscal policies.

A common feature of rapid disinflation programs seems to be that the country undertaking such programs assumes that there will be a repatriation of flight capital. This approach seems to be risky. The planned economic measures dealing with the fundamentals might easily be too weak if the return of flight capital does not occur as expected.

Since the breaking of inflationary expectations seems to play an important role in the programs that the staff has described, the success of one program might not be fully independent of the success or failure of earlier programs of the same kind and in the same country or in countries with similar characteristics and problems. I agree with Mr. McCormack that if the fundamentals have not been sufficiently corrected under a program that included heterodox measures, there would have to be additional and even tougher heterodox measures if the country has to introduce a new disinflation program.

As to the role of heterodox policies in avoiding overly large costs in terms of forgone output, I have a question about the different outcome of the disinflation process in Bolivia compared with the other countries that were discussed by the staff. Bolivia has experienced lower growth rates in comparison with the other countries. At the same time, Bolivia has reduced the public deficit and the domestic financing of the deficit more radically than the other countries under study. Furthermore, Bolivia has liberalized prices, wages, and the exchange rate to a greater extent than the other countries. It would be interesting to have the staff's assessment of the reason for Bolivia's relatively low growth rate. To what extent can this outcome be explained by the extremely unfavorable external conditions, and by the very restrictive economic policies? In addition, it would be valuable to assess how intervention in the price and wage formation process--which was less evident in Bolivia than in the other three countries--may postpone the introduction of measures directed toward the underlying factors behind the inflation and the large balance of payments deficits. One interpretation, suggested by the staff, is that, owing to their temporary measures, the other countries were able to avoid the deflationary effects of their stabilization programs.

As the staff has noted, the timing of different measures may be as important as the choice of accurate measures. Is it possible to partly trace the differences in the outcome of the programs examined by the staff to the differences in the timing of the measures aimed at improving the fundamentals?

Deindexation seems to be crucial to the success of a disinflation program. However, as the staff has pointed out, in some cases it is necessary to retain indexation of a more permanent nature. How central is deindexation to disinflation programs? What are the most important factors that account for the difference between the experiences in Israel, on the one hand, and Argentina and Brazil on the other?

Mr. Templeman made the following statement:

I agree with the analysis and conclusions in the staff papers. I will not repeat many of the important points that have been made in the papers. I will address some policy aspects of heterodox programs.

The staff papers brought to mind the adage "an ounce of prevention is worth a pound of cure." The papers give the impression that it was very regrettable that policymakers should have permitted the inflationary situations to become as grave as those that occurred in the countries under study. While I cannot help but think that a shock approach is a sign of desperation by policymakers, I agree that in such a grave situation a shock program of the kinds that have been experimented with in the four countries that have been studied is a possible approach.

There are rarely any cases in which inertial factors alone are the cause of very high rates of inflation. Therefore, the staff correctly emphasizes the need for a set of a comprehensive, and what the staff calls "synchronized," measures. The authorities concerned must pay attention to both the immediate impact of the measures and to the need for longer-term reform measures to address the fundamentals as well as for heterodox measures that are introduced in the short term. The credibility of the anti-inflationary effort will surely depend not only on the strategy for maximizing the immediate public support of the effort, but also on reassuring the public that follow-up structural measures will be introduced to help maintain a noninflationary environment over the longer term.

It would have been interesting to have the staff examine cases other than those in the staff papers in which heterodox solutions were not attempted--for example, the programs of Chile, Mexico, and Yugloslavia. In addition, greater knowledge about the supply situation at the time of the introduction of a shock program would certainly be helpful in designing Fund-supported programs. The staff made that point in its paper, but it is my impression that we do not know much about the capacity utilization of many countries.

The conclusion that the shock approach may not entail major costs in output could be premature. In this connection, I have in mind particularly the lag effects on growth that are now appearing in Brazil.

Several lessons can be learned from the experience thus far. First, in some circumstances, such as those of Bolivia, the orthodox approach can work. Second, the major emphasis under anti-inflation programs, needs to be given to the fundamentals. Third, the initial measures under anti-inflation programs need to be promptly supported by structural measures in various fields to conform to the new nonflationary environment. Fourth, generalized deindexation is probably necessary to achieve durable success under disinflation programs.

Initial fiscal policy should aim at making a substantial impact on domestic demand and at having a positive effect on the credibility of the anti-inflation program. In addition, however, the initial fiscal measures should be consistent with any necessary longer-term structural reforms. Clarity about the future fiscal environment is important to reassure the private sector that there will be predictable appropriate conditions for investment and growth. Therefore, the authorities should anticipate from the start the need, first, to restructure the tax system to produce a reliable source of future revenues and, second, to reassess expenditure priorities for the new noninflationary environment. An abrupt deceleration of the rate of inflation will have a rapid and large impact on revenues and expenditures, and the authorities therefore need to analyze carefully the revenue and expenditure elasticities in each country. It will be interesting to know the extent to which the Fund would be able to give reliable advice on this matter should its advice be sought in future.

As the staff paper clearly shows, the proper fiscal adjustment mix of revenue and expenditure measures is a complicated matter. The authorities need to make fiscal policy changes within a framework of medium-term objectives concerning the size and role of the government and with a view to maintaining a tax system that is a stable source of revenues but does not adversely affect economic incentives. The emphasis on revenue actions under the programs that the staff studied is somewhat understandable but also regrettable; actions often were not taken quickly to follow up on the expenditure side.

In the area of monetary policy, the staff provided a useful reminder that expectational factors can generate high rates of inflation only if monetary and credit policy is accommodative. In addition, before a crisis is allowed to develop, the authorities should recognize that indexation of financial assets and the dollarization of financial systems limit the authorities' freedom to maintain monetary policy. I strongly support the note of caution that the staff expressed about premature forcing down of nominal interest rates to conform to lower inflation rate targets. Temporarily high rates can contribute to the success of a program in several ways: by forcing the use of existing inventories; by helping to stimulate money demand; by encouraging capital flight reflows; by mobilizing domestic savings; and by strengthening the confidence of foreign creditors and investors.

The authorities need to plan structural reforms of the financial system and to anticipate ways to cope with the emergence of troubled financial institutions that will not contribute to inflation. In the shorter term, heterodox measures, such as price or interest rate controls, could cause losses for a country's central bank and commercial banking institutions, as well as encourage disintermediation, with adverse effects on saving and investment flows. If the rate of inflation is high for a long period, reforms of financial markets and financial instruments may be in keeping with the new environment of lower inflation rates and could foster mobilization of domestic savings and attract savings from abroad.

The lesson that deliberately excessive devaluation of exchange rates can cause anti-inflation programs to fail has been learned fairly well, as is reflected in the avoidance of exchange rate fixing for prolonged periods under the four heterodox programs that are described in the staff papers. However, the decline of the dollar during the period of the programs under study may have been a fortuitous event.

Import liberalization can play a potential role as a supply-side measure under anti-inflation programs. In that connection, weak international reserve positions are often a constraint.

It is important to stress the danger of the failure to dismantle indexation mechanisms that was evident in all the heterodox programs that were studied. The persistence of indexation mechanisms in the four countries studied constitutes a continuing threat of a renewed impetus to inertial inflationary pressures.

I agree with much of Mr. Ortiz's opening statement, but his comments on the relationship between the interest transfer problem and inflation are not fully clear to me. Mr. Ortiz seems to be saying that, as a policy tool a devaluation can feed back through the system, thereby contributing to inflation and encouraging the government to resort to an inflation tax. However, one would likely draw such a conclusion only if the devaluation were not being supported by complementary measures to contain domestic demand and the government could not or would not take the alternative measures on either the fiscal side--to provide tax revenues from noninflationary sources--or on the expenditure side.

Some Executive Directors have mentioned the importance of external financing in supporting anti-inflation programs. I doubt whether anyone would question that external financing is an important aspect of all programs--not shock programs alone. However, the relationship between external financing and the successful implementation of anti-inflation programs needs to be clearly understood. Were the programs in question hurt by the absence of financing, or was financing absent because the programs, and perhaps their predecessors, had been inadequate? In any event, I doubt whether financing was actually absent. U.S. aid was an important factor in facilitating adjustment in Israel. In Bolivia, external financing was available, albeit on a smaller scale. Moreover, the programs of Argentina and Brazil were adequately financed, although the financing negotiations were difficult and time consuming.

It is not suprising that governments are concerned about income distribution at the time of the introduction of a shock program, as at all other times. However, there is an inherent conflict of priorities involved in the introduction of shock programs, because the shift in relative prices and in real resources is fundamental to the success of the adjustment programs. That success is less likely if policies to preserve income distribution are introduced across the board and thwart the resource shift effort.

Mr. Abdallah made the following statement:

The three papers represent together a fairly comprehensive attempt to analyze major "shock programs," or nontraditional strategies, adopted in four countries to combat the adverse macroeconomic consequences of sustained high rates of inflation. I will comment on the organizational aspect of the staff analyses, the wider lessons that can be drawn from the experience of these countries, and the applicability of such lessons to smaller, low-income countries.

As regards the organizational aspect, it is useful to recall that these papers grew out of the discussion at Executive Board Seminar 86/7 in June 1986 on fiscal deficits and inflation, and a suggestion by the former Chairman to the staff representatives from the Fiscal Affairs Department that more detailed analyses of the experience of countries with high rates of inflation should be undertaken. Therefore, I am somewhat concerned about the time that this has taken, the preparation of two purportedly companion policy papers, as well as the lack of integration between the first, rather narrowly focused analytical paper, and the second, more wide-ranging descriptive paper. This latter aspect is evidenced by the fact that, although both papers were produced by separate departments in consultation with each other, the first paper scarcely mentions the second, while the second makes only perfunctory reference to the first. Thus, the theoretical basis of, and actual experience with, heterodox stabilization programs, in particular through adjustment of fiscal variables, are insufficiently integrated. At the last moment the staff has supplemented the papers with an opening statement delineating some policy issues on which the Board's guidance is sought. At this stage, I would only note that there is no emphasis in the staff statement on the credibility aspect, especially external credibility, of such programs. I will not attempt here to comparatively summarize individual country experience, which forms the basis for drawing general conclusions, because of the substantial differences between the polar cases of Bolivia and Brazil, the ambiguous results in Argentina, and the importance of a somewhat weaker external resource constraint in Israel--all of which are not easily contrasted.

For the Board, the central question for a country confronting a period of sustained high domestic inflation rates and a loss of domestic and external credibility for its economic management, it is what is the proper role for the use of heterodox elements in a stabilization program that could be supported with Fund resources, and whether such elements should be regarded either as a substitute for, or as a complement to, more orthodox demand-management policies. In this connection, it needs to be recognized that the convergence of the authorities' views in these four countries during the period 1985-86 about accelerating inflation and the urgency of implementing corrective shock programs was precipitated essentially by external developments. These included: adverse terms of trade, the growing costs of financing existing external debt because of rising interest rates, the disturbingly high levels of capital flight, and increasing difficulties in obtaining new external financing on realistic terms. The external developments in turn led to significant currency depreciations which, by exacerbating price pressures, strained the wage indexation system. Moreover, they resulted in increased inflationary financing of domestic resource absorption and a growing reluctance of international capital markets to provide prospective gap-filling finance.

The answers to the question I have posed are not straightforward, in part because definitive evidence is not fully available, particularly regarding fiscal performance. They hinge also on the view taken about the proximate causes of inflation in these countries, which in turn influences the strategy and instruments chosen, as well as the associated short-run versus long-run considerations. There is increasingly a recognition among authorities that the primary stimulus to inflation stems from the financing of resource absorption by the public sector, through credit creation. With this has also come the recognition that past attempts to mitigate inflationary effects through indexation have served only to intensify the problem. This is because, with indexation imparting a downward inertial rigidity to the rate of inflation, relative price adjustment in the fact of continuing demand/supply imbalances can take place only through an acceleration of inflation. As a result, country authorities have been driven to conclude that, in the fight against inflation, primary--in Brazil's case, exclusive--emphasis should be placed on the drastic and immediate reduction of the inertial component over the demand-driven component of such inflation.

This strategy aims at attacking the downward rigidity in embedded, long-term, inflationary expectations through the introduction of significant discontinuities in the trend paths of major economic variables. Of course, while this neat dichotomy may hold in principle, it is more difficult to identify in practice. In addition, country authorities appear to have felt that, to the extent that inflation is essentially inertial in origin, abrupt disinflation can be achieved without significant potential output loss, and with only some temporary excess supply needed to sustain the announced price freezes. As a result, less attention seems to have been paid by them to the limitations of heterodox policy measures, in particular, the temporary wage/price freeze and suspension of all indexation mechanisms, to solve the longer-term structural problem of excess demand and low growth. Moreover, whereas the objective may well have been to use such heterodox measures to provide some short-term dampening of inflationary expectations, thus buying time for the authorities to attack the structural imbalances in resource absorption, implementation of heterodox followed by structural measures has not been sequentially as smooth as expected.

While it is to be expected that, excluding Brazil, the official price indices in these countries would show substantial initial deceleration in the growth of prices, there are troubling indications that inflationary expectations remained strong, as evidenced by indirect indications, such as the higher interest rates on domestic currency assets relative to those for foreign currency, and the relatively early reintroduction of wage indexation mechanisms. More fundamentally, it is not clear that the heterodox policies proved to be credible, either to residents--in the sense of encouraging domestic savings or eliminating capital flight--or to nonresidents, by inducing new external capital inflows and rescheduling. As a result, other than paradoxically in Brazil, which had the weakest heterodox program, a durable basis for the resumption of investment and growth does not appear to have been laid in the other three countries. In light of this result, I would welcome the staff's observation on the apparent contradiction between the view expressed on page 26 in EBS/87/154 that shock programs have had relatively small costs in terms of forgone output, and on page 24 in EBS/87/141 that shock programs entail the danger that a country's long-run growth potential will be compromised. Also, given the importance for credible heterodox programs of ensuring new external capital inflows and rescheduling of existing debt, I, like Mr. Ortiz, found the staff papers to be somewhat cursory in their treatment of this crucially important aspect. Thus, I would also welcome the staff's comments on the external creditor reactions to these programs in the areas of capital flight and capital inflows, as well as on the alleviation of the external debt burden.

Inasmuch as fiscal policy adjustment remains the key to a desirable medium-term outcome, it is appropriate perhaps to make some reference to the role of fiscal policy under a heterodox program, particularly because, in my view, a clear staff position has not emerged from the papers. It seems that policymakers have been faced with a dilemma: should fiscal policy measures undertaken to provide support to temporary wage/price measures emphasize the short term, or should they focus on correcting long-term structural absorption imbalances. As the staff correctly notes, this dilemma affects not merely the desirable size of the fiscal deficit reduction that may be sought, but also, for any such given size, the type of fiscal instruments that would be required. As regards the size of the fiscal deficit, the shorter the time frame proposed--in keeping with the short-term nature of wage/price freezes--the fiscal adjustment would need paradoxically to be greater, and not less, and result in larger output losses, if credibility is to be crucially assured. Moreover, credibility is likely to be compromised to the extent that the choice of instruments is dictated by the need to close the short-run deficit at the cost of increasing pressures on the long-run deficit. This would entail opting for new tax increases and forced savings schemes, none of which apparently generates significantly higher rates of inflation; this would be in preference to aggregate demand reduction through cuts in government expenditure, which would have damaging effects on incentives and thus on future growth. This development would lead to a situation in which, with the restriction on degrees of policy freedom implied by wage/price freezes, the burden on the fiscal instrument becomes greater. Concurrently, public sector resource absorption is potentially augmented by the freezing of prices at nonequilibrium levels, as subsidy payments increase with a shift in demand toward the cheaper public goods, while budgeting revenues shrink in response to the effect of rapid disinflation on the value of other financial assets held as money substitutes.

While I recognize that this might not be a straightforward matter, one would have hoped that either paper would have contained a more focused interpretative discussion of the four country experiences of fiscal adjustment along these lines, because of the singular importance of fiscal policy in assuring prospective price stability under a limited heterodox stabilization program. In this light, the brief discussion on pages 9-11 of EBS/87/154, with some qualitative commentary about the fiscal developments reflected in Table 4 on page 10, would seem properly to belong to EBS/87/141. By the same token, the effective appraisal contained in EBS/87/154, Section VI, is conspicuous by its exclusion even in summary form of fiscal policy implications for rapid disinflation strategies mentioned in EBS/87/141. As such, I would ask the Director of Fiscal Affairs to comment both on the measurement and adequacy of the fiscal adjustment referred to in Table 4, particularly in promoting domestic and external credibility for the heterodox stabilization programs undertaken by these countries.

Where does all of this leave us, in terms of the question I posed earlier? The interferences are not encouraging. It is clear that while a high-visibility heterodox strategy has its place in altering expectations and inducing a temporary movement to a lower level of price equilibrium in goods, factor costs, and asset markets, it does this at the expense of the important signaling role of relative prices in efficient resource allocation. Nor can it be assumed that such a program has ushered in a lasting retreat from high inflation, or even that it has irreversibly weakened the inertial and expectational components of such inflation. The most that can be said is that it can provide some room for maneuver for policymakers in dealing with the fundamentals, in particular an appropriate fiscal stance. More importantly, the four country experiences would appear to underline the critical importance of credibility in sustaining these programs. If the opportunity of temporary price/wage freezes is not taken to announce a package of structural fiscal measures that will both sustain long-run fiscal balance through expenditure cuts as well as guard against losses of prospective output by providing signals for long-range private sector decisions, there is little doubt that inflationary pressures will intensify with greater virulence, and output growth would stagnate. Brazil's case illustrates most clearly the weakness of a heterodox strategy that is not supplemented by a correction of the fundamentals. Even in Bolivia, where the program focused on fundamentals, episodic slippages led promptly to a resurgence of inflation. Moreover, indexation mechanisms were reintroduced in all countries within a short period, while the general performance of real wages was mixed.

I now turn to the third part of my remarks, which relates to what lessons can be drawn for low-income countries from the experience of middle-income countries attempting to combat high inflation rates with heterodox stabilization programs. The straightforward answer is that the lessons are quite limited. The only clear lesson is that price controls (including, in particular, controls on the external price of domestic currency), whether imposed for a limited time or on a longer-term basis, will quickly translate into effective price supports. This will, in the absence of an attack on the economic fundamentals, only further exacerbate underlying distortions in resource allocation and use. Of course, although inflation is endemic in these countries, it has not attained levels of hyperinflation;

moreover, although inflationary pressures are stimulated by secular excess demand influences, they are also affected by rigidities and unanticipated interruption in aggregate supply. This situation reflects the structural features of the economy, including their essentially open nature, narrow production base, a tax structure heavily dependent on foreign trade taxes, and the necessary predominance of government in the economy because of an undeveloped private sector. In these circumstances, and in the absence of institutional indexation mechanisms, real income levels have to be maintained through a pervasive system of price controls (in particular, on the exchange rate and producer prices), which produce important distortionary effects, especially for agricultural exports and domestic manufacturing.

Against this background, one may cautiously advance three observations. First, inflation is less inertial in nature, and, therefore, heterodox programs would have a less significant impact on inflation. Second, short-run orthodox programs based on restrictive fiscal and financial policies, while they may contain demand/pull inflationary tendencies, appear to, if anything, exacerbate the cost/push elements of inflation, because of the monopolistic nature of distribution channels. Third, external credibility considerations are somewhat different, inasmuch as gap financing in these countries is obtained by almost exclusive recourse to official creditors.

In the one documented case of hyperinflation in Uganda in the early 1980s, the approach used was heterodox in the sense of generating announcement effects through an unfreezing of prices, in particular the nominal exchange rate. It was supported by sufficiently restrictive orthodox demand-management policies. This led initially to a better integration of resource pricing within the government sector, with that prevailing in the rest of the private economy, which had become effectively dollar based. It also had a sizable impact on government revenue, through increased coffee export duties attributable to a substantial real depreciation of the exchange rate, which more than offset increases in other exchange rate and inflation-sensitive components of the expenditure side of the budget. The large resulting surplus was used to reduce the existing money stock by repaying part of the accumulated claims on government by the banking sector. The experience with such shock policies shows that inflationary pressures, after an initial surge, eased as inflationary expectations were dampened. In due course, however, with the fundamentals being compromised by excessively lax fiscal policies associated with a deteriorating political and security situation, and with the persistence of external reserve constraints, a resurgence of higher inflation rates took place.

The Executive Directors agreed to continue their discussion in the afternoon.

LEO VAN HOUTVEN
Secretary