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INTERNATIONAL MONETARY FUND

Seminar 76/1

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H. J. Witteveen, Chairman

Executive Directors	Alternate Executive Directors
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	J. H. Kjaer
S. Y. Cross	
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W. S. Ryrie	P. Kent
F. Suárez	
	J. Foglizzo
	R. S. Deane
A. W. Yaméogo	

W. L. Hebbard, Secretary
J. A. Kay, Assistant

Also Present
African Department: J. B. Zulu, Deputy Director; E. L. Bornemann. Asian Department: A. A. Mattera, I. Otani, P. J. Quirk, R. Dornbusch, Consultant. European Department: L. A. Whittome, Director; J. A. J. Bové, H. Vittas. Exchange and Trade Relations Department: C. D. Finch, Deputy Director; C. J. Emanuel, P. Engstrom, H.-M. Flickenschild, H. W. Gerhard, T. Sweeney. IMF Institute: U Tun Wai, Deputy Director; C. Tognetti. Research Department: J. J. Polak, Economic Counsellor and Director; C. J. Schwartz, Deputy Director; J. H. Young, Deputy Director; J. R. Artus, H. R. Heller, Z. Hodjera, M. D. Knight, D. J. Mathieson, A. K. McGuirk, R. R. Rhomberg, W. H. White. Secretary's Department: N. K. Humphreys. Western Hemisphere Department: J. Del Canto, Director; S. T. Beza. Personal Assistant to the Managing Director: D. W. Green. Advisors to Executive Directors: C. Bouchard, F. K. Hussein. Technical Assistants to Executive Directors: V. Alipui, V. Amiel, S. Arancibia, M. Berger, J.-M. Bisson, J. M. Cock Londoño, I. M. Cobbold, R. De Beckker, K. L. Deshpande, G. Heyden Q., H. Kuroda, C. J. Lohmann, A. G. Morris, K. Nakayama, S. K. Panya, M. Pietinen, S. B. Satyal, L. F. Vílches, P. Zimmer, A. G. Zoccali.

1. EXCHANGE RATES AND INTEREST RATES

The Executive Directors considered a paper dealing with the relationship between exchange rates and interest rates (SM/76/106, 5/25/76) prepared by the staff, in connection with the policies and procedures that the Fund might adopt for the oversight of the international monetary system and the exercise of firm surveillance over the exchange rate policies of members in compliance with the text of amended Article IV.

Mr. Kafka stated that he had been surprised by the proposal in the paper that the Fund should pay more attention to interest rates, because he had been under the impression that the Fund had been paying attention to interest rates all its life. It had certainly been doing so in the countries with which he was most familiar, where it had--quite rightly--never hesitated to recommend that they should have positive real interest rates. He hoped that the proposal had not been made because the Fund had in fact not been paying attention to the interest rates of industrial countries, or had not dared to suggest that they should enjoy the benefits of positive real interest rates.

Before discussing the relationship between interest rates and exchange rates, Mr. Kafka continued, the Executive Directors ought perhaps to examine the ways by which they could make their surveillance effective. At present, while the technical prestige of the Fund gave a certain influence over countries, he doubted whether that was sufficient to make its surveillance effective. The only occasions when the Fund could influence countries was when they applied for access to its resources, and the number of countries doing so was a rather restricted group, not in terms of numbers or amounts drawn, but in terms of the character of the members: those which, because of their poverty or extremely bad luck had no access to credit markets. One way in which the influence of the Fund could be made more effective for a larger range of countries would be to enlarge its size. So doing would make the Fund attractive to countries whose present quotas were so small in relation to their reserves or to their foreign trade that there was no great benefit to be derived from approaching the Fund for resources, even as a means of obtaining easier access to private markets.

In passing, Mr. Kafka observed, the table on page 5 of the staff paper seemed to bear out Lord Keynes' prediction that if major depressions could be avoided, the euthanasia of rentiers would soon be achieved. The table after all showed that all short-term interest rates were negative. The longer term real interest rates were perhaps positive, but income tax was imposed on interest on the longer term rates, so that even there the real return was negative. If what the table appeared to show was in fact true, the matter might well merit an investigation by the staff.

Addressing himself to SM/76/106, Mr. Kafka remarked that the staff proposal that the Fund should pay more attention to interest rates in order to enable it to apply firm surveillance on the basis of agreed principles and thus avoid competitive depreciation and similar disorders, raised a number of doubts including the doubt as to whether the Fund was able clearly to define what it meant by competitive depreciation. For instance, did the Fund have any convincing technique for deciding what the equilibrium rate should be at any given moment. He himself had never seen in practice any analysis that departed at all far from a very simplistic purchasing power parity theory; and the present circumstances might make that theory quite irrelevant.

There was a similar problem with interest rates, Mr. Kafka considered. The staff maintained in a footnote on page 6 that high nominal interest rates would not be deflationary as long as they were not high in real terms. He himself, however, did not know how real interest rates could be determined because they were a prospective rather than a retrospective concept. It was impossible to be sure that a given nominal interest rate, which had been agreed to be the one necessary to achieve a positive real rate--or some particular positive real rate--would really be achieved. Another point that was not entirely clear was what sort of interest rate theory underlay the paper. Could countries ever determine their nominal interest rate in the presence of high gold mobility? The question he had raised only showed how important the subject was; he was therefore grateful to the staff for having made it possible for Executive Directors to begin discussing the problems of surveillance well before the amended Articles came into effect. Nevertheless, he would insist that, in addition to discussing interest rate surveillance and exchange rate surveillance, the Executive Directors should examine the problem of how to make any surveillance effective.

Mr. Ryrie remarked that it ought to be recognized that what the Executive Directors could achieve in discussions of the present sort in connection with amended Article IV was quite limited. They had necessarily to discuss matters in rather general terms because, if they considered papers directed to the problems of individual countries, they would be treading in areas of great sensitivity. While the discussions themselves would certainly be useful, Executive Directors would therefore do well to realize that there were certain limitations.

The staff had commented that the purchasing power parity theory had come back into vogue not only because the world was suffering from high rates of inflation but also because those rates differed greatly between individual countries, Mr. Ryrie recalled. There could be no doubt that the theory became more relevant in times of large differences of inflation because at those times there were greater exchange rate movements, which were in turn due mainly to inflation differentials. However, having set out that proposition, the staff seemed to imply that almost the sole determinant of exchange rate movements had been the differential in the rate of inflation between countries, ignoring the fact that the underlying factors influencing exchange rates were still at work. It was of course hardly necessary to point out the deficiencies and weaknesses of the purchasing power parity approach. It was clearly a crude line of reasoning to argue from the usual inflation differentials expressed in terms of the consumer price index to exchange rates because most measures of inflation related mainly to goods circulating within an economy and not merely to those that were traded internationally. Even if it were possible to find a satisfactory measure of changes in international competitiveness, there was the permanent problem of establishing a fair starting point and indeed of deciding whether there was any point at which it could be said that one economy was truly competitive with another. Executive Directors ought therefore to be careful about drawing conclusions from inflation differentials.

The heart of the staff paper, however, was concerned with the relationship between exchange rates and inflation differentials, Mr. Ryrie remarked. In that respect, the reasoning toward the end of the paper was rather mechanistic, seeming to suggest a degree of rationality in the behavior of markets, which, for the most part, they did not display. For instance, the staff had maintained on page 3 that the most efficient brake on a rate that was falling because of excessive inflation was the rate of interest. The following discussion ought perhaps to be taken more as a description of how observers considered the markets ought in the abstract to behave than as one of how they actually had behaved in recent times, when the effect of the interest rate movement on exchange rates had been much more complicated than the staff seemed to consider.

Similarly, the staff had drawn two conclusions from the table on page 5, Mr. Ryrie noted. First, it had observed that interest rates had tended to be higher in countries with greater inflation and, second, that the interest rates had not been high enough to offset expected differentials in price movements. It had of course been known for some time that some countries had negative interest rates. What was perhaps more interesting, however, was that in two countries where the real interest rate had been highly negative at the time that the table had been constructed--the Netherlands and Belgium--it would have been logical to expect to see their currencies come under pressure, something that had not occurred. The table was therefore a rather flimsy basis for drawing any conclusion. The evidence of exchange rate movements in recent months seemed indeed to show that people had not been influenced by figures of the sort collected by the staff. For instance, taking the table at its face value, it would have been logical to deduce that in the months following November 1975, sterling would have come under considerable pressure, something that had also not occurred. The pressure had begun later. Further, at the beginning of 1975 the rate of inflation in the United Kingdom had been as high as 25 per cent per year. There was, however, no particular sign of inflation producing high pressures on the exchange rate. The conclusion he drew was therefore that markets were not so much influenced by calculation of real interest rates or by projections of rates of inflation in the short term as they were by very short-term expectations of movements in the exchange rate itself. People operating in foreign exchange markets were less concerned with considerations of whether a particular currency was correctly valued or not than with the expected rate the following morning; and their attitude applied both to currencies that were stable at a given moment and to those that were more mobile.

Recent experience seemed to show, Mr. Ryrie believed, that both stability and mobility in exchange rates tended to be self-reinforcing, so that the important question was what created expectations of movements in exchange rates. Clearly, one factor might be interest rate changes, but it was only one among others, and there had been cases where substantial changes in interest rates had had reverse effects. There was therefore a large number of factors affecting the behavior of exchange rates, so that it was rather artificial to single out interest rates for special treatment, and rather unreal to suggest that by manipulating interest rates alone it would be possible to guide exchange rates in some particular direction with any kind of certainty of achieving the desired results. Finally, interest rates for any given country would be determined largely by domestic considerations, and the authorities might find it impossible to operate freely on short-term rates without having some influence on long-term rates, which were in turn undoubtedly affected by domestic economic factors.

Mr. Sevilla remarked that, in preparing to discuss the staff paper, his chair had considered the basic purpose of the Fund's surveillance of exchange rates. Only after that question had been decided could views on the place of interest rates in the whole system be properly formed. If the international monetary system was conceived as a flexible web of interrelated floating rates, surveillance of exchange rates would of course be fundamental for the establishment of normal working relations between the various currencies used throughout the world. If, on the other hand, the international monetary system was to consist of a set of relatively fixed exchange rates with only occasional changes in parity, surveillance of the interest rate would become of even greater importance. His chair did not believe that the Fund should try to exercise active surveillance both over a system of floating exchange rates and over interest rates. The Fund should try to decide once and for all whether the intention was to have surveillance of exchange rates, on the assumption that internal monetary policy was a matter for national governments, or whether it was to have a system of controlled exchange rates; if so, national monetary policies must also come under a certain amount of control or at least be influenced by whatever means were available to the Fund. If in fact a system of flexible exchange rates with frequent changes in parity was adopted, the surveillance of interest rates would not be necessary. Naturally, if interest rates were not changed very frequently, any changes that did take place would have a decisive effect on exchange rate relationships. In any event, the Fund should study the nature of interest rates in the various countries with the greatest care. There were, after all, countries with flexible capital markets and others where the government intervened to keep the capital market under control. Consequently, in some cases the interest rate might be fixed as the result of supply and demand of loanable funds, while in others it might be established arbitrarily by government agency. It was therefore most important to know how the various countries' financial systems were actually working.

The purchasing power parity theory of exchange rates appeared to be coming into its own, Mr. Sevilla considered, because, especially in Latin America, many countries had reverted to a situation in which they had high rates of inflation with a limited mobility of capital. Where capital could not flow naturally, the price structure would determine the exchange rate to a much greater extent than it would in situations where capital flowed easily. Consequently, in studying the interest rate in different countries, the Fund should pay great attention to the nature of the capital markets in those countries. In Ecuador, for instance, the interest rate had often been greatly influenced by the nature of government decisions on the maximum interest rate that banks had been allowed to charge. On the other hand, government decisions set a certain official interest rate that often made it impossible to determine the "real" interest rate in a country. The banking interest rate was often substantially lower than the interest rate in the money market itself, if only because banks tried to avoid the authorities' rulings regarding the maximum interest rate by the use of various commissions and similar devices. It was important, therefore, that the Fund should not allow itself to be deceived by the official definition of the interest rate in a given country; it should seek to discover the real yield of securities in the securities market as an indication, at least, of the long-term rate structure. Moreover, before the Fund could start any surveillance of the interest rate in a country, it would have to recommend that countries establish organized capital markets for short-term securities; otherwise, it would never know what the interest rate structure was in a given country or what the opportunities were for influencing the structure through open market operations. More generally, in speaking of interest rates, the Fund would be discussing the whole complex of monetary policy. The staff recommendations regarding a more detailed consideration of interest rates was only a first step toward a thoroughgoing study of the nature of capital markets in various countries, leading in due course to the recommendations regarding the possible control of inflation or depression through open market operations. Naturally, inflation had the most serious effect on interest rates, and if the Fund could use its influence to encourage a much freer movement of interest rates in the market, it might well succeed in persuading the various authorities to introduce positive interest rates and thus achieve some kind of underlying stability in the economies of their countries.

His chair, however, believed that the Executive Directors should first try to define the type of international monetary system they wished to see brought into existence, Mr. Sevilla explained. It might be fairly difficult to reach an agreement because some chairs would defend fixed rates of exchange while others favored completely flexible exchange rates. If the Executive Directors could not come to an agreement on that issue, it would be difficult for the Fund to decide how far it should go in exercising surveillance over countries' exchange systems or interest rates. In any event, countries should be free to set their own domestic monetary policy if they accepted flexible exchange rates; if they did not wish to adopt flexible exchange rates, they ought to be willing to accept some kind of surveillance of domestic monetary policy, covering both interest rates and the nature of their capital markets. Another point on which agreement would have to be reached was that there was a need for competitive conditions in capital markets if the Fund was to be able to say anything useful about the nature of interest rates. If governments continued to intervene to fix interest rates at capricious levels, they would never understand the movements in their capital markets, and hence they would be unable to use interest rates as a method of controlling monetary policy. As part of the Fund's surveillance activities, it should oppose restrictions not only on trade but also on the flow of funds. If it did not, the purchasing power parity theory would be proved to be completely correct, showing that the relationship between currencies was only a reflection of the relationship between prices in the countries using those currencies, naturally ignoring the part played by transfers.

Mr. Deane commented that the staff had raised two fundamental questions: first, the nature of the economic relationship between exchange rates and interest rates; and, second, the willingness of members to see the Fund's surveillance of exchange rates extended to other aspects of their economies, including certain domestic aspects. As to the relationship between interest rates and exchange rates, the economic analysis undertaken by the staff seemed to be reasonable as far as it went. Clearly, if the Fund was to take an interest in exchange rate movements, it was bound to take some account of relative real and nominal interest rates. However, monetary, fiscal, and incomes policies were also associated with differences between both interest rates and exchange rates of different countries. The question then was how far the Executive Directors would wish to proceed in trying to assess the differences between the whole range of policy instruments, and he wondered how many more papers the staff would need to produce if that type of line was to be pursued. The economic analysis suggested the need for a rather broad sweep if the Fund was genuinely to exercise meaningful surveillance over its members' exchange rates.

On the topic of interest rates themselves, Mr. Deane remarked that he had felt for some time that the Fund's attention to interest rates had at times been too cursory. While many staff papers had paid due attention to the conventional wisdom of appropriately flexible interest rate policies, they had often not gone very much beyond it and, as a result, had perhaps not exerted as much helpful influence as might otherwise have been the case. For instance, in Fund programs undertaken by debtor members, the programs were concentrated upon credit ceilings and credit guidelines, even where interest rate controls in the member country might be pervasive. Where interest rates were in fact regulated, credit ceilings, especially those restricted to an officially defined banking sector, could be invalidated by an expansion of the disintermediation process. It was of course impossible to control both the supply and the price of money simultaneously. Thus it would perhaps be a good idea for the Fund to pay more attention to interest rate policy within the framework of the programs undertaken by debtor members. On the other hand, it was difficult to know how the Fund could do that with respect to those members that were not subject to Fund programs. As he understood it, the staff paper was an attempt to ascertain the likely reactions of members to widen the Fund surveillance which, if it was to have any substance, must include some general overview of domestic policy matters, of which interest rates were just one area. The paper thus raised implicitly the more fundamental question of the depth and breadth of Fund surveillance activities which, he noted, were to be discussed in larger staff papers. One of his authorities had already expressed concern that if the surveillance of exchange rates did indeed involve more attention to interest rates, then it also implied that the Fund might by the same token take a greater interest in a significantly wider range of domestic matters than it had in the past, and countries might reasonably wish to know how far the Fund would go. Unfortunately, it did not seem possible to tackle such a topic on a subject-by-subject basis. In other words, it did not seem practicable to examine the relationship between exchange rates and interest rates in one paper and the relationship between exchange rates and a whole range of other individual policy matters in a further series of papers.

His authorities indeed doubted whether it would be sensible to try to do that, Mr. Deane explained, not only because of the concerns just mentioned, but also because of those raised by other speakers. Consequently, he would like to suggest that if any progress was to be made, the Fund would need to maintain a relatively low key posture, and should avoid advertising or overemphasizing its widened powers of surveillance, concentrating instead on moving carefully and cautiously into the broader arena suggested by the amended Articles.

In other words, Mr. Deane explained, it could prove to be unwise to circulate a series of papers which might be interpreted as an effort to force authorities to be very explicit about just where they stood on each issue. It might be more profitable to use the existing channels, such as annual consultations, stand-by arrangements, and discussions of the World Economic Outlook, to draw more attention to relative exchange rates and the underlying factors. While he could understand the argument that it might be better to have frank discussions on the issues, he had some doubts about whether that would really lead the Fund along the path that it might wish to follow. By using the existing channels, it should be possible to ascertain the factors underlying movements in members' exchange rates, whether they were interest rates or other policy considerations, without exposing the many domestic sensitivities that currently seemed to prevail in the area of surveillance.

Mr. Sacerdoti commented that the staff paper seemed to imply that the depreciation of a currency depended only upon anticipating inflation differentials that would aggravate the balance of payments on current account. While inflation differentials certainly had an effect on exchange rates, it ought to be recognized that exchange rate depreciation depended also or mainly on other factors such as the relative structural weakness of the export sector, lagging technological progress, and the like. Moreover, it would be unwise to overestimate the rational behavior of capital and exchange markets. Intangible elements, like general confidence in a currency or political factors, often formed the basis of expectations of changes in currency values. The wide oscillation in exchange rates between 1973 and 1975 should be a reminder of the imperfect and often erroneous expectations formulated in money markets. However, as he understood it, the emphasis by the staff on relative inflation as the cause of the expected depreciation was intended to simplify the discussion, and it did not detract from the validity of the main theoretical point made in the paper--with which he agreed--namely, that an appropriate interest rate differential should in principle serve to stem the capital outflows that would take place in the absence of the differential.

Naturally, the reasons for a currency's depreciation were not related only or mainly to anticipated inflation differentials, Mr. Sacerdoti observed. Consequently, the table on page 5 might be less valid than it could be because the market did not act predominantly on the assumption that inflation differentials were the only factor influencing depreciation. It would perhaps have been more useful to present a table comparing forward premiums or discounts with interest rate differentials, since the presence of an arbitrage opportunity was one of the main factors in influencing exchange market behavior. On the other hand, the staff was certainly correct in believing that anticipated rather than actual price movements and, in more general terms, anticipated current account balances rather than past balances, were relevant in assessing capital movements. There was therefore always the possibility that capital flows would carry an exchange rate below its purchasing parity, which was determined by past price movements. In Executive Board discussions his chair had often stressed the importance of future inflation, and had indeed on that account sometimes been at odds with the staff regarding the appropriateness of suggesting to a country that it should depreciate its currency on the basis of past inflation differentials without paying attention to what depreciation would do to inflation in the future. He was therefore glad that the staff now recognized the importance of future and anticipated inflation differentials.

Nevertheless, Mr. Sacerdoti observed, he would be cautious in drawing rigid conclusions for policy from the economic theory he had outlined. While it was probably true that countries with high inflation relative to their trading partners and with rather bleak balance of payments outlooks for the near future would probably be subject to adverse capital movements--and the monetary policy should be sufficiently tight to prevent them as far as possible; the conclusion to be drawn was that, in framing instruments of economic policy, monetary policies should be used mainly to attain external targets, while fiscal policy should be related to domestic objectives. Theoretically speaking, such an assignment of instruments to objectives was efficient, and capital was free to move across national boundaries. Using monetary policy in such a way naturally represented a sacrifice in flexibility, but experience in managing open economies seemed to show that the sacrifice had to be accepted.

Naturally, the assignment of instruments to objectives was only possible in the short run, Mr. Sacerdoti commented. In the medium term and the long term, external equilibrium could only be achieved by providing an appropriate economic structure; it could not be obtained by relying on an inflow of short-term capital. There were of course cases of countries that had benefited from long-term capital inflows over a considerable period of time, but the flows had been stimulated not by the interest rate but by favorable prospects for investment.

In using monetary policy for stabilization purposes, Mr. Sacerdoti noted, it was not enough to decide on the direction of policy; the quantitative aspects would also have to be considered. For instance, when currency depreciation was anticipated on a large scale, as indicated by a discount on the forward exchange rate, the interest rate differentials required to make capital outflows unprofitable could become so large as to be unattainable or unacceptable for domestic reasons. In such cases, monetary tightness would clearly be insufficient by itself to stabilize an exchange rate in the presence of adverse expectations. For example, in the three months prior to mid-June 1976 the discount rate on the lira in relation to the U.S. dollar was more than 20 per cent on an annual basis. It would therefore have been necessary for short-term interest rates in Italy to exceed those in the United States or in the Euro-dollar market by more than 20 per cent. In practice, despite the extremely tight monetary situation in Italy, which had led to short-term interest rates of some 18 to 20 per cent--a record high level--the differential was considerably less. To achieve a 20 per cent differential would have meant that short-term interest rates in Italy would have had to have reached 25 per cent or more, and such a level was clearly unacceptable for domestic reasons. The only way in which a currency under strong speculative pressures could be stabilized, experience showed, was to ensure that monetary action was accompanied in the short term by administrative measures to stem the leads and lags and other speculative operations, and by coordinating intervention in the exchange market to defend a realistic level of exchange rate and give some clear indication to the market as to where that level was. In the medium term, however, a wider array of economic policy actions was necessary to give new confidence to the currency in difficulty. Exaggerated emphasis on monetary policy as an exchange rate stabilization tool could therefore be misleading, except in the very short term.

In conclusion, Mr. Sacerdoti continued, his chair would certainly agree that the Fund should give due attention to monetary developments in member countries within the framework of its surveillance of the exchange rate system under amended Article IV. It would be welcome if the Fund would produce timely charts and tables on selected interest rates, both short term and long term, and on interest rate differentials. It would also be useful if periodical discussions could take place on monetary developments. One of the most satisfactory presentations at the present time was to be found in the weekly publication of the Board of Governors of the Federal Reserve System entitled "Selected Interest and Exchange Rates," but the coverage could be enlarged. However, his chair would not like the Fund to center its attentions only or largely on monetary and intervention policies. More comprehensive reviews and analyses of a country's external situation, giving due consideration to developments in its productive structure and to the outlook for its relative position in world trade, were also needed. The annual consultations with Fund members and the periodical review of the World Economic Outlook papers seemed to provide adequate opportunities for commenting on any analyses that the staff might provide, and would eventually be completed by additional discussions. Clearly, a cautious approach was required in formulating the Fund's surveillance policies. It would be unwise to advertise the Fund's powers too greatly for fear of arousing the suspicion that the Fund would wish to control members' internal policies. Only when the Fund had gained more experience in the field of surveillance would it be possible to proceed with more decisions.

Mr. Cross remarked that the staff paper raised a number of interesting points, and that in many respects it compared well with recent treatments of the same topic by other organizations. It was right for the Fund to begin thinking about developing a definition of its role under the Articles of Agreement. Governments too, including his own, were thinking carefully about the same matter, and he hoped that authorities would be willing to circulate papers giving their own thinking as the effort progressed.

The paper made two points, which, while they were incontrovertible, were certainly worth making, Mr. Cross considered. First, the purchasing power parity approach was incomplete and deficient; second, interest rates--among many other factors--should be considered by the Fund in its assessment of countries' positions and policies. The staff had appropriately indicated that inflation was not the only cause of "appropriate" exchange rate movements and it had correctly distinguished between real and nominal interest rates. It had thus avoided the pitfall of considering that all nominal interest rate movements were changes in real rates as well or making what U.S. economists called "right" rate calculations based on relative movements in trade weighted inflation indices. The paper appropriately focused on the importance of expectations for the future as well as of past inflation rates. Nevertheless, the analysis did not display a proper appreciation either of the complexity of the factors that determined exchange rates and interest rates, or of the resulting wide variety of dynamic relationships that might occur. As a consequence, the analysis was quite misleading in a number of respects. In particular, the staff had suggested that "to the extent that a systematic difference existed between expected price movements and interest rates, the countries with relatively high rates of inflation--unless they had important elements of strength in their balance of payments position arising from other causes--were likely to slide and could well slide to a position of substantial undervaluation." The conclusion drawn from that misleading statement was that Fund surveillance should be directed not only at members' intervention policies but also at their interest rates; the implication was of course that a calculation of the "right" interest rate should be used to determine whether an exchange rate was "wrong." He did not accept that view. A basic problem with the discussion of that point was that it failed to do justice to the complex relations that could be observed at any time between exchange rates, current prices and inflation rates, expected inflation rates, interest rates, and other variables. Although much more explanation was still needed in connection with those relationships, enough research had been carried out recently to make him wary of the oversimplified analysis presented by the staff. The staff indeed left the impression that "real" interest rate calculations could be made by subtracting some measure of expected inflation from some given domestic interest rate. Even if theory provided a reasonably clear indication of the determinants of observed "real" interest rates, there would remain the practical problems of measuring expected inflation, choosing the appropriate interest rate measures, and so forth. More important, the relation between real and nominal interest rates, actual and expected changes in prices and exchange rates, and other variables, depended at least upon the nature of the disturbances causing the variations, the extent to which those were known to market participants, and the rate at which producers, consumers and sellers of factors altered their behavior in response to perceived changes in equilibria. In the present state of the art, it was not possible even to give unambiguous explanations of differences among countries and, over time, of measured real interest rates, much less to use estimates of them as a guide in determining whether or not exchange rates were "right." At present, then, the measurement and interpretation of real interest rate variations required evaluations of factors that were at best imperfectly known. Similarly, there were a number of reasons why "real" interest rates might vary among countries and over time, and each was likely to have different implications for exchange rate behavior. It was certainly wrong to assume, as the staff had done, that countries could set "real" rates of interest. Government policies would influence "real" rates; they certainly could not set them. The paper thus presented a far too partial and simplified analysis. Nevertheless, it did draw a number of distinctions between purchasing power parity and current equilibrium exchange rates, and between nominal and real interest rates, that were useful and should be emphasized.

His more fundamental problems with the paper were with its underlying assumptions and approach, which were most visible in the concluding paragraph, Mr. Cross observed. The conclusions indeed simply did not follow from the preceding analysis. First, they were clearly based on what U.S. theorists called a "right rate" approach. The paper was in effect saying that an exchange rate that fell below its purchasing power parity level was "undervalued." The staff argued that persistent differential price movements, unless offset by a corresponding interest rate differential, could cause a substantial distortion of exchange rates from medium-term equilibrium exchange rates. And the last sentence of the paper suggested that the Fund was to judge whether a member was taking the necessary steps to ensure that the exchange rate for its currency remained within a reasonable range. Such statements represented a normative medium-term target zone philosophy that he was not prepared to accept. Second, the paper seriously distorted the meaning of Article IV, Section 1(iii). It attempted to turn the injunction to avoid manipulation into an injunction to take action to keep rates within a particular range. The staff had thus stood the agreement on its head, and he would not consider such a stance acceptable.

Despite his comments on the approach, and there were others that could be made, Mr. Cross noted, he did believe that the Executive Directors and the staff needed to pursue the question of defining the Fund's role under the amended Articles. They would also have to consider their procedures more fully before too long. The best course might be to start by testing analysis against actual experience, instead of trying to construct rules in the abstract. In any event, within the framework of the new Article IV, and particularly Section 1(iii), the emphasis would have to be on prescriptions against action to manipulate rates, rather than on the promotion of action to influence them.

Mr. Foglizzo noted that the staff paper dealt with a subject that had been studied by national governments as well as by international organizations such as the OECD. As Executive Directors of the Fund, they would have to concentrate on the aspects of the subject that were related to the operational involvement of the Fund in the surveillance of exchange rates. At the present stage, the most useful approach might be to try to define certain basic concepts. In that connection, the concept of differential inflation rates provided by the staff was rather sketchy. While differential inflation rates certainly had some impact on exchange rates and could explain the dealers' anticipation in exchange markets, it would be incorrect to say that exchange rate variations reflected mechanically and directly a difference in inflation rates. A number of factors--some objective, some subjective--clearly modified the theoretical causal relationship. More important, the staff approach almost ignored the concept of productivity, which was of central importance.

Analysis of export competitiveness could not be based upon a simple comparison of inflation rates for a number of reasons, Mr. Foglizzo considered. First, consumer price indices or implicit GNP price indices were not very satisfactory indicators since they were only loosely connected with the prices of export goods. One improvement might be to use the export price index rather than the consumer price index. Second, even if the export price index were used, the interpretation of the figures would not be easy. Quite often there was a world market price that could not be influenced by producers, so that the profit margin was the adjustment variable rather than the export price. In such a situation, despite price stability, there might well be a reduction in exporters' incentive to sell abroad, leading to a deterioration in a country's external balance. Thus, in addition to seeking to explain the variations of exchange rates in terms of differential price movements, the staff could usefully consider a thorough study of the concept of competitiveness under two main heads, namely, changes in export costs, irrespective of the cause of the change (prices or profit margins) and, second, the ability of a country to make good use of its factors of production. Nevertheless, it was perfectly true that interest rate policy could have a stabilizing or a destabilizing effect on a country's exchange rate. An increase in the interest rate could modify any upward trend in the value of the currency while a decrease could accentuate the downward trend, and the effects were observable in the exchange markets. It was therefore desirable for the Fund to exert some control, but its action should remain within certain limits, especially as the targets of interest rate policy were not only of a monetary or external nature. Of all the other factors affecting exchange rates, more attention should perhaps be paid to the role of exchange controls.

Mr. Pieske noted that earlier speakers had criticized some of the concepts used by the staff. The weaknesses of the concepts were well known. What was more important was that the staff had ventured to put forward a paper that had tried to advance toward firmer ground, if only in a very limited area. He regarded the staff paper as an attempt at presenting a model from which to evolve approaches to the solution of particularly difficult problems. The main value of the paper was that it led to the conclusion that Fund surveillance could not deal only with such matters as intervention or exchange rates in the limited sense of the term, but that it would have to extend to the "underlying conditions" referred to in Article IV. The paper had clearly demonstrated the relevance of one of those underlying conditions, namely, interest rates, to the surveillance over exchange rate policies. The new Article IV made it clear from the outset that exchange rate stability could only be achieved if the "underlying economic conditions" in member countries were stable, and that any procedural arrangement the Fund might evolve would have to take careful account of that interrelationship. He therefore supported the main staff conclusion that the Fund would be justified, as part of its surveillance activities, in paying more attention than it had done hitherto to the level and development of interest rates. The language was cautious enough to take account of the preoccupations of Executive Directors who had been worried by the possibility of an overambitious approach.

Like other speakers, he had been struck by the correlation between the relative strength of payments positions of the various countries and the different real interest rates prevailing therein, as shown by the table on page 5, Mr. Pieske noted. Despite the difficulty of the concept of the "real" interest rate, the analysis presented by the staff did justify the conclusion that more attention ought to be given, for instance, to situations where countries maintained low interest rates when the inflation rate was high. Naturally, there were other circumstances where credit policy could act successfully on the exchange rate. There were many occasions when credit policy could be used to help stabilize the exchange rate without compromising its domestic purposes. French policies had been remarkably effective in that respect, and it might be useful to study the French experience more closely.

The staff had reached another important conclusion on the top of page 6, Mr. Pieske observed, to the effect that when there was a systematic difference between expected price movements and interest rates, the currencies of high inflation countries could slide into a position of undervaluation. The implication would be that the achievement of longer run exchange stability might require compensatory credit policies on the part of countries whose price movements deviated from the general trend. The implication was perhaps not very novel. Credit policies had for long been used not only for domestic purposes but also to influence the external position, and it was surely appropriate under a floating exchange rate system--as well as under a fixed rate system--to use credit policy for that purpose. Interest rate policies and exchange rate policies were not mutually exclusive, as one speaker had suggested, but more often complementary. On the other hand, he was not convinced that the absence of compensatory credit policies would normally enable countries to gain an unfair competitive advantage, as the staff seemed to think. The relatively higher rates of inflation that resulted from overexpansionary monetary or fiscal policies could quickly eradicate any competitive advantage that might develop. If a country did in fact gain such a competitive advantage, the current account would improve and any excessive depreciation of the currency would be avoided.

Clearly, Mr. Pieske observed, there was no simple mechanistic relationship between relative interest rates and the strength of currencies. He would also agree with those who had observed that interest rates made up only one of the many factors influencing exchange rates and, that, conversely, credit policy would have to be used in connection with objectives other than the attainment of external equilibrium. Fortunately, however, domestic and external requirements usually called for the same type of credit policy action in a given situation. His conclusion would be that considerable attention could well be given by the Fund to interest rates as determinants of exchange rate movements. For instance, the Fund could advise a country with high inflation rates and a strongly depreciating currency to raise interest rates to a higher level, not only higher than the prevailing one but also perhaps higher than might be considered appropriate from a purely domestic standpoint. Such advice should be encompassed in the surveillance activities that the Fund might undertake in connection with exchange rates. The procedures connected therewith would surely not be as rigid as had been implied in some of the comments made by Executive Directors and they would certainly not imply the use of mechanistic relationships between specific exchange rates and specific interest rates. The Fund could, however, pay attention to the relevant interest rates in member countries with balance of payments and exchange rate problems to the extent that they could reasonably be used to avert undesirable exchange rate movements.

Mr. Lieftinck commented that the staff paper reminded him of Wicksell's well known book "Geldzins und Güterpreise," in which he had tried to establish that the difference between nominal and real interest rates was the main cause of inflationary developments and even of the trade cycle in industrialized countries. One of the main merits of the staff paper was that it focused attention on the distorting influence that differentials between nominal and real interest rates could exert on exchange rates. It would of course be an oversimplification--although the staff had not gone so far--to state that nothing would be wrong with exchange rates if there were a similarity between nominal and real interest rates. Even so, the paper did serve to focus attention on a very important element in the economic mechanism, and the staff deserved thanks for so doing.

The paper had begun, Mr. Lieftinck continued, by paying a great deal of attention to the purchasing power parity theory, which established a close relationship between domestic price movements and exchange rates. It would be very much worthwhile to investigate the real merit and validity of the theory in present conditions. The purchasing power parity theory had assumed the existence of an economy that was rather different from the major economies to be found in the present world. For instance, it assumed the existence of competitive prices, a free flow of trade and payments, freely fluctuating exchange rates, and the absence of disturbing capital flows. In those circumstances, the theory had great merit. However, in the modern world many prices were administered and there was no free flow of trade and payments. It was perhaps not too much of an exaggeration to say that the world market was being divided up into more or less isolated compartments. Even in a period of freely floating rates, there was a great deal of pegging. Furthermore, in the fairly recent past large amounts of floating capital had become available for moving from one financial center to another. Consequently, if the purchasing power parity theory was to be made usable, it would be necessary to refine it to take into consideration some of the changes that hed taken place since it had been originally formulated.

Assuming that in the medium term or in the longer run the new factors did not exercise a fundamental influence--which was rather questionable--exchange rates would have to adjust to changes in the purchasing power parity of various countries in order to remain realistic, Mr. Lieftinck remarked. The staff, in discussing distortions in the theoretical behavior, admitted that anticipations of the future, such as the anticipation of inflation, might have a disturbing influence on the adjustment of exchange rates, and it explained that differentials between nominal and real interest rates were one of the more influential factors, a point with which he completely agreed. The anticipation of inflation might not have equal force in all economies, however. He recalled the case of a country where the government had had the courage in a period of high inflation to raise interest rates to the point where they became positive. The effect had been to dampen inflation and to make the exchange rate more realistic than it had been previously. Similarly, in the Netherlands, the purchasing power parity theory did not apply in the same way as it would in other countries, because the Netherlands had suddenly become a large exporter of energy. Were it not for those exports, the Netherlands would have difficulty in maintaining such a high negative real interest rate and would find itself fighting a losing battle against inflation and instability in the exchange rate. The Netherlands case was therefore a rather special one, as had been mentioned by the staff; it could not be used as an argument against the validity of the purchasing power parity theory. Nevertheless, like Wicksell, the staff focused too narrowly on interest rate policy. It would be better to broaden the concept and speak about domestic monetary policy, with particular reference to money market policy. It was not only the price of money on the short-term market but the liquidity situation of the country as a whole that had a bearing on internal stability and external stability alike. Consequently, in any further study of the topic, more attention should be given to money market policies and to the general control of domestic liquidity. In discussing the stabilization efforts of Fund members, he himself had always tried to place more emphasis on money market policies and liquidity control than merely on interest rates. The interest rate at any given moment was largely a resultant of money market policies. Any surveillance of exchange rate policies should include more attention to what the staff called interest policies and what he would call money market policies. The surveillance to be exercised by the Fund could not deal only with interventions on the exchange market; it would have to take into account the underlying economic and financial conditions that were prerequisites for internal and external equilibrium. Consequently, the Fund should pay attention to money market policies not only for the purpose of combating inflation and avoiding erratic movements in business activity, but also with an eye to achieving more orderly and stable conditions in foreign exchange markets.

Mr. Drabble said he assumed that the staff paper would be only the first of a series dealing with different aspects of the Fund's obligations under amended Article IV. The paper itself, no doubt because it was the first, did present only a partial view of a complex topic. He for one, however, was thankful that the staff had not invited the Executive Directors to tackle the whole subject in one single paper.

In considering the conclusions reached by the staff, Mr. Drabble continued, one had to consider the extent to which the setting of interest rates per se was aimed at domestic rather than international objectives of national monetary authorities. It seemed to him that during the recent period of relatively high rates of inflation central banks had been relying more on attempts to set a course for certain monetary aggregates and then adjusting short-term interest rates to try to keep the variables on course, rather than aiming at a specific short-term interest rate as a goal. If that were so, short-term interest rates could be considered almost a by-product of domestic monetary policy objectives. For example, the table on page 5 was a fairly accurate reflection of the expected differential price performance between Canada and the United States in 1976. But the result in that case perhaps was accidental, since both countries were pursuing monetary policies that gave considerable weight to the growth in certain monetary aggregates. That led him to one point that bothered him about the arguments presented by the staff. Suppose that the Fund staff were to investigate a country that apparently had a rather high negative interest rate and came to the conclusion, after reviewing its domestic policies, that it was pursuing sensible targets for monetary and credit expansion. Nevertheless, it still had negative real interest rates. There might be several reasons why such a situation could arise. For instance, there might be recognition lags on the part of domestic holders of financial assets concerning the underlying rates of inflation. Moreover, other financial assets might be no more attractive for large investors than government securities. In other words, the rates of return on the rather limited range of financial assets that they normally held might all be somewhat negative in certain circumstances, so that there would be no way in which the holders could bring about an equilibrium situation. The situation would of course be aggravated if the authorities introduced institutional ceilings and other structural rigidities. One proper conclusion might be that, in the presence of high rates of inflation, authorities should try to reduce the rigidities in order to permit freer interest rate movements, thus avoiding forced negative rates of return. Consequently, he would agree with Mr. Lieftinck that surveillance by the Fund would inevitably involve taking a rather broader look at monetary policies pursued by national authorities than in the past in the course of fulfilling the Fund's mandate under new Article IV. As the underlying spirit of the Article was that stability and exchange rates rested on domestic stability and the pursuit of appropriate policies, it was not at all daring to suggest that the Fund's surveillance must be directed at the key policies that produced, or failed to produce, such domestic stability. He would therefore not only agree with the conclusions reached by the staff; he would go rather further.

Dealing with two technical points, Mr. Drabble suggested that it would be interesting to see some analysis of forward markets, together with a description of how those markets operated when the nominal rates of interest varied considerably between markets, particularly when they were comparatively open. In that connection it might be worth remarking that in the past six or nine months nominal rates of interest between Canada and the United States, between which there were no administrative barriers, had differed more greatly than at any time in the past 25 years; and yet there had been only a limited movement of short-term capital because forward interest rates had effectively arbitraged the difference. True, the Canadian exchange rate had been relatively firm despite a very large current account deficit because of capital inflows, but those were due mainly to the differentials in long-term interest rates. Another point that might be worth investigating was the extent to which long-term interest rates were subject to control by monetary authorities. It was indeed his belief that efforts to influence long-term interest rates might in the longer run have exactly the opposite consequences to those desired if they tended to increase inflationary expectations.

In conclusion, Mr. Drabble commented on the suggestion that countries could gain a competitive advantage by failing to maintain interest rates at a sufficiently high level, thus devaluing their currency. It seemed likely that if in fact there was not only a negative real interest rate but, in addition, domestic monetary policy was too expansionary, there was every chance that any competitive advantage so gained would be short lived because the money and credit expansion would lead to increasing domestic demand pressures, and consequently increases in costs and prices. Naturally, if the negative interest rates arose in conjunction with a seemingly appropriate domestic monetary policy, it would be more difficult to predict whether the competitive advantage so gained would be temporary or not.

Mr. Kawaguchi observed that there was of course a close relation between interest rates and exchange rates through the international movement of capital. High domestic interest rates induced capital inflows and consequently, perhaps, the appreciation of the exchange rate. However, the causation ran both ways, so that an appreciating domestic currency would induce capital inflows and consequently lower domestic interest rates, thus cancelling out any monetary measures that might be adopted. There was also a close relationship between exchange rate movements and the rate of inflation through the international movement of goods and services. Thus, exchange rates and inflation were interrelated and determined simultaneously by various economic and noneconomic factors alike. However, assuming that price trends were somehow predetermined and unaffected by changes in interest rates or exchange rates, and that interest rates were controlled by monetary policy or other measures, it would be reasonable to say that stable exchange rates could be attained by appropriate interest rate policy, irrespective of the differential rate of inflation between countries.

The relationships he had outlined, Mr. Kawaguchi remarked, seemed to summarize the position reached by the staff in its paper. However, the approach might be rather oversimplified, and he was not fully convinced by the staff's arithmetic. While he could accept the staff conclusion that changes in interest rates should be given more prominence in the Fund surveillance of exchange rate policies than had hitherto been the case, the Fund would have to be particularly careful in carrying out its tasks. The relationship between domestic and external economic affairs was distorted by many factors, and there was therefore some danger in overemphasizing the external aspects of interest rates. He was also hesitant to agree with the staff conclusion that high nominal interest rates were not incompatible with an antirecession policy. The arithmetical calculations shown in the table on page 5 did not always reflect economic realities, not only because of the technical weaknesses mentioned by earlier speakers but also because of the distorting factors. He therefore shared the concerns of certain other Executive Directors regarding the validity of the arithmetical approach used by the staff.

The Economic Counsellor explained that the purpose of the paper had not been to try to expand the scope of the Fund's surveillance but rather to provide the intellectual underpinning for the surveillance in the exchange rate field to which the Fund was committed. The paper had tried to express the need for caution that several speakers had mentioned. But the Executive Directors' work on surveillance needed to start from a common basic understanding of how the exchange mechanism worked. In order to obtain that understanding, it was essential to accept a certain degree of simplification and to direct attention to the main analytical elements of what was after all a complex problem. It was not helpful to take refuge in all the complexities of the problem and to drown the analysis in the details that could be adduced in each individual case, and the staff paper had clearly recognized that many complicating factors could exist.

One way of recognizing the major economic relationships, the Economic Counsellor continued, was to experience them. In a country like Brazil, for instance, where high rates of inflation had been common for many years, everyone was aware that the rate of interest must reflect the rate of inflation as well as the rate of depreciation of its currency if a total disorganization of the economy was to be prevented. The relationships were, however, not so clear in countries that had not undergone so radical an experience. Indeed, the discussion seemed to show that in the industrial countries, where the relationships were less extreme, there might still be an inadequate realization of their importance. In that connection, it might be worth pointing out that since late 1975 the exchange rates for the currencies of the countries in the bottom half of the table on page 5 had done rather less well with respect to their exchange rate than those in the top half, naturally with the exception of the Netherlands--which was admittedly a special case--and of Belgium, which had started with a very strong balance of payments position.

Naturally, in any exercise of the sort, there were difficulties of measurement, the Economic Counsellor observed. A real rate of interest was an intellectual concept that was hard to measure, and there was the serious question raised by Mr. Kafka as to whether countries were able to determine either the real rate of interest or indeed their money rate of interest. The latter was possible, even where there were close financial relationships with other countries, provided a country was willing to accept a considerable difference between the spot rate and the forward rate of exchange for its currency; recent relationships between the Canadian and the U.S. dollar provided an example. One Director had suggested an approach that stressed the difficulties of measurement to the point of renouncing altogether any judgment of exchange rates on the basis of facts, and retreating entirely into judgments based only on the distinction between action and inaction; the word "manipulation" in amended Article IV was cited as the justification for that approach. His own view was that such a position was a total illusion; it would not be possible for the Fund to exercise surveillance over exchange rates by trying to distinguish between situations where the behavior of exchange rates was the result of action or of inaction, between situations that could be described as manipulation and nonmanipulation. In that connection, Executive Directors might recollect the behavior of the French franc in the 1920s, which he cited both as an example of the extent to which an exchange might be driven from its equilibrium value and to indicate the difficulty of judging a situation by the presence or absence of "manipulation."

At some stage in July 1926, the value of the French franc fell to 2 U.S. cents per 1 French franc, as against the value of 4 U.S. cents at which it was subsequently stabilized. The latter value was widely believed to represent some undervaluation of the franc; in any event, the franc must have been seriously undervalued, to the extent of 40 per cent or more, in July 1926. Was that a case of "manipulation"? The French authorities had neither manipulated the exchange market nor intervened; but they had run the printing presses.

The Chairman noted that certain of the later speakers in particular had recognized the caution with which the staff paper had been written, and the deliberate attempt to highlight some partial relationships. The staff had of course recognized the complexity of the problem, but it had written a paper intended to launch the discussion. The intention had been to involve the Executive Directors before the staff worked out a comprehensive paper dealing with the matter in all its details. Naturally, further thought would have to be given to the topic, and the remarks made during the meeting would be taken into account. He would bring the subject of exchange rate surveillance back to the agenda at a suitable time on the basis of further papers dealing with other aspects of the problem.