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March 16, 1994

To: Members of the Committee of the Whole for the Development Committee

From: The Secretary

Subject: Report on Developments in Non-Oil Commodity Prices

Attached for consideration by the Committee of the Whole is a report, prepared by the Fund staff in consultation with the World Bank staff, on developments in non-oil commodity prices.

This subject has been tentatively scheduled for discussion by the Committee of the Whole on Wednesday, March 30, 1994.

Mr. Wickham (ext. 34792), Mr. Borensztein (ext. 37679), or Mrs. Reinhart (ext. 37732) is available to answer technical or factual questions relating to this paper prior to the Committee meeting.

Att: (1)

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Report on Developments in Non-Oil Commodity Prices

Prepared by IMF staff in Consultation with
World Bank staff

Introduction

1. Real non-oil commodity prices have been declining almost continuously since the early 1980s and continue to show weakness. Since their short-lived recovery in 1984, real non-oil commodity prices have fallen by about 45 percent, translating into a sharp deterioration in the terms of trade for most commodity-dependent exporters. As Chart 1 illustrates, in 1992 the price of non-oil commodities relative to that of manufactures reached its lowest level in over 90 years. 1/ The issue has important practical implications for policymakers. For example, the presence of a negative trend in commodity prices implies that many developing countries face declining export earnings, and further that efforts to stabilize the incomes of commodity producers for an extended period of time may not be financially sustainable.

2. While the decline in prices has affected all commodity-producing countries in some measure, for some countries the growth in the volume of exports has been large enough, such that they have not experienced a decline in total real earnings from commodity exports. As can be seen from Chart 2, industrial countries and Asian countries have achieved sustained increases in the real value of their commodity export earnings. Latin American countries have generally maintained the real value of their commodity exports, while for the African countries the commodity price decline of the last decade has caused a sharp decrease in the real value of exports, as the volume of their exports has declined as well. As shown in Chart 3, the regional pattern of the evolution of commodity exports suggests broad similarities across commodity groups.

3. The decline in commodity prices is having its largest impact on countries with the least diversified production structures. Primary commodities still account for the bulk of exports in many developing countries. Moreover, this latter group of countries which encompasses many of the lowest-income countries in the world, tends to have less flexible economic systems, making substitution away from commodity production more difficult or costly. In effect, the reliance on primary commodities as the main source of export earnings has only slightly diminished over the last two to three decades for many countries, particularly in Africa, where manufactures often account for less than 15 percent of merchandise exports (see Table 1). While a more diversified export structure is not necessarily an economic objective in and of itself, export diversification is an important way of reducing the vulnerability to volatility and sustained declines in commodity prices.

1/ Throughout this paper references to commodity prices and exports exclude energy products.

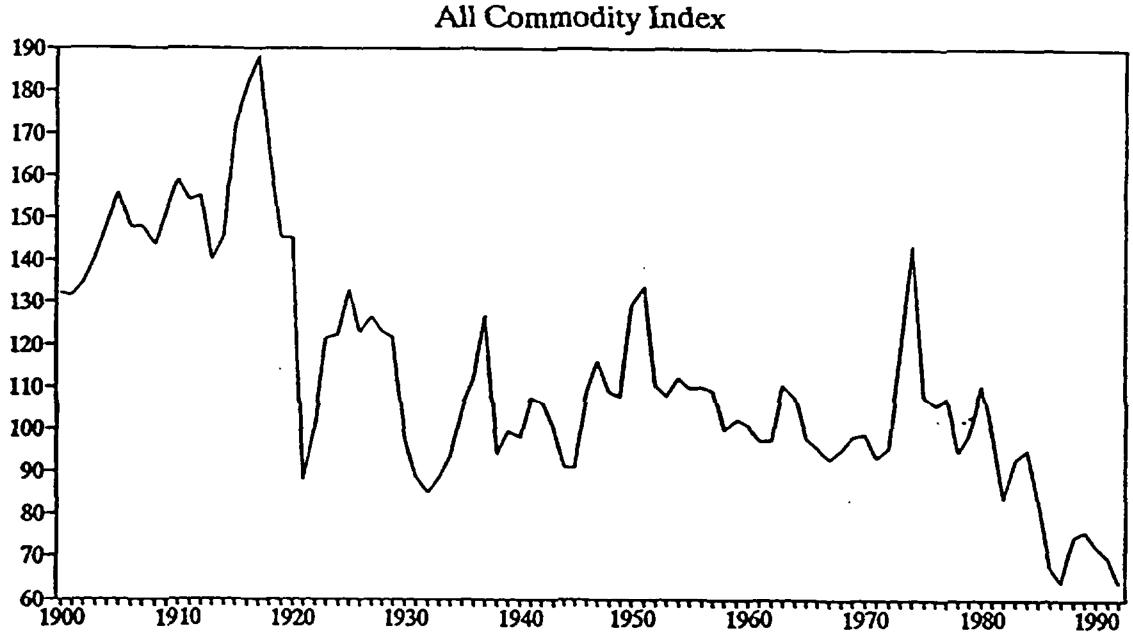
Table 1. The Structure of Merchandise Exports: Selected Developing Countries 1965 and 1990

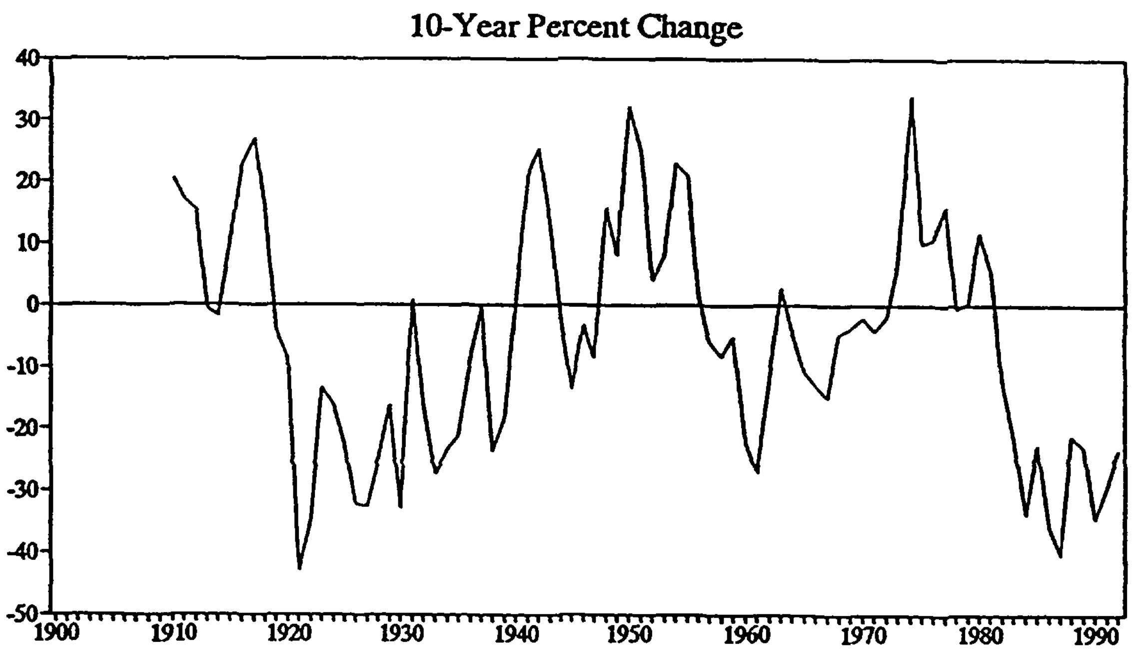
(As a percent of merchandise exports)

Country	1965 Fuels, minerals, and metals	1965 Other primary commodities	1965 Manufactures	1990 Fuels, minerals, and metals	1990 Other primary commodities	1990 Manufactures
Africa						
Burundi	0	94	6	0	98	2
Côte d'Ivoire	2	93	5	10	80	10
Kenya	13	77	10	19	70	11
Mauritania	94	5	1	81	13	6
Senegal	9	88	3	22	56	22
Tanzania	1	86	13	5	84	11
Asia						
Malaysia	34	60	6	19	37	44
Pakistan	2	62	36	1	29	70
Philippines	11	84	5	12	26	62
Sri Lanka	0	99	1	6	47	47
Thailand	11	86	3	2	34	64
Latin America						
Argentina	1	93	6	6	59	35
Bolivia	93	4	4	69	27	14
Brazil	9	83	8	16	31	53
Colombia	18	75	7	32	42	26
Mexico	22	62	16	43	13	54
Uruguay	0	95	5	0	60	40

Source: World Development Report, 1992, World Bank.

Chart 1. Real Non-Oil Commodity Prices: Long-Term Developments, 1900 - 1992

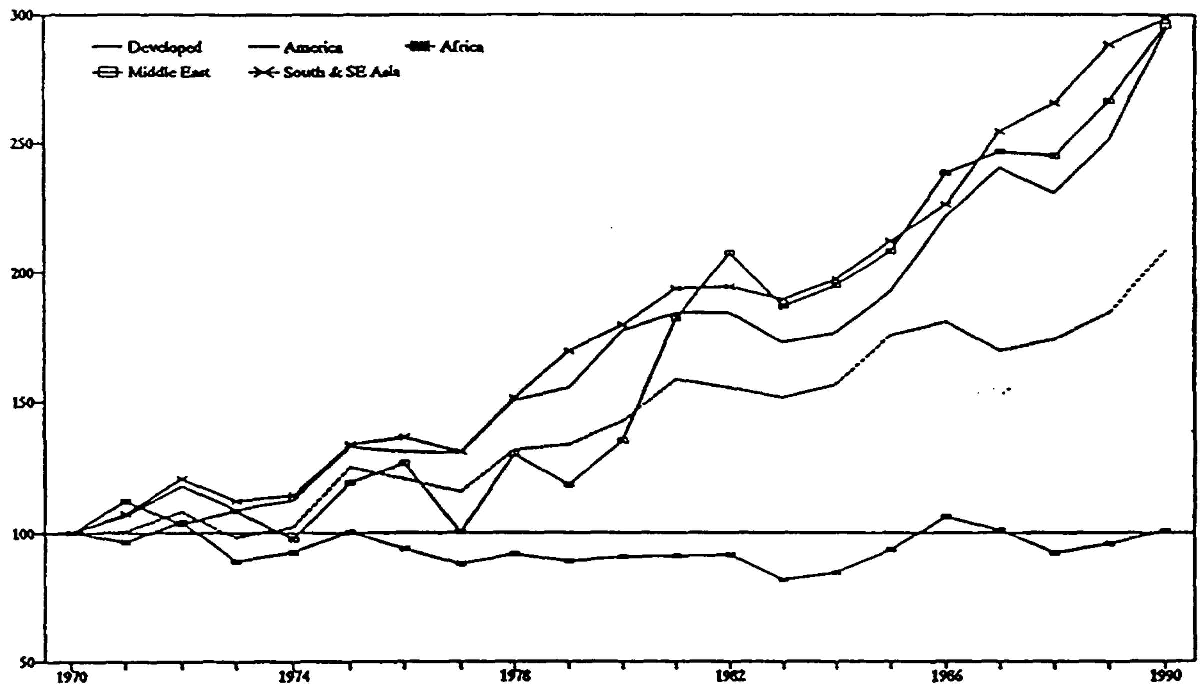




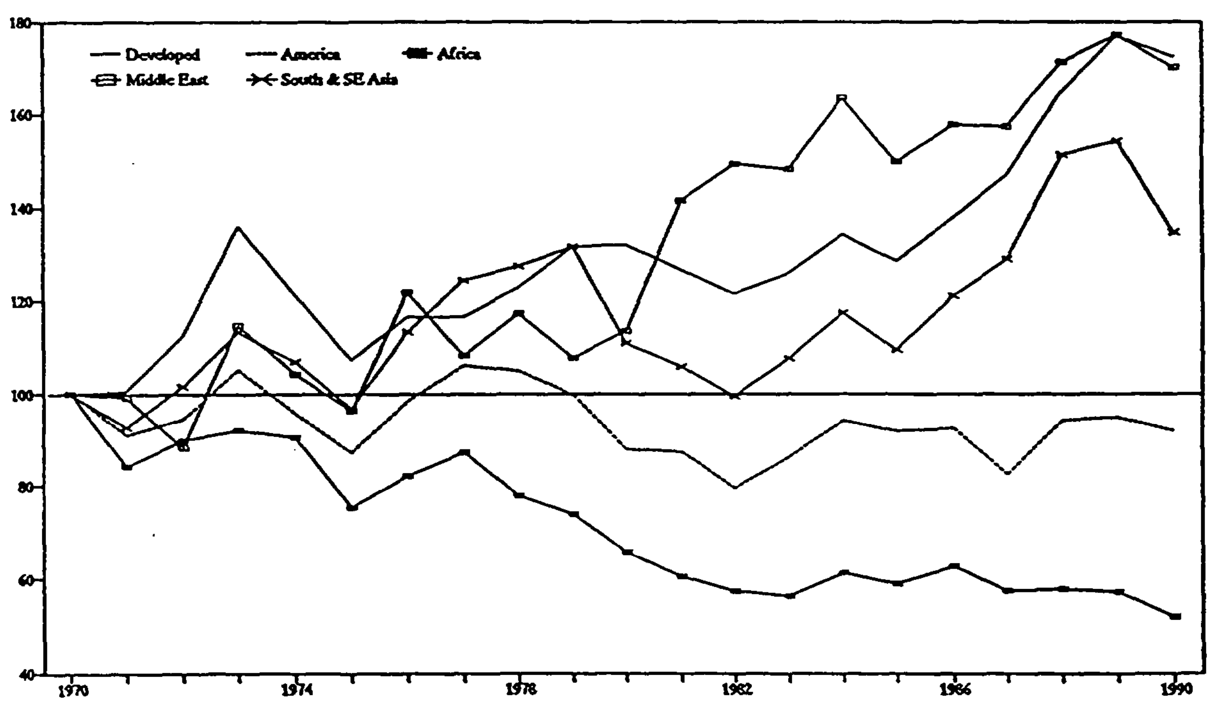
Sources: Grilli and Yang and International Monetary Fund.
Note: Commodity prices are deflated by the export unit values of manufactured goods.

Chart 2. Volume and Real Value of Non-Oil Commodity Exports
(Index Numbers: 1970=100)

Volume of Commodity Exports by Region



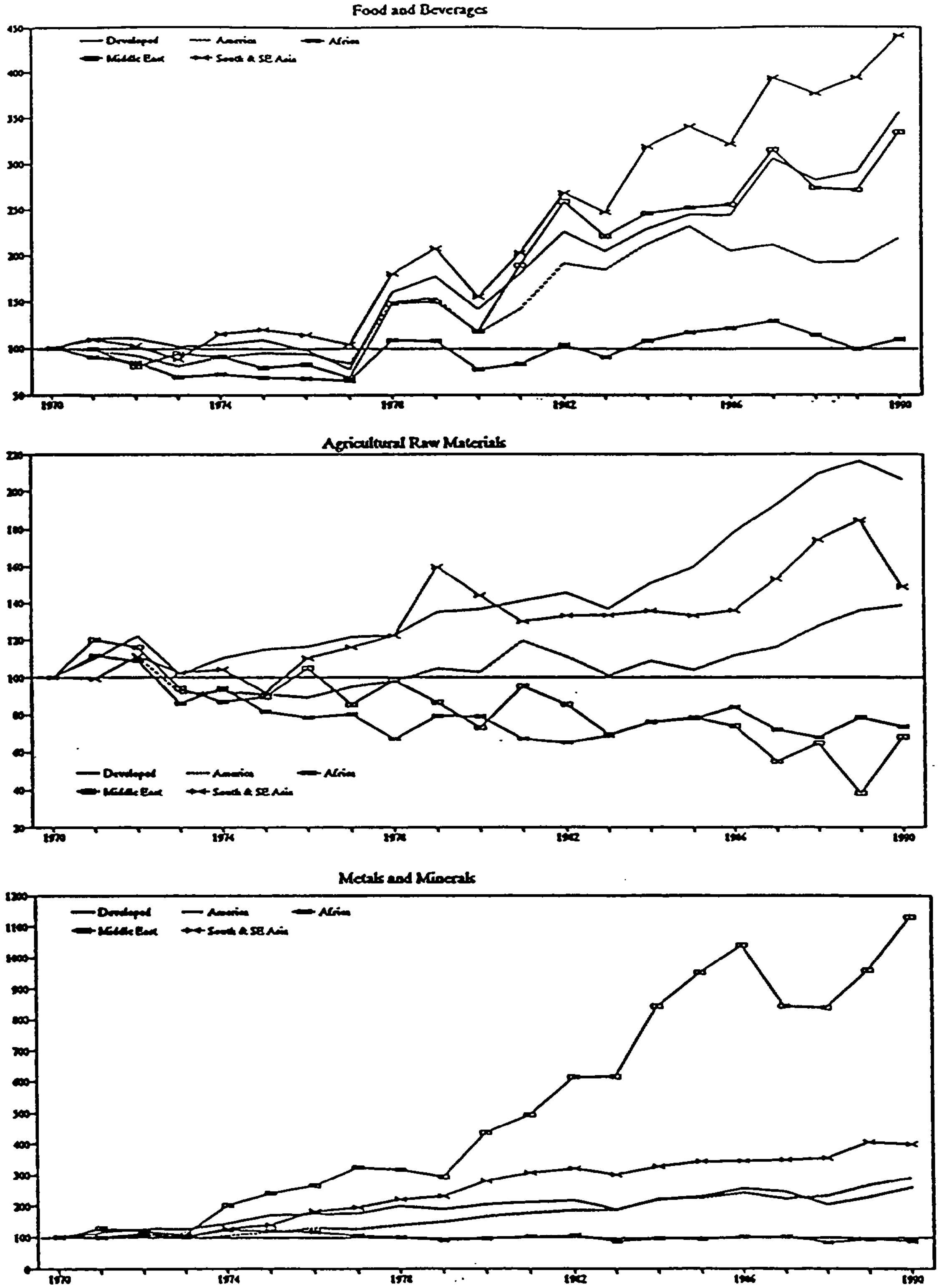
Real Value of Commodity Exports



Source: UNCTAD, Handbook of International Trade Statistics.
Note: For country groupings see Appendix Table 1.

Chart 3. Export Volumes by Region and Commodity Grouping

(Index Numbers: 1970=100)



Source: UNCTAD, Handbook of International Trade Statistics.

Note: For country groupings see Appendix Table 1.

Characteristics of Commodity Price Behavior

4. An analysis of commodity price behavior suggests that the recent weakness in real commodity prices is primarily of a secular persistent nature, and not the product of a large but temporary cyclical fluctuation. 1/ For illustrative purposes, Chart 4 reproduces from IMF (1994) the estimated permanent or trend component for real commodity prices. The difference between the permanent or trend component and the actual price series constitutes the estimated cyclical or temporary component. As Chart 4 highlights, as of mid-1993, the real value of the non-oil commodity index was very close to its permanent component. Moreover, the temporary shocks that drive the cycle exhibit a fair degree of persistence. While shocks to metal prices are the least persistent (becoming quite small in 6 to 7 quarters), shocks to the prices of beverages persist for 12 to 13 quarters. From a policy perspective, the difference between permanent changes in prices and temporary, but highly persistent, ones may not be that significant as attempts to smooth out their consequences would imply similar sustained costs.

5. These results indicate that there is little evidence that commodity prices will reverse their recent decline, as would be the case if the fluctuations were purely cyclical in nature. Thus, the decline in commodity prices of the past decade should be interpreted as being largely permanent. It should be noted, however, that the permanent (or trend) component of commodity price movements can itself change over time; while there is some evidence that the downward trend has steepened in the recent past, it nevertheless cannot be ruled out that factors influencing the trend will exert a more positive influence in the future.

6. There is also evidence that the volatility of real commodity prices has been steadily increasing since the 1970s. Shocks to commodity prices appear to have become larger than in the comparatively stable 1950s and 1960s. The breakdown of the Bretton Woods exchange rate system, and the oil shocks of the 1970s and 1980s are considered to have contributed to the rising volatility. This trend has apparently continued during the 1980s and 1990s, stressing the potential benefits for an exporting country from pursuing hedging strategies using available market-based instruments or, more generally, from precautionary savings to provide a buffer against negative shocks to commodity prices.

1/ IMF (1994); see also Reinhart and Wickham (1994).

The Determinants of Commodity Price Movements

7. Analyses of commodity market developments have usually focused on the macroeconomic conditions in industrial countries as the principal factor affecting commodity prices. Given the role of many commodities as inputs for production by manufacturing industries, their demand is closely related to the level of industrial economic activity, the major part of which takes place in industrial countries. 1/ Therefore, the trend decline in commodity prices is, at least partially, related to the secular slowdown in the growth of real output in the industrial countries which has been observed since the early 1970s, with 1973 marking the end of the strong postwar expansion phase for most countries. In addition, a declining intensity of resource use for some commodities due to technological change, particularly for metals in industrialized countries, has contributed to reduced rates of growth in the demand for commodities.

8. However, a remarkable feature of developments in commodity markets in the 1980s has been the vigorous growth in the volume of imports of commodities (Chart 5). Since 1983, the volume of imports of commodities has almost doubled even though, during the same period, GDP of the industrial nations grew by less than 30 percent. Imports of commodities also grew faster than those of other goods, as world imports of all type of goods increased by approximately 70 percent in real terms during the same period. This large increase in the volume of commodity production and trade suggests the importance of supply-side factors in explaining price developments. These data suggest that the decline in prices cannot be explained by demand factors alone, and that rapid expansion in supply outstripping the growth of demand for commodities plays an equal, if not more important, role.

9. A number of factors have contributed to this expansion in supply. For example, in the early 1980s, many developing countries faced considerably more restricted borrowing opportunities in international financial markets as the debt crisis unfolded. This situation required balance of payments adjustment, which brought about policies geared to encouraging exports and resulted in an expansion in commodity supplies in many developing countries. It could be argued, however, that the debt crisis may have only accelerated a necessary shift from import substitution toward export-oriented development strategies, a process that is being implemented in many developing countries (particularly in Asia and Latin America), and that has promoted the expansion of supply. Further, a continuous process of technological innovation and productivity enhancement has contributed to a persistent expansion of supplies of a number of commodities, both in developing and industrial countries. While there are marked differences

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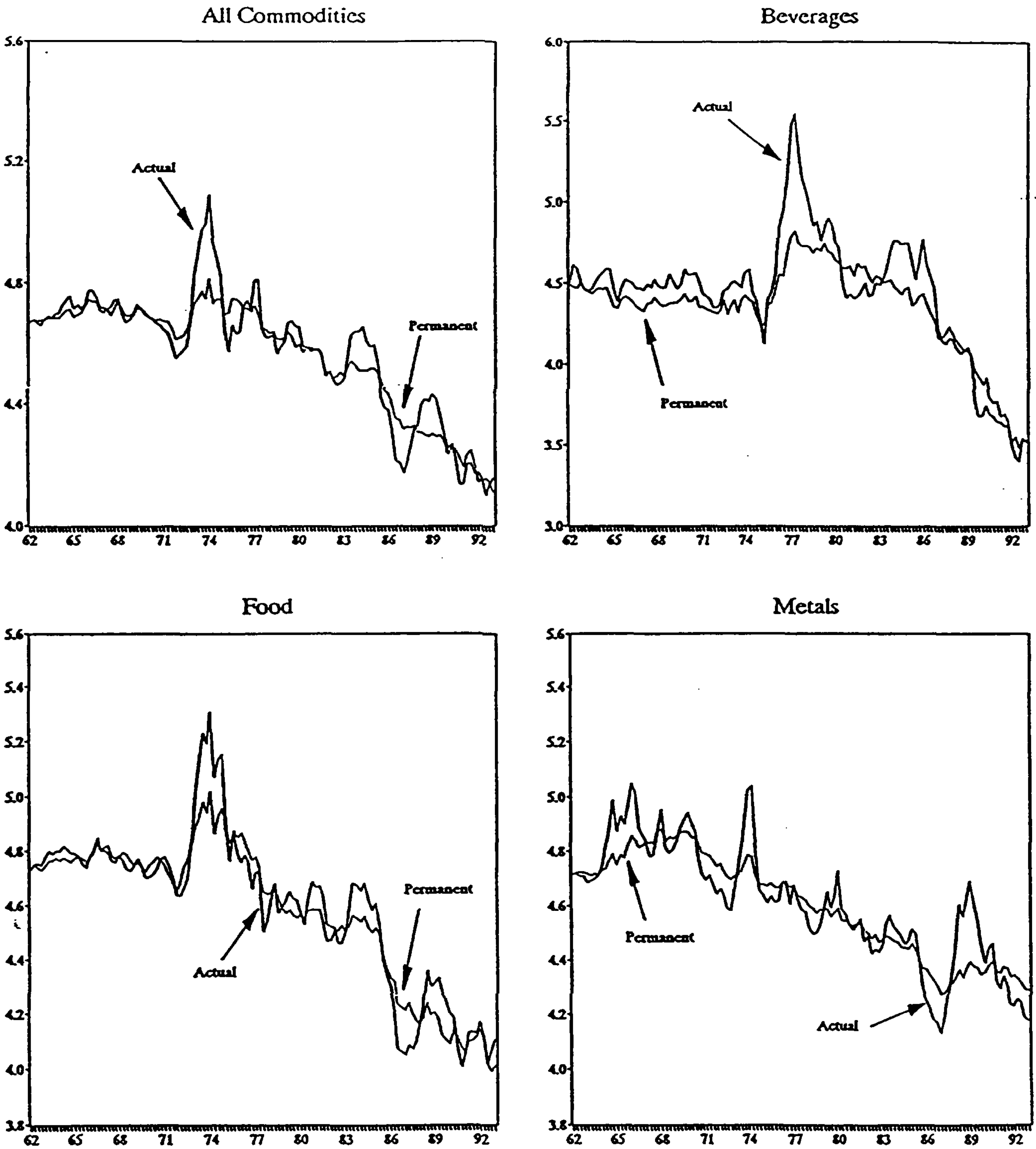
1/ Even with an increasing fraction of industrial activity taking place outside the group of industrial countries, indicators of economic activity in that group are still relatively good proxies for world demand because of international linkages.

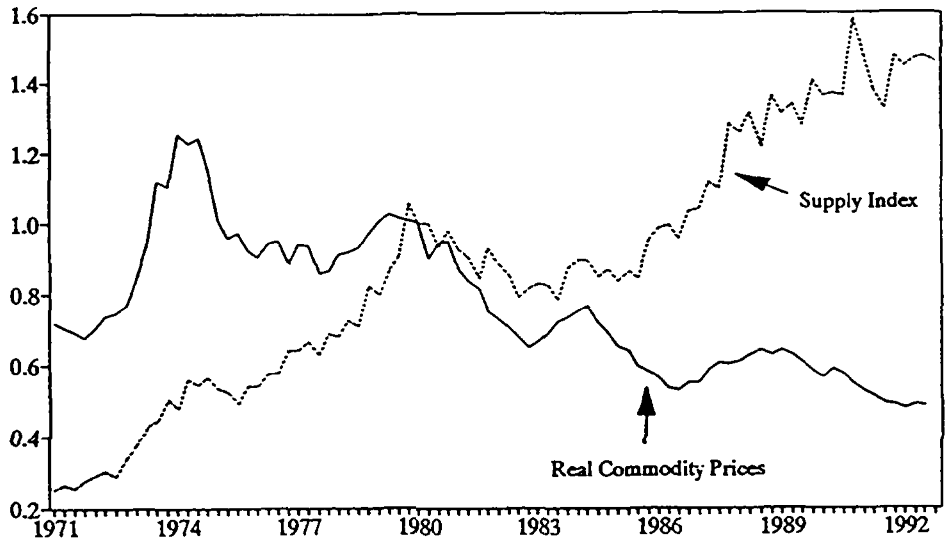
Chart 4. Real Non-Oil Commodity Prices: Trends & Cycles
1962:I - 1993:II



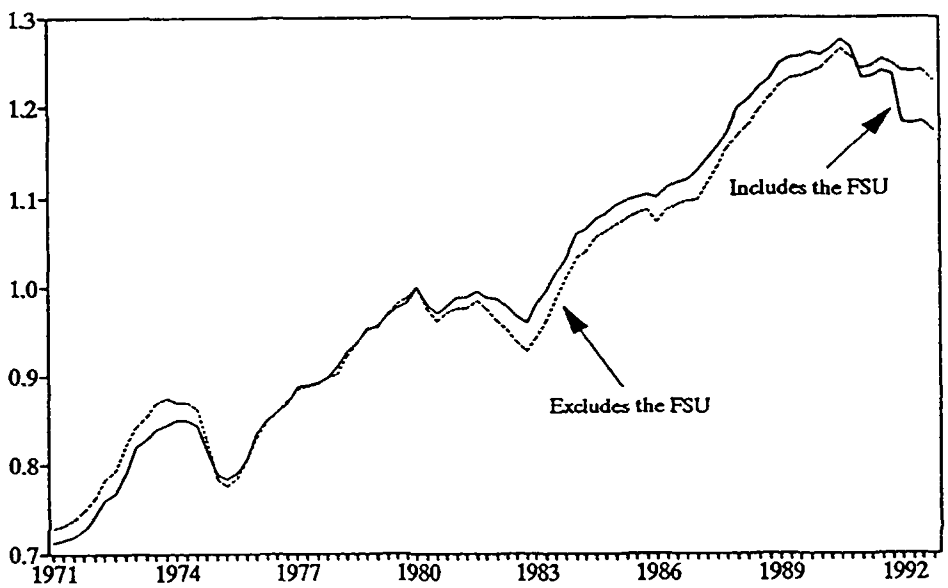
Sources: IMF, International Financial Statistics and Reinhart and Wickham (1994).

Chart 5. Factors Affecting Commodity Markets

Non-Oil Commodity Prices
and World Commodity Supply



Alternative Measures of World Demand



Sources: Commodity Research Bureau, International Financial Statistics, World Economic Outlook, and Borensztein and Reinhart (1994).

between commodities and quantification is difficult, there are a number of important examples of where these types of technology-driven shift factors can be shown to be important.

10. Since 1990, another major shock affected commodity markets, namely, the aftermath of economic developments in Eastern Europe and, particularly, the former Soviet Union (FSU). These countries are large participants in international trade in commodities, both as importers (especially of grains) and as exporters (particularly of metals). Their demand for imported commodities fell concomitantly with the fall in output and aggregate demand that followed the collapse of the centrally-planned economic systems. But the impact of this recent shock is probably more pronounced in the metals markets, where the FSU is an important supplier, and where dramatic increases in exports were observed in some cases. For example, zinc exports from the FSU rose by nearly 700 percent during 1989-92. Some examples of the decline in imports and the increase in exports of commodities by the FSU are shown in Table 2.

11. In general terms, it does not appear that developments in Eastern Europe and the FSU will affect commodity prices in a permanent way. While the restructuring of industrial production into a more marketable composition may take some time and gains in the efficiency of resource use can be expected, it will eventually induce a recovery in domestic demand; unnecessary stocks of metals will be run down, the eventual adjustment of domestic energy prices will reduce excess profitability, and a more complete price and trade liberalization--along with the privatization of industry--will eliminate incentives for arbitrage- or capital flight-motivated exports. However, it is difficult to predict what will be the level of metals exports that will be sustained once the transformation of the economies of the FSU Republics is completed.

12. The current trend towards recovery in growth in industrial countries will help to relieve some of the downward pressures in commodity markets but it appears unlikely that it will be sufficient to reverse the declines of the past decade. 1/ The empirical evidence suggests that a 5 percent growth in industrial countries over the next two years (consistent with current WEO projections) would generate an increase of between 6 1/2 and 9 percent in real commodity prices over the same period. For that increase to materialize, however, it would be necessary that other factors, in particular the trend increase in supplies and the economic developments in the FSU, exert a neutral influence on commodity markets.

Policy Issues

13. Both the volatility in real commodity prices and the downward movement experienced over recent years present serious challenges for many member

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1/ Borensztein and Reinhart (1994).

countries of the Fund and the World Bank because of the impact on export earnings, domestic incomes (and hence private savings and investment), and government budgetary positions. The response to volatility in commodity prices, however, gives rise to issues that are quite different from those emanating from secular changes in the average level of prices. It is therefore crucial to correctly interpret market developments in each case in order to elaborate the appropriate policy response or, in fact, to consider whether a policy response is warranted at all.

1. Temporary price shocks

14. Temporary shocks to commodity prices affect both the private and public sectors in the commodity-producing countries. When facing temporary changes in income, the optimal response by individual consumers is to use saving and borrowing in an attempt to smooth the path of consumption. Similarly, governments facing temporary changes in revenue should adjust their spending to be consistent with sustainable levels.

a. The role of government in smoothing income

15. A traditional argument for government to absorb the effects of commodity price fluctuations is based on microeconomic considerations relating to the behavior of private agents. If private agents bear all the commodity price risk, they will tend to face variable and unpredictable income streams over time, with possibly very limited opportunity to smooth consumption. Therefore, it may be optimal for the government to intervene to stabilize the prices received by private agents and thus enhance the welfare of risk-averse individuals by permitting smoother income and consumption streams.

16. Empirical evidence on savings behavior in developing countries is far from conclusive, but it does suggest that consumption smoothing may well take place to a larger extent than traditionally assumed. At the microeconomic level, the evidence that agents react to commodity price instability in a manner consistent with theory is suggestive. It has been found that rice farmers in Thailand, for example, smooth their consumption quite successfully both within and between harvest years. Also, an analysis of the coffee boom in Kenya of 1976-79 found that as much as 60 percent of boom income went into private savings; farmers were aware that the boom was due to frost damage in Brazil and that their income gains were largely of a windfall nature. In contrast, governments in a number of countries have found it difficult to manage appropriately the proceeds of temporary windfall gains. The evidence suggests that governments may be well advised to reassess their intervention strategies and the responsibility they assume for managing commodity price risk at the country level.

Table 2. Demand and Supply for Selected Commodities of the Former Soviet Union

	Percent Change 1989-92	FSU imports as share of world imports: 1989 (percent)
Import Volumes		
Cocoa 1/	-48.1	4.8
Corn	-62.7	26.0
Tea	-55.7	26.9
Wheat 2/	-17.0	21.3
Export Volumes		
Aluminum	219.4	8.3
Copper	71.2	5.4
Zinc	686.0	2.2

Sources: International Tea Committee, World Grain Situation and Outlook, and World Metal Statistics.

b. Intervention strategies

17. In the presence of fluctuations in international commodity prices on the domestic economy, the types of the intervention has been varied, but the most often-used strategies are outlined below.

(1) Stabilization funds

18. Stabilization funds have been designed to deal with the impact of commodity price volatility on government revenues, especially in countries with a heavy dependence on metals and minerals. These funds act as a buffer for government expenditures and financing and have at least two appealing features. First, they impose a rule on governments, designed to use resources optimally from a long-term perspective. The rule should lessen the risk that governments may be tempted to increase spending excessively during temporary booms. And second, they constitute an institutional device by which governments can even out their expenditure, given that countries, as well as individuals, may be limited in their ability to smooth spending by imperfect access to international financial markets.

19. The implementation of such schemes, however, is not without difficulties. One major problem is to set an appropriate benchmark price in order to determine at what rate disbursements should be made from the fund; this is a particularly difficult when it appears that the underlying trend is negative or changeable in nature.

(2) Agricultural boards

20. The other principal type of institutional structure for government intervention has been the state-owned agricultural board or fund. These are usually charged with a domestic price stabilization function, the transfer of explicit export taxes to central government, and a role in determining the extent to which operating surpluses are channelled into a formal stabilization fund or are transferred directly to central government (or to other uses).

21. The experience with these types of intervention strategies raises a number of issues about their desirability. First, stabilization schemes which transfer most of the effects of commodity price fluctuations to government may in fact be prone to exacerbating a country's fiscal management problems. For some countries the exercise of sufficient control over government expenditure is likely to pose serious difficulties.

22. The situation may be further complicated by the fact that, to achieve a significant amount of income smoothing, it may be necessary for a fund to hold a relatively high level of foreign reserves or be in a position to borrow substantial funds from international capital markets for

stabilization purposes during downturns in commodity prices. The need for a relatively high level of foreign reserves (on average) arises from the fact that temporary commodity price shocks show considerable persistence and revert relatively slowly to trend. This fact, and the political pressures that may arise in such circumstances, make such a reserves management strategy difficult to implement. In addition, during boom periods it may prove more difficult to enforce discipline on following appropriate project selection criteria. As for international borrowing, many developing countries do not enjoy a credit rating that would enable them to obtain significant resources from private foreign sources.

23. Second, even if improvements to the institutional framework for stabilization schemes were to be implemented, they are still vulnerable to the difficulty of ascertaining ex ante the appropriate price level around which incomes should be stabilized. This requires an evaluation of the temporariness of price shocks and whether and how the underlying trend is changing. In particular, the difficulties that many stabilization schemes experienced from the mid-1980s onward may be traced to a failure to take into account the underlying trend in commodity prices.

(3) International commodity agreements

24. As volatility in international commodity prices affects the economies of all primary product exporters, there is an obvious basis for the idea of cooperative commodity agreements of some kind with the aim of attempting to achieve greater stability in international commodity prices. However, experience with international commodity agreements (ICAs) has not in general been very successful.

25. Two aspects of ICAs should be differentiated. First, ICAs may attempt to increase the average price of a commodity by restricting its supply by some method. And second, ICAs may simply limit price variability, for example, by recourse to buffer stocks. The first aspect is not considered favorably by importing countries and has been a source of contention, while the second one is perhaps less controversial. However, ICAs (or a producer-only scheme) runs the risk of trying to stabilize prices around the "wrong" (nonmarket clearing) price, which can quickly lead to financial nonviability or to the collapse of output-sharing arrangements. The prospects for ICAs playing a role in addressing the issues raised by recent international commodity price behavior appear poor. 1/

1/ The ICA for rubber is currently being renegotiated following a price dispute in 1993 between producing and consuming countries. Coffee producers are attempting to implement an export retention scheme to improve price prospects.

(4) External compensatory finance

26. Another means of trying to smooth out the effects of negative temporary commodity price shocks for credit-rationed developing countries has been external compensatory finance from the Fund under the CFF (and subsequently the CCFF) and from the EC under the STABEX scheme. 1/ The compensatory element of the CCFF is designed to work best when temporary price shocks hit export earnings over a short period; then the destabilizing impact of the temporary shock can be offset in part by drawing under the facility, subject to early identification of the shortfall, access limits, and an appropriate policy response. In a similar vein, the contingency element of the CCFF is designed through a mix of financing and adjustment to help protect the programs of member countries being supported by Fund resources from being thrown off course by unanticipated shocks to key exogenous variables, such as commodity prices. Clearly, the design of policy responses and the form of Fund assistance to member countries should take into account the nature of the commodity price shock, namely whether it can be expected to be a short-lived temporary shock or one that is likely to be longer lasting.

c. Market-related instruments

27. In addition to the possibility of reacting ex post to commodity price changes, it is possible for countries to trade away much of the commodity price risk, and the accompanying macroeconomic disturbances, by using financial securities such as futures and options. Producer countries can then limit their exposure to unanticipated price changes while investors in other countries assume it.

28. Rising short-run volatility of commodity prices in 1980s and 1990s has increased the attractiveness of hedging instruments. In addition to well-developed futures and options markets with short-dated instruments for commodities that account for a significant part of total commodity trade, financial innovation has led to developments in other instruments (commodity swaps, commodity options, commodity-linked bonds, forwards) which have increased the scope for hedging commodity risk.

29. Nevertheless, establishing a coherent hedging strategy is not a straightforward proposition and the use by developing countries of futures and derivative markets has only increased relatively slowly. It was for these reasons that both the World Bank and UNCTAD created technical assistance programs focused on increasing awareness of external exposure

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1/ It should be noted that such compensatory finance is a loan or a grant to the monetary authority or government of the country concerned. It need not, therefore, necessarily find its way to those who may be most directly affected by an export shortfall.

in developing countries and providing assistance in risk management implementation. 1/

30. Using exchange-traded futures contracts and options purchases can allow countries to offset some of the exposure to risk due to price volatility at the higher frequencies. Maturities tend to be limited to one to two years and market thinness can become a problem for the longer-dated maturities. There are also the costs of hedging in the form of brokerage fees and the like. Nevertheless, access to such markets could be improved if exchange controls and other barriers to hedging risk in commodity-exporting countries were removed. Creditworthiness considerations may, however, make it considerably more difficult for developing countries to access other financial markets, particularly for nonstandard contracts and longer-dated instruments which would allow risk to be hedged more fully over time. Forward, swap, and option sales contracts all require consideration of the counterparty's creditworthiness. In particular, sovereign risk for contracts with private agents and governments in developing countries constitutes a serious obstacle to greater use of OTC markets.

2. Government policies for the longer-term

31. Apart from international commodity price variability, commodity-exporting countries in recent years have also faced a downward trend in real commodity prices. It seems that it would be unwise to base policies on the assumption that the weakness in real commodity prices will be quickly overcome. A stronger economic recovery (and better growth performance over the medium term) in the industrial countries would certainly help, as would continuing high rates of growth in the newly industrialized countries. Some supply-side factors may ease over time (e.g., recent shocks to metals markets from the FSU), but other factors (e.g., structural change in exporting countries and productivity gains due to technical progress) seem unlikely to be reversed. The decline in commodity prices poses the question of what--if any--are the appropriate structural policies for exporting countries, in particular those concerning resource reallocation away from primary products and those involving the type of international trade regime to be adopted.

32. The lessons from the experience in Latin America with inward-looking development strategies are that while a negative terms of trade shock is certainly an adverse development from an exporting country's viewpoint, adding distortions to the domestic economy does not improve the situation. In addition to standard economic arguments, the increasing body of evidence on cross-country growth performance indicates that distortions to international trade and market-oriented resource allocation can have important deleterious effects on economic efficiency.

1/ Among countries assisted by the World Bank have been Chile, Colombia, Costa Rica, Indonesia, Papua New Guinea, Poland, Tunisia, and Uganda.

33. In addition, as policies and developments in one set of exporter countries have repercussions on others, an issue that can be raised is whether policy reforms aimed at enhancing growth prospects and efficiency have improved commodity export performance to the extent of being a major factor in the decline in commodity prices. However, it is not possible to effectively isolate the extent to which structural reform programs and the removal of distortions in a number of primary-producing countries have contributed to the decline in prices. What can be said is that the building up of distortions, such as punitive export taxation in earlier periods, led to lower exports and a higher price path for certain commodities than would otherwise have been the case, just as the removal of distortions may well have led to higher exports over time and a lower price path. It should, however, be stressed that in aggregate real export earnings from commodity exports have increased over time.

34. The growth in the volume of commodity exports has been fairly uneven across regions. During the past decade, Asian economies and industrial countries have led the expansion, with African exports basically stagnant and Latin American performance somewhere in between. It has also been observed that agricultural productivity growth in Africa has lagged behind that in Asia and Latin America. But the implication is that, while for the economies with higher productivity growth the observed price declines may not imply losses in real revenue, economic difficulties would multiply for countries with the poorer productivity performance. Again, these developments do not imply that African or other commodity-exporting countries could make themselves better off by discouraging production of primary goods if that is where their comparative advantage lies.

35. The experience of the fastest growing developing countries shows that their export structures have evolved over time towards greater diversification (Tables 1 and 2). The recent review of the high performing Asian economies (HPAEs) provides some guidance as to how such diversification was achieved. 1/

36. First, while agriculture's share of output and employment in the HPAEs has declined significantly over time, growth in agricultural output and productivity was much higher than in other developing countries. The governments of the HPAEs provided support to the agricultural sector through extension services, agricultural research, pilot schemes, significant investment in irrigation and rural infrastructure (roads, bridges, transportation, electricity and water supplies), and nonpunitive crop taxation. The experience of the HPAEs indicates that establishing a dynamic agricultural sector constitutes an important phase in the diversification process; for lower-income countries the message is that failure to attach a

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1/ The review of the performance of the HPAEs provides a detailed assessment of the reasons and policies behind the growth performance of the HPAEs. See The World Bank (1993).

sufficiently high priority to agriculture in favor of other sectors is likely to be counterproductive.

37. Second, in addition to policies that generally provided a stable macroeconomic environment (including appropriate exchange rates), the HPAEs facilitated the more general process of diversification by public investment and institution building, by opening up their economies, by dismantling many of the regulatory barriers to resource reallocation, and by adopting policies or reforms which produced fewer distortions than in many other developing countries.

Views of IMF Executive Directors

38. The Executive Board of the IMF met on Wednesday, March 2, 1994 to discuss the issues summarized in this report and to consider the implications for Fund policies and operations.

39. Regarding one of the main findings of the paper, namely, that much of the recent decline in non-oil commodity prices appears to be of a permanent nature stemming largely from the supply side, there was concern on the part of Directors with respect to the future price outlook. Directors noted that there were some positive signs for a modest recovery in non-oil commodity prices over the near term, although it appeared quite unlikely that prices would rebound to the levels experienced in the 1980s. Given these uncertainties and the volatile nature of commodity prices, Directors agreed that it would be prudent not to assume that the upturn in current and near-term prices necessarily heralded an improvement in prices over the long term. Thus, it would be wise to err on the side of caution.

40. Several Directors believed that the staff's analysis should have paid greater attention to the demand side, in particular the subsidization of food production in industrial countries and its adverse effects on export prices and earnings in the commodity-exporting countries.

41. Directors considered that the increased volatility of commodity prices, the persistence of shocks, and the difficulties of distinguishing ex ante between temporary and permanent shocks raised important issues with respect to the type of financing provided to member countries, and to the design of appropriate policy responses. If shocks could be identified with reasonable assurance as being of a temporary nature and of short duration, then the provision of compensatory financing would be appropriate; if not, arguments in favor of a more conditional and adjustment-oriented response should prevail. Many Directors also stressed that the increased variability of commodity prices pointed to the need for continued attention to contingency measures that would safeguard programs supported by the Fund. Directors agreed that the issues involved should be examined in greater depth in reviews of the CCFF, and in future discussions on the use of Fund resources.

42. Directors discussed the role of government in stabilizing prices for exports received by domestic producers. While acknowledging the efficient working of some government stabilization policies, Directors generally agreed that intervention tended to become distortionary, and that the objectives of the schemes tended to become unclear and inconsistent over time. It was thus preferable that agents be exposed to the signals embedded in market prices, as the evidence seemed to indicate that private agents were often capable of handling considerable commodity price risk and the consequences for their income streams. At the same time, it was also noted that, in some countries, lack of access to credit markets and other specific factors might at times limit the extent to which a fully noninterventionist approach was feasible or optimal. In that context, several Directors advocated the use of safety net arrangements to shield low-income commodity producers. With regard to agricultural subsidies in industrial countries, many speakers welcomed the reductions in such subsidies that would be implemented under the Uruguay Round.

43. Directors noted that the volatility of commodity prices had contributed to government revenue instability in a number of developing countries. If temporary positive shocks were misread as being of a permanent nature, costly mistakes could be made with respect to government expenditures, which could prove difficult to rectify.

44. Many Directors also drew attention to the role that market-based financial instruments could play in dealing with commodity price risk and lessening the impact of volatility on export revenues. Access to exchange-traded instruments, such as futures and options purchases, was important, but there were limits to this approach, as legal, financial, and technical barriers could restrain access by private agents from developing countries. Directors noted the technical assistance being provided by a number of international agencies in the area of commodity risk management, which they regard as a favorable development that would help countries to utilize market-based instruments.

45. Finally, Directors noted the importance of increased processing of commodities and diversification of production for reducing the vulnerability of commodity-exporting countries to volatile and sustained declines in commodity prices. The process of diversification needed, however, to be conducted in a nondistortionary way, so that the production of primary goods, if that is where the country's comparative advantage lay, would not be discouraged.

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