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March 11, 1996

To: Members of the Executive Board

From: The Secretary

Subject: World Economic Outlook - Boxes and Annexes

The attached boxes and annexes provide background material for the Executive Board discussion of the paper on prospects and policy issues related to the world economic outlook (EBS/96/34, 3/6/96), which is tentatively scheduled for discussion on Wednesday, March 27, 1996.

The name and telephone extension of staff members available to answer questions are mentioned on the first page of each box and annex.

Att: (1)

INTERNATIONAL MONETARY FUND

World Economic Outlook—Boxes and Annexes

Prepared by the Staff

Approved by Michael Mussa

March 7, 1996

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Box 1. Madrid Declaration

The following "Declaration on Cooperation to Strengthen the Global Expansion" was adopted at the conclusion of the forty-third meeting of the Interim Committee of the Board of Governors of the IMF, October 2, 1994.

1. The immediate prospects for economic growth in the world economy are better than they have been at any time in this decade. But serious policy challenges remain. For the industrial countries the most important are to sustain economic growth, reduce unemployment, and prevent a resurgence of inflation. Growth in the developing countries (and in particular, in the poorest countries) must be maintained and extended. The economies in transition must be integrated into the international economy and set firmly on the path of sustainable growth.
2. The planned entry into force of the Uruguay Round trade agreements on January 1, 1995 will enhance world economic prospects by deepening global economic integration. The Committee urges ratification of the agreements without delay, and calls for action to sustain the impetus of trade liberalization and for close cooperation between the Fund and the proposed WTO. The Committee also welcomes the growing trend toward currency convertibility and encourages member countries to remove impediments to the free flow of capital.
3. The recent success of many developing economies illustrates once again the validity of a strategy based on steadfast implementation of strong programs of macroeconomic adjustment and structural reform. The Committee urges other countries to follow a similar bold strategy for sustained economic growth and domestic and external financial stability. Such efforts by developing countries must be supported by a global environment characterized by improved access to industrial country markets and timely financial support on appropriate terms, including a flexible approach to official bilateral debt reduction for low-income countries, in the context of strong policies.
4. The impressive turnaround in several economies in transition also attests to the benefits of macroeconomic discipline and structural reforms. The Committee urges all other economies in transition to be bolder in their approaches to stabilization and reform. Experience has demonstrated the central importance of early fiscal reforms and firm monetary discipline in the early stages of the transformation process to achieve financial stability. This needs to be accompanied by institution building, price and external sector liberalization, enterprise restructuring and privatization, and financial sector reform. Social safety nets that are well targeted and cost efficient are also necessary, to alleviate the adverse impact of higher open unemployment. As in the case of developing countries, the Committee recognizes the importance of a supportive international environment.
5. The improved economic outlook for the industrial countries creates an opportunity for them to strengthen growth and reduce unemployment, while safeguarding the progress toward price stability. The Committee attaches particular importance to the following three elements of a common strategy.

- Structural reforms to eliminate impediments to sustained growth, including steps to dismantle nontariff trade barriers and to ensure the long-term financial viability of health care and public pension systems. The Committee notes that problems of long-term unemployment and lack of jobs for young and unskilled persons should be addressed by efforts to improve education and training and by fundamental labor market reforms to reduce disincentives to employment.
 - A strengthening of fiscal consolidation efforts in 1995 and beyond as part of a medium-term strategy to significantly reduce fiscal deficits beyond the effects of cyclical recovery, and cut debt-to-GDP ratios, thereby facilitating lower real interest rates. The Committee notes in particular that countries with especially serious fiscal problems must not delay major corrective action.
 - Readiness to adjust monetary conditions to maintain price stability, as a condition for sustaining medium-term growth, including by timely increases in interest rates with a view to preventing the emergence of inflationary pressures. This will reinforce the hard-won credibility of anti-inflationary monetary policies.
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Box 2. Policy Assumptions Underlying the Projections¹

Fiscal policy assumptions for the short term are based on official budgets adjusted for any deviations in out-turn as estimated by IMF staff and also for differences in economic assumptions between IMF staff and national authorities. The assumptions for the medium term take into account announced future policy measures that are judged likely to be implemented. In cases where future budget intentions have not been announced with sufficient specificity to permit a judgement about the feasibility of their implementation, an unchanged structural primary balance is assumed. For selected industrial countries, the specific assumptions adopted are as follows.

United States: Fiscal revenues and outlays at the federal level are based on the average between those assumed in the administration's January 1996 balanced budget proposal and the Congress's Balanced Budget Act of November 1995, after adjusting for differences between the staff's macroeconomic assumptions and those of the Congressional Budget Office.

Japan: Measures that have already been announced are assumed to be implemented over the medium term. These measures include an increase in the consumption tax rate from 3 percent to 5 percent in 1997 and a simultaneous end to the temporary income tax cut; implementation of the 1994 pension reform plan; and achievement of the medium-term public investment plan.

Germany: The 1996 projection for the general government is based on the 1996 federal budget and recent official estimates for the other levels of government, adjusted for differences in macroeconomic projections. In 1997, the social security funds are assumed to close their deficits mainly through higher contribution rates (as mandated by existing legislation), while other levels of government are assumed to follow unchanged policies. Projections for 1998 and beyond are predicated on an unchanged structural primary balance.

France: Projections incorporate the 1996 budget of the state and all policy measures announced by the authorities. The reference point for social security is the reform package announced in November last year. Some of the measures in this package have already been implemented and are included in the projection; several other important measures, concerning mainly the control of medical expenditure, are also assumed to be implemented in 1996 and 1997; the relatively small number of measures that have been dropped by the government are excluded. Projections for 1998 and beyond assume an unchanged structural primary balance.

Italy: Projections for 1996 are based on the official budget, adjusted for slippages from the authorities' estimates of the likely yield of the legislated measures and for known expenditures not provided for (current and back payments under the Constitutional Court sentences on pensions and the phased payment of tax refund liabilities postponed from 1995). Interest on zero-coupon bonds is included as it accrues, rather than when it is paid (as is the case in the official presentation). For 1997-98, it is assumed that the measures (*manovra*) announced in the three-year plan are fully implemented and yield the officially-estimated amounts. Thereafter, the structural primary balance is presumed to remain unchanged.

¹Questions relating to this box should be addressed to Mr. Caramazza (ext. 34675).

United Kingdom: The budgeted three-year spending ceilings are assumed to be observed. Thereafter, noncyclical spending is assumed to grow in line with potential GDP. For revenues, the projections incorporate, through the three-year budget horizon, the announced commitment to raise excises on tobacco and road fuels each year in real terms; thereafter, real tax rates are assumed to remain constant.

Canada: Federal government outlays for departmental spending and business subsidies conform to the medium-term commitments announced in the February 1995 budget. Other outlays and revenues are assumed to evolve in line with projected macroeconomic developments. The fiscal situation of the provinces is assumed to be consistent with their stated medium-term deficit targets.

Australia: Projections are based on the Commonwealth government's announced medium-term fiscal consolidation strategy in the 1995/96 budget, and unchanged policies for the state and local governments.

Netherlands: Projections are based on the government's medium-term target expenditure path for the central government and social security. Only part of the room under the general government annual deficit ceilings is allocated to deficit reductions; the bulk is allocated to tax and social security premium reductions. From 1999 onward, the general government structural balance is assumed to remain constant.

Spain: Projections for 1996 are based on the rollover of the 1995 budget as modified by several decree laws, and adjusted for differences in macroeconomic assumptions and similar slippages on budgeted expenditures as occurred in 1995. For 1997, revenue estimates are based on the assumption of an unchanged tax structure, but the personal income tax schedule and excise taxes are adjusted for inflation.

Sweden: The medium-term projections are based on the government's multiyear consolidation program approved by Parliament in 1995.

Switzerland: Projections for 1997-99 are based on official estimates for current services. Thereafter, the general government structural primary balance is assumed to remain constant.

* * *

Monetary policy assumptions are based on the established framework for monetary policy in each country, which in most cases implies a nonaccommodative stance over the business cycle. Hence, it is generally assumed that official interest rates will firm when economic indicators, including monetary aggregates, suggest that inflation will rise above its acceptable rate or range, and ease when the indicators suggest that prospective inflation does not exceed the acceptable rate or range and that prospective output growth is below its potential rate. For the ERM countries, which use monetary policy to adhere to exchange rate anchors, official interest rates are assumed to move in line with those in Germany, except that progress on fiscal consolidation may influence interest differentials relative to Germany. On this basis, it is assumed that the London interbank offered rate (LIBOR) on six-month U.S. dollar deposits will average 5.6 percent in 1996 and 5½ percent in 1997; that the three-month certificate of deposit rate in Japan will average 1 percent in 1996 and 2.4 percent in 1997; and that the three-month interbank deposit rate in Germany will average 3.6 percent in 1996 and 4.6 percent in 1997.

Box 3. United States: Chain-Weighted Method for Estimating Real GDP¹

A "chain-weighted" procedure recently became the primary method used by the U.S. Department of Commerce's Bureau of Economic Analysis (BEA) to separate nominal (or current-dollar) changes in GDP into their quantity-change and price-change elements. It thus became the primary method used to measure growth in the U.S. economy.² This method is free of the biases that tended to arise with the previously used "fixed-base-year" method because of structural shifts in the U.S. economy, and in particular the sharp decline in the price of computers.

Under the fixed-base-year method, real GDP was estimated by using prices in a particular base year—most recently, 1987—to value each category of expenditure in the economy. Real GDP was calculated as the sum of the expenditure components valued at base-year prices; the growth in real GDP was simply the percent change in this sum. A major advantage of this technique was that real GDP could easily be decomposed into its parts—for example, the major expenditure aggregates of private consumption, investment, government spending, and net exports—so that it was relatively straightforward to determine how each expenditure component contributed to growth.

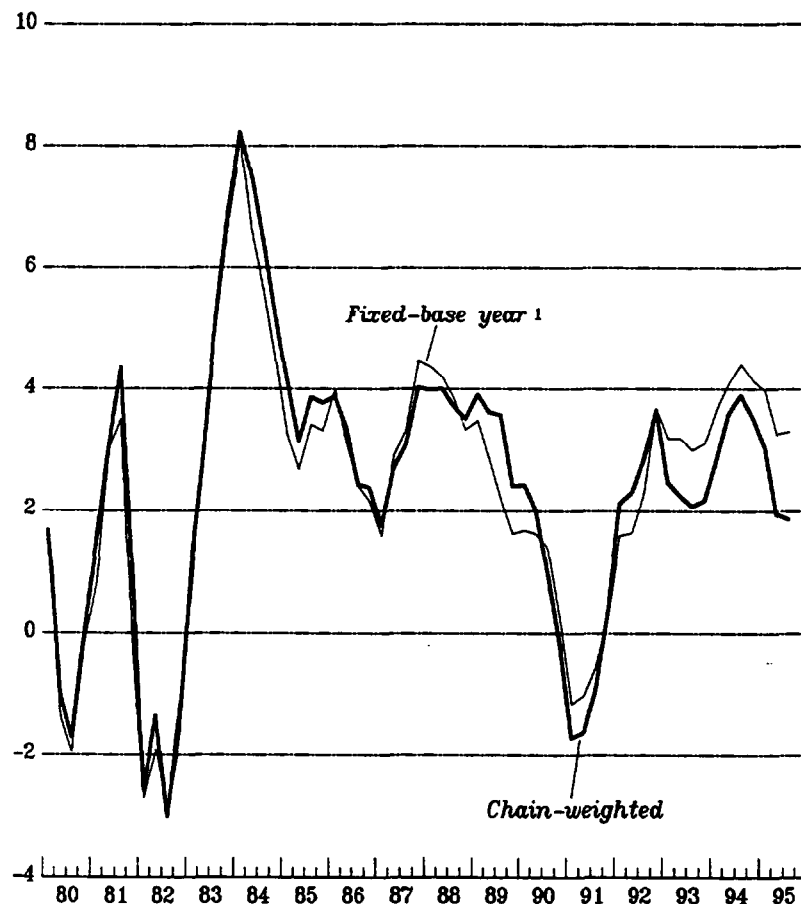
Shifts in the structure of the U.S. economy, however, highlighted the sensitivity of GDP growth estimated by the fixed-base-year method to the choice of base year. The more distant in the past was the base year, the greater was the weight given to expenditure items where prices had subsequently been declining, or rising relatively slowly. These also tended to be the expenditures that had exhibited strongest growth, owing to substitution in demand away from goods whose relative prices were rising. As a result, the earlier was the base year, the more upwardly biased did estimates of subsequent real GDP growth tend to be. And when the base year was eventually updated—typically every five years—estimates of real GDP growth were revised downward. The sharp declines in computer prices beginning in the 1980s, and the dramatic expansion in the importance of this sector in the economy, highlighted this shortcoming of the fixed-base-year method. The BEA has estimated that the earlier change in the base year from 1982 to 1987 resulted in an average decline of 0.3 of 1 percentage point in GDP growth for the period 1982–88.

The chain-weighted method shifts the base year forward each year and therefore allows for continuous updating of weights. This has the advantage of eliminating the upward bias to real GDP growth that tended to be a feature of the fixed-base-year method (*see chart*). For example, the growth rate of real GDP for 1995 is calculated by averaging two estimates of growth: one with 1995 as the base year and the other with 1994 as base. Use of the chain-weighted method reduces the risk of potentially large revisions to historical estimates of real GDP. Although with the chain-weighted method it is not possible to decompose exactly the *level* of real GDP into its components, it is possible to decompose the *growth* of real GDP into the contributions of changes in the different (expenditure or output) components. It has been estimated that the change from

¹Questions relating to this box should be addressed to Ms. De Masi (ext. 38395).

²Among other industrial countries, Norway and the Netherlands also use the chain-weighted method to estimate real GDP.

Chain-Weighted and Fixed-Base-Year Estimates of Real GDP
(Percent change from four quarters earlier)



Source: Bureau of Economic Analysis, U. S. Department of Commerce.

¹Base year is 1987.

1987 fixed weights to the chain-weighted methodology lowered measured real GDP growth in 1995 by about $\frac{1}{2}$ of 1 percentage point.

Beginning with this issue of the *World Economic Outlook*, national accounts data and projections for the United States are based on chain-weighted estimates.

Box 4. Resolving Financial System Problems in Japan¹

Japanese financial institutions face considerable asset-quality problems, arising both from the bursting of the bubble in land and equity prices since 1990 and the prolonged downturn in economic activity. The failure of several financial institutions during 1995, together with the lack of full disclosure of nonperforming loans and the absence of a transparent framework for disposing of failed institutions, contributed to market participants' sense of increasing risk of systemic crisis. This was reflected in the emergence, in late summer 1995, of a "Japan premium"—the amount of extra interest Japanese banks had to pay to borrow funds in the international interbank market. This premium widened considerably following the delayed revelation of large trading losses at the New York branch of Daiwa Bank. These developments strengthened the authorities' determination to tackle the difficulties in the financial sector: comprehensive plans have been announced for liquidating the *jusen* (housing loan corporations), improving bank supervision, and resolving the problem of failed institutions.

In November 1995, the Ministry of Finance released detailed estimates of problem loans in the financial sector based on a survey of individual institutions (*see table below*).² These estimates, revised slightly in December, place total problem loans at ¥38.1 trillion (about 8 percent of GDP), of which ¥18.6 trillion is considered to be unrecoverable. While total problem loans are probably somewhat larger than the Ministry's figures suggest,³ the latest estimates appear to have reduced uncertainty as to the magnitude of the problem.

Estimated Problem Loans, as of the end of September 1995

	Twenty-one Major Banks	Regional Banks	Cooperative Institutions	Total
<i>(In trillions of yen)</i>				
Problem loans	23.8	7.8	6.5	38.1
(In percent of GDP)	(5.1)	(1.7)	(1.4)	(8.2)
(In percent of assets)	(3.1)	(2.9)	(2.5)	(2.9)
Unrecoverable loans	...	...	...	18.6
Loan-loss reserves	4.9	1.3	0.8	7.0
Net operating profit (April-September 1995)	2.5	1.0	0.8	4.2

¹Questions relating to this box should be addressed to Ms. Lipworth (ext. 37184).

²Problem loans include nonperforming loans (loans to borrowers that have legally been declared bankrupt and loans on which interest has not been paid for 180 days) and restructured loans (loans on which interest rates have been reduced to below the official discount rate prevailing at the time).

³For instance, the official figure excludes an additional ¥3.1 trillion of problem loans of three institutions that collapsed during the summer, and the ¥5.5 trillion exposure of the agricultural cooperatives to the *jusen*. In addition, recapitalized loans and loans that have been restructured at above the official discount rate are excluded.

A plan to liquidate the seven insolvent *jusen* was approved by the Cabinet in December 1995, following intense negotiation among the principal creditors.¹ While the agreement is yet to be ratified by the Diet, it represents a significant step forward in resolving the problems in the Japanese financial sector. The immediate losses associated with an estimated ¥6.4 trillion of unrecoverable assets are to be distributed among founding banks, other financial institutions, and agricultural cooperatives as shown in the table below.

Distribution of Immediate Losses of Insolvent *Jusen*

	Loans	Losses	Losses/Loans
	(In trillions of yen)	(In percent of loans)	
Founding banks	3.5	3.5	100
Other financial institutions	3.8	1.7	45
Agricultural cooperatives	5.5	0.5	10

In addition, ¥685 billion have been earmarked in the FY 1996 budget to cover the balance of the losses. The remaining *jusen* assets, amounting to about ¥6.8 trillion, are to be transferred to a loan-collecting firm, the Jusen Resolution Corporation (JRC). The founding banks, lender banks, and agricultural cooperatives are to extend low-interest loans to the JRC to finance the cost of assets purchased. Public money will be used to cover half of the future losses incurred by the JRC, which are officially estimated at ¥1.2 trillion; the commercial banks are expected to cover the remainder. The commercial banks are also to provide concessional loans to establish a fund at the Deposit Insurance Corporation (DIC), amounting to around ¥1 trillion; while the principal is guaranteed to be repaid, the investment income generated from these loans is to be used to make up part of the loss to be borne by the commercial banks.

The Financial System Stabilization Committee—set up in July 1995 to formulate a strategy for resolving the nonperforming loan problem—issued its final report at the end of December. The report recommended that deposit insurance premiums—currently 0.12 percent of insured deposits—be raised fourfold to recapitalize the DIC, whose funds are essentially exhausted. Moreover, financial institutions are to pay a special levy over the next five years, equal to three times the existing insurance premium, to establish "special funds" for financing the disposal of failed institutions. To facilitate the disposal of failed credit cooperatives, the Committee recommended the establishment of the Resolution and Collection Bank—an institution similar to the Resolution Trust Corporation set up in the United States to restructure insolvent savings and loans in the late 1980s—to handle the liquidation of failed institutions, pay off depositors, and collect loans.

¹There are eight *jusen*, of which seven are believed to be insolvent. The *jusen*, partially owned by banks (founding banks), insurance companies and securities firms, were originally established to finance housing loans. During the second half of the 1980s, however, these institutions increased their borrowing from their shareholders, other financial institutions (lender banks) and the agricultural cooperatives to finance their rapidly expanding lending to real estate developers.

Measures to improve banking inspection and supervision have also been announced. To strengthen internal management controls, financial institutions will be expected to follow guidelines on in-house inspections and risk management, and will be inspected by external auditors and the Ministry of Finance to verify compliance with these criteria. Overseas branches also will be subject to greater scrutiny by the Ministry. In addition, the authorities plan to strengthen the exchange of information with foreign supervisory authorities, in accordance with the Basle Concordat. Finally, there is to be greater coordination between the local and national supervisory authorities to strengthen the supervision of credit cooperatives.¹

Banks' profitability improved in the first half of FY 1995. Net business profits rose to a record high, increasing by 66 percent over the same period in FY 1994, reflecting the decline in short-term interest rates and associated steepening of the yield curve.² In addition, the rise in overall equity prices boosted the banks' hidden reserves by close to 40 percent in the first half of FY 1995. Taking into consideration this increase in hidden reserves, the staff estimates that the capital ratios as defined by the Bank for International Settlements (BIS) for the 21 major banks rose from 8.9 percent at the end of March 1995 to 9.3 percent at the end of September. The ratio is expected to decline, however, as loans to *jusen* will be written off in March 1996.

Using official estimates of the recoverable value of loan collateral, the unrecoverable portion of the 21 major banks' problem loans is about ¥13 trillion, of which ¥4.9 trillion is covered by special reserves. Total operating profits of these banks have been around ¥3 trillion in recent years. Assuming that this level of profitability is maintained, that there is no further accumulation of problem loans, and that all profits are used to write down problem loans, the difficulties of the major banks can probably be resolved in about three years. However, given the uneven distribution of problem loans among smaller financial institutions, deposit insurance assistance or public money, or both, will likely be needed to wind up several failed institutions.

¹Disclosure requirements for all classes of financial institutions are to be made more rigorous to promote market discipline, including sound management and depositor responsibility. These disclosure requirements will, however, not be made uniform across institutions.

²Bank equity prices rose sharply relative to the Nikkei 225 average in late 1995, reflecting strong profits in the first half of FY 1995 and expectations of a quick resolution of the difficulties in the banking sector. In early 1996, bank share prices retraced some of their previous gains, owing to uncertainties as to the pace at which problem loans are likely to be resolved—particularly in view of public opposition to the use of public funds to resolve the *jusen*—and the disproportionate burden to be borne by the major banks.

Box 5. China's Economic Growth¹

China's economic growth in recent decades has been remarkable by any standard (*see chart*). According to official estimates, over the period 1953–78 output and output per worker grew at average annual rates of 5.9 and 3.1 percent, respectively. Since economic reforms were initiated in December 1978, growth has quickened to over 9 percent a year in terms of output, and 6.3 percent a year in terms of output per worker. Compared with other countries in transition from central planning, China is unique in the degree to which it has achieved strong growth in the context of bold economic reforms.

China's remarkable growth record both prior to and during the transition to a more market-based economy raises several important questions.² First, are the improvements in growth in the period since reform began as dramatic as the data indicate, once allowances are made for the political turbulence and natural disasters that characterized the prereform period? Second, to what extent may the strong growth rates in the reform period reflect data deficiencies? And, third, is the recent high rate of growth sustainable?

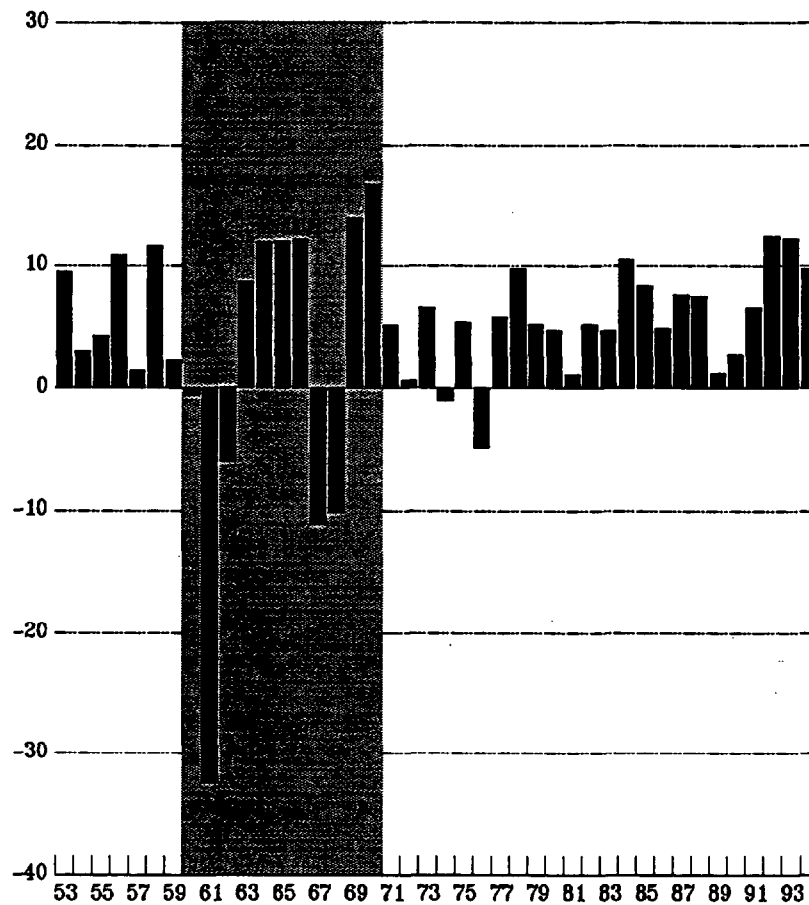
China's prereform years were punctuated by two periods of radical political upheaval, which for a number of years slowed economic growth. To gain a more accurate picture of normal prereform growth, those years for which growth was seriously disrupted, corresponding to the shaded area in the chart, should be excluded. Leaving out the years 1960 (when growth turned negative following the beginning of the Great Leap Forward) to 1970 (to include the years of the Cultural Revolution and the initial rebound in growth from severely depressed levels) the average prereform growth rate of output was 7.6 percent, while the growth of output per worker was 4½ percent, significantly higher than the growth rates for 1953–78 as a whole. This relatively strong growth performance contrasts with the situation in other countries in transition where economic conditions had deteriorated considerably in the years prior to the initiation of reforms.

Although a number of shortcomings of the real GDP data limit the accuracy of measured economic growth during the reform period, two problems are particularly important to correct. First, evidence suggests that the rate of increase in the price deflator applied to the industrial collective sector is underestimated in the reform period, resulting in overestimation of the growth rate of real GDP. Second, prior to the reforms, the prices of agricultural products relative to industrial products were held down in an attempt to promote industrialization. As prices were liberalized, the prices of agricultural products rose. Because improved incentives in the industrial sector spurred faster growth during the reform period, and the official statistics are based on prereform sectoral weights, incorporating relatively higher, prereform, industrial sector prices, output growth again tends to be overstated. Correcting for both of these statistical problems lowers the average growth rate of output for the period 1978–94 to just over 8 percent, and of output per worker to 5½ percent.

¹Questions relating to this box should be addressed to Ms. De Masi (ext. 38395).

²These are discussed in greater detail in Eduardo Borensztein and Jonathan D. Ostry, "Accounting for China's Growth Performance," *American Economic Review* (forthcoming).

China: Annual Growth in Output per Worker¹
(Percent change)



Source: Li, Jingwen, "Productivity and China's Economic Growth," *The Economic Studies Quarterly*, Vol. 43 (December 1992), pp. 337-50; and IMF staff estimates.

¹Net material product through 1978. Shaded area indicates the years during which economic growth was seriously disrupted.

These adjustments to the official growth estimates reveal that growth in output and output per worker have not been dramatically stronger in the period since reforms began. But on closer examination of the data, it becomes clear that economic reforms have had a major impact. Specifically, total factor productivity is estimated to have *declined* at an average annual rate of 0.8 percent in the period prior to reforms, but to have *grown* by 2.1 percent a year over the period 1979–94.¹ The difference is indicative of the powerful effect of economic reforms in allocating capital and labor more efficiently. In the prereform period, the growth of output and output per worker were as high as they were, in effect, because of rapid accumulation of capital, which was allocated inefficiently and which was much less productive than in the reform period. In this respect, the prereform experience was very similar to that of other centrally planned economies. However, in contrast to these other countries, China's level of economic development was relatively low at the start of the reform period, implying a much smaller capital stock and therefore much less of an immediate problem of obsolescence.

Sustaining China's growth performance depends critically on generating further gains in efficiency. The reallocation of labor from the agricultural to the manufacturing sector, which contributed significantly to productivity growth in the past, probably still has some way to go, even though it will necessarily taper off in the future.² Otherwise, gains may need to come from new sources. Many of the reforms that generate quick gains in productivity—such as reducing state interference in agriculture—have already been undertaken. Future reforms in the state enterprise sector, however, offer considerable scope for sustaining a high rate of productivity growth even though these may be politically and economically difficult to implement. Gradually exposing state enterprises to market forces and introducing hard budget constraints would also enhance the flow of resources to the growing private sector. Such gains in productivity are key to helping China sustain its relatively rapid rate of long-term convergence to income levels elsewhere in Asia.

¹Total factor productivity is sensitive to the estimate of the initial capital stock. An alternative methodology yields an estimate of 0.3 percent for the period 1953–1978.

²The share of employment in the agricultural sector fell from 71 percent in 1978 to 54 percent in 1994.

Decomposition of Economic Growth¹
(Average annual growth rates)

	(1) Capital	(2) Labor	(3) Output	(4) Output Per Worker	(5) Total Factor Productivity ²
Prereform (1953-78)					
Official	10.2	2.6	5.9	3.1	-0.7
Adjusted ³	13.2	3.0	7.6	4.5	-0.8
Reform (1979-94)					
Official	9.9	2.7	9.2	6.3	3.8
Adjusted ⁴	9.9	2.7	8.2	5.5	2.1

¹Discrepancies between column (4) and the difference between columns (3) and (2) are due to rounding.

²Calculated on the basis of the standard assumptions of growth accounting, including a production function with constant returns to scale. Factor shares used are calculated on a year-by-year basis, and are on average 50:50. See Li, Jingwin, "Productivity and China's Economic Growth," *The Economic Studies Quarterly*, Vol. 43 (December 1992), pp. 337-50.

³Excluding the years 1960-70.

⁴Correcting for deficiencies in real GDP data as described in the text.

Box 6. New Zealand's Fiscal Responsibility Act¹

The Fiscal Responsibility Act passed by New Zealand in 1994 represents an innovative approach to the promotion of prudent fiscal policy.² The Act is intended to increase the transparency of the fiscal and economic implications of government policy; to ensure independent assessment and reporting of fiscal policy; to facilitate parliamentary and public scrutiny of fiscal developments; and to encourage a longer-term focus in budgeting. To these ends, the Act legislates principles of responsible fiscal management and includes measures aimed at improving the flow of information on the public finances.

The principles of responsible fiscal policy defined by the Act include: the achievement of "prudent levels" of government debt through operational budget surpluses; the maintenance of prudent debt levels, once achieved, through balanced budgets on average over reasonable periods of time; the achievement and maintenance of adequate levels of government net worth to provide a buffer against future adverse developments; the prudent management of fiscal risks, including pension liabilities; and the pursuit of expenditure policies consistent with stable and predictable tax rates. The Act avoids the problems of balanced budget rules that would preclude automatic stabilizers from operating. And the requirement that tax rates be stable and predictable reinforces the long-term orientation of fiscal policy and the need to budget for future liabilities.

The Act also requires the government to specify short- and long-term fiscal objectives that are consistent with the principles laid out. It does allow the government to depart temporarily from these principles, provided they explain why and specify how and when they plan to return to them. The government has specified "prudent levels" of public sector debt to be below 30 percent of GDP in the short term and below 20 percent in the longer term.

The Act also improved the quality of information flows about the public finances. A major innovation was the requirement that all of the financial reporting and forecasts be prepared on a basis consistent with the private sector's generally accepted accounting practice. This was done to enhance the credibility of public sector accounts and also to take advantage of the synergies and economies that result from aligning public and private sector accounting practices.

The change in accounting practice implied a shift from cash to accrual accounting and also required a consolidated presentation for the "Crown", which covers core government, the Reserve Bank, state-owned enterprises, and other public sector entities. A standard set of the Crown's financial reports is comparable to what a publicly listed company is required to publish. The reports include a balance sheet statement of the Crown's financial position, an operating statement, a statement of cash flows, and notes that show contingent liabilities and known risks. The frequency of reporting has increased and now includes an annual budget report on the government's fiscal strategy (discussing the likely development of crucial variables 10 years into

¹Questions relating to this box should be addressed to Mr. McDermott (ext. 36895).

²For a detailed description, see *Fiscal Responsibility Act 1994—An Explanation*, The Treasury, New Zealand (1995), and also *New Zealand—Economic Developments*, IMF Staff Country Report 96/14 (February 1996).

the future), a half-year economic and fiscal update, a fiscal update toward the end of the financial year, as well as an economic and fiscal update report before any general election, and monthly statements for the financial year to date. The update reports project revenues and expenditures three years out, and in addition assess the main risks to the outlook.

These reporting requirements are intended to ensure that any changes in the government's fiscal position become quickly apparent to the public, including the financial markets. It is no longer possible to move spending off-budget; arrears show up as an increase in the value of payables; neglected maintenance would be reflected in a decline of the value of public assets shown on the balance sheet; and sales of public assets leave government net worth unchanged. Capital expenditures show up on the balance sheet for the full amount at the time of commitment, preventing the build-up of hidden future financing needs. Decisions that increase future liabilities are shown to reduce net worth.

New Zealand's Crown balance sheet for 1994/95 (*see table*) illustrates the type of information required by the new approach. It contains items typically found on a company's balance sheet (such as advances and borrowings), as well as some items unique to governments (state highways, currency issued).

New Zealand: Crown Balance Sheet, 1994/95
(In millions of New Zealand dollars; fiscal year ending June)

Assets		Liabilities	
Marketable Securities	6,523	Liabilities	57,646
Advances	4,782	Payables and provisions	3,824
State-owned enterprises	16,420	Currency issued	1,620
Physical assets	13,432	Borrowings	44,096
State highway	7,454	Pension liabilities	8,106
Other assets	5,876	Net worth ¹	-3,159
Total	54,487	Total	54,487

Source: New Zealand Treasury, Economic and Fiscal Update, December 1995, Wellington.

¹The Crown's net worth had become positive by December 1995.

One problem in producing such a public sector balance sheet is the valuation of public assets and liabilities that are not easily marketable (such as highways, specialist military equipment and state parks) or, even if marketable, lack an observable market price. However, most assets and liabilities are valued in line with private sector practice. For example, fixed assets are recorded at their depreciated replacement cost. Unfunded components of future commitments under the government employees' pension scheme (Government Superannuation Fund) are included among liabilities, since it is a scheme members contribute to in return for contractually defined benefits. However, public pensions and other welfare payments are not shown on the

balance sheet, since they are non-contractual commitments, but are shown in the fiscal strategy reports. Nor is the Crown's power to tax included among its assets.

In interpreting the balance sheet it should be noted that large changes in net worth can be occasioned by valuation changes in assets, such as land and foreign exchange reserves, which the government has no immediate intention of liquidating. This is one of the reasons why net worth is not a suitable indicator for near-term fiscal policy; its impact is better assessed on the basis of the operating and cash flow statements.

With the passage of its Fiscal Responsibility Act, New Zealand took a practical step to increase the fiscal transparency of its government decisions and to promote responsible fiscal management. Similar approaches could be worth considering in other countries.

Box 7. Uses and Limitations of Generational Accounting¹

Generational accounts may be used to assess the distributional implications across generations or age cohorts of changes in fiscal policies. They often highlight the fact that policy changes can shift resources among generations without affecting the present fiscal deficit at all. The definition of generational accounts is straightforward.² Using present-value calculations and imposing the intertemporal zero-sum constraint that future generations must pay with interest for government purchases for which past and current generations have not paid, generational accounts seek to answer the question of how much each generation would pay in net taxes—i.e., taxes and contributions paid minus transfers received—if fiscal policies were to remain unchanged. The difference between the lifetime net tax rates of newborn and future generations provides an indicator of the sustainability of present fiscal policies, because it provides estimates of the adjustment in taxes or benefits, or both, of future generations that will be needed to ensure that the intertemporal zero-sum constraint is satisfied. For example, for the United States it is estimated that assuming annual labor productivity growth of 0.75 percent and a real discount rate of 6 percent, lifetime net tax rates of newborn and future generations would amount to 37 and 78 percent of labor income, respectively (*see table*), clearly indicating that under the assumptions made, present fiscal policies in the United States are unsustainable.³

While generational accounts provide a useful perspective on the fiscal sustainability issue, their empirical implementation imposes heavy data demands and requires specific assumptions relating to a number of difficult conceptual and theoretical issues, which raise questions about their ultimate usefulness. More specifically, the accounts:

- are highly sensitive to the specific assumptions adopted about the determination of private consumption. It is typically assumed that private consumption is determined by standard life-cycle considerations, implying, *inter alia*, the absence of liquidity constraints and of a bequest motive: with bequests, the transfer of the burden of paying for government spending from this generation to the next could be reversed. The numerical parameters adopted within this approach have an important impact on the calculations, as would the adoption of more fundamentally different assumptions about consumption behavior.

¹Questions relating to this box should be addressed to Mr. Ebrill (ext. 37893) or Mr. Symansky (ext. 37479).

²For recent reviews of the merits and limitations of generational accounts, see Jon Sturrock, *Who Pays and When? An Assessment of Generational Accounting* (Washington: Congressional Budget Office, 1995) and the relevant articles in the *Journal of Economic Perspectives*, Vol. 8, No. 1 (Winter 1994).

³These assumptions, used in the Congressional Budget Office study, are based on average labor productivity growth since the 1973 oil shock and the historical average real rate of return on equities.

- require agreement on a single discount rate for all generations that would capture both the cost of waiting and the risk premium for uncertainty;
- require assumptions on the incidence of a range of taxes, with the incidence of capital taxes especially uncertain;
- do not, as presently constructed, assume that there are intergenerational benefits from public consumption or capital expenditure;
- assume an arbitrary time period for the implementation of the intertemporal budget constraint;
- ignore the long-run effects that fiscal policy can have on expected future income, including its distribution between capital and labor.

United States: Lifetime Net Tax Rates Under Alternative Macroeconomic Assumptions
(In percent of lifetime labor income)

Real Discount Rate	Labor Productivity Growth Rate		
	0.25	0.75	1.25
Newborn generation			
3	28	26	25
6	40	37	34
9	47	43	39
Future generations			
3	60	49	41
6	94	78	63
9	154	126	103
Difference in lifetime net tax rate of newborn and future generations (in percentage points)			
3	32	23	16
6	54	40	29
9	107	83	63

Note: The newborn generation refers to people born next year. Future generations refer to people born thereafter.

Source: John Sturrock, *Who Pays and When? An Assessment of Generational Accounting*, (Washington: Congressional Budget Office, November 1995), Table 5, p. 30. Variant based on intermediate population projection.

In addition to these issues, generational accounts, like any other long-term projections, are subject to uncertainty as regards future demographic changes, the rate of technical progress, and hence future growth. In the particular case of the United States, sensitivity analyses indicate that the difference between lifetime net tax rates of newborn and future generations could range between 16 and 107 percentage points for real discount rates ranging from 3 to 9 percent and annual labor productivity growth rates ranging from 0.25 to 1.25 percent (*see table above*). In light of these implementation difficulties, generational accounts are likely to be useful mainly as a conceptual tool of policy analysis and as a supplement to customary budget presentations.

Box 8. Paths to Sustainable Budgets and Pension Schemes in Industrial Countries¹

As discussed in the text, fiscal adjustment is needed to address both high overall deficits today (related primarily to nonpension spending) and upward pressures on deficits in the future caused by an excess of pension costs over receipts. This box illustrates through four scenarios the magnitude of the combined problem for the average industrial country and discusses various ways of addressing it. The average industrial country² has an initial net debt-to-GDP ratio of 45 percent and a general government deficit of 4 percent of GDP, despite a small surplus in the pension system equal to $\frac{1}{2}$ of 1 percent of GDP. Public pension plans typically do not have any substantial accumulated reserves; on average, they amount to only 8 percent of GDP. It should be emphasized that a number of countries have more serious fiscal problems than the average; in particular, for most countries in continental Europe the size of both existing debt and unfunded future liabilities is greater than average (Chart 23 in Chapter III). In addition, other government spending is expected to rise because of population aging, especially spending on health care, but that aspect is not considered here.

The magnitude of the problem is illustrated in a *baseline scenario* (see chart) where general government revenues and nonpension expenditures maintain constant ratios to GDP, and pension benefits per retiree, based on the country-specific pension rule, generally rise in line with per capita nominal GDP. The deficit and debt levels start to explode in the first few decades of the next century, and by 2050 they are in excess of 20 percent and 400 percent of GDP, respectively (not shown). This is obviously not sustainable.

To some extent these results are due to the working of debt dynamics from a starting point where the debt level is high and the primary surplus is not great enough to offset the excess of the real interest rate over the real growth rate.³ Eliminating the immediate deficit problem, however, in particular by reducing it to zero in seven years through a permanent increase in tax rates, can be seen from the chart in a second scenario (*balanced budget by 2002*) as not solving completely the long-run problem associated with adverse demographics and debt dynamics. Nevertheless, it is a good start, and it causes the ratio of public debt to GDP to decline for an extended period of time. However, by 2020 it is again on an explosive path, and the debt ratio is approaching 60 percent of GDP by 2050, with the overall deficit at 5 percent of GDP in that year. As the chart shows, in this scenario as well as in the baseline, the pension deficit as a ratio to GDP widens alarmingly as a result of demographic trends, if benefit and contribution rates are left unchanged.

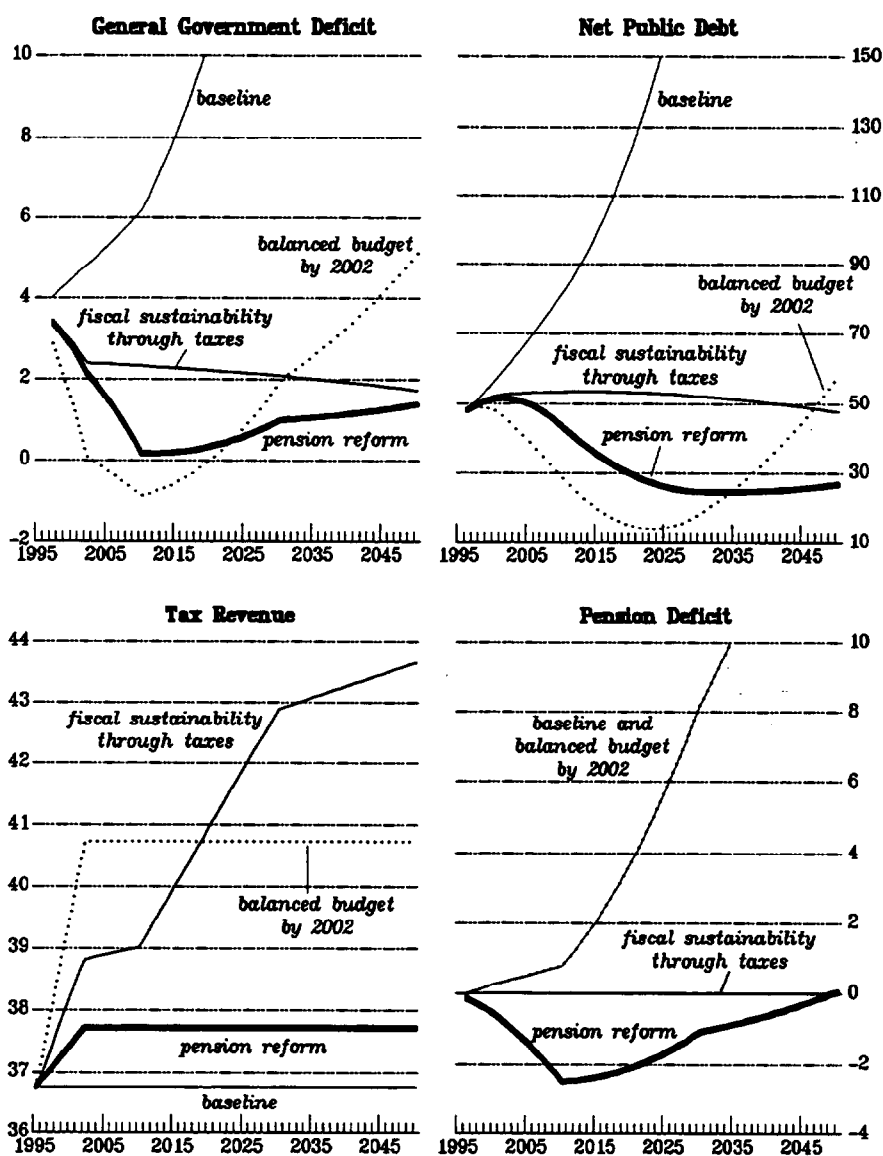
¹Questions relating to this box should be addressed to Mr. Symansky (ext. 37479).

²All data used in this box are based on PPP-weighted averages for the seven major industrial countries in 1995. The pension data are from SM/96/7.

³All simulations assume an inflation rate of 3 percent, labor productivity growth of $1\frac{1}{2}$ percent per year, labor force growth dictated by demographic trends, and a real interest rate of $3\frac{1}{2}$ percent a year.

Fiscal Adjustment Scenarios

(In percent of GDP)



Source: IMF staff estimates.

One possible solution would involve raising contribution rates to balance pension expenditures and revenues, which would make the pension system with current benefit levels strictly pay-as-you-go. This is illustrated in a third scenario (*fiscal sustainability through taxes*) where in addition to the increase in contribution rates, other taxes are raised so as to stabilize the public debt ratio. However, the magnitude of the increase in tax revenues is such that this scenario is unlikely to be either desirable or feasible; it involves massive increases in pension contribution rates and the overall tax burden. Higher taxes would involve increasing labor market distortions, and a decline in long-run output. It also would be viewed as inequitable because the burden of sustainability would be borne by the working population and not retirees—associated with extremely skewed generational accounts.

The solution to the joint fiscal problem needs to involve expenditure reductions, including reductions in the generosity of pension benefits. Though the details of desirable measures vary from country to country, they are likely to include increasing retirement ages and declines in replacement ratios. Some increases in contribution rates may be necessary as well. The timing of the introduction of measures is likely to depend on a balance of considerations, some of them political; it needs to be recognized, however, that delaying adjustment, though politically expedient, has serious drawbacks. These include greater uncertainty, which makes it difficult for individuals to plan their retirement rationally, and exacerbating the fiscal problem, which would require a larger eventual adjustment. An illustration of a possible adjustment path where early action is taken is shown in the fourth scenario (*pension reform*); the path includes gradual increases in retirement ages from 63 to 67 and reductions in replacement ratios by $8\frac{1}{4}$ percentage points. The increase in contribution rates required to put the pension and overall fiscal position on a sustainable path is much smaller than in the third scenario. The net public debt stock falls below 30 percent of GDP and remains at this lower level through 2050, and the increase in tax revenues is only about 1 percentage point of GDP, with correspondingly smaller distortions of labor supply. The higher retirement age in itself increases potential output through an increase in the labor force.

Box 9. Quasi-Fiscal Activities in Developing Countries¹

In a large number of developing countries, economic policy objectives are frequently pursued through operations of central banks and other public sector financial institutions that may have important fiscal implications.² Central bank lending to the public sector, including foreign exchange lending at below-market interest rates, and subsidized loans and loan guarantees extended by public sector financial institutions to specific sectors and groups of borrowers affect the public sector's net financial position even though they may not show up in the central government budget as specific expenditure or revenue items.

Central banks lend to governments by providing overdraft facilities or directly purchasing government securities. When interest rates on loans to central governments and other public sector bodies are set at below-market rates, public expenditures will not be evaluated at their true opportunity costs, and this can lead both to excessive expenditure and to the selection of projects for which the true economic costs exceed their benefits. Apart from direct lending to governments, central banks frequently compel commercial banks to hold short-term government securities at below-market rates, by imposing statutory liquidity requirements. Central banks may also pay below-market rates on commercial banks' reserve assets. These devices essentially represent taxes on the banking system, which tend to restrict the development of financial intermediation, increase the spread between borrowing and lending rates, and reduce saving and investment in the economy. Such forms of financial repression can also yield substantial revenue to the government. Between 1984 and 1987, for example, the Mexican government extracted close to 6 percent of GDP, or about 40 percent of total tax revenue, from controls on financial markets.³

In many developing countries, subsidized lending by development banks and other public sector financial institutions to specific groups, often without adequate collateral, is the most common form of quasi-fiscal operations. In India, for example, the central bank requires that government-owned commercial banks lend about 40 percent of their assets to small-scale farmers and other small businesses. To finance such lending, nonfinancial public sector undertakings are required to maintain deposits at below-market interest rates with the commercial banks and other public sector financial institutions. Extensive problems of loan recovery have plagued public sector banks that engage in such implicit subsidization since it promotes adverse selection. In some cases, the central bank has to step in by either providing funds to recapitalize bankrupt banks or assuming nonperforming assets. When faced with serious financial difficulties, state banks in Brazil have frequently raised overdrafts on the collateral of their legal reserves and taken large rediscount loans from the central bank. In early 1991, to improve the central bank's portfolio, the government swapped such loans with its own securities to the extent of about 2 percent of GDP.

¹Questions relating to this box should be addressed to Mr. Aziz (ext. 37693).

²For a more detailed discussion on the use of different quasi-fiscal instruments see, "Quasi-fiscal Operations of Public Financial Institutions," IMF Occasional Paper (Washington: forthcoming).

³For further details see Alberto Giovannini and Martha De Melo, "Government Revenue from Financial Repression," *American Economic Review*, Vol. 83, (September 1993), pp. 953-63.

Despite a strong trend toward exchange market unification in developing countries, central banks in a number of countries still engage in multiple exchange rate practices, with different exchange rates applying to various categories of activities. A frequently used variation of this practice is to set the official exchange rate (cost of foreign exchange in terms of domestic currency) at a lower level than the market rate. All official transactions, such as debt-service payments on external debt owed by the government and public enterprises, along with payments for imports of state-owned enterprises, such as government-owned oil and electricity companies, are conducted at the official rate. The government may also require the surrender or repatriation of export proceeds of some or all commodities—in many countries, in fact, all exports are subject to surrender and repatriation requirements—and allow private sector imports of necessities (e.g., medicine) and capital goods at the official rate. Apart from distorting the allocation of resources and understating expenditure on public sector imports and debt-service payments in domestic currency terms, this also obscures the effective levels of taxation on exports and imports. During 1979–82, the Costa Rican central bank provided foreign exchange for certain imports at a lower rate than the rate it had paid for the foreign currency. In 1981 alone, these subsidies amounted to about 4½ percent of GDP. In 1987–88, the parallel market exchange rate of the Ugandan shilling ranged between U Sh 200 and 400 per U.S. dollar, although the Coffee Marketing Board was surrendering its export receipts to the central bank at the official exchange rate of U Sh 60 per U.S. dollar.

Governments also, through development banks and other public sector financial institutions, often provide exchange rate guarantees or subsidize exchange risk insurance. As a result of these subsidies, a strong incentive is created for the beneficiaries to increase their foreign currency liabilities, especially in countries where inflation is higher than in the main trading partner countries. While the impact of these subsidies on the fiscal deficit may not be immediate, the increase in the contingent liabilities of public sector financial institutions and ultimately those of the government may result in substantial fiscal expenditures during times of macroeconomic instability. In Chile, following the devaluation of 1982 in the aftermath of the debt crisis, the central bank provided subsidized foreign exchange to the private sector for external debt service obligations, equivalent to almost 2 percent of GDP a year in 1983–85. At the same time, exchange rate guarantees amounted to about ½ of 1 percent of GDP a year.

In recent years, central banks in many countries that have experienced large capital inflows have opted to increase reserves and sterilize them rather than let the domestic currency appreciate freely. As a consequence, the domestic interest in such cases has often risen to levels higher than the return on foreign reserves, giving rise to losses for the central bank. In the early 1990s, quasi-fiscal costs of such sterilization operations were as high as ½ of 1 percent of GDP a year for some Latin American countries.¹

Quasi-fiscal operations are typically undertaken to circumvent legislative and political constraints on fiscal policy, but they frequently have important fiscal consequences and, in general, reduce efficiency by distorting relative prices in the economy, thus impeding development. While it may be difficult to quickly eliminate many of the subsidies implicitly

¹See Miguel A. Kiguel and Leonardo Leiderman, "On the Consequences of Sterilized Intervention in Latin America: The Case of Columbia and Chile," (World Bank: Washington 1993).

provided through quasi-fiscal operations, acknowledging such activities in central government budget statements would enhance the transparency of fiscal policy. Over the longer term, however, reliance on such subsidies, whether provided implicitly or explicitly, should be phased out in combination with the implementation of other structural reforms that enhance resource allocation and long-term growth.

Box 10. The Arrears Problem in Transition Countries¹

In many transition countries, interenterprise, tax, budgetary, and wage arrears, and increasing levels of nonperforming bank loans, have raised concerns about the sustainability of fiscal consolidation and the transition process. Tax arrears undermine fiscal consolidation directly, while budgetary, wage, and interenterprise arrears contribute to the spread of dollarization, barter, and payment-in-kind, which all involve transactions outside the purview of the tax system. In addition to shrinking the revenue base, the arrears problem threatens the transition process by delaying restructuring and distorting the allocation of scarce resources.

It is difficult to assess the extent of *interenterprise arrears*, as comprehensive data are generally not available. To some extent, arrears between enterprises may be simply a reflection of underdeveloped payment systems, which result in unusually long delays in the settlement of invoices. Moreover, some arrears may reflect informal financing arrangements between suppliers and purchasers, which could be considered normal commercial credits. In many of the transition countries, however, large arrears between enterprises also seem to reflect a continuing reluctance to enforce stricter payments discipline. The accumulation of arrears can eventually lead to expectations, which may be politically difficult to resist, that they will be monetized through government bailouts. The heavy resort to interenterprise arrears may also frustrate restructuring by permitting inefficient firms to divert resources from productive enterprises.² In those countries that have persevered with tight financial policies, the problem of interenterprise arrears has diminished considerably: firms have responded to recalcitrant customers by enforcing payment in advance, or simply by not shipping to enterprises with poor payment records.³ Of course, the financial discipline of the market is not binding where enterprises have recourse to subsidies, directed credits, and other forms of financial assistance and where lax enforcement of the tax code has softened budget constraints.

Tax arrears seem to be a growing problem in many transition economies.⁴ Estimates of the stock of tax arrears in selected countries indicate that they now range from roughly 2 percent to about 8 percent of GDP (*see table*). Although tax arrears in most transition countries appear to be larger than in developed market economies, there is no apparent connection between their size and the progress of reforms. There are several reasons to believe, however, that the figures in the table may understate the extent of this problem. In most transition countries, tax arrears are often

¹Questions relating to this box should be addressed to Mr. Haley (ext. 34134).

²An aspect of the interenterprise arrears problem is that *all* enterprises may have an incentive to extend arrears if there is a possibility that the government will conduct a clearing or netting operation. If loss-making enterprises accumulate arrears, the best response of profitable firms may also be to accumulate arrears, to avoid the loss of prospective revenues from any bailout. This effect is exacerbated by the absence of a credible bankruptcy and liquidation threat.

³This does not apply to energy suppliers, which in many countries have been prevented from enforcing payments discipline.

⁴See Mark E. Schaffer, "Tax Arrears in Transition Economies," IMF Working Paper (forthcoming).

written off or rescheduled.¹ Also, in many countries less advanced in the transition, tax arrears often have not accrued interest or have done so at interest rates below the rate of inflation; if they had accrued interest at market rates, the stock of arrears as a percent of GDP would be considerably larger.² The figures for countries less advanced in the transition in the table should therefore be considered as lower-bound estimates. In contrast, the countries more advanced in the transition process have made more progress in containing inflation and strengthening tax administration. The data for these countries are probably a better indication of the extent of the problem.

Stock of Tax Arrears in Selected Transition Economies, End of 1994
(All figures in percent of GDP)

	Principal	Interest	Total
Countries more advanced in transition			
Albania	2.0	...	...
Czech Republic ¹	...	...	3-4
Estonia	3.3	...	...
Hungary	...	...	7.5
Latvia	...	...	7.0
Lithuania ¹	...	...	4.2
Poland	3.4	2-4	5-7
Slovak Republic	...	...	3.4
Countries less advanced in transition			
Armenia	1.1	...	...
Belarus	0.3	...	...
Georgia ²	1.1	...	...
Kazakhstan ³	...	...	2.0 ⁴
Kyrgyz Republic	1.8	...	...
Moldova	5.9	...	...
Romania	...	...	4.6
Russia ⁵	3.0	0.6	3.6
Turkmenistan	...	...	1.1 ⁴
<i>Memorandum</i>			
Market economy (New Zealand)	...	...	2.0

Sources: Mark E. Schaffer, "Tax Arrears in Transition Economies," IMF Working Paper (forthcoming); and Staff estimates.

¹End of 1993.

²Mid of 1995.

³First quarter 1994.

⁴Coverage unclear.

⁵End of 1995. Consolidated government, excluding payroll tax arrears.

¹The figures for both Lithuania and Poland are inclusive of rescheduled tax arrears.

²Although this problem has been corrected in most transition economies, in countries that have reduced inflation the introduction of fixed daily penalties (typically on the order of 1 percent per day) has resulted in onerous tax penalties. Negotiations to establish smaller penalties frequently result in additional payment delays.

Tax arrears exacerbate the problem of *budgetary arrears*, which arise as cash-strapped governments invoke sequestration to meet fiscal targets. Although there is often little else that governments can do meet these targets in the short run, sequestration contributes to weak payments discipline and thereby undermines the principles of a market economy.

Governments in transition countries may tolerate tax arrears because the short-term benefits of the liquidation of distressed firms may be considered small in relation to the political costs. Indeed, tax arrears are a kind of subsidy to loss-making firms: in most cases, they can be thought of as wage subsidies, since wage taxes—notably social security contributions—are often the biggest single tax liability of distressed enterprises. Such practices entail a moral hazard, however, since the failure to take action against these firms perpetuates the accumulation of arrears and encourages the expectation of a generalized settlement on concessional terms of all arrears. In countries such as Romania and Russia where the government has conducted a "clearing" of arrears through monetization or by assuming the remaining net balance, arrears accumulation did indeed subsequently resume.

Evidence of such moral hazard implications can be seen in the accumulation of *wage arrears* in many transition countries, particularly those of the former Soviet Union. An enterprise may frequently pay a low cash wage but record a higher accrued wage in the firm's accounts; the difference between the two is wage arrears. One explanation for this practice is that wage arrears are a useful lobbying tool that can help the firm obtain additional subsidies from the government.¹

In accumulating large wage arrears, enterprises may be responding to the incentives created by government policies. This is likely the case in the Russian Federation where, in early 1994, the government introduced a scheme that allows liquidity-constrained firms to set aside 30 percent of their income to pay wages, and to defer tax payments to the extent that the remainder is inadequate to cover tax liabilities. In practice, such deferrals are for an indefinite period, and the taxes deferred neither accrue interest nor are subject to late penalties. Wage arrears did fall after the introduction of the rule, but at the cost of a large increase in tax arrears. Moreover, the scheme provides a means by which enterprises can implicitly borrow funds at a negative real interest rate by not paying their tax liabilities and accumulating tax arrears on terms more favorable than could be obtained through direct borrowing. All enterprises therefore have an incentive to run up wage arrears—irrespective of their financial situation.

Wage arrears pose a serious threat to the transition process because they may erode public support for stabilization. In addition, wage arrears lead to a deterioration in the financial position of social safety nets, resulting in pension and other benefit arrears. The result may be a weakening in the resolve of governments to persevere with financial stabilization and pursue structural reforms. Because wage arrears reflect weak payments discipline, their resolution will require a range of measures, including the establishment of effective bankruptcy and liquidation laws. Moreover,

¹Strikes in 1995 and early 1996 by Russian and Ukrainian miners (as well as other workers) demanding payment of outstanding wage arrears may be viewed in this context. Implicit in this analysis is a "war of attrition" between enterprise managers and governments over the nature of the transition process. See James A. Haley, "Deepening Enterprise Restructuring: A Reform Strategy for Countries in Transition," IMF Working Paper (forthcoming).

government agencies themselves need both to establish a record of prompt payment of wages and to adjust the size of the public sector labor force so as to ensure that the payroll can consistently be met in a timely fashion. For the enterprise sector, governments must eschew subsidies and other transfers that validate excessive wage claims and allow enterprises to avoid restructuring.

* * *

The nexus among the various types of arrears, which extends to the financial system through nonperforming bank loans, impairs efforts to sustain fiscal consolidation, impedes enterprise restructuring, and ultimately threatens to undermine the transition process. To break the cycle of arrears, governments must show more resolve in collecting outstanding tax arrears and eliminate incentives that firms have to accumulate additional tax, wage, and interenterprise arrears. A credible threat of bankruptcy is essential, yet the authorities in many transition countries have resisted the use of bankruptcy and liquidation sanctions. This underscores the need to accelerate the process of large-scale privatization because this would harden enterprises' budget constraints and facilitate the application of bankruptcy and liquidation sanctions. In addition, it remains essential to put in place affordable, well-targeted social safety nets to alleviate the social costs of the transitional rise in unemployment that is likely to be associated with enterprise restructuring.

Annex I. The Spillover Effects of Government Debt¹

Increasing capital market integration has expanded the markets in which governments can sell their debt. In principle, this provides greater scope for governments to smooth taxation and spending, and for countries to smooth consumption over time in the face of temporary shocks. But capital market integration also implies that the fiscal policies of one country will affect other countries. In a world with perfect capital market integration, a country that issues an amount of debt that is globally significant will thereby raise world real interest rates and crowd out private investment in all countries. An important policy implication is that countries with high levels of debt may not only jeopardize their own domestic macroeconomic stability and reduce their own living standards, but they may also impose significant spillovers on other countries.

For the industrial countries as a whole, government net financial liabilities increased by about 25 percentage points of GDP from the early 1980s to 1994.² Recent empirical evidence suggests that this massive buildup of government debt, which has been notably widespread across countries, has resulted in significantly higher global real interest rates and a lower world capital stock. For example, recent reduced-form evidence that links world government debt to real interest rates in individual industrial countries with integrated capital markets suggests that the growth in world government debt since the early 1980s has raised the average level of real interest rates by somewhere between 150 and 450 basis points.³

The recent empirical evidence that finds a strong link from world government debt to real interest rates is consistent with other empirical evidence that suggests that government deficits reduce national and world saving because consumers do not increase their saving by the full amount of the future increase in the tax burden that will be necessary to finance the higher level of debt. As a consequence, there will be a tendency to overconsume available resources, with resulting higher real interest rates and a lower world capital stock. This tendency to overconsume available resources in the short run not only reduces the capital stock and labor productivity, but also lowers the sustainable level of consumption in the long run.

Recent estimates of the crowding-out effects of government debt from structural models also suggest that consumers would be significantly better off in the long run if aggregate

¹Questions relating to this annex should be addressed to Mr. Laxton (ext. 35353).

²There is clear evidence emerging that market participants demand significant risk premiums in cases where the government debt process has been explosive. See, for example, Tamim Bayoumi, Morris Goldstein, and Geoffrey Woglom, "Do Credit Markets Discipline Sovereign Borrowers? Evidence from the United States," *Journal of Money Credit and Banking*, Vol. 27, (November 1995), pp. 1046–59. This annex abstracts from these issues. For a discussion of the macroeconomic implications of debt-induced country risk premiums, see the May 1995 *World Economic Outlook*, pp. 73–81.

³In particular, Vito Tanzi and Domenico Fanizza, "Fiscal Deficit and Public Debt in Industrial Countries, 1970–1994," IMF Working Paper 95/49 (May 1995) suggest that a good estimate is around 150 basis points. Using a slightly different methodology, Robert Ford and Douglas Laxton, "World Public Debt and Real Interest Rates," IMF Working Paper 95/30 (March 1995) report a range of estimates between 250 and 450 basis points.

government debt were reduced in the industrial countries. For example, in the May 1995 *World Economic Outlook*, which provided estimates of the long-run crowding-out effects of government debt from a structural model of the industrial economies, it was estimated that a 20 percentage point increase in the net debt-to-GDP ratio would result in an increase in world real interest rates of about 100 basis points.¹ These estimates are smaller than those obtained from recent reduced-form equations that provide direct links from world government debt to real interest rates, but they still suggest important crowding-out effects from government debt. For example, these results imply that a permanent increase in the world real interest rate of 100 basis points would eventually reduce the world capital stock by 10½ percent. This lower capital stock would reduce labor productivity and real wages and lower the sustainable level of world output and consumption by 3¼ and 2¼ percent, respectively. While these aggregate estimates suggest that there could be very significant benefits for the world economy if governments were successful at reducing their debt, they tend to mask the spillover effects of one country's debt on other countries.

MULTIMOD, the Fund's multicountry model, is well-designed to study such spillovers, because it captures the essential intertemporal aspects of government debt and has well-defined short- and long-run properties.² As in any modern macro model that has well-defined properties, the extent of crowding out depends critically on: (1) the degree to which consumers are assumed to count government bonds as net worth; (2) the relationship assumed between aggregate consumption and disposable income; and (3) the assumed sensitivity of aggregate consumption to changes in interest rates. If consumers are connected to all future generations by operative intergenerational transfers, increases in government debt would not crowd out private investment because consumers would change their saving rate today to prepare for tax liabilities in the future. In the economics literature, this is referred to as the Ricardian equivalence hypothesis. But empirical evidence on the response of private saving to changes in government deficits casts serious doubt on the Ricardian equivalence hypothesis.³ This empirical evidence suggests that consumers save for only some fraction of the higher future tax burden that is associated with higher levels of government debt. In effect, this implies that they treat only some portion of their holdings of government bonds as net worth because they realize that they will have to pay higher taxes in the future to service the government's interest payments on this debt.

¹See the May 1995 *World Economic Outlook*, Box 13, pp. 86–7.

²This section is a brief summary of Hamid Faruquee, Peter Isard, and Douglas Laxton, "Reducing Government Debt: Short-Run Pain Versus Long-Run Gain," IMF Working Paper (forthcoming). A simple closed economy prototype version of the model can be found in Hamid Faruquee, Douglas Laxton, and Steven Symansky, "Government Debt, Life-Cycle Income, and Liquidity Constraints: Beyond Approximate Ricardian Evidence," (unpublished mimeograph, IMF 1995).

³There is an active debate in the academic literature about the empirical relevance of Ricardian equivalence. For two recent survey papers that reach opposite conclusions see John Seater, "Ricardian Equivalence," *Journal of Economic Literature*, No. 32, (1993), pp. 142–190, and Douglas Bernheim, "Ricardian Equivalence: An Evaluation of Theory and Evidence," in *NBER Macroeconomics Annual*, (1987), ed. by Stanley Fischer (Cambridge, Massachusetts: MIT press, 1987), pp. 263–304. For policymakers, it may be best to err on the side of caution and assume that government debt reduces world saving and raises real interest rates. The reason for this is that a failure to recognize a link between government debt and real interest rates could result in extreme instabilities in the debt process—see Box 8 in main document.

There seem to be two reasons why full Ricardian equivalence does not apply in practice, and both are embodied in MULTIMOD's properties. First, because a significant fraction of consumers cannot borrow against their future labor income, their expenditure is effectively constrained by their current disposable income. Second, consumers who are constrained by wealth rather than disposable income are assumed not to care about all of the tax burden that will be passed on to future generations. Thus, wealth-constrained consumers are assumed to adjust their saving rates in response to a higher expected future tax burden, but they also realize that future generations will help share the tax burden associated with higher levels of government debt. Both imperfect capital markets and the disconnectedness of today's generation from future generations imply that higher levels of government debt will be associated with a tendency to overconsume available resources. And this tendency to overconsume will result in higher real interest rates and eventually in less capital and lower sustainable levels of real income and consumption.

The increase in interest rates needed to eliminate the tendency to overconsume available resources will depend critically on the interest sensitivity of consumption. If consumption were highly sensitive to changes in real interest rates, then it would take only a small rise in interest rates to induce consumers to adjust their saving rates in response to an increase in government debt. However, the empirical literature suggests that the interest sensitivity of consumption and saving is low.¹ Thus, this evidence also implies significant long-run crowding-out effects of government debt.

Three MULTIMOD-based fiscal scenarios were constructed to illustrate the domestic and external effects of changing government debt. In the first scenario, government debt in the United States is reduced by 5 percent of baseline nominal GDP, through reductions in government expenditures.² The second scenario is similar except that the 5 percent debt reduction is now assumed for all industrial countries except the United States. A third simulation considers the case in which debt reduction in the United States is achieved by raising taxes instead of reducing government expenditures.

Scenario 1. Debt Reduction in the United States Through Lower Expenditures

In this scenario (reported in Table 1), the reduction in government debt is achieved by reducing government expenditures by 1 percent of GDP forever and then allowing taxes to fall once the desired reduction in government debt has been achieved. Lower government expenditures in this simulation result in smaller government deficits of about 1 percent of nominal

¹The intertemporal elasticity of substitution is 0.3 in MULTIMOD. Blundell provides a survey paper on empirical estimates of this elasticity and concludes that it is likely to be less than 0.5. None of the qualitative conclusions in this annex would be affected if it was set at 0.5. See Richard Blundell, "Consumer Behaviour: Theory and Empirical Evidence: A Survey," *The Economic Journal*, Vol. 98 (March 1988) pp. 16-65.

²Specifically, the cuts in government expenditures are assumed to fall on government consumption goods and not on productive investment goods. Consequently, the expenditure reductions are assumed not to have any direct deleterious effects on the capital stock and potential output.

GDP for the first five years of the simulation and then gradually declining percentages of GDP after the desired debt reduction has been achieved.¹

The short-run effects of lower government expenditures are contractionary; real GDP in the United States declines by 1.1 percent in the first year and this induces a 0.4 percent reduction in real GDP in the other industrial countries. However, the short-run effects on aggregate demand and output will depend critically on the response of the monetary authorities. In this simulation, a monetary policy rule is employed whereby the money stock is held constant. In the short run, this results in a decline in short-term interest rates, but this is not sufficient to completely offset the contractionary effects of the fiscal contraction on real GDP. Consequently, there is a temporary decline in inflation in the first three years of the simulation and thus a lower price level in the long run. If the monetary authorities provided some monetary accommodation by reducing interest rates more in the short run and allowing the money stock to expand, this would result in even smaller contractionary effects in the short run. However, even without monetary accommodation the contractionary effects are shortlived as lower real interest rates stimulate investment demand.

Table 1. The Effects of Debt Reduction in the United States Through Lower Government Expenditures
(Percentage deviation from baseline unless otherwise noted)

	1996	1997	1998	1999	2000	2001	2002	Long Run
United States								
Real GDP	-1.1	-0.2	0.4	0.6	0.5	0.4	0.3	0.6
Consumption	-0.9	0.0	0.6	1.0	1.2	1.2	1.2	2.1
Investment	1.1	2.6	3.1	3.0	2.5	2.0	1.8	2.2
Capital stock	0.1	0.3	0.6	0.8	0.9	1.0	1.1	2.2
Inflation (GDP deflator) ¹	-0.6	-0.6	-0.2	0.1	0.2	0.2	0.1	0.0
Real long-term interest rate ¹	-0.7	-0.8	-0.7	-0.5	-0.3	-0.1	-0.1	-0.2
General government deficit/GDP ¹	-1.1	-1.1	-1.1	-1.0	-0.8	-0.5	-0.2	-0.2
Net government debt/GDP ¹	-0.1	-1.4	-2.6	-3.7	-4.4	-4.6	-4.7	-4.8
Industrial countries excluding the United States								
Real GDP	-0.4	0.0	0.2	0.2	0.2	0.2	0.2	0.4
Real long-term interest rate ¹	-0.3	-0.4	-0.3	-0.2	-0.2	-0.1	-0.1	-0.2
Developing countries								
Real GDP (creditor countries)	-0.5	0.0	0.2	0.3	0.3	0.2	0.1	0.3
Real GDP (debtor countries)	-0.3	-0.1	0.1	0.1	0.1	0.1	0.1	0.3

¹In percentage points.

¹The actual change in the debt-to-GDP ratio is slightly less than 5 percentage points because of the endogenous reaction of nominal GDP.

In the first year, real long-term interest rates decline by 70 basis points in the U.S and by 30 basis points in the other industrial countries.¹ In the long run, the lower level of world government debt reduces world real interest rates by 20 basis points. This will lower the financial cost of capital in all countries and provide an incentive for firms to invest. However, there will be an additional effect on the capital stock in the United States. Because capital taxes are distortionary in MULTIMOD, the permanent reduction in government expenditures combined with lower financing requirements on the debt will imply a permanent reduction in the tax burden.² In the United States, the combined effects of lower interest rates and less distortionary taxation of capital raises the capital stock in the long run by 2.2 percent, and this raises the long-run sustainable level of real income by 0.6 percent and the sustainable level of real consumption by 2.1 percent. In this simulation, the effects on consumption and investment are greater than those on output because the U.S government is assumed to absorb a smaller share of output and because the reduction in U.S. government debt improves the net foreign liability position of the United States. In the long run, this raises permanent income in the United States because it results in lower net interest payments to the rest of the world and higher net imports of goods and services.

As argued above, the international integration of capital markets implies that the long-term benefits of debt reduction in the United States will not be limited to the U.S. economy. Because a reduction in U.S. government debt will reduce the cost of capital in other countries, consumers in other industrial countries and the developing countries will also experience a rise in their real incomes. In fact, real GDP in the long run increases almost as much in the rest of the world as it does in the United States. In aggregate, there are permanent increases in real GDP of 0.4 percent in the other industrial countries and 0.3 percent in the developing countries as both debtor and creditor countries benefit from the increase in world saving.

Scenario 2. Debt Reduction in the Other Industrial Countries

The second scenario considers the effects of debt reduction in all countries except the United States (Table 2). Because these countries, in aggregate, are larger than the United States, the same reduction in debt-to-GDP ratios in all of these countries would be expected to produce larger changes in world saving and real interest rates. Indeed, in this case, real interest rates decline by 40 basis points in the long run, and this results in even larger permanent gains in real income. In fact, in this scenario consumers in the United States are even better off because there are smaller contractionary effects in the short run and significantly greater gains in permanent income in the long run. Very similar long-run gains in real income are realized in the developing countries. However, the reduction in real long-term interest rates in the short run implies that there are smaller short-run contractionary effects for net debtor countries than for net creditors.

¹ This simulation is meant to be illustrative. If the bond market has already anticipated future fiscal consolidation in the United States, real long-term interest rates will decline by less when the fiscal consolidation actually takes place.

² The composition of capital and labor taxes is held fixed in this simulation so both tax rates are assumed to adjust by equal amounts.

Table 2. The Effects of Debt Reduction in All Industrial Countries Except the United States
(Percentage deviation from baseline unless otherwise noted)

	1996	1997	1998	1999	2000	2001	2002	Long Run
United States								
Real GDP	-0.7	0.0	0.4	0.5	0.4	0.3	0.3	0.7
Consumption	-0.7	0.0	0.4	0.5	0.5	0.4	0.4	0.9
Investment	1.4	3.1	3.5	3.4	2.9	2.5	2.4	2.8
Capital stock	0.1	0.4	0.7	0.9	1.1	1.2	1.3	2.8
Inflation (GDP deflator) ¹	-0.7	-0.6	-0.2	0.0	0.1	0.0	-0.1	0.0
Real long-term interest rate ¹	-0.7	-0.9	-0.8	-0.6	-0.4	-0.3	-0.3	-0.4
Industrial countries excluding the United States								
Real GDP	-1.6	-0.2	0.5	0.8	0.7	0.6	0.5	1.2
Real Long-term interest rate ¹	-0.8	-1.0	-1.0	-0.8	-0.5	-0.3	-0.2	-0.4
General government deficit/GDP ¹	-1.0	-1.1	-1.1	-1.0	-0.7	-0.4	-0.2	-0.2
Net government debt/GDP ¹	0.2	-1.0	-2.2	-3.1	-3.8	-4.0	-4.0	-4.6
Developing countries								
Real GDP (creditor countries)	-0.8	0.2	0.6	0.8	0.8	0.6	0.5	0.7
Real GDP (debtor countries)	-0.4	0.0	0.2	0.3	0.3	0.3	0.3	0.8

¹In percentage points.

Scenario 3. Debt Reduction in the United States Through Higher Taxes

The third simulation illustrates the effects of debt reduction in the United States through tax increases rather than reductions in expenditures (Table 3). Again, once the desired effect on government debt has been achieved, taxes are allowed to decline to stabilize the debt-to-GDP ratio. However, because government expenditures are unchanged in this scenario, taxes decline less in the long run than they did in the first scenario.

In the third scenario, private sector demand and economic activity are stimulated significantly less than in the first scenario for two reasons. First, although the lower level of government debt implies lower taxes in the long run—because lower debt results in a smaller interest burden from government securities—the reduction in taxes is smaller because of higher government expenditures. Second, since taxes on capital are distortionary in MULTIMOD, higher taxes imply a smaller capital stock. As a consequence, a reduction in government debt achieved through higher taxes in the short run will be less beneficial in the long run than if the same debt reduction is achieved through a permanent reduction in government expenditures.

* * *

This annex has focused mainly on the spillover effects of a significant but small reduction in government debt. For countries that have very high levels of government debt, debt reduction may lead to changes in market participants' views about the riskiness of government securities and may consequently result in even larger benefits through lower risk premia in interest rates. Moreover, the scenarios reported above assume that the private sector views the permanence of the debt reduction as perfectly credible. Some recent evidence suggests that fiscal consolidation achieved through higher taxes may be less credible than the same debt reduction achieved through lower government expenditures (see Chapter III). This suggests that the short-term contractionary effects of higher taxes in the short run may be larger than those estimated in the third scenario. Finally, all of the scenarios considered here assume that monetary policy is such as to allow inflation to fall in the short run. But, if the debt-reduction policy is viewed as being credible, there may be a case, depending on the initial rate of inflation and inflationary pressures, for the monetary authorities to ease monetary conditions further in the short run in order to offset more of the short-run contractionary effects on both output and inflation.

Table 3. The Effects of Debt Reduction in the United States Through Higher Taxes
(Percentage deviation from baseline unless otherwise noted)

	1996	1997	1998	1999	2000	2001	2002	Long Run
United States								
Real GDP	-0.7	-0.2	0.2	0.3	0.3	0.2	0.1	0.2
Consumption	-1.5	-1.0	-0.6	-0.4	-0.3	-0.2	-0.2	0.4
Investment	0.5	1.2	1.6	1.6	1.4	1.1	0.9	0.9
Capital stock	0.0	0.2	0.3	0.4	0.5	0.5	0.6	0.9
Inflation (GDP deflator) ¹	-0.4	-0.4	-0.2	0.0	0.1	0.1	0.0	0.0
Real long-term interest rate ¹	-0.5	-0.6	-0.5	-0.4	-0.3	-0.2	-0.2	-0.1
General government deficit/GDP ¹	-0.8	-0.9	-1.0	-1.0	-0.9	-0.7	-0.5	-0.2
Net government debt/GDP ¹	-0.2	-1.2	-2.3	-3.3	-4.0	-4.5	-4.7	-4.9
Industrial countries excluding the United States								
Real GDP	-0.3	0.0	0.1	0.2	0.1	0.1	0.1	0.2
Real long-term interest rate ¹	-0.2	-0.3	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1
Developing countries:								
Real GDP (creditor countries)	-0.4	-0.1	0.1	0.2	0.2	0.2	0.1	0.2
Real GDP (debtor countries)	-0.2	-0.1	0.0	0.1	0.1	0.0	0.0	0.2

¹In percentage points.

Annex II. Macroeconomic and Structural Adjustment in the Middle East and North Africa¹

The economies of the Middle East and North Africa (MENA) region offer striking contrasts with considerable variations in per capita incomes and underlying economic structures.² Most countries in the region are classified as middle-income economies with per capita incomes ranging from \$1,000 to \$7,000. However, Israel, Kuwait, Qatar, and the United Arab Emirates are classified as high-income economies with an average per capita income of about \$15,000, while Egypt and the Republic of Yemen—with per capita incomes below \$1,000—are classified as low-income countries. Israel, Jordan, Lebanon, Morocco, and Tunisia have a more diversified economic structure than most countries of the region, which are characterized by a narrow production and export base, particularly the major fuel exporters—Algeria, the Islamic Republic of Iran, and the countries belonging to the Gulf Cooperation Council for Arab States (GCC).³

Because of their high dependence on mineral resources, most countries of the MENA region remain particularly vulnerable to adverse developments in their external environment (Table 1). For example, the terms of trade of all the major fuel producers have deteriorated by more than 50 percent since the reverse oil shock of 1986, which has complicated macroeconomic management and hampered economic performance. Furthermore, the reverse oil shock had important consequences for most of the other countries of the region, particularly Egypt, Jordan, Lebanon, the Republic of Yemen, and the Syrian Arab Republic, because a large share of their foreign exchange earnings derives from the GCC countries in the form of workers' remittances. Also, the regional crisis of the early 1990s triggered by Iraq's invasion of Kuwait resulted in a marked deterioration in the fiscal positions of several GCC countries while having a major impact on the flows of aid and workers' remittances to other countries of the MENA region.

¹This annex was prepared by the IMF's Middle East Department. Questions relating to this annex should be addressed to Mr. Féler (ext. 34037) or Mr. Kanaan (ext. 34001).

²The coverage of MENA in this annex includes the economies of the Middle East country grouping used in *International Financial Statistics* plus the three North African countries of Algeria, Morocco, and Tunisia. Iraq and the Libyan Jamahiriya however, are excluded from the analysis because of data limitations.

³Fuel exporters are defined as countries whose fuel exports account for over 50 percent of total exports of goods and services plus workers' remittances. The GCC includes Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. Although Bahrain does not technically meet the above definition of fuel exporters, it is closely interconnected, and has many similarities with other GCC countries and is therefore included among the group of fuel exporters for the present analysis.

Table 1. Middle East and North Africa: Revenue from Mineral Resources
(In percent of total revenue)

Country	Government Revenue ¹	Export Revenue ^{1,2}
Algeria	58.6	78.9
Bahrain	63.2	29.3 ³
Egypt	29.5 ⁴	10.4
Iran	58.3	73.4
Israel	—	—
Jordan	0.3	6.8 ⁵
Kuwait	68.1 ⁶	53.2 ⁶
Lebanon	—	—
Morocco	0.8	9.8 ⁶
Oman	72.9	87.8 ⁶
Qatar	69.6	75.3 ⁶
Saudi Arabia	74.8	74.5
Syria	15.9	34.6
Tunisia	5.4	7.9
United Arab Emirates	79.1	52.7 ⁶
Yemen	28.2	43.4

¹1993/94 averages, unless otherwise indicated.

²Exports of goods and services plus workers remittances

³1992 average.

⁴Including Suez Canal receipts.

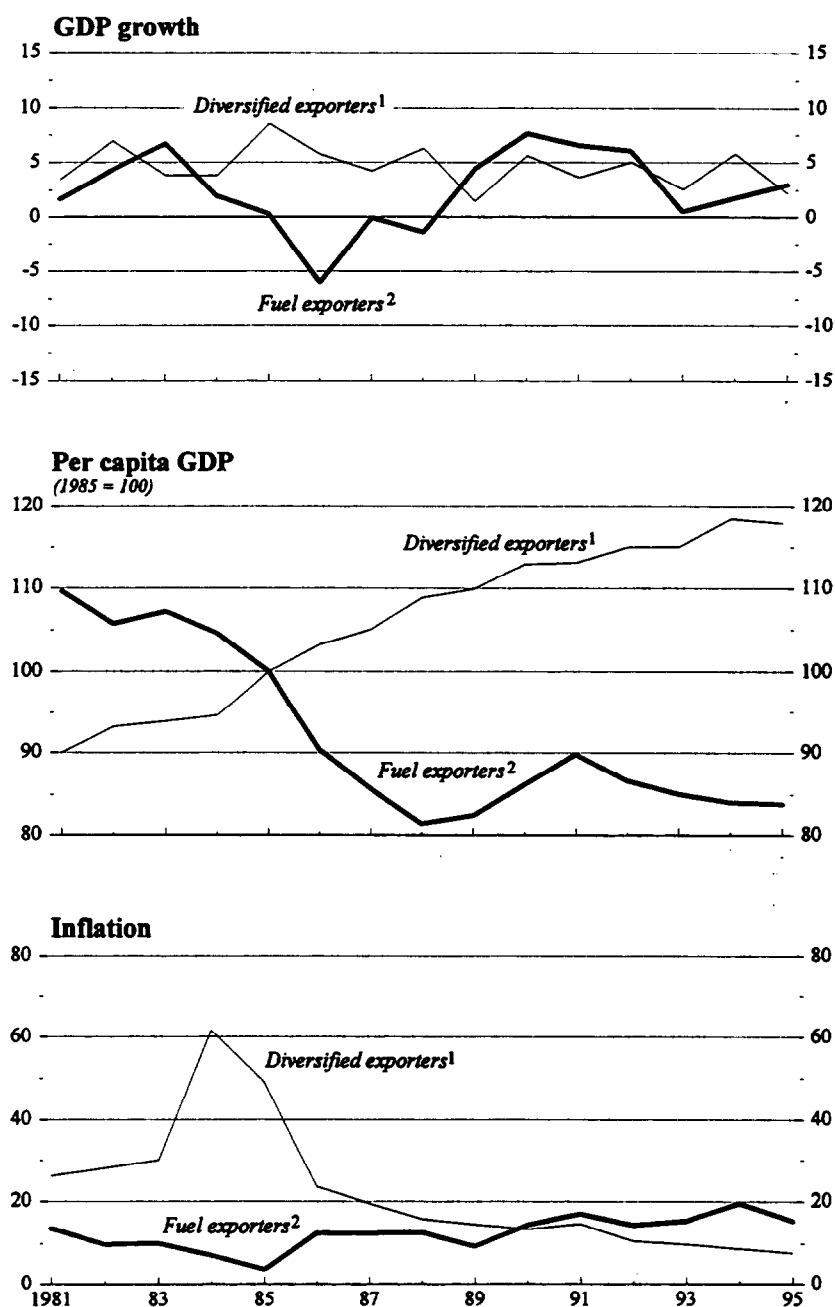
⁵1992/94 average.

⁶1992/93 average.

Overall economic performance over the last decade and a half has been disappointing, in particular among fuel exporting countries where real per capita GDP fell by 20 percent on average from 1981 to 1995 (Chart 1). The fall in per capita GDP coincided with weak oil market conditions, the widening of fiscal and current account imbalances, and the accumulation of external debt (Charts 2 and 3). However, a number of countries have achieved important progress, particularly the more diversified exporters, in strengthening growth performance since the mid-1980s. In addition, most MENA countries have reassessed their economic policy strategy and initiated reforms aimed at reducing internal and external imbalances while addressing structural weaknesses. The main challenge faced by most MENA countries in the period ahead is

Chart 1. Middle East and North Africa: Economic Performance

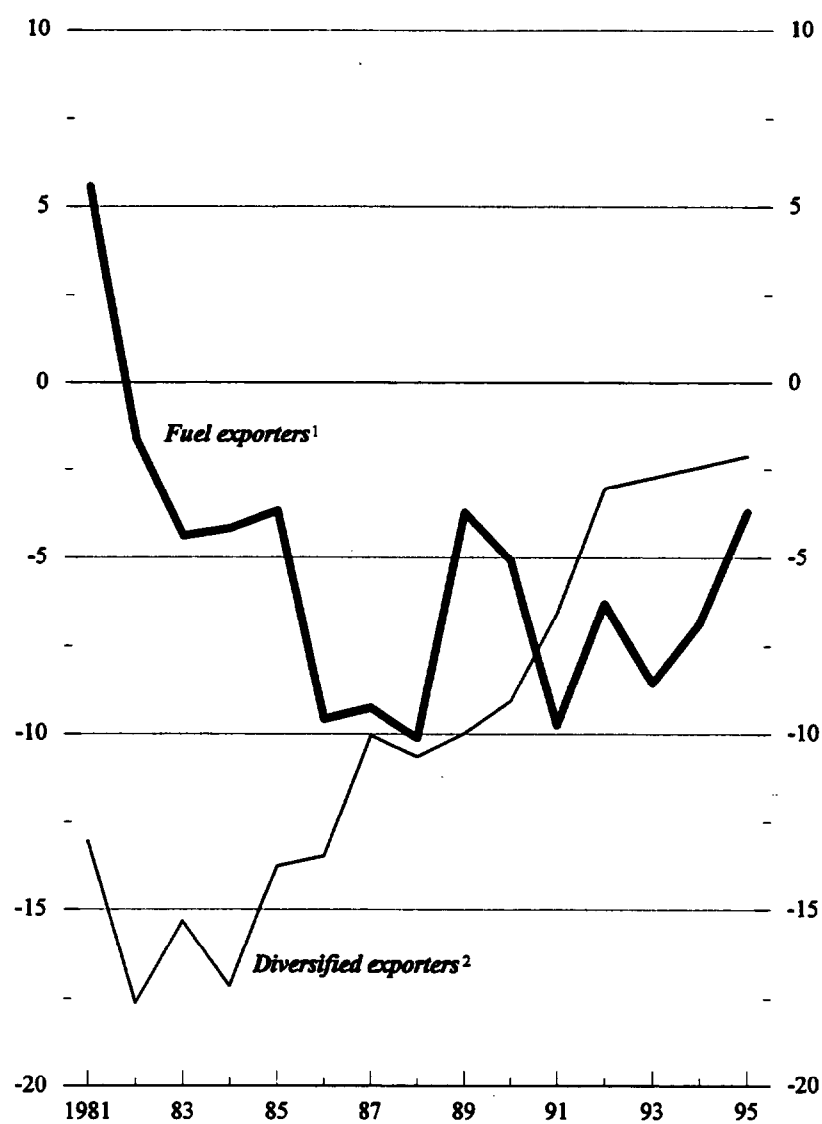
(In percent change unless otherwise noted)



¹Egypt, Israel, Jordan, Morocco, Syria, and Tunisia.

²Algeria, Bahrain, Iran, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates.

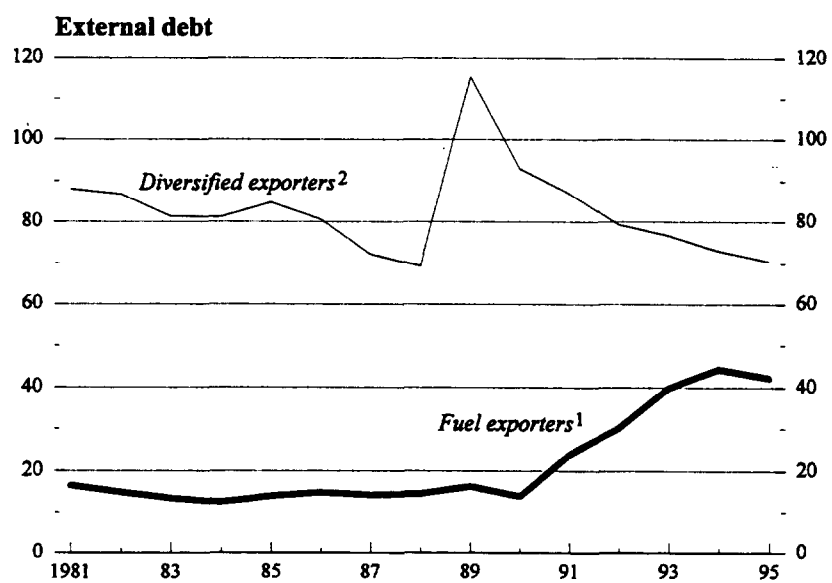
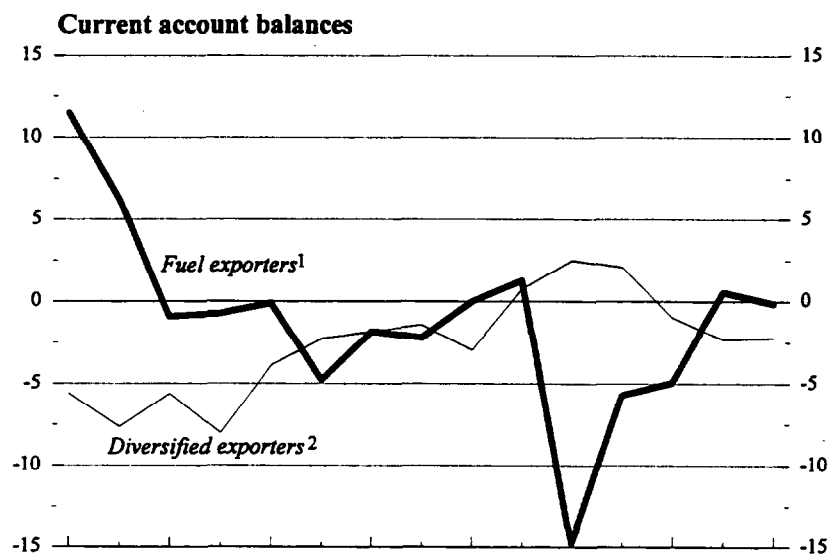
Chart 2. Middle East and North Africa: Fiscal Balances
(In percent of GDP)



¹Algeria, Bahrain, Iran, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates.

²Egypt, Israel, Jordan, Morocco, Syria, and Tunisia.

Chart 3. Middle East and North Africa: External Balances
(In percent of GDP)



¹Algeria, Bahrain, Iran, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates.
²Egypt, Israel, Jordan, Morocco, Syria, and Tunisia.

the intensification and sustained implementation of these reforms with a view to reaping the benefits of globalization and favorable regional developments.¹

The Adjustment Experience

Most of the economies of the MENA region have suffered adverse exogenous shocks since 1986 onward, including a terms of trade deterioration, several episodes of war and civil strife, and, in the North African countries and the Republic of Yemen, recurrent droughts. The nature, intensity, and timing of these shocks, and the associated policy responses, have differed significantly among countries. The fuel exporters have faced a major adjustment challenge as a result of the erosion of real oil prices since the early 1980s. The associated terms of trade deterioration and resulting macroeconomic instability were much more severe than those experienced over the same period by the other MENA countries with a more diversified economic and export base (Chart 4).

Fuel Exporting Economies

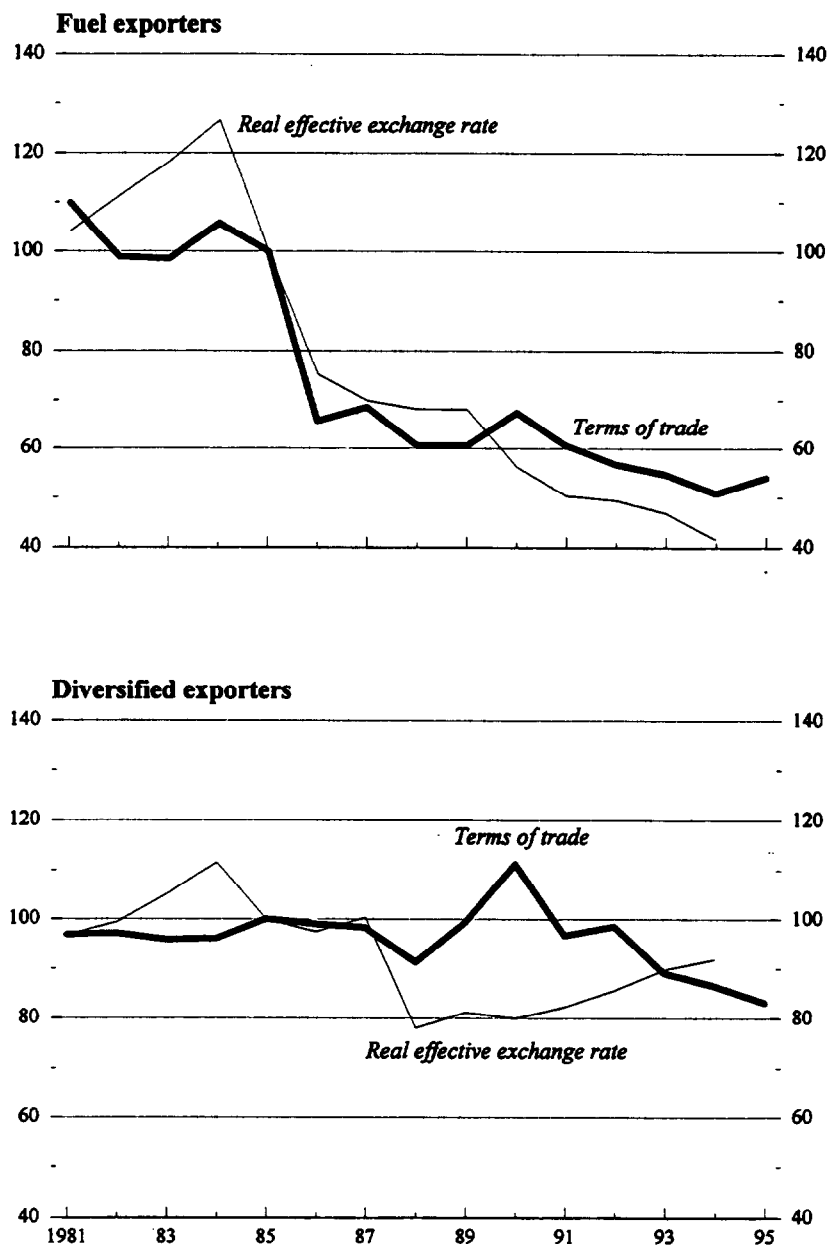
MENA's fuel exporting countries are heavily dependent on hydrocarbon export proceeds as a source of both foreign exchange and budgetary revenue, making these countries particularly vulnerable to fluctuations in world oil prices. Because of the relatively limited scope of the nonhydrocarbon sector and the narrow domestic tax base in most of these countries, budgetary revenue fell sharply from about 39 percent of GDP in 1981-85, to about 29 percent of GDP during 1986-90. Partly offsetting this revenue contraction, government spending declined by only about 2 to 3 percentage points of GDP over the same periods, mainly as a result of cuts in capital expenditure.² The average fiscal deficit widened markedly from 1½ percent of GDP in 1981-85 to 8 percent of GDP in 1986-90. In the early 1990s, the regional crisis resulted in a marked increase in public expenditure in some GCC countries. Because of a subsequent decline in budgetary revenue associated with falling oil prices, and notwithstanding a curtailment in public spending, budget deficits have remained excessive and averaged 9 percent of GDP for the group of fuel exporters in 1991-95. The economic implications of these fiscal imbalances have differed significantly between the GCC countries on the one hand, and Algeria and the Islamic Republic of Iran on the other hand, mainly because of the differing degrees of outward orientation and levels of foreign exchange reserves of these countries.

The *GCC countries* have traditionally pegged their currencies to the U.S. dollar and maintained their trade and payment systems free of current and capital account restrictions. As a

¹Recent analyses of macroeconomic and structural issues in the MENA region are also provided in Mohamed El-Erian and Shamsuddin Tareq, "Economic Reform in the Arab Countries: A Review of Structural Issues," in *Economic Development of Arab Countries*, ed. by Said El-Naggar (Washington: International Monetary Fund, 1993), pp. 26-50; International Monetary Fund, *Macroeconomic of the Middle East and North Africa: Exploiting Potential for Growth and Financial Stability* (Washington, 1995); and The World Bank, *Claiming the Future: Choosing Prosperity in the Middle East and North Africa* (Washington, 1995).

²The decline in expenditure was more pronounced in the case of the Islamic Republic of Iran, largely as a result of the cessation of the war with Iraq in 1988.

Chart 4. Middle East and North Africa: External Conditions
(Indices, 1985 = 100)



result, inflation in these countries was not affected by aggregate demand pressures stemming from the expansionary fiscal stance in the second half of the 1980s. These pressures, however, contributed to a substantial deterioration of the countries' external current account position, which shrunk from a surplus of 7 percent of GDP on average in 1981-85 to near balance in 1986-90.

In the first half of the 1990s, most of the GCC countries stepped up their efforts at expenditure restraint. For instance, government spending in Saudi Arabia was reduced from 54 percent of GDP in 1986-90 to 44 percent of GDP in 1991-95. This reduction reflected broad-based cuts in expenditure, in particular outlays on services and supplies, operations and maintenance, and subsidies.¹ These efforts, however, proved insufficient to bring down fiscal deficits to the low levels that had prevailed in the early 1980s. The persistence of large fiscal imbalances contributed to a shift of the external current account balance from a surplus to a deficit of about 10 percent of GDP on average in 1991-95. The increasing reliance on foreign savings to sustain public expenditure levels was associated with a substantial rise of external debt from 11 percent of GDP on average in 1986-90 to 37 percent of GDP on average in 1991-95. This increase would have been much higher were it not for a shift in government borrowing, largely through a drawing down of the foreign asset positions of nongovernment residents. However, there was also a rapid buildup of public debt as a ratio to GDP, which, in the case of Saudi Arabia, has risen from about 50 percent to more than 80 percent over the last three years. A strengthening of efforts to reduce primary deficits and improve growth performance through structural reforms will be needed to reverse this trend.

In contrast to the GCC countries, the nonhydrocarbon sector has played a much more important role in the economies of *Algeria* and *the Islamic Republic of Iran*. This has reflected in part the import-substitution strategy originally pursued by these two countries whose populations and domestic markets are much larger than those of the GCC countries. The import-substitution policy also favored less open trade and payment systems than other MENA fuel exporters, which allowed Algeria and the Islamic Republic of Iran to avoid a significant deterioration in their current account positions despite the widening of their fiscal imbalances in the second half of the 1980s. On the other hand, demand pressures stemming from fiscal imbalances gave rise to substantial inflationary pressures that, despite pervasive price controls, translated into an increase in the rate of inflation from an average of 14 percent in 1981-85 to an average of 19 percent in 1986-90. The persistence of internal and external imbalances and the associated buildup of external debt prompted these two countries in the early 1990s to initiate some steps toward tighter demand management policies and to implement key structural reforms, including unifying exchange rates and liberalizing external current transactions. These efforts were undertaken in the context of an IMF-supported adjustment program in Algeria in 1991. They were undermined, however, by wage policies and, mainly as result of insufficient commitment to reform, could not be sustained for long.

¹Kuwait, however, sharply increased its government expenditure from 55 percent of GDP in 1986-90 to about 100 percent of GDP in 1991-95, mainly for reconstruction following the regional crisis.

The reimposition of an array of trade and exchange restrictions and a significant relaxation of fiscal and monetary policies in Algeria in 1992–93, as well as in the Islamic Republic of Iran in 1993–94 in the context of a difficult external environment, had a detrimental effect on economic performance. Per capita income levels continued to decline while inflation increased further to 25 percent on average in 1991–95. The deterioration compelled Algeria to formulate, in 1994, a more comprehensive program of macroeconomic stabilization and structural reform. This program, which has been supported by the Fund, has been predicated upon tight demand-management policies and wage restraint, as well as a realignment of relative prices, the removal of trade and payments restrictions, and the establishment of market mechanisms with a view to giving the private sector a greater role in the economy. As a result, the decline in economic activity has been arrested and the fiscal deficit has shrunk from about 9 percent of GDP in 1993 to about 1 percent in 1995. The Islamic Republic of Iran has also been able to reduce significantly its budget deficit in the last two years, which has contributed to a decline in inflation, but has maintained trade and payments restrictions in the face of continued tight external constraints.

Diversified Exporters

The more diversified exporters form a rather heterogeneous group of countries that differ significantly with regard to the comprehensiveness and consistency of their adjustment efforts. Israel, Jordan, Morocco, and Tunisia launched early on comprehensive programs of macroeconomic stabilization and structural reforms in the 1980s. These policies have been sustained over time, contributing to a reduction of both internal and external imbalances, as well as to a substantial overall improvement in economic performance. Egypt and the Syrian Arab Republic have also undertaken reforms, although later (early 1990s) and more gradually. Lebanon and the Republic of Yemen have only recently been in a position to start tackling their macroeconomic imbalances and structural weaknesses, following the ending of protracted periods of civil strife and political instability that severely impaired economic policy formulation and disrupted economic activity.

During the 1970's, *Israel, Jordan, Morocco, and Tunisia* pursued an inward-oriented development strategy characterized by pervasive government controls and lax financial policies. The strategy proved unsustainable in the early 1980s and both internal and external imbalances widened. Failure to restrain public expenditure in the face of declining revenues resulted in a significant widening of their fiscal deficits, which averaged over 14 percent of GDP during 1980–85. Growing fiscal imbalances contributed to both rising inflation and a worsening in their external positions: external debt burdens reached more than 90 percent of GDP on average during the first half of the 1980s.

In the second half of the 1980s, Morocco, Tunisia, and Israel, and later Jordan, reassessed their policy strategy and tried to redress their fiscal positions and reduce government absorption, first by restraining both current and capital expenditure, and in a second stage, by reforming their tax systems. The tax reforms entailed a widening of the tax base, improving the elasticity of tax systems, and introducing less distortionary taxes, including the value-added tax (Israel, Morocco, and Tunisia) or a general sales tax (Jordan). The tightening of fiscal policy led to a steep decline in budget deficits from an average of 14 percent of GDP in 1981–85 to about 5 percent of GDP in 1986–90 and 3 percent of GDP in 1991–95. At the same time the introduction of market-oriented

treasury debt instruments allowed for an increased reliance on noninflationary sources of deficit financing. The improvement in fiscal positions has been supported by nonaccommodating monetary policies and has allowed a shift in credit to support private sector activity.

These policies contributed to a substantial decline in inflation, especially in Israel where the rate of inflation fell from an average of over 200 percent a year during 1981–85 to under 25 percent during 1986–90 and 13 percent in 1991–95. In Jordan, Morocco, and Tunisia, average inflation fell from 9 percent in 1981–85 to about 6 percent in 1986–95. In addition to their anti-inflationary fiscal and monetary policies, broadly flexible exchange rate policies enabled these countries to respond to a deterioration of their average terms of trade of about 12 percent from 1986 to 1995 and avoid any significant misalignment of real exchange rates.

On the supply side, all four countries have taken wide-ranging actions to liberalize the incentive structure and reform the regulatory framework. Important steps have been taken to liberalize foreign trade, which was critical for the promotion of exports and to enhance domestic competition, in particular by virtually abolishing quantitative restrictions and reducing effective protection. They have also made significant progress in decontrolling domestic prices. Ambitious privatization programs have been launched (Jordan, Morocco, Tunisia) to widen the scope for private sector activity and help reduce the burden of public enterprises on governments' finances. Financial sector reforms have facilitated the financing of private sector investment. Interest rates have been largely deregulated and compulsory credit allocation schemes eliminated, while banking legislation has been modernized and prudential standards brought closer to international norms.

The substantial reduction of internal imbalances and the liberalization of the incentive structure have enabled these countries to attain external current account convertibility while at the same time allowing for the accumulation of foreign exchange reserves. In addition, some progress with the phasing out of restrictions on longer-term capital account transactions has helped to attract private foreign investment.

As a result of the reforms, the share of saving and investment in GDP increased. There was also a substantial increase in the efficiency of investment. Consequently, economic activity accelerated significantly, with real GDP growth increasing from 3½ percent a year in the first half of the 1980s to almost 5 percent in 1991–95. This translated into a more limited, albeit significant, increase in the growth of per capita income from 1.1 percent a year in 1981–85 to 1.7 percent in 1991–95, reflecting in part the impact of the large number of Palestinian workers who returned from the GCC countries to Jordan following the Gulf crisis of 1990–91 and of emigrants from the former Soviet Union who moved to Israel.

Egypt and the Syrian Arab Republic undertook steps to liberalize their economies in the early 1990s, following several decades of extensive public ownership in most areas of economic activity and inward-oriented trade policies. Nevertheless, the public sector still plays a pervasive role in both countries, not only in the hydrocarbon sector but also in industry where public enterprises account for more than two thirds of output.

In the second half of the 1980s, *Egypt* faced large macroeconomic imbalances, including an average budget deficit of 18 percent of GDP, an average inflation rate of about 20 percent, and an external debt of more than 90 percent of GDP. Following several attempts at tackling these imbalances and liberalizing the economy, Egypt embarked, in 1991, on a program of macroeconomic stabilization and structural reform supported by the IMF. Under this program substantial progress in fiscal adjustment was achieved, coupled with a strengthening of the budget through the introduction of a general sales tax and a global income tax reform, and significant efforts at expenditure restraint. Reflecting these measures, as well higher oil revenues and Suez canal receipts, the fiscal deficit declined steadily from 17 percent of GDP in 1990/91 to less than 2 percent of GDP in 1994/95, contributing to a decline in the rate of inflation to about 9 percent in 1994/95. The intensified adjustment efforts from 1991 onward, combined with debt relief and a surge in capital inflows, have also resulted in substantial accumulation of external reserves. Egypt has also undertaken a number of structural reforms toward liberalizing the trade system, eliminating input and consumer good subsidies, and privatizing public sector companies. Nevertheless, real per capita GDP has declined steadily since the early 1990s, owing to weaknesses in private sector activity and low investment.

Since the early 1990s, the *Syrian Arab Republic's* ongoing transition from a tightly regulated economy dominated by the public sector to a market based economy driven by the private sector, has centered on promoting private investment, foreign trade, a more realistic pricing of foreign exchange and increased price flexibility. The realignment of relative prices has induced a strong supply response and a significant improvement in growth performance, with output growing on average at 7 percent a year during 1991–95. The Syrian Arab Republic's liberalization efforts, however, have not been backed by sufficient fiscal adjustment. High public expenditure resulted in budgetary pressures that were intensified by the drying up of external financing following the 1990–91 regional crisis and the weakening of oil prices. Thus, the fiscal balance shifted from a surplus of about 2 percent of GDP in 1992 to a deficit of about 4 percent in 1995. The associated aggregate demand pressures have contributed to a deterioration of the external current account position from a surplus of 8 percent of GDP in 1991–92 to a deficit of 3½ percent of GDP in 1993–95.

In recent years, economic difficulties in *the Republic of Yemen* have been exacerbated by a sharp decline in external assistance and workers' remittances following the breakup of the former Soviet Union and the Persian Gulf war and also by a terms of trade deterioration. Civil strife, in the wake of the country's unification, limited the government's capacity to respond to these external factors and burdened the economy with rehabilitation costs. The resolution of the political conflict in late 1994 was quickly followed, in 1995, by determined actions to adjust the course of demand-management policies and initiate structural reforms. These initial measures were reinforced by the formulation, for 1996, of a comprehensive adjustment program incorporating forceful stabilization policies and a broad set of far-reaching structural reforms. This program[, which is expected to be supported by the IMF,] aims at achieving higher growth in the nonhydrocarbon sector while quickly reducing inflation and progressing toward the restoration of external sector viability. The core policy actions recently initiated emphasize a further realignment and liberalization of relative prices, including the exchange rate and interest rates, a substantial tightening of the fiscal stance, a major liberalization of the trade and payments system and an aggressive privatization program.

Lebanon's civil war, which spanned 15 years (1975–90), exacted a heavy toll in human and economic terms. Per capita income is estimated to have fallen by more than 50 percent during that period. The end of the hostilities in 1990 and the restoration of political stability allowed for concerted economic policies to ensure a sustainable recovery of the economy. In addition to a pickup in real GDP growth, stabilization efforts centered on a nominal exchange rate anchor that resulted in a sharp decline in inflation and an accumulation of foreign exchange reserves to comfortable levels. Notwithstanding the need to finance a large reconstruction program, further reduction in the budget deficit will be necessary to reach the authorities' stabilization objectives.

Challenges for the Period Ahead

The MENA region has considerable natural, human, and financial resources; it is strategically located, has long-standing economic and financial links with industrial countries, and has considerable trading skills. To realize more fully this potential, there has been a broad reassessment by all MENA countries of their economic strategy toward attaining high and sustainable growth. Consequently, the focus has turned to achieving both a more stable macroeconomic environment and more efficient resource allocation.

So far, the progress toward these objectives has varied substantially among countries with regard to the timeliness, depth, and consistency of adjustment policies. The challenges for the period ahead are bound to vary significantly among countries in accordance with these differences and the results of past adjustment efforts. In addition, they will also depend, to an important degree, on future developments in the external environment, including, in particular (1) the prospects for Arab-Israeli peace;¹ (2) the opportunities for a closer integration with the European Union under the Mediterranean Basin Initiative;² (3) the economic outlook in industrial countries, and, 4) the evolution of world hydrocarbon prices, which could be subject to significant downward pressures as a result of developments in the countries of the former Soviet Union and Iraq's possible return to the oil market.

Current projections indicate the continuation of a relatively moderate expansion of economic activity in industrial countries and point to a rather subdued outlook for oil prices over the next two years. Nevertheless, the short-term outlook for the MENA region is expected to improve. Real GDP growth should average about 3½ percent in 1996–97, allowing for gains in per capita incomes of 1 percent a year. Concurrently, average inflation is expected to slow down to 6½ percent while the external current account should narrow to 1½ percent of GDP by 1997. To realize these projections and strengthen their potential for achieving sustainable economic growth, all MENA countries will need to act forcefully to address macroeconomic imbalances and structural weaknesses that have limited saving and investment.

¹See Said El-Naggar and Mohamed El-Erian, "The Economic Implications of a Comprehensive Peace in the Middle East," in *The Economics of the Middle East Peace*, ed. by Stanley Fischer, Dani Rodrik, and Elias Tuma (Cambridge, Massachusetts: MIT Press, 1993).

²For more details see Commission of the European Communities, "Strengthening the Euro-Mediterranean Policy of the European Union: Implementing a Euro-Mediterranean Partnership," COM (1995–72) (Brussels, August 1995).

First, significant fiscal imbalances remain in many countries, especially among the GCC members where they have contributed to both large external account deficits and mounting public debt in recent years. Fuel exporting countries need to broaden their domestic tax base, including through the adoption of broad-based domestic taxes to reduce the dependence of budgetary revenues on hydrocarbon earnings. Similarly, among the more diversified exporters, Lebanon, the Syrian Arab Republic, and the Republic of Yemen would benefit from adopting broader-based domestic taxes, while Jordan, Morocco, and Tunisia would need to strengthen alternative revenue sources with a view to compensating for the losses in trade taxes expected to result from the implementation of the agreements with the European Union. On the expenditure side, certain MENA countries should aim at targeting better the remaining generalized subsidies to the most vulnerable population groups and at strengthening public education to reduce poverty and facilitate these countries' integration in the world economy. This should be accompanied by civil service reform to reduce the government wage bill and improve the efficiency of government operations. The prospects for a broadening of the peace process between the Arab countries and Israel should also increase the scope for significant reductions in defense spending over time.

Second, MENA countries will need to intensify privatization programs to revitalize their manufacturing sectors and limit government operations to the efficient provision of public goods. While tangible progress has already been achieved in some countries, such as Morocco, the need for promoting the role of the private sector is particularly pressing for Algeria, Egypt, the Islamic Republic of Iran, and the Syrian Arab Republic where industrial sectors remain largely dominated by public enterprises.

Third, stepped-up efforts are also needed to scale back regulations and remove distortions in both goods and factor markets to improve the efficiency of resource allocation. The external trade and payments systems of several MENA countries are still saddled with restrictions, including excessive tariffs and pervasive quantitative restrictions. While the economies of the GCC are relatively open, trade reform is needed in several other countries, such as Egypt, the Islamic Republic of Iran, and the Syrian Arab Republic. For Israel, Jordan, Morocco, and Tunisia, which have already committed to join a free-trade area with the European Union, dismantling trade barriers with third countries will help to minimize the risk of trade diversion. Regarding factor markets, measures must be adopted to facilitate labor mobility within certain countries and within the region to maximize the creation of employment opportunities for a rapidly growing labor force in most MENA countries. Moreover, further steps should be taken to strengthen financial intermediation in most non-GCC countries, through the removal of controls on rates of return and credit allocation—particularly in the Islamic Republic of Iran and the Syrian Arab Republic—the promotion of greater competition among financial institutions and the strengthening of prudential regulations.

Fourth, there is a need for greater diversification of the nonhydrocarbon export base, and thereby reduce the excessive vulnerability of most MENA countries to adverse terms of trade movements. Such a need is particularly acute for countries such as Algeria, Egypt, the Islamic Republic of Iran, and the Syrian Arab Republic, which have the capacity to develop strong export

driven growth strategies.¹ The latter two countries would also benefit from further liberalization of their foreign exchange markets. Beyond these structural measures, sustaining reform programs will require a stable macroeconomic environment with consistent fiscal, monetary, and exchange rate policies.

¹For an analysis of the sources of comparative advantage in these countries, see The World Bank, "Claiming the Future," pp. 65-7.

