## WORKING PAPERS

# A RMSM-X Model for Turkey 

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The theoretical design of a RMSM-X model, its interaction with a debt module, and the construction of a consistent historical data set is applied to Turkey.



This paper - a joint product of the Macroeconomic Adjustment and Growth Division, Country Economics Department and the Country Operations Division, Country Department I, Europe, Middle East, and North Africa Regional Office - is part of a larger effort in PRE to assist in the design and analysis of macrocconomic policies. Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington DC 20433. Please contact Sanjev Aggarwal, room, N11-019, extension 39176 ( 59 pages plus 105 pages of appendices).

To improve the Bank's macroeconomic modeling capabilities, the Country Economics Department is developing a continuum of macro models referred to as RMSM-X and RMSM-XX. These models share a common accounting framework that ensures economic consistency among economic sectors.

RMSM-X is the simplest model, with an elementary economic structure. The RMSM-XX more richly specifies the behavioral links among economic variables.

Everaert, Garcia-Pinto, and Ventura show in detail how to specify the budget constraints and market clearing conditions in a RMSM-X model for Turkey. They include six sectors: the Government, the State Economic Enterprises, the Central Bank, the domestic banking system, the nonfinancial private sector, and the foreign sector. The different markets consist of a domestically produced and exportable good, an importable, a money market, a domestic credit market, a quasi-market for Central Bank Credit, and a foreign asset market. This model can be used to project the behavior of these sectors in a simple manner, linked through the various markets.

They explain four possible closures of the model. One choice depends on whether policy variables are exogenous (the positive closure) or
targets on economic variables are given and policy variables are solved for (the normative closure). Under both closures, a second choice, depending on whether an external credit constraint or target is binding or not, is implemented.

The interaction of the projection model and a debt module is explained in detail. The debt module, which in the future should become automatically linked to the DRS, allows the user to experiment with different forms of debt restructuring in a simple manner. The debt module also allows to calculate the supply schedule for foreign credit and to project in detail (by creditor) debt stocks, capital flows, and interist payments.

Finally, since the model is based on the concept of a consistent flow of funds among all the specified sectors, it is necessary to build a consistent historical data set for at least the base year. Appendix 1 explains how such a set of consistent macrocconomic data was constructed.

The RMSM-X model presented in this paper will be extended to include more estimated behavioral relations (RMSM-XX) for future operational work on Turkcy. Anplications of the RMSM-X model have also been developed for Colombia, Zimbabwe, Chile, and the Philippines.

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APPENDIX 2: Historical Data add Output of the Modelcontributions and to Yavuz Arinsoy, Vittorio Corbo, Nihal Ergun,John Holsen and Luis Serven for their useful comments.

The predominance of adjustment problems in LDCs since the early 1980s has prompted the need for extensive use of adjustment lending by the World Bank. In order to assist the design and analysis of macroeconomic policies, CECMG has initiated a major effort to enhance the macroeconomic modelling capabilities of the Bank. A continuw of macro models is being developed which are referred to as RMSM-X and RMSM-XX. These models share a common accounting framework that ensures economic consistency among the sectors of the economy. The level of sophistication of the behavioral structure is what distinguishes the different classes of models. The RMSM-X stands as the simplest model, with an elementary economic structure. The RMSM-XX is a step forward in the sense that it includes a richer specification of the links among economic variables.

The present pape: , which is the result of a joint effort by staff of EMICO and CECMG, presents the Turkey application of the RYSM-X model. This is only the first stage of a larger project involving the construction of a RMSM-XX model for Turkey. Given the macroeconomic management problems facing Turkey at present and the Bank's heavy involvement in all sectors of its economy, the development of these analytical tools is quite timely. They will be used extensively in EM1CO's future economic work.

The RMSM-X model presented here builds on Holsen (1989a, 1989b) and Serven and Ventura (1989b). Other applications of this model for Colombia, Zimbabwe, Chile and Philippines are: Easterly et al. (1990); Kahdr et al.(1989); Serven (1990); and Riveras et
al. (1989), respectively.
The paper is organized as follows. First, we present an overview of the system defined by the RMSM-X model, the Debt module (DM) and the data base. Second, we provide a detailed explanation of the theoretical model. We carefully specify its underlying economic structure in terms of both budget constraints for the different economic agents and market specificaticn. We also discuss the implementation of alternative closure rules. Third, we present the Debt Module. As explained below, the DM allows us to calculate the supply schedule for foreign credit and to project in detail debt stocks, capital flows and interest payments by creditor.

Since the RMSM-X model is based upon the concept of a consistent flow-of-funds, a prerequisite for the empirical application of the model is the construct.ion of a consistent historical data set at least for the base year. Appendix 1 explains how we constructed such a set of consistent macroeconomic data. Appendix 2 presents a complete set of historical data as well as the output of the model, including the debt module.

## I. AN OVERVIEN OF THE SYSTEM

The Turkey Model is an integrated system that includes four components: Historical Data, the RMSM-X macroeconomic model, the Debt Module and Standard Tables. All these components have been organized in several, linked JAVELIN-models. Figure 1 gives a schematic view of their organization. Technically, the transfer of data among the different JAVELIN mcdels is done with the special feature called the "Import Data Building Block." This reduces the effort of transferring the data between models to a few keystrokes.

## FIGURE 1: DATA FLOW CHART



In $t_{1} e$ HISTORICAL DATA model we copy each of the original data tables obtained from Turkish sources in a separate worksheet. We design formulas to map the original data in the equired flow of funds format. In this way future updates, revisions, or additional historical data collection are rendered automatic. It is sufficient to add or change the data in the original worksheet and the model will automatically (re-) calculate a consistent flow of funds. Separating the data collection and transformation from the actual projection model not only has the advantage of saving space and increasing speed but it avoids the potential confusion that might arise from the difference between the historical closure of the model (where the private sector is the residual, and the simulation closure (solving for selected endogenous variables). Appendix $I$ explains in detail the construction of the historical flow of funds and the mapping of actual data into it.

The RMSM-X projection model only requires historical data for a few periods in order to provide initial values for the simulations. In most cases, the base year data are sufficient since the economic relations between two variables seldom exceed a one year lag. Sometimes if parameters are calibrated on historical data it may be useful to add a few more historical periods in order to check the stability of these parameters. A detailed description of the RYSM-X model is provided in the next section of the paper.

External debt and creditworthiness are key variables for the country as well as for the Bank's work. Therefore, we decided to
introdure separately a DEBT MODULE that details the interaction between the country and the foreign credit market. The partıcular details of this model are discussed in section III. The basic input into the DEBT model is the existing pipeline debt by creditor as reported in the Bank's Debt Report System (DRS) and the terms and conditions of new debt (maturity and grace periods, interest rate and time profile of gross disbursements). At this stage the transfer of data between the DRS and JAVELIN is not yet automatic but this problem will be resolved in the near future.

The nature of the transfer of data between the DEBT model and the RUSM-X model depends on the circumstances facing the country. If the country faces a foreign borrowing constraint the total available credit is sent from the DEBT model to RMSM-X as well as the interest rate. No data return from RMSM-X to the $\operatorname{LEBT}$ model. If the country's foreign horrowing is not constrained, the DEBT model provides the interest rate to the RMSM-X. The RMSM-X model returns total demand for credit which is then matched by the DEBT model's pipeline and a gap. The gap is distributed across foreign creditors in the DEBT model, based on a set of assumptions.

Finaily, we design standard output required for various purposes in a STANDARI) TABLES model. This includes the standard attachment to CSPs, CRMs and other Bank documents. The STANDARD TABLES model imports the data from the three other models. Part of the historical data come from the HISTORICAL DATA model and the DEBT model. Projections come from the RMSM-X model and the DEBT module.
II. THE RMSK-X MODEL

In this section we describe the RMSM-X model for Turkey, We start by presenting the corsistency framework. Then, we append a simple behavioral structure to produce projections. Finally, we discuss alternative closure rules.

## II.1. The Consistency Framework

The RMSM-X model assures consistency in the projections by requiring that the budget constraints for the six ecoromic sectors are satisfied. Each budget constraint consists of two statements of the type:

CURRENT INCOME - CURRENT EXPENDITURE = NET SAVINGS
NET SAVINGS = NET ACCUMULATION OF WEALTH

The first statement is the current account of the sector, while the second is the capital account. These two equations can be reduced to a single expression:

CURRENT INCOME - CURRENT EXPENDITURE = NET ACCUMULATION OF WEALTH

In the rest of this suisection, we present the budget constraints for each of the economic agents or sectors. We omit the time subscript for current end-of-period stocks and for flows occurring during the current period. All budget constraints are defined in nominal terms. The symbols used are expiained in Table 1.

The economic importance of the non-financial SEEs in Turkey leads us to distinguigh them from other components of the nonfinancial public sector. Yence, we proceeded to decompose the nonfinancial public sector in two: budget (b) and non-financial SEEs (0). The former includes the central government, local governments, social security, extra-budgetary funds and revolving funds. As it will be shown shortly, the financial public sector, composed of the central bank and the financial-SEEs, has been incorporated into the financial sector.

The current accounts of the budget and non-iinancial SEEs can he written as follows:
(2.1) $\quad O F I_{b}+P \& L_{c}+T I+T D_{o}+T D_{p}+E \cdot T^{*}{ }_{f b}-S U B-T_{b o}-T_{b p}-$ $-i_{R} \cdot C_{b-1}-i_{C}{ }^{\bullet} B_{b-1}-E \cdot i^{*} \cdot F^{*}{ }_{b-1}-P_{C} \cdot C_{b}=S_{b}$
(2.2) $\quad F I_{O}+T_{b O}-T D_{O}-i_{R} \cdot C R_{O-1}-i_{C}{ }^{\bullet} B_{O-1}-E \cdot i * \bullet F^{*}{ }_{0-1}=S_{O}$

Equation (2.1) defines budgetary savings as the sum of factor income, distributed central bank profits, tax revenues, and transfers from abroad, minus transfers to domestic sectors, interest payments on domestic and net foreign-currency denominated debt and consumption of the budget. Note that, although the budget owns some financial institutions other than the central bank, it does not receive a share of the profits and losses from the banking system. These are all distributed to the private secior.

## TABLE $1:$ DEPINITIONS OF VARIABLES IN BUDGET CONSTRAINIS

Voriables with an asterisk are defined in USS. The rest of the variables are expressit in local currency at current prices except for those variables marked with (*) which are defined in constant terms.

| B | Bonds |
| :---: | :---: |
| C | Consumption (*) |
| CR | Credit from the central bank |
| CU | Currency in circulation |
| DD | Demand deposits |
| E* | A.srage exchange rate |
| $\mathrm{F}^{\text {* }}$ | Net foreign-currency denominated borrowing |
| FI | Factor income |
| I* | Investment ( ${ }^{\text {\% }}$ ) |
| i | Nominal foreign interest rate |
| ${ }^{1}$ | Nomi.al interest rate on deposits |
| ${ }^{1}$ | Nominal interest rate on credits |
| ${ }^{1}$ | Nominal rate of rediscount |
| IN | Imports (\#) |
| KT | Capital transfers |
| NW | Net worth |
| OFI | Other factor income |
| P\&L | Distributed profits |
| ${ }^{\text {PR }}$ | Profit remittances abroad |
| $\mathbf{R}^{*}$ | Foreign reserves |
| RR | Legal reserves |
| S | Savings |
| SUB | Subsidies |
| T* | Net current transfers |
| T* | Net transfers from abroad |
| TD | Direct taxes |
| TI | Indirect taxes |
| VA | Value added |
| WR* | Workers remittances from abroad |
| X | Exports (\%) |

Sector-specifi. variables and intersectoral flows are represented by the following suffixes at the end of each variable:

| b | Budgetary government |
| :--- | :--- |
| $\mathbf{c}$ | Central bank |
| d | Banking system |
| o | Other non-financial public sector (SEEs) |
| g | Consolidated non-financial public sector |
| $p$ | Private sector |
| $\mathbf{m}$ | Consolidated monetary sector |
| $\mathbf{f}$ | Foreign sector |
| $\mathbf{t}$ | Total |

Similarly, the banking sector does not pay taxes. We are implicitly assuming that these are paid by the private sector on its behalf. Equation (2.2) defines savings of the non-financial SEEs as the difference between factor income plus transfers from the budget and taxes plus interest payments on its domestic and net foreign-currency denominated debt (hereafter foreign debt).

The capital accounts for the budget and non-financial SEEs are given by: ${ }^{1}$

$$
\begin{align*}
& S_{b}=p_{I} \cdot I_{b}+K T_{b o}+K T_{b d}+K T_{b p}-\Delta B_{b}-E \cdot \Delta F_{b}^{*}-\Delta C R_{b}  \tag{2,3}\\
& S_{o}=p_{I} \bullet I_{o}+K T_{o p}-K T_{b o}-\Delta B_{o}-E \bullet \Delta F_{o}^{*}-\Delta C R_{o}
\end{align*}
$$

Equation (2.3) simply states that budgetary savings plus domestic and foreign borrowing are invested and distributed as capital transfers to the rest of domestic sectors except for the central bank. Equation (2.4) shows that non-financial SEEs inver,tment and capital transfers to the private sector are financed through its own savings, capital transfers from the budget and domestic and foreign borrowing.

It is important to note that changes on the net foreign position of the budget and non-financial SEEs, $\Delta F^{*}{ }_{b}$ and $\Delta F^{*}{ }_{o}$, do not coincide with recorded balance of payments capital flows to these sectors. This is due to the existence of both cross-currency

1 Throughout the paper, we will use the following conventions:

$$
\Delta x=x-X_{-1} ; \quad \hat{X}=\Delta x / x_{-1} .
$$

effects and foreign exchange transactions among domestic sectors. The same applies to changes in the net foreign position of the other ciomestic sectors. In Appendix $I$ we provide a detailed account of how these effects were calculated.

## Non-Financial Private Sector

In our model, the private sector incorporates all domestic economic agents not included elsewhere. It would have been desirable to decompose the private sector in firms and households. There is no doubt that the economic behavior of these groups responds to different incentives, and that modelling them together may obscure some interesting issues. Unfortunately, the lack of data made the task of distinguishing between firms and households impossible.

The current account of the private sector is specified as follows:

$$
\begin{align*}
& V A_{p}+T_{b p}+E \cdot\left(T^{*} f p^{+W R^{*}}\right)+i_{C} \bullet^{\bullet} B_{p-1}+i_{D D}{ }^{\bullet D D_{-1}}+P \& L_{d}-  \tag{2.5}\\
& -T D_{p}-E \bullet\left(i^{*} \bullet F^{*}{ }_{p-1}+P R^{*}\right)-p_{C}{ }^{\bullet} C_{p}=S_{p}
\end{align*}
$$

Equation (2.5) defines private sector savings as the excess of income, transfers and net interest receipts over consumption. Then, the capital account for the private sector is given by:
(2.6) $S_{p}=P_{I} \cdot I_{p}+\Delta C U_{p}+\Delta D D+\Delta B_{p}-E \cdot \Delta F^{*}{ }_{p}-K T_{O p}-K T_{b p}-K T_{d p}-E \cdot \Delta D F I^{*}$

This equation explains that private investment, as well as increases in domestic lending and money holdings, are financed through savings, foreign borrowing (bond and equity) and capital transfers from other domestic sectors.

## Financial Sector

The financial sector has been divided in the central bank and the banking system, which consists of financial SEEs and private financial institutions. This distinction makes it easier to distinguish among policy variables, e.g. central bank credit, and intermediate variables, e.g. the money supply.

The current accounts of the central bank and banking system are given by:

$$
\begin{align*}
& i_{R} \cdot C R_{t-1}+E \cdot i^{*} \cdot\left(R^{*}{ }_{C-1}-F^{*}{ }_{C-1}\right)-P \& L_{C}=\Delta N W_{C}  \tag{2.7}\\
& i_{C} \cdot B_{d-1}-i_{R} \bullet C R_{d-1}-i_{D D}{ }^{\bullet D D_{-1}}-E \cdot i^{*} \cdot F^{*}{ }_{d-1}-P \& L_{d}=\Delta N W_{d}
\end{align*}
$$

Equations (2.7) an (2.8) define the central bank's and banking system's savings (increase in their net worth), respectively. In both cases, savings are equal to the excess of net interest receipts over distributed profits. Note that the banking system does not receive interest on their deposits in the central bank. This is consistent with Turkish financial regulations.

The capital accounts of the financial sectors can be written as:

$$
\begin{equation*}
\Delta N W_{C}=\Delta C R_{t}+E \cdot\left(\Delta R_{C}^{*}-\Delta F_{c}^{*}\right)-\Delta H \tag{2.9}
\end{equation*}
$$

$$
\begin{equation*}
\Delta N W_{d}=\Delta C U_{d^{+}}+\Delta R R+\Delta B_{d}-\Delta D D-\Delta C R_{d}-\left(K T_{b d^{-}}-T_{d p}\right)-E \cdot \Delta F_{d}^{*} \tag{2.10}
\end{equation*}
$$

Equation (2.9) states that changes in the net worth of the central bank and base money creation must equal credit creation and reserve accumulation. The base money consists of currency in circulation in the hands of both the private sector and the banking system (vault cash), and bank reserves. Accordingly, the implicit assumption is that the public sector does not hold money. Equation (2.10) forces the changes in banking sector's assets to be equal to changes in liabilities plus savings and net capital transfers. The former consist of vault cash, reserves in the central bank and domestic credit (net of time deposits). The latter consists of demand deposits, credit from the central bank, foreign borrowing, and savings plus net transfers.

## Rest of the World

To complete the specification of the open economy model we include a foreign sector containing the rest of the world. The budget constraint of the foreign sector is nothing but the balance of payments. The current account is:
(2.11) $P_{I M} \cdot I M-P \cdot X+E \bullet\left[i^{*} \bullet\left(F^{*}{ }_{t-1}-R^{*}{ }_{-1}\right)+P R^{*}\right)-E \cdot\left(T^{*}{ }_{f b^{+}} T^{*}{ }_{f p}+W R^{*}\right)=S_{f}$

Equation (2.11) defines foreign saving as the excess of imports and factor payments (interest and profits) over exports, transfers from abroad and worker remittances. The counterpart of this foreign savings is shown in the capital account as direct
foreign investment plus total debt accumulation minus the increase in centcal bank's foreign reserves:

$$
\begin{equation*}
S_{f}=E \cdot \Delta D F I^{\star}+E \cdot \Delta\left(F_{t}^{*}-R_{c}^{*}\right) \tag{2.12}
\end{equation*}
$$

## The Flow of Funde Presentation

An alternative presentation of the budget constraints is given by the following expressions:

CURRENT SOURCES = CURRENT USES<br>CAPITAL SOURCES = CAPITAL USES

Figure 2 presents the budget constraints following this alternative procedure. In the figure, we have two different matrices, one for the current account and one for the capital account. The CURRENT ACCOUNT MATRIX shows how the different sectors finance their respective current expenditure and savings. The CAPITAL ACCOUSI MATRIX gives us a picture of how the sectors finance theix capital expenditures.

The functioning of both matrices is parallel. Rows represent incomings and columns outgoings, i.e. the rows give us the"sources "of funds for a particular sector while the columns show the "uses" of funds. For example, the intersection of the Budget Column with the Private Sector row in the current account gives us the amount of funds that are at the game time current uses for Budget and current sources for the Private Sector. In our framework, these are transfers and interest payments. Total

FIGURE 2：SOURCES AND USES OF FUNDS MATRIX

Avernment udget
ther ublic

$$
\begin{aligned}
& \text { rivate } \\
& \text { entor } \\
& \text {-etral } \\
& \text {-nk } \\
& \text { enking } \\
& \text { yetem } \\
& \text { elance of } \\
& \text { aymente }
\end{aligned}
$$

Consemption and Saving： Account

## otel <br> ens

| Covernment Budget | Other Publie | Private Sector | Contral Bank | Banking Systea | Balance of Paymente | Production Account | Total Sources |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | T0． | T0． | PMe |  | E•Tf＊ | $\begin{gathered} \text { TI } \\ -\boldsymbol{S H} \\ \text { OfI } \end{gathered}$ |  |
| 76 |  |  |  |  |  | $\mathrm{FI}_{0}$ |  |
|  |  |  |  | $\begin{aligned} & { }^{1} D^{000} \\ & P^{00} \end{aligned}$ | $\begin{aligned} & \text { E-Tf* } \\ & \text { EATR } \end{aligned}$ | $V_{\text {P }}$ |  |
| $\mathrm{I}^{\circ}{ }^{\circ} \mathrm{R}_{6}$ | $\mathrm{I}_{\mathrm{R}} \mathrm{CH}_{6}$ |  |  | $l_{R} \sim_{0} R_{d}$ |  |  |  |
| ${ }^{1} C^{4 B_{b d}}$ | ${ }^{1} C^{+8} \times$ | ${ }^{1} C^{\text {c }}$ Pd |  |  |  |  |  |
| E®1＊＊＊ | E－1＊ap． | $\begin{gathered} \text { Eejeofelp } \\ \text { EOPR } \end{gathered}$ | E－1＊or＊${ }^{\text {c }}$ | Eel＊＊＊d |  | $\ln _{-x_{t}}$ |  |
| c 5 | $S_{0}$ | $\mathrm{C}_{\text {P }}$ | $\mathrm{ANWM}_{5}$ | ANM， | $s$ |  |  |
|  |  |  |  |  |  |  |  |

CAPITAL ACCONT

|  | Covernsent Budget | Other <br> Publie | Private Sector | Central Bank | Banking System | Balance of Payments | Seving： Account | Totel 1 Sources |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Evernment udget |  |  | ${ }^{48}{ }_{\text {bp }}$ | $\Delta \mathrm{CR}_{\mathrm{b}}$ | $\Delta 8_{\text {bd }}$ |  | $S_{b}$ |  |
| sther ublic | $\mathrm{KT}_{6}$ |  | ${ }^{48}{ }_{\text {op }}$ | $\triangle C$ 。 | ${ }^{48} \mathrm{od}$ | EOAF＊。 | S |  |
| rivote s－tor | $k_{\text {bp }}$ | $K_{\text {op }}$ |  |  | $\begin{aligned} & \mathbf{A B}_{\mathrm{K}}^{\mathrm{pdp}} \\ & \hline \mathrm{dp} \end{aligned}$ | EeAF。 <br> E．ADFP | $S_{p}$ |  |
| Central Benk |  |  | ${ }^{\circ} \mathrm{Cup}$ |  | $\begin{aligned} & A R R \\ & \Delta C_{d} \end{aligned}$ | E0AF＊ | ${ }^{\text {anw }}$ |  |
| $\begin{aligned} & \text {-nking } \\ & -i t i n g \end{aligned}$ | $\mathrm{KT}_{\text {bd }}$ |  | 400 | $\Delta R_{\text {d }}$ |  |  | $\Delta N W^{\text {d }}$ |  |
| $\begin{aligned} & \text { =lance of } \\ & \text { aymente } \end{aligned}$ |  |  |  | $E \subset A R^{\circ} \mathrm{c}$ |  |  | $s_{p}$ |  |
| Invectment <br> Account | $I_{b}$ | 1. | $\mathbf{I}_{\text {p }}$ |  |  |  |  |  |
| Total Usos |  |  |  |  |  |  |  |  |

sources are represented in the final column of a sector and must equal total uses which are represented in final row of the same sector. In this way, the flow of funds framework assures consistency among the data.

## II. 2 The Behavioral Structure

The flow of funds is a useful accounting framework that helps to organize the data in a consistent manner. If we want to use this information for policy analysis, the data framework must be linked to a model that contains the behavioral and technical relationships among variables. In this section we develop a simple behavioral model and append it to the consistency framework described above.

## I.1.2 The Real Economy

For simplicity, we assume that the domestic economy produces only one composite good that can be used for domestic consumption and investment, or sold abroad. The condition of equilibrium in the goods market is:
(2.13) $Y+I M=C_{p}+C_{b}+I_{p}+I_{b}+I_{o}+X$
where $C, I, Y, X$ and $I M$ denote consumption, investment, output, exports and imports of goods and services, respectively. All variables are measured in real terms. In order to provide a complete description of the real side of the model, we must specify the supply-side of the economy and the expenditure functions.

## The Supply Side

On the supply-side of the model, we assume that the economy is operatiry under a fixed coefficients production function and that capital is the constraining factor. Therefore,

$$
\text { (2.14) } \quad \Delta Y^{F}+1=B \cdot I_{t}
$$

where $\mathbf{Y}^{F}$ is potential output and $B$ is the incremental outputcapital ratio or the inverse of the ICOR, corrected by the depreciation rate. $I_{t}$ is total investment in the economy. Equation (2.14) is the growth equation. It states that the change in potential income is given by both the amount of investment of the previous period and the efficiency of this investment, as measured by the parameter B. The simplifying assumption that we are making is that investment has the same efficiency across sectors. This assumption can be easily removed by having different Bs for the different economic sectors.

Equation (2.15) simply defines total investment as the sum of each sector's investment:

$$
\begin{equation*}
I_{t}=\sum_{j=1}^{n} I_{j} \tag{2.15}
\end{equation*}
$$

$$
j=b, o, p
$$

Finally, current income and gross output are obtained as:
(2.16) $\quad Y=Y^{F} \cdot \mathrm{Cu}$
where cu is the rate of capacity utilization.

## The Expenditure Functions

On the expenditure side, we must specify the consumption, investment, exports and imports equations. We will assume the following:
(2.17) $\quad C_{p}=c \cdot Y_{d}$
(2.18) $\quad I_{p}=\sigma_{p} \cdot \mathbf{Y}$
(2.19) $\quad I_{0}=\sigma_{0} \cdot{ }^{-P I_{0}}$
(2.20) $\quad X=\left(1+\epsilon_{X} \cdot \hat{q}^{+} \rho_{Y}{ }^{*} \cdot \hat{Y}^{*}\right) \cdot X_{-1}$
$I M=I K^{\mathbf{C}}+I M^{I}+I M^{\mathbf{V}}+I X^{\mathbf{G}}$
$I X^{C}=\left(1+\epsilon_{C} \cdot \hat{q}+\rho_{C} \cdot \hat{C}_{t}\right) \cdot I X^{\boldsymbol{C}}-1$

where $g$ is the real exchange rate and $Y_{d}$ is disposable income ${ }^{2} ;$ is the propensity to consume; $X^{*}$ is the level of income of Turkey's export partners, respectively. es and $\rho s$ refer to real exchange rate and foreign-income, consumption, investment and income elasticities, Finally, $I X^{C}, I M^{I}, I X^{V}$ and $I M^{G}$ refer to consumption,

[^1]investment, intermediate and non-monetary gold imports. $C_{t}$ denotes total consumption:
\[

$$
\begin{equation*}
c_{t}=c_{p}+c_{b} \tag{2.25}
\end{equation*}
$$

\]

Equation (2.17) states that consumption demand is linearly dependent on disposable income. Equation (2.18) explains that investment demand is a exogenously given fraction ( $\sigma_{p}$ ) of GDP. Equation (2.19) projects investment of non-financial SEEs as a share $\left(\sigma_{0}\right)$ of their factor income. It is a shortcoming of this model the fact that $c$ and $\sigma_{p}$ do not depend upon the real interest rate and inflation. The former would provide a measure of the opportunity cost of accumulating real assets versus financial assets and/or consumption. The latter would account for the effect of the inflation tax on both investment and consumption.

Equation (2.20) assumes export growth to be a function of the growth rate of Turkish export markets and changes in the real exchange rate. Equation (2.21) defines total imports as the sum of consumption, investment, intermediate and non-monetary gold imports. The first three are then projected in (2.22)-(2.24) as a function of total consumption, total investment and GDP at factor cost, respectively. They also depend upon the real exchange rate. Imports of non-monetary gold are projected exogenously.

## Projecting Prices and Nominal Variables

Once real variables have been calculated, the RMSM-X model computes prices and nominal variables. The former follow these
simple rules:
(2.26) $\quad p=\left(P_{E}{ }^{\circ} P_{E-1}\right)^{\frac{1}{2}}$
(2.27) $\quad P_{I}=(1-\lambda) \cdot p+\lambda \cdot p_{I M}$
(2.28) $\quad P_{I M}=E \bullet P_{I M}{ }^{*}$
(2.29) $\quad p_{X}=p$
where $P_{E}$ is the end-of-period GDP deflator, and $p_{i}$ represents the period average deflator of the expenditure component $i$, with $i=$ I, IM, $X$. $E$ is the period average nominal exchange rate, and $\lambda$ and PIM $^{*}$ indicate the share of imports in investment demand, and the foreign prices of imports, respectively. Once these prices are obtained, it is straightforward to project nominal variables as follows:
$(2.30-2.36) \quad N Z=p_{4} \cdot Z \quad Z=Y, I_{p}, I_{b}, I_{o}, C_{b}, X, I M$.
Total nominal consumption is obtained as follows:

$$
\begin{equation*}
N C_{p}+N C_{b}=N Y+N I M-N I_{p}-N I_{b}-N I_{o}-N X \tag{2.37}
\end{equation*}
$$

Equation (2.37) constitutes the "national accounts" of the RMSM presentation. It portrays goods market equilibrium in nominal terms. Finally, the consumption deflator is obtained by dividing total nominal consumption by total real consumption:
(2.38)

$$
p_{c}=\left(N C_{p}+N C_{b}\right) /\left(C_{p}+C_{b}\right)
$$

In this way, mathematical consistency among prices and real and nominal variables is achieved. 3

## I. 1. 2 The Asset Markets

As opposed to the RMSM model, which only includes the real side of the economy, the RMSM-X model integrates both real and monetary aspects. Therefore, we introduce a menu of four assets in the model. Money is defined as currency plus demand deposits, which are held by the private and banking sectors. The foreign asset can be held by all sectors. The domestic bond includes bank credit as well as public debt. Finally, the central bank extends credit to the budget, the non-financial SEEs and the banking system.

## The Money Market

The RYSM-X model considers the different components of money as perfect substitutes. Therefore, the equilibrium condition in the money market is given by:
(2.39) $\quad x^{8}=x^{d}$

Money demand is projected with this simple rule:
$(2.40) \quad M^{d}=k \cdot P_{E} \bullet Y$

3 As opposed to economic consistency. The latter demands to have as many prices and material balance equations as goods exist in the economy.
where $k$ is the --exogenously given -- inverse of the velocity of circulation. Money supply is determined as:
(2.41) $\mathrm{K}^{8}=\mathrm{T} \bullet \mathrm{H}$
where $H$ is the base money and $\tau$ is the money multiplier. These are defined ass
(2.42) $\quad \mathrm{H}=\mathbf{C U _ { p }}+\mathrm{CU}_{\mathbf{d}}+\mathrm{RR}$
(2.43) $\quad \tau=(c c+1) /(c c+r e)$
cc and re are the currency to deposits and reserves to deposits ratios. These ratios are given exogenously. Thus,
(2.44) $\quad C C=\left(C U_{D}+C U_{d}\right) / D D$
(2.45) re $=R R / D D$

Finally, the fraction of currency in circulation held by the private sector is given by:
(2.46) $\quad \phi=C U_{p} /\left(\mathrm{CU}_{\mathrm{p}}+\mathrm{CU}_{\mathrm{d}}\right)$
where is a given parameter.

Foreign Credit Market
We assume that there is only one type of foreign-currencydenominated asset. This allows us to state the following equilibrium condition in the foreign credit market:

$$
\begin{equation*}
F_{b}^{*}+F_{0}^{*} d^{d}+F_{p}^{d}+{ }^{*}+\left(F_{c}^{*}-R_{c}^{*}\right)^{d}=F_{t}^{*} \tag{2.47}
\end{equation*}
$$

Equation (2.47) states that the sum of the net demands for foreign credit of each of the national sectors must equal the total supply of foreign credit. The demand for foreign credit of the private and banking sectors are given by:
(2.48) $\quad F_{p}^{*}{ }_{p}^{d}=\theta_{F} \cdot p \cdot y / E_{E}$ (2.49) $\quad F^{*}{ }_{d}{ }^{d}=\rho_{F} \cdot(1-r e) \cdot D D / E_{E}$
where $\rho_{F}$ and $\theta_{F}$ are fixed parameters and $E_{E}$ is the end of period nominal exchange rate. The relationship between the end of period and period average exchange rates is given by:
$(2.50) \quad E=\left(E_{E} \cdot E_{E-1}\right)^{\frac{1}{2}}$

Note that $\theta_{F}$ and $\rho_{F}$ in (2.48-2.49) do not depend upon the relative rates of return on the different assets (including the rate of currency depreciation). This is an unrealistic assumption that we are forced to make in the absence of econometric estimates of asset demand equations.

On the supply side two assumptions are possible. First, the country is credit constrained. In this case, $F^{*}{ }_{t}{ }^{s}$ and $i^{*}$ would be exogenously determined:
(2.51) $\quad F_{t}^{*}=F_{t}^{*}$
(2.52) $i^{*}=I^{*}$
$\bar{F}_{t}{ }_{t}$ and $I^{*}$ would be calculated in the debt module. This case has been traditionally labeled the "availabilities" model in
operational work in the Bank.
The other possible assumption is that the country can borrow in the international market at an interest rate that can be fixed or increasing. This interest rate would be calculated as follows:
(2.52 $) \quad i^{*}=i^{*} e^{\bullet} F^{*} e^{/ F^{*}}{ }_{t}+i^{*}{ }_{n} \bullet\left(F^{*}{ }_{t}-F^{*}{ }_{e}\right) / F^{*}{ }_{t}$
where $i^{*} e^{\prime}$ and $F^{*} e$ are the interest rate and amount of already contracted (existing) credit, and $i^{*} n$ is the interest rate on new credit. These variables are obtained in the debt module. This case has been traditionally called the "requirements" model.

## Domestic Assets

There are two domestic assets other than money: the domestic bond and central bank credit. The domestic bond, issued by the budget, other public and/or private sectors, is held by the private and/or banking sectors. This market could be disaggregated into credit provided by the financial system and domestic public debt sold to the private non-financial sector. While this further distinction may appear very appropriate, one should be aware that it will be entirely irrelevant for practical purposes unless both assets are assumed imperfect substitutes from the viewpoint of at least one economic sector. In addition, this imperfect substitutability should be explicitly embedded somewhere in the model. Of course, this would require the specification of distinct supply and/or demand rules for each of the assets. This disaggregation would introduce unnecessary complications when we
cannot back it with meaningful behavioral assumptions.
The condition of equilibrium in the domestic bond market is given by the following equation:

$$
\begin{equation*}
B_{b}^{s}+B_{o}^{s}=B_{p}^{d}+B_{d}^{d} \tag{2.53}
\end{equation*}
$$

Equation (2.53) states that the net supply of the domestic bond by the budget and other public sector, must equal the net demand by the private and banking sectors. We enter the interest rate on bonds exogenously:

$$
\begin{equation*}
i_{C}=i_{C} \tag{2.54}
\end{equation*}
$$

This assumption could be interpreted as having a perfectly elastic supply or demand for credit. This would be an unrealistic assumption and the user must carefully project the interest rate consistently with the evolution of demand and supply. The banking sector's demand for bonds is calculated as:
(2.55) $\quad B_{d}{ }^{d}=\rho_{B} \cdot(1-r e) \cdot D D$
where $\rho_{B}$ is a given parameter.
The other domestic asset consists of the central bank credit. The equation that must be satisfied in order to assure equilibrium in the central bank's credit market iss

$$
\begin{equation*}
C R_{t}^{s}=C R_{b}^{d}+C R_{o}^{d}+C R_{d}^{d} \tag{2.56}
\end{equation*}
$$

Equation (2.56) states that overall credit extended by the central bank is distributed among the budget, the other public
sector and the banking system

## II.3. Closing the Model

If we consider each budget constraint as a single equation ${ }^{4}$ and substitute the behavioral relationships into the budget constraints and the market equilibrium conditions, we obtain a system of eleven equations. This is the compact form of the model. Given that the sum of all budget constraints is equal to the sum of the excess demands of all markets, one equation is linearly dependent on all others. Consequently, we can solve for a set of ten endogenous variables.

The appropriate selection of the set of ten endogenous (or residual) variables depends upon the purpose of the simulation exercise to be undertaken. Nonetheless, the mathematical structure of the model imposes one restriction on the set of variables chosen. This condition is that each of the eleven equations must contain at least one endogenous variable. If this condition is not satisfied, the system cannot be solved. Note that this requirement applies to the eleven equations above.

The choice of the set of endogenous variables determines whether the solution of the model is recursive, simultaneous, or if it has both simultaneous and recursive blocks. For simplicity, we will only consider those sets of endogenous variables that allow a recursive solution to the model. The purpose of this restriction

[^2]is to reduce the software requirements. The RMSM-XX version of the Turkey model will extend the class of models to those requiring a simultaneous solution.

There are many closure rules that are meaningful from the economic point of view. In the application for Turkey we have chosen to implement four alternative possibilities that are shown in Table 2. The four closure rules result from a two-dimensional classification.

## TABLE 2: CLOSURE RULES

FOREIGN CREDIT CONSTRAINT
Yes
No

|  | Pinancial <br> Programing |
| :--- | :--- |
| USE OF THE |  |

Projections

| Normative <br> Availabilities | Normative <br> Requirements |
| :--- | :--- |
| Positive <br> Availabilities | Positive <br> Requirements |

On the one hand, the Turkey RMSM-X can be used both for assessing the effects on the target variables of alternative macroeconomic programs and for obtaining the values of the policy variables that would be consistent with a set of exogenously given targets. In the first case, the policy variables would be determined exogenously, and the model would give us their most likely effects on the target variables. This closure rule defines a positive model which is useful to make projections of the "most
likely scenario", or to analyze the effects of proposed policies. In the second case, the purpose is not to find out the most likely path for a number of variables, but to determine which are the values of the instrumental variables that would be consistent with the desired levels of the objective variables. This closure defines a normative model. This closure rule will be preferred when the model is used to design a feasible financial or macroeconomic program.

On the other hand, the model can be used with or without a binding upper bound on foreign credit. If the RMSM-X is used without a credit constraint or target, we will follow Bank's convention and call it a "requirements" model. In this case, the debt modile would provide the RMSM-X with a credit supply schedule. The foreign credit market would be solved in the RMSM-X together with the rest of the macroeconomic model. If we use the model with a binding credit constraint, we label it the "availabilities" model. Now the debt module would provide us with the amount of foreign credit that has been targeted or is available, and the RMSM-X would calculate the implications for macroeconomic policy or the effects on the target variables.

Before turning to the description of each model closure, we must warn the reader that the recursive nature of the model does not allow for the explicit consideration of all the relevant economic relationships among variables. As a result, it becomes necessary to check some of these relationships 'ex-post'. For example, the model does not directly relate consumption and
investment to the real interest rate or the velocity of circulation to inflation and interest rates. All these must be checked expost'. If these tests are not satisfactory, another iteration, reconsidering some of the assumptions and/or targets, is needed.

In the rest of this subsection we first define the projection rules for some exogenous variables. Then we consider a positive and a normative closure for the model. We describe first the "requirements" version of both normative and positive closure rules. Then, we show how these closures are modified under the "availabilities" case.

## Projecting Exogenous Variables

We project the following variables according to the rules:
(2.57) $\quad \mathrm{FI}_{0}=f i \cdot p \cdot Y$
(2.58) $\quad$ OFI $_{b}=o f i \cdot p \cdot Y$
(2.59) $\quad V A_{p}=P \cdot Y-F I_{o}-O F I_{b}-T I+S U B$
(2.60) $\quad T I=t_{y} \bullet Y+t_{I M} \cdot I M$
(2.61) $\quad T D_{p}=t_{p} \cdot V A_{p}$
(2.62) $\quad T D_{0}=t_{0} \cdot \mathrm{FI}_{0}$
(2.63) $\quad$ SUB $=t_{s} \cdot Y$

Then we project transfers among domestic sectors as follows:
(2.64-2.70) $X=(1+\pi) \cdot X_{-1} ; X=T_{b o}, T_{b p}, K T_{b o}, K T_{b d}, K T_{b p}, K T_{o p}, K T_{d p}$. and transfers among domestic and the foreign sector:
(2.71-2.73) $X=\left(1+\pi^{*}\right) \cdot X_{-1} ; \quad X=T^{*}{ }_{f b}, T^{*}{ }_{f p}, W R^{*}$.

Finally, there are some variables that we project exogenously. These ares DFI*, PR*, P\&L $C^{\prime}, P \& L_{d,} i_{D D}$ and $i_{R}$.

## The Normative Model

The purpose of this model closure is to find the fiscal, monetary and exchange rate policies that are consistent with a given set of macroeconomic policy objectives.

The first step is to set up targets for the inflation rate (x), full employment growth rate (g), the real exchange rate (q), and foreign reserves as a certain number of months of imports (res). This allows us to calculate $p, Y_{F}, E$ and $R_{c}{ }_{C}$ :
(2.74) $\quad p=(1+\pi)^{\bullet} p_{-1}$
(2.75) $\quad Y_{F}=(1+g) \cdot Y_{F}$
(2.76) $\quad E=q^{\bullet}\left(p / p_{I M}{ }^{*}\right)$
(2.77) $\quad R^{*}{ }_{C}^{d}=\operatorname{res} \cdot[(I M / E) / 12]$

Once we have set these targets, the model solves for the values of policy variables that would be consistent with this objectives, given our assumptions. Figure 3 shows our proposed closure rule for a normative type model closure. ${ }^{5}$ We start with the goods market. Note first, that the growth equation, (2.14), and the definition of total investment, (2.15), determine the

[^3]
## FIGURE 3: TBE NORMATIVE AND REOUIRMMENTS MODEL

Fix Targets: g. $\mathrm{F}_{\mathrm{g}}$ q. res.

values of $I_{T}$ and $I_{b}$ that are consistent with our growth target. Then capacity utilization is determined exogenously so that current output can be obtained. Once $Y$ is known, all expenditure items can be projected except for $C_{b}$, which is the residual on the goods market equilibrium equation.

In the balance of payments, the residual item is the amount of foreign borrowing, $F^{*}{ }_{t}$. The projection rules for the rest of the variables have already been discussed.

Once we have obtained the supply of foreign credit, we solve the foreign asset market. The demand for foreign credit of the private and banking system is projected with the help of equations (2.48) and (2.49). These projections together with the supply of foreign credit obtained in the balance of payments and the target for reserves determine the amount of foreign borrowing by the public sector, $\left(F^{*}{ }_{b}+F^{*}{ }_{o}{ }^{+} F_{c}{ }_{c}\right)$. The distribution of credit between $F^{*}{ }_{b}, F_{o}^{*}$ and $F_{c}^{*}$ is determined exogenously.

In the money market, the money supply is determined by the exogenously given targets for inflation and growth. Given the paths of $k$, re and cc, the money market equilibrium equation yields the value of $H$ that is compatible with the given inflation and growth targets. The central bank budget constraint is closed once we know the level of reserves, the amount of foreign borrowing and the base money. The residual is the level of domestic credit, $\mathrm{CR}_{\mathrm{t}}$.

The budget constraint of the banking system is solved for the banking system's demand for central bank credit. Then, the central bank credit market, solves for the amount of credit that is given
to the public sector, $\left(C R_{b}+C R_{0}\right)$. $C R_{0}$, is the residual of the nonfinancial SEEs budget constraint. Consequently, credit to the budget, $\mathrm{CR}_{\mathrm{b}}$, is obtained residually.

The private sector's budget constraint determines $B_{p}$. Finally, in the domestic bond market, public sector's domestic borrowing, $\left(\mathrm{E}_{\mathrm{b}}+\mathrm{B}_{\mathrm{o}}\right)$, is determined. As was the case in the foreign asset market, we distribute the amount of borrowing between SEEs and budget exogenously.

## The Positive Model

In contrast to the previous model, the purpose now is to find the effect on the target variables of given fiscal, monetary and exchange rate policies. This model closure could be especially useful when a particular policy package needs to be evaluated.

First we must determine the path of fiscal policy variables. Once this has been done, the values for the nominal exchange rate and monetary policy must also be entered. ${ }^{6}$ These, together with the remaining assumptions, will determine the growth rate, inflation, real exchange rate and foreign reserves.

Figure 4 details the solution structure of this second case. Comparing figures 4 and 3, the complete symmetry between the present closure and the previous one becomes obvious. Note, however, that there are only eight endogenous variables in

6 As it stands now, monetary policy is entered in terms of base money. We could alternatively define it in terms of money supply. The change required in the model would be trivial.


Figure 4. This is because all public sector variables have been determined previously. Any two variables in the budgetary government and non-financial SEEs budget constraints could be seen as the missing residuals.

In the goods market, budget investment and consumption are now profected exogenously. Therefore, potential output growth is no longer determined exogenously, but by using the growth equation. A tempting closure would have been to leave the real exchange rate as the adjusting vaiiable. The problem with such a solution is its simultaneous nature. Hence, we are forced tu choose an expenditure component to close the goods market. Given the positive nature of this model, government variables have already been determined. It seems appropriate to leave as the endogenous variable the level of private investment, and hence future growth, compatible with domestic and foreign savings that resuit from the assumed policies. Therefore, the private investment equation, (2.18), is not used.

In the money market, the money supply is determined by the exogenously projected base money. Therefore, the price level is the variable that adjusts money demand to the fixed supply. There a.e no changes in the balance of payments. In the foreign asset market, the balancing item is now the stock of foreign reserves.

As in the normative model, the central bank budget constraint determines overall domestic credit. However, in the central bank credit market, the residual is now $C R_{d}$ instead of $C R_{b}$.

The budget constraint of the banking system determines its demand for the domestic bond -- that is, its total credit supply.

Therefore, equation (2.61) is not used under the positive closure cule. Finally, the domestic bond market is now closed with the private sector's domestic financing, $B_{p}$.

Constrained Foreign Borrowing
The closure rules just presented implicitly exclude the possibility of a foreign borrowing constraint. We define the latter as a binding upper bound on $F^{*}{ }_{t}$. In other words, the current account deficit resulting from (2.11) and (2.12) is not feasible. In this case, $F^{*}{ }_{t}$ would be exogenously determined. In the normative model the residual of the balance of payments would not longer be $\Delta F_{t}{ }_{t}$ but the change in reserves of the central bank. In the positive model $F_{t}{ }_{t}$ would be replaced by $F_{p}{ }_{p}$ as the closing variable for the foreign asset market. Figures 5 and 6 show the normative and positive models under a foreign credit constraint.

## 

Fix Fargets: 8. 5. 9. ses.



## III. THE DEBT MODULE

External debt and creditworthiness are key issues for the Bank's operational work. Therefore, it is necessary to provide an adequate treatment of debt flows and creditworthiness issues in the RMSM-X system. This is accomplished by linking the RMSM-X projection model to a debt module (DM) that supplies detailed information on debt stocks, interest payments and capital flows by creditor.

The debt module allows the country economist to use the wealth of external debt information contained in the Debt Reporting System (DRS). In addition, it permits the user to investigate the effects of alternative debt strategies, including the use of debtrestructuring techniques such as reschedulings, buybasks, accumulation of arrears, and debt forgiveness. The DM and the RMSM-X macroeconomis model have an interactive relationship through which both the impact of debt management on the macroeconomy and of macroeconomic policies on external debt accumulation can be analyzed.
III. 1 A Concise Description of the Debt Module

The DM projects debt stocks, capital flows and interest payments by creditor. Stocks and flows that result from loans already committed are named "existing". Stocks and flows that result from projected commitments are labeled "new". As a rule, each variable representing a total will be the addition of existing
and new values. For instance, total amortization payments to the jth-creditor is the sum of the amortization payments on both already contracted and projected loans to the fth-creditor. Although apparently trivial, the distinction between existing and new debt turns out to be very useful for constructing a $D M$. The reason is that the procedures followed to determine existing and new debt are very different.

Existing debt will generally be entered as exogenous data. This piece of information is provided by the DRS and it is known as "pipeline debt" in the DRS system. It reflects the contractual stream of disbursements and payments that results from already contracted loans. In most instances, existing debt is set equal to pipeline debt. But in some circumstances, existing debt may be subject to debt-restructuring. If this is the case, the DM offers a debt-restructuring menu that allows the user to determine the impact of alternative rescheduling schemes, buybacks, accumulation of arrears and debt forgiveness. The application of debtrestructuring techniques involves modifications on the existing debt. In fact, we will define debt restructuring as any change in the existing debt that does not result from the original contract. To calculate new debt, it is necessary first to determine whether the $D M$ is run with or without a binding upper bound on foreign credit. If the DM is used without a credit constraint, we follow Bank's convention and call it a "requirements" model. If we use the model with a binding credit constraint, we label it the "availabilities" model. Under both closure rules, the user must
first enter information about the terms and conditions at which new debt would be contracted from each of the creditors.

If run as a "requirements" model, the DM computes values (or equations) for the interest rates on existing and new debt and the stock of existing debt for each year of the projection period. These values (or equations) are then exported to the RYSM-X model where they are used to construct the following foreign credit supply schedule: ${ }^{7}$

$$
\begin{equation*}
i^{*}{ }_{t}=i^{*} e^{*}\left(F^{*}{ }_{e,-1} / F^{*}{ }_{t,-1}\right)+i^{*}{ }_{n} \cdot\left[\left(F^{*}{ }_{t,-1}-F^{*}{ }_{e,-1}\right) / F_{t,-1}^{*}\right] \tag{3.1}
\end{equation*}
$$

where $i^{*} t^{\prime} i^{*} e$ and $i^{*}{ }_{n}$, are the implicit interest rates on total, existing and new debt, respectively; and $F_{t}{ }_{t}$ and $F^{*} e^{\text {are the stocks }}$ of total and existing debt. Throughout this chapter the subscripts e, $n$ and $t$, stand for "existing", "new" and "total" debt. Equation (3.1) is used in the RMSM-X model to solve the foreign credit market simultaneously with the rest of the macroeconomic model. In this way we obtain values for $i^{*} t$ and $F^{*}{ }_{t}$, as well as for interest payments. The values obtained for $F_{t}{ }_{t}$ are fed back to the DM, where detailed projections of gross (GD) and net (ND) disbursements, commitments (C), amortization payments (AP), debt stocks (F) and interest payments (IP), are produced. To assemble

[^4]these projections we use the same set of assumptions that we used initially to calculate $\mathrm{i}^{*}{ }_{\mathrm{n}}$.

In the "availabilities" case, the user must enter information not only on existing debt and the terms and conditions of new debt, but also the amount of foreign credit that we assume is forthcoming. In this case, $i^{*} t$ and $F_{t}$ are both calculated in the DM and exported to the RMSM-X. There, they are used to determine the solution to the RMSM-X macroeconomic model.

Note the differences between the old RMSM system and the one proposed here. In the former, the demand for foreign credit is obtained in the RMSM model independently from the supply, as if there were a perfectly elastic supply for credit. The old DM also projects stocks of debt and exports them to the RMSM. Any divergence between debt stocks projected in the DM and demand for credit calculated in the RMSM is captured by a variable called GAPFIL. If GAPFIL is bigger (smaller) than zero, the user must choose whether supply is increased (decreased) or demand is decreased (increased). In the first case, new borrowing has to be projected and the source of this borrowing must be identified. In the second case, the trade balance and/or international reserves must be reduced. The procedure by which the supply and demand of foreign credit are reconciled involves therefore an iterative process in which many runs of the DM and RMSM model might be necessary.

Now, the DM does not calculate the value of supply at a predetermined interest rate, but the whole supply schedule. The
latter is then exported to RMSM-X. Under the "requirements" model closure, calculating the supply schedule means obtaining the values of $i^{*} e^{\prime} F^{*} e^{\prime}$ and $i^{*}{ }_{n}$ at each point in time. Under the "availabilities" model closure, we must calculate $i^{*} t^{\text {and }} \mathrm{F}^{*}{ }_{t}$. In both cases, no iterations are necessary to match supply and demand for foreign credit.

The rest of this chapter provides a detailed description of the $D M$. We start by presenting the data requirements of the DM. Second, we look at how existing debt is obtained and at how alternative debt-restructuring techniques can be analyzed. Third, we indicate how the DM computes values for new debt. Fourth, we explain how the totals are assembled. Finally, we discuss some possible extensions of the current version of the DM.

## III. 2 Initial Data and Assumptions

Before solving the DM it is necessary to enter some information concerning already contracted debt and to make assumptions about the terms and conditions at which new debt would be contracted. The user must enter the stock of debt ( $\mathrm{F}_{\mathrm{BY}}$ ) in the base year, ${ }^{8}$ the projected path for gross disbursements (GD ${ }_{p}$ ), amortization payments ( $A P_{p}{ }_{p}$ ) and, interest payments ( $I_{p}{ }_{p}$ ). The subscript $p$ is used to indicate pipeline variables. These variables, which come from the DRS system, must be entered for each

8 Throughout this section, $f$ indicates the $j$-th creditor and $m$ the total number of creditors. For simplicity we omit the asterisk superscript when we refer to a creditor variable. We still keep it for totals.
and every creditor. Once these variables are known, the DM calculates net disbursements ( $N D_{p}^{j_{p}}$ ), the stock of debt ( $F_{p}^{j}$ ) and the implicit interest rate on pipeline debt ( $\mathrm{i}_{\mathrm{p}}^{\mathrm{j}}$ ). The formulas used for this purpose are:

$$
\begin{align*}
& N D_{p}{ }_{p}=G D_{p}^{j}-A P_{p}^{j}  \tag{3.2}\\
& F_{p}{ }_{p}=F_{p-1}^{j}+N_{p}^{f}{ }_{p}  \tag{3.3}\\
& i_{p}{ }_{p}=I P_{p}^{j} / F_{p-1}^{j} \tag{3.4}
\end{align*}
$$

Note that equation (3.3) does not consider the possibility of cross-currency effects. For simplicity they are projected to be zero. It would be straightforward to include an additional term in equation (3.3) to reflect projected cross-currency effects.

The terms and conditions of new debt are defined by the time profile of gross disbursements ( $T_{n}^{j}$ ), grace period ( $\mathrm{G}_{\mathrm{n}}{ }_{\mathrm{j}}$ ), maturity of the loans $\left(M_{n}\right)$, and the applicable interest rate $\left(i_{n}{ }_{n}\right)$, on new debt. These variables must also be entered for each and every creditor. Note that $i_{n}{ }_{n}$ may not be a constant. For instance, $i_{n}$ may be equal to the LIBOR rate plus a fixed spread or it may be contingent to the state of nature, embodied in a variable (or set of variables) such as a commodity price, the rate of growth, or others.

If the model is run under the "requirements" closure, we also need to make assumptions about the shares of each creditor in new debt ( $B^{j}$ ). That is, we must define who is the "marginal creditor". These shares need not be constant. In fact, in many cases they
will be a function of other variables, including the amount of borrowing. If the model is run under the "availabilities" case, the $B s$ are not used. However, the user must enter the loan commitments that are expected to be made by each of the creditors.

## III. 3 Existing Debt

Broadly speaking, there are three steps to calculate existing debt. First, the user must enter the pipeline data. Second, the DM calculates the effects of possible debt-restructuring operations. Finally, existing debt is obtained by adding the previous calculations.

We turn now to the third step. It is assumed, for presentational purposes, that both pipeline debt and the effects of debt-restructuring have already been calculated. In the next subsection, we will come back to the debt-restructuring menu and we will detail how the effects of alternative debt-restructuring schemes are calculated.

### 3.3.1 Existing Debt

The DM calculates the values of existing gross disbursements and amortization payments for each creditor as follows:
(3.5) $\quad G D_{e}^{j}=G D_{p}^{j}+\Delta G D_{r s}+\Delta G D_{\text {ar }}^{j}$
(3.6) $\quad A P j_{e}=A P_{p}^{j}+\Delta A P_{r s}^{j}+\Delta A P_{b b}^{j_{b}}+\Delta A P_{a r}^{j}+\Delta A P_{\text {woff }}$

Where the operator $\Delta$ is used to indicate the effects of debtrestructuring operations on the corresponding variable. The subscripts rs, bb, ar and woff, denote reschedulings, buybacks, accumulation of arrears and write-offs, respectively. Equations (3.5) and (3.6) state that existing gross disbursements and amortization payments equal to their pipeline counterparts plus any changes that may result from the different debt-restructuring operations that the $D M$ considers. Note that $\Delta G J_{b b}$ and $\Delta G D \mathcal{J}_{\text {woff }}$ are set equal to zero. This is because buybacks and debt writeoffs do not affect gross disbursements.

The DM computes existing net disbursements as the difference between gross disbursements and amortization payments:

$$
\begin{equation*}
\operatorname{ND}_{e}^{j_{e}}=G D_{e}^{j}-A P j_{e} \tag{3.7}
\end{equation*}
$$

Next, the stock of existing debt is obtained as:

$$
\begin{equation*}
F_{e}^{\boldsymbol{j}_{e}}=F_{e-1}^{\mathcal{j}}+N D_{e}^{j}+\Delta F_{b b}^{\mathcal{J}_{b}}+\Delta F_{W O f} \tag{3.8}
\end{equation*}
$$

Equation (3.8) defines the stock of debt at each period as the previous stock plus net disbursements plus the effects of possible buybacks and write-offs. As explained above, cross-currency effects are set equal to zero.

Finally, the DM calculates interest payments and the implicit interest rate on existing debt:
(3.9) $\quad I P_{e}^{j}=I P_{p}^{j}+\Delta I P_{r B}^{j}+\Delta I P_{b b}^{j_{b}}+\Delta I P_{a r}^{j}+\Delta I P_{\text {woff }}^{j}$ (3.10) $\quad i_{e}^{J_{e}}=I P_{e}^{j} / F_{e-1}^{j}$

Equation (3.9) defines interest payments on existing debt as the pipeline interest payments plus any change resulting from reschedulings, buybacks, arrears and/or write-offs. Equation (3.10) calculates the implicit interest rate on existing debt.

In most cases, there may not be debt-restructuring operations. If this is the case, equations (3.5) to (3.10) are reduced to:

| (3.5') | $G D^{j}{ }_{e}=G D_{p}^{j}$ |
| :---: | :---: |
| (3.6') | $A P^{j}{ }_{\mathbf{e}}=A P^{\boldsymbol{j}}$ |
| (3.7) | $N D^{j}{ }_{e}=G D^{j}{ }_{e}-A P^{j}{ }_{e}$ |
| (3.8') | $F_{e}^{j}{ }_{e} F^{j}{ }_{e-1}+N D^{j}{ }_{e}$ |
| (3.9') | $I P^{j}{ }_{e}=I P_{p}^{\prime}$ |
| (3.10) | $i_{i}{ }_{e}=I P^{j}{ }_{e} / F^{j}{ }_{e-1}$ |

Equations (3.5) to (3.10) describe how the DM calcule es existing debt once the effects of debt-restructuring operations have been obtained. Next, we analyze these effects.

### 3.3.2 Debt-Restructuring

Debt-restructuring techniques include reschedulings, buybacks, accumulation of arrears and, write-offs. The application of these instruments has an impact on the suppiy of credit and therefore on the macroeconomy. 9

9 There may be other channels through which debt reduction may affect the macroeconomy. For instance, the reduction of uncertainty and improvement of incentives resulting from a reduced stock of debt could lead to a higher investment.

## Reschedulings

A rescheduling of the debt is a negotiation in which the contractual streams of amortization and/or interest payments are modified. The conditions of the rescheduling are negotiated among creditors and borrowers. Two types of reschedulings are possible. Following standard practice, we will label these two cases as "pure rescheduling" and "refinancing". In the "pure rescheduling" case, creditors and borrowers negotiate new streams of amortization and interest payments, which replace the contractual ones. We define the difference between the old and new streams of amortization and interest payments as $P R^{j}$, and $P R^{j} I P^{\prime}$, respectively. In the "refinancing" case, the rescheduled amortization and interest payments - defined as $R F^{j} A P^{j}$ and $R F^{j}{ }_{I P}{ }^{\prime}$ respectively - are capitalized at negotiated conditions. These are embodied in the interest rate ( $\mathrm{i}_{\mathrm{rs}}$ ), maturity ( $\mathrm{M}_{\mathrm{rs}}$ ) and grace period ( $\mathrm{G}_{\mathrm{rg}}$ ) applicable to the refinanced payments.

The DM is able to calculate the effects of both types of reschedulings. First, the user must enter exogenously the values or equations - for the following variables: $P R^{j}{ }_{A P}, P R{ }^{j}{ }_{I P}, R F^{j}{ }_{A P}$,
 worksheet (see figure 3). Second, the DM determines $\Delta G D_{r s}{ }^{\boldsymbol{j}}, \Delta A P{ }^{j}{ }_{r s}$ and $\Delta I P_{r g}{ }^{\mathbf{j}}$

Gross disbursements will be affected insofar some "refinancing" takes place. If this is the case,
(3.11) $\quad \Delta G D_{I_{-}}=R F_{A P}{ }^{j}{ }^{j} R^{j}{ }_{I P}$

Equation (3.11) determines the increase in gross disbursements as the sum of the capitalized amortization and interest payments of a "refinancing". Note that a pure rescheduling does not affect the stream of gross disbursements.

The effect on amortization payments of a rescheduling is the addition of two components. On the one hand, there is the change on amortization payments that results from the "pure rescheduling", $P R^{j}{ }_{A P}$. On the other hand, there is the amortization of the "refinanced" amortization and interest payments. Therefore,


The first and second sources of changed amortization payments are captured by the first and second terms of equation (3.12), respectively. Finally, the effect on interest payments is obtained as:

Equation (3.13) also divides the change in interest payments into two components. The first one results from a "pure rescheduling", $P R^{j} I P$. The second term measures the effect on interest payments of capitalized amortization and interest payments resulting from a "refinancing" operation.

## Buybacks

A country may buy part of its own debt ( $\mathrm{BB}^{j}$ ) in the secondary market at a given discount $\left(\delta^{j}\right)$. The cost $\left(C_{b b}^{j}\right)$ of the operation
is:
(3.14) $\quad \quad^{j}{ }_{b b}=\left(1-\delta^{j}\right) \cdot B B^{j}$

Broadly speaking, there are four alternative ways to finance a buyback. First, a foreign country may provide the funds as a grant or gift. That is, the country uses "external financing". Second, the country can use its own reserves to buy back its debt. Third, old debt can be traded for new debt. Following general practice, we will call this new debt "exit bonds". This operation is sometimes called debt conversion. Finally, the country may exchange its debt for equity. This is the traditional debt-equity swap.

The user must therefore start by specifying the share of each financing method in the cost of the buyback. It is necessary also to make assumptions about the interest rate ( $\mathrm{i}_{\mathrm{bb}}$ ), maturity ( $\mathrm{M}_{\mathrm{bb}}$ ) and grace period ( $\mathcal{G}_{b b}$ ) applicable to exit bonds. Once this is done, the DM calculates the effects of the buyback on the stock of debt and on amortization and interest payments. That is, the DM computes series for $\Delta F^{j_{b b}}, \Delta A P j_{b b}$ and, $\Delta I P j_{b b}$.

A buyback will reduce the stock of debt by the value of the retired debt minus the amount of exit bonds issued. Therefore: (3.15) $\quad \Delta F_{b b}^{j}=E B^{j}-B B^{j}$

In addition, amortization and interest payments must be reduced. The question is how much are they reduced. If all the loans given by a single creditor where homogeneous or,
alternatively, we knew exactly which loans were bought back, we could easily calculate the effects on amortization ( $\Delta \mathrm{Ap} \mathrm{j}_{\mathrm{bb}}$ ) and interest payments $\left(\Delta I P^{j} \mathrm{bb}\right)$. In the absence of this information, it is impossible to know $\Delta A P_{b b}{ }_{b b}$ and $\Delta I P_{b b}^{j}$ with certainty. We are, therefore, forced to make an assumption. We chose to assume that the loans bought back were "average" loans, that is, that they carried the average interest rate and that they were amortized with the average amortization schedule. ${ }^{10}$ Therefore, $\Delta A P j_{b b}$ and $\Delta I P_{b b}$ are calculated as follows:
 (3.17) $\Delta I P_{b b}^{j}=-\left(I P^{j} e^{f} F_{e}^{j}\right) \cdot B B_{-1}^{j}+\sum_{h=0}^{Y}\left[\Delta G D_{b b, h-1}^{j}-\Delta A P_{b b, h-1}{ }^{-}\right.$


Equations (3.16) and (3.17) have two terms each. In both cases, the first term measures the reduction in payments that results from the reduction of old debt, whi-e the second tern shows the increase in payments that results from issuing exit bonds.

From the accounting point of view, equations (3.15), (3.16) and (3.97) exhaust the effects of a buyback. However, the economic effects of a buyback depend crucially on how it is financed. An externally financed buyback does not have further consequences than those derived in equations (3.15) to (3.17). The same applies for

10 It is straightforward to change this assumption if more information is available.
a buyback financed through exit bonds. However, a buyback financed through the use of reserves has the additional effect of reducing the stock of reserves. This reduction in reserves is calculated in the DM and exported to the RMSM-X. There, we take into account the possible macroeconomic implications.

In the case of a buyback financed by equity, that is, a debtequity swap, the user must make an assumption about the "additionality" of the direct foreign investment. The flow of foreign investment is reduced to the extent that the equity that is exchanged for old debt would have been bought otherwise. In addition the DM calculates the increase in profit remittances that results from the increased foreign ownership of real assets. Both the change in direct foreign investment and profit remittances are exported to the RMSM-X. Finally, there is an extra issue to be considered in a debt-equity swap. This is the origin of the equity exchanged for the buyback. If it was previously owned by the government, no monetary implications arise. But, if the equity was owned by the private sector the issue arises of how did the government raise the funds to buy it. It could be through taxes, by borrowing at home or by increasing the money supply. In any case, this action would have macroeconomic implications. Therefore, the user is asked to decide the source of the funds. Once this is done, the increase in taxes, borrowing and/or money creation is fed back to the RMSM-X model.

## Accumulation of Arrears

When a country accumulates arrears, it is forcing new financing from its creditors. Formally, it amounts to what we have labeled refinancing in the subsection about reschedulings. Therefore, we treat arrears as we did with refinancing. The only difference is that we apply different interest rate ( $\mathrm{i}_{\mathrm{j}}^{\mathrm{ar}}$ ), maturity ( $\mathrm{M}_{\mathrm{ar}}$ ) and grace period ( $\mathrm{GJ}_{\mathrm{ar}}$ ) to forced debt. If we define amortizgtion and interest payments as $A R^{J^{\prime}} A P$ and $A R^{j} I P^{\prime}$, respectively, we have:
(3.18) $\quad \Delta G D_{a r}^{j}=A R_{A P}{ }^{j} A R^{j}{ }_{I P}$

$$
\begin{equation*}
\Delta A P^{j} a r=\sum_{h=T-\mu_{a r}}^{T-G_{a r}^{j} r^{-1}}\left[\Delta G D^{j} a r, h^{\circ} \cdot\left(M_{a r}^{j}-G_{a r}^{j}\right)^{-1}\right] \tag{3.19}
\end{equation*}
$$

$$
\begin{equation*}
\Delta I P_{a r}^{j}=\sum_{h=0}^{T}\left(\Delta G D_{a r, h-1}^{j-\Delta A P^{j}} a r, h-1\right) \cdot i_{a r, h}^{j} \tag{3.20}
\end{equation*}
$$

Equation (3.18) states that gross disbursements increase by the amount of arrears accumulated on amortization and interest payments. Equations (3.19) and (3.20) calculate amortization and interest payments due on the forced debt.

## Debt Forgiveness

Debt forgiveness takes place if some or all creditors writeoff part of the stock of debt. This case is formally equivalent to an "externally financed" buyback. First, a write-off (WOFF ${ }^{j}$ ) will reduce the stock of debt by the value of the forgiven debt:
(3.21) $\quad \Delta F_{\text {woff }}^{j}=-$ WOFF $^{j}$

In addition, amortization and interest payments must be reduced. As in the case of a buyback the question arises of is how much are amortization and interest payments reduced. As before, we assume that the loans forgiven were "average" loans, that is, that they carried the average interest rate and that they were amortired with the average amortization schedule. Therefore, $\Delta A P{ }^{j}$ woff and $\Delta I P{ }^{j}$ woff are calculated as follows:
(3.22) $\quad \triangle A P_{\text {woff }}=-\left(A P_{e^{j}} / F_{e}^{j}\right) \cdot$ WOFF $_{-1}^{j}$
(3.23) $\quad \Delta I P_{\text {WOff }}=-\left(I P^{j} e^{j} \mathbf{e}_{e}\right) \cdot$ WOFF $^{j}-1$

Equations (3.22) and (3.23) determine the reduction in amortization and interest payments that result from the reduction of debt.

### 3.4 New Debt

Once existing debt has been calculated, the DM projects new debt for each of the creditors. That is, the DM also computes the value of the six following variables at each point of time: the stcak of new debt $\left(F_{n}^{j}\right)$, new ioans committed $\left(C_{n}^{j}\right)$, gross disbursements $\left(G D_{n}\right)^{\prime}$, amortization payments (AP ${ }_{n}$ ), net disbursements ( $\operatorname{ND}_{n}{ }_{n}$ ), and interest payments ( $I P_{n} j_{n}$ ). For this purpose the $D M$ uses the following set of equations:
(3.24) $\quad F_{n}{ }_{n}=F_{n,-1}+N D_{n}$
(3.25) $\quad N D_{n}^{j}=G D_{n}^{j}-A P_{n}^{j}$

$$
\begin{equation*}
G D_{n}^{j}=\sum_{h=0}^{T} c_{n, h}^{j} \cdot T_{n, T-h+1}^{j} \tag{3.26}
\end{equation*}
$$

$$
\text { (3.27) } \quad A P^{j}{ }_{n}=\sum_{n=T-M_{n}^{j}}^{T-\omega_{n}^{j}}\left[\Delta G D_{n, h^{-1}}^{\bullet}\left(M_{n}^{j}-G_{n}^{j}\right)^{-1}\right]
$$

$$
\text { (3.28) } \quad I P_{n}^{j}=i{ }_{n}^{j} \bullet F_{n,-1}^{j}
$$

where $T$ indicates the current time period. Equations (3.24) indicates that the current stock of debt equals last period's stock of debt plus net disbursements. Equation (3.25) defines net disbursements as the difference between gross disbursements and amortization payments. In (3.26) gross disbursements in period $T$ is defined as the sum of each of the gross disbursements due from all past loans committed. Each of these disbursements are in turn defined as the amount committed times the corresponding percentage to be disbursed in T. Equation (3.27) defines amortization payments as the sum of all the amortization payments due in $T$ for loans committed before $T$. These will be zero if the grace period has not finished or the maturity period has already expired. Otherwise, they are assumed to be equal to the loan divided by the number of payments. Finally, equation (3.28) defines interest payments as the stock of debt in period $T-1$ times the current interest rate.

The system of equations (3.24)-(3.28) is not sufficient to
 need an extra relationship. This extra equation is what differentiates the "requirements" and the "availabilities" models.

Under the "requirements" closure rule, the DM calculates the values (or equations) for the total stock of existing debt ( $F^{*}{ }_{e}$ ) as well as the average interest rates on existing ( $i^{*} e_{e}$ ) and new ( $i^{*}{ }_{n}$ ) debt for each year of the projection period. This is done as follows:

$$
F_{e}^{*}=\sum_{j=1}^{m} F_{e}^{j}
$$

$$
\begin{equation*}
i_{e}^{*}=\sum_{j=1}^{m} i_{n}^{j} \cdot\left(F_{e}^{j} / F_{e}^{*}\right) \tag{3.30}
\end{equation*}
$$

$$
\begin{equation*}
i^{*}{ }_{n}=\sum_{j=1}^{m} i^{j} n^{\bullet B^{j}}{ }_{n} \tag{3.31}
\end{equation*}
$$

Equation (3.29) defines the total stock of existing debt as the sum of each creditor's stock of existing debt. Equation (3.30) calculates the average interest rate on existing debt as the weighted sum of each creditor's implicit interest rate on existing debt. Finally, equation (3.31) defines the average interest rate On new debt as the weighted sum of each creditor's interest rate on new debt. The weights used are the exogenously given shares of each creditor in new debt, that is, the Bs.

Once $F^{*} e^{\prime} i^{*} e$ and $i^{*}{ }_{n}$ have been computed, they are exported to the RMSM-X model and used to construct the foreign credit supply schedule:
(3.1) $\quad i_{t}^{*}=i^{*} e^{\bullet}\left(F_{e,-1}^{*} / F_{t,-1}^{*}\right)+i_{n}{ }_{n} \cdot\left[\left(F_{t,-1}^{*} F_{e,-1}\right) / F_{t,-1}^{*}\right]$

Then, the total stock of debt is calculated in the RMSM-X model and imported back to the $D M$. Having $F_{t}{ }_{t}$ and using the share of creditor $j$ in new debt, $\beta^{j}$, the $D M$ calculated $F_{n}^{j}$ as follows: (3.32) $\quad F_{n}^{j}=B^{j} \cdot F_{t}^{*}-F_{e}^{j}$

Equation (3.32) is the extra equation needed to solve the model and obtain the figures for new debt.

## The "Availabilities Model Closure

Under the "availabilities" model closure, the user is asked to make an assumption on how many loans will be made by creditor j. This assumption gives us the extra relationship needed: (3.32') $\quad c_{n}^{j}=\boldsymbol{C J} n$

In this case, it is not necessary to solve the RMSM-X model to obtain projections for new debt. Nor is it necessary to assume the value of the Bs.

### 3.5 Total Debt

The DM obtains the total figures for each of the creditors by adding existing and new debt. In this way total gross and net disbursements, amortization payments, loans committed, stocks of debt and interest payments are calculated. Then the DM obtains the economy-wide values of interest payments and capital flows by


$$
x=\sum_{j=1}^{m} x_{t}^{j}
$$

$$
\mathrm{X}=\mathrm{GD}, \mathrm{AP}, \mathrm{ND}, \mathrm{~F}, \mathrm{IP}
$$

The total output of the $D M$ is presented in Appendix 2.
IV. CONCLUDING REMARKS

The RMSM-X for Turkey can be extended in many directions. We are currently working on two areas of possible improvement. First, we are replacing some of the simple rules used in this version by econometrically estimated behavioral functions. Second, we are in the process of implementing a simultaneous solution technique that will allow us to solve the model for intermediate variables such as the real interest rate and the real exchange rate. Several other extensions could be considered. In particular, the specification of the markets could be enriched by disaggregating the goods and domestic asset markets. Factor markets, especially the labor market, could also be added to the model.

Despite the simple behavioral structure of the current model, the application of RMSM-X to Turkey has yielded some useful insights. Specifying the model contributed to an improved understanding of the relationships among the different sectors of the economy. Building the consistency framework helped us to identify the major inconsistencies in the original statistics and provided us with clues on how to resolve them. In addition, this model equips us with a useful quantitative tool for the study of the interaction between our economic assumptions on the behavior of economic agents and the design of consistent macroeconomic policies.

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## APPENDIX 1: Creating a Consistent Data Base

Given the nature of the RMSM-X models, it is necessary to assemble the macroeconomic statistics of Turkey into a flow-offunds accounting framework. This nci only maps the budget constraints of the various sectors into actual data but also describes the characteristics of the Turkish economy in detail. The methodology is based on the fact that each source of funds for one sector is also a use or resource for another. This system of double entry accounting portrays income, expenditure, investment, savings and financing in such a way that consistency among sectors is assured.

The theoretical sections of the paper include a description of che economic sectors and markets that we need to incorporate into the model. This theoretical framework determines the data requirements. In spite of its adaptation to the Iurkish case we were likely to encounter two data problems: (i) inconsistency, and (ii) incompleteness. The first problem arises from the fact that similar data are collected by different agents or institutions in the economy. Resolving the problem can only be done by means of a qualitative judgement on the data sources. Timeliness of the availability of data is also a concern. The second problem needs to be solved through assumptions about the missing data.

Creating a consistent data set is an iterative process. At the outset it is difficult to see which original data set and which assumptions will lead to a "better" consistency of the data. Hence, it is often necessary to revise assumptions, collect
additional data or switch to a different starting point. In what follows we will document how we proceeded from original data to flow-of-funds accounts. We will focus on the process of data selection, on the assumptions needed to close the data set, and, on the reconciliation of stocks and flows.

In the remainder of this appendix and in the appendix tables we have indicated our data sources as follows:

CB: Central Bank's Quarterly Bulletin containing all monetary data on the Central Bank and the domestic banking system and, Reserve Money Table; a weekly publication of the Central Bank's balance sheet.

BOP: Balance of payments data prepared by the Central Bank and available in various publications (e.g. State Planning Organization: Main Economic Indicators).

DRS: Debt Reporting System of the World Bank.
Fiscal: "Public Balances" tables published by State Planning Organization in most Plan documents.

NA: National accounts data are taken from "Macrobalances" tables published by SPO.

E10: Special table prepared by the Central Bank showing foreign asset position of domestic money banks.

F19: Table on debt service prepared by Treasury.

Some of these sources overlap in terms of data coverage. In the description of the construction of a consistent data set we will motivate and indicate our preferred sources.

We have used the following general principle to ensure historical consistency of the data. In an accounting sense, budget constraints of all sectors add up (to zero). Therefore, if data on all but one sector are gathered, then the data on the remaining
one are automatically filled. This feature of flow-of-funds can readily be exploited to fill gaps in the data. Given that very limited independent information is available on the private sector, we choose this sector as the residual of our system and focus on the collection of data for the other five sectors. This also provides a check on the collection of data since the variables obtained as a residual in the private sector should behave normally.

The problem of stock-flow consistency arises because of the use of discrete time periods during which flow data are collected. In an accounting sense, flow-of-funds do not require the stock data. However, implicitly, we require stock data to determine some flows, for example, interest payments. In addition, from the economic perspective stocks play a crucial role in the determination of asset prices, interest rates and inflation.

We start the construction of the flow of funds by ensuring consistency between stocks and flows of external debt and the balance of payment's capital account. Then we take the data from the current account of the balance of payments and relate them to the national accounts and interest payments on external debt. Next we consider the monetary sector and ensure stock-flow consistency of domestic assets as well as consistency between Tl flows and the Tl value of foreign currency denominated assets. Given explicit and implicit interest rates we derive the current account for the Central Bank and the banking system. Then we move to the fiscal accounts where we assure consistency between financing and the current accounts of the budget and the SEEs. We make sure that the key macroeconomic identities of the national accounts are
satisfied and obtain the private sector account as the residual that closes the historical flow of funds. Finally, we present the sector accounts in a concise matrix format.

## A1.1 External Debt and the Balance of Payments

Data on the balance of payments and external debt are commonly expressed in a single foreign currency. The current account of the balance of payments should be consistent with the national accounts. If the data are constructed jointly, as is the case in Turkey, no inconsistencies arise. The links between the capital account of the balance of payments, representing financing flows for the domestic agents, and the stocks of external debt as well as the net foreign asset position of the various sectors are somewhat more complicated.

We encounter four problems during the reconciliation of dollar denominated stocks of external debt, the net foreign asset position, dollar flows of the balance of payments, TL flows and TL stocks. First, the stock of external debt expressed in dollars does not only change because of new foreign borrowing but also because of changes in the cross-currency rates among the foreign currencies that constitute the stock. Hence, the stocks of debt need to be adjusted for the "cross-currency effects" in order to reconcile the capital flows from the balance of payments with the changes in the stocks. Second, the net foreign asset position of each of the domestic sectors does not correspond with its external debt position. This is the result of transactions among domestic sectors in foreign currency. For example, the private sector could either sell proceeds of exports or deposit them in the domestic
banking system. Although neither transaction changes the net foreign asset position of the country, the first transaction Changes the net foreign asset position of the private sector and the domestic banking system, while the second does not. The third problem, the "timing-effect," is related to the conversion of dollar flows in TL equivalent. Due to the use of discrete time periods, the question of the proper exchange rate becomes a crucial one. The domestic currency equivalent financing will be affected by the timing of the flows, particularly in an inflationary environment. A country that receives a foreign loan at the beginning of the time period will derive much less financing from it than the country that receives the same loan at the end of the period. Finally, the change in the $T L$ value of stocks of net foreign assets does not correspond to the value of the $T l$ flows due to the "revaluation effect." As the result of changes in the end of period nominal exchange rate these stocks need to be revaluated.

If sufficient information is available, these four issues can be accurately dealt with. However, it is very unlikely that this information is available or consistent. In what follows, we explain how we deal with the problems that arose during the exercise on Turkey and detail the assumptions needed to resolve each of the problems. The solution of the problem of the revaluation effect and the timing of flows will be explained in the section on monetary accounts.

## Stock-Flow Consistency

Four equations ensure the consistency of foreign currency denominated stocks and flows for each of the sectors:
(A1.1) $\mathrm{F}_{1}=\mathrm{FG}_{1}-\mathrm{RES}_{1}+\Sigma\left(\mathrm{FXj}^{2}-\mathrm{FXij}\right)$; for $i \nmid j \nmid t$ and $i=c, d, o, b, p, t$ (A1.2) $\mathrm{dFG}_{1}=\mathrm{KdFG}+\mathrm{CC} \mathrm{dFG}_{1}$; for $\mathrm{i}=\mathrm{C}, \mathrm{d}, \mathrm{o}, \mathrm{b}, \mathrm{p}, \mathrm{t}$
 (A1.4) dRES $_{1}=K_{1}$ dRES $_{1}+C C$ dRES $_{1} ;$ for $i=c, d$
with $F_{i}=$ net foreign liability position of sector $i, F_{i}=$ external debt position of sector $i$, RESi= reserve position of sector $i$, FXij $=$ foreign exchange deposits of sector $i$ at sector j. $d$ stands for flow data, the prefix $K$ is for the flows from the capital account of the balance of payments and the prefix CC indicates the crosscurrency effect.

Equation Al. 1 states that se net foreign liability position of any sector in the economy equals its external debt position minus reserve holdings and minus net foreign exchange deposits at other domestic sectors. In this way, we deal explicitly with the difference between the external debt position and the net foreign asset position of each sector. Clearly, for the econcmy as a whole there is no difference between the net external debt and the net foreign asset position. Equation A1. 2 decomposes the stock change of external debt into the actual flow from the capital account of the balance of payments and the "cross-currency effect" due to changes in exchange rates among the foreign currencies that compose the stock of debt. Equation AI. 3 and Al. 4 do the same as equation A1.2 for foreign exchange deposits and reserve holdings.

The formulation of equation Al. 4 implicitly assumes that there are no sales or purchases of reserves between the different sectors of the economy (other than related to balance of payments
transactions). This is consistent with another assumption embodied in the set limitation of equation A1.4: the private sector does not hold foreign exchange in cash or as deposits with the foreign sector. Hence, balance of payments proceeds from trade or capital transactions are either sold directly to the Central Bank or deposited in the banking system. Obviously, additional information on private sector's holding of foreign cash and intersectoral sales and purchases of foreign exchange would avoid the need to make these assumptions.

We further observe that the budget and the SEEs hold foreign excharge deposits at the Central Bank and assume that they do not hold foreign exchange deposits at the domestic banking system. The private sector holds foreign exchange deposits only in the domestic banking system. The domestic banks hold foreign exchange deposits at the Central Bank to satisfy reserve requirements on their foreign exchange deposits and to satisfy a regulation that limits the net foreign liability position of the domestic banking system.

Data on the six equations embodied in Equation AII. 1 were readily available from different sources. Since one of the equations represents the total, the six equations are obviously not linearly independent. Table A1.1 shows the detail of Equation A1.1 for each of the sectcrs and lists the sources of the data. Depending on our judgement on the quality of the sourcr of data and the availability of data from different sources, either the net foreign liability position or the total stock of external debt is calculat $: A$ The private sector contains a residual that reconciles the info; iion on the total with that on each of the other sectors.

The next step involves obtaining the identities Al. 2 through A1.4. These identities are derived as flows from the right hand side of equation A1.1. Given the set limitations on the equations we get 12 equations each having three variables but only 11 equations are linearly independent. In the Turkish case not enough data are available to solve the entire system without making further assumptions.

Given the 11 independent equations we can determine 11 variables provided they appear in different equations. The 11 equations contain 33 variables of which 11 are known from the flow version of equation A1.1. We have additional independent information from the balance of payments on reserve flows (K dRESC and $K$ dRESd, and from fiscal data on the financing of the public sector ( K dFGb) and K dFGo). This leaves us with 18 variables to be determined. However, given equation A1.1 we also know the net asset position of the country and we know that the sum of all net positions of the individual sectors must add up to that total. This provides us with an additional constraint so that we are left with 17 unknowns of which 11 can be determined. Hence, we need to find additional information for 6 variables.

For 1988, our base year, we choose to make the assumptions on the cross-currency effects as we have some additional information on the currency composition of external debts and reserves as well as the cross-exchange rates. We assume that the currency composition of foreign exchange deposits is similar to that of Central Bank reserves (approximately 19 percent DM, the remainder US dollars). Given the cross-exchange rates, we can determine the cross-currency effects on the foreign exchange deposits held by

Teble Al. 1 Foreign Currency Denominated Assets and Liabilities(Uss Million)

|  |  | 1986 | 1987 | 1988 | source |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | TOTAL |  |  |  |  |
| FGt | External Debt | 32,789.45 | 40,932.06 | 39,592.24 | DRS |
| RESC | Cs Rescrves | 2,596.21 | 3,245.47 | 3,671.20 | C8 |
| RESd | as Reserves | 1,819.00 | 2.261.00 | 2,921.00 | E10 |
| Ft | Net External Debt | 28,372.26 | 35,445.57 | 33,000.04 | Calculated |
|  | ceinral bama |  |  |  |  |
| Fec | External Debt | 8,443.76 | 10,464.39 | 8,275.95 | Calculated |
| FXbec | FX deposits of Budpet | 729.62 | 990.01 | 1.096.48 |  |
| FXoc | FX deposits of SEEs | 219.32 | 120.68 | 218.48 | C8 |
| Fxde | FX deposits of ES | 1,600.81 | 2,556.76 | 2,390.46 | C8 |
| RESC | Reserves | 2,598.21 | 3.245.47 | 3,671.20 | C8 |
| Fc | WFA Position | 8,675.30 | 10,886.37 | 8,310.17 | C8 |
|  | budet |  |  |  |  |
| Feb | Exterral Debt | 16,215.98 | 20,516.05 | 20,318.68 | DRS |
| FXbe | FX deposits at cs | 729.62 | 990.01 | 1,096.48 |  |
| Fb | MFA Position | 15,486.36 | 19,526.03 | 19,222.19 | Calculated |
|  | SEEs |  |  |  |  |
| FGo | External Debt | 3,767.80 | 4,249.67 | 4,332.74 | Des |
| Froc | FX deposits at CS | 219.32 | 120.68 | 218.48 |  |
| Fo | WFA position | 3,548.48 | 4.128 .99 | 4,114.26 | Calculated |
|  | DOEESTIC ${ }^{\text {ats }}$ |  |  |  |  |
| FGd | External Debt | 3,590.26 | 5.396.32 | $5,931.16$ | Calculated |
| Fude | FX Deposits at CB | 1,680.81 | 2,556.76 | 2,390,46 |  |
| Fxpd | FX deposits of Private | 2,076.00 | 3,528.00 | 3,011.00 | E10 |
| RESd | Reserves | 1,819.00 | 2,241.00 | 2,921.00 | E10 |
| Fod | mfa Position | 2,164.45 | 4.126.56 | 3,630.70 | C8 |
|  | PRIVATE SECTOR |  |  |  |  |
| FEP | External Debt | 771.65 | 305.61 | 733.70 | Calculated |
| Fxpd | Deporits at 8 S | 2,074.00 | 3,528.00 | 3,011.00 |  |
| Fp | UFA position | $-1,302.35$ | -3,222.39 | -2,277.30 | Residual |

[^5]domestic sectors among each other (CC dFXbc, CC dFXoc, CC dFXdc, CC dFXpd). We also know the currency composition of the Central Bank's external debt (approximately 44 percent US\$, 56 percent DM), and assume that the domestic banking system's external debt had the same composition. This is sufficient to determine $C C d F G C$ and $C C$ dFGd.

We choose the end of 1988 cross-currency rates as the base rates. Then, it is straightforward to calculate the cross-currency effect in 1988 with the following formula:
(A1.5) $\operatorname{CC} d x=\Sigma_{1} \alpha_{i} x\left(1-\frac{E_{2}}{E_{i}(t)}(t-1)\right)$
for $\mathrm{X}=\mathrm{FXbC}, \mathrm{FXOC}, \mathrm{FXd}, \mathrm{FXpd}, \mathrm{FGd}, \mathrm{FGc}$.
where $i$ is defined over the set of foreign currencies, except US $\$^{1}$, $\alpha_{1}$ is the weight of the foreign currency $i$ in total dollar stock of external debt ( X ) and $\mathrm{EER}_{1}(\mathrm{t})$ is the end of period exchange rate expressed as the amount of foreign currency per us $\$$.

In order to calculate cross-currency effects for 1987 some additional assumptions are required if the weights $\alpha_{1}$ are not known at all relevant points in time. If they are known, the calculation of the cross-currency effect can be done according to equation A1.5. If the $\alpha_{1}$ are only known in the base period, two possible assumptions can be made to calculate the past effects. One hypothesis assumes that the $\alpha_{1}$ simply stay constant. This implies that the country follows a borrowing strategy that offsets cross-

[^6]currency effects. If the US\$ appreciates the country swaps other currency debt for US\$ debt to maintain a constant dollar value share of other currency debt. Another hypothesis is to assume that a fixed share $\left(\alpha_{i}\right)$ of the dollar flow value is borrowed in foreign currency. This allows us to determine the stocks of foreign debt by foreign currency, implicitly changing the $\alpha_{1}$ for the past stocks. Both assumptions can be misleading, but in the absence of data on the $\alpha_{1}$ 's or on the currency composition of flows we opt for the second assumption since Turkey does not seem to pursue an offsetting borrowing strategy. This is a temporary solution until proper data on the $\alpha_{1}$ 's are collected.

Table A1. 2 shows the data obtained from solving the system of equations A1.1 through A1.4. Boldface numbers are the variables we solved for while numbers with an asterisk indicate assumptions that we have made. All other variables are taken from available statistics, as explained above. Blank entries simply reflect the underlying economic structure as not all sectors are related to each other for all items.

## Capital Account of Balance of Payments

As a by-product of the exercise above we also obtain all the entries in the capital account of the balance of payments. Table A1.3 reproduces the balance of payments in its original format obtained from the Central Bank. Table Al. 4 presents the balance of payments in the format needed for the model. As is evident, the original capital account does not contain sufficient information to fit our sectoral composition of the economy. The solution of equations A1. 1 to A1. 4 solves this problem.

Teble A1.2 Foreign Ourrency Dencimeted Debt: fions 1908 (uss Milition)

|  | $\Delta$ Wet foreign Asset Position | Equation A1.1s Extermal Debth $(t)$ | $\begin{gathered} \text { ineserve } \\ \text { Accuiviation (-) } \end{gathered}$ | Deporits of <br> Domatic Sectors (-) |
| :---: | :---: | :---: | :---: | :---: |
| Total | -2,445.5 | -1,339.8 | 1.105 .7 | 0.0 |
| Central Bent | -2,578.1 | -2,188.4 | 425.7 | -38.0 |
| Budisat | -303.8 | -197.4 | - | 108.5 |
| Sters | -14.7 | 83.1 | - | 87.8 |
| Damstic ES | 435.9 | 534.8 | 680.0 | 350.7 |
| Private Sector | 845.1 | 428.1 | - | -517.0 |
| B. Equation A1.2 $/$ |  |  |  |  |
|  | $\Delta$ External Debt | RoP F10w ( + ) | $)$ | -Curracy Effects (t) |
| Total | -1,330.8 | -146.0 |  | -1,103.8 |
| Central Bank | -2,188.4 | -1,688.9 |  | -510.5* |
| Budset | -187.4 | 488.3 |  | -685.6 |
| SEEA | 83.1 | 1,189.7 |  | -111.6 |
| Domentic BS | 534.8 | 007.2 |  | -372.3. |
| Private Sector | 428.1 | -1,052.2 |  | 2,480.3 |
| C. Equation A1.3 el |  |  |  |  |
| AReserves BoP flow (t) Crongreurrency Elfecte (t) |  |  |  |  |
| Totel | 1,105.7 | 1,709.0 |  | -603.3 |
| Central Bank | 425.7 | 888.0 |  | -482.3 |
| Budget | - | - |  | - |
| SuEs | - | - |  | - |
| Dcmentic BS | 680.0 | 821.0 |  | -141.0 |
| Private Sector | $\because$ | Equation A1.424 |  | - |
|  | AFI Deponits | FI flowe Croen-currency Eefect |  |  |
| Totel | 0.0 | 0.6 |  | 0.0 |
| Central Benk | -38.0 | -116.9 |  | 78.8 |
| Budset | 108.5 | 129.8 |  | -23.3* |
| Ster | 97.8 | 102.5 |  | -4.7* |
| Domatic ES | 350.8 | 337.5 |  | 13.20 |
| Private Sector | -517.0 | -452.8 |  | -84.1* |

If This is the flow rapranentation of Toble AII. 1 for 1808.
of Boldface are ardogenous variables, variables marited with antariak are baad an asamptions, all other variables are talien fro evailable data.

Source: See explanntion in tert.

|  | 1987 | 1988 |
| :---: | :---: | :---: |
| Merchandise exports fob | 10,322.0 | 11,846.0 |
| Merchandise imports fob | -13.551.0 | -13,646.0 |
| Other credit | 4.111 .0 | 5,965.0 |
| Stripment | 617.0 | 777.0 |
| Treneportation | 99.0 | 60.0 |
| Touris | 1.476.0 | 2.355 .0 |
| Other goode, $n$ fs | 1,328.0 | 2,005.0 |
| Profit remittmaces | 293.0 | 476.0 |
| Interest income | 298.0 | 272.0 |
| Other debit | -4.282.0 | -4.812.0 |
| Shipment | -404.0 | - 399.0 |
| Tremeportation | -214.0 | -174.0 |
| Tourist | -448.0 | -358.0 |
| Other goods, nfs | -629.0 | . 994.0 |
| Profit Remittances | -80.0 | -88.0 |
| Interest payments | -2,507.0 | -2,799.0 |
| Tramfers credit | 2,456.0 | 2.199 .0 |
| Private Horker remittances | 2,021.0 | 1,755.0 |
| Private other | 67.0 | 70.0 |
| Public | 368.0 | 374.0 |
| Worker Remittences | 81.0 | 89.0 |
| Other | 287.0 | 285.0 |
| Trensfers debit | -38.0 | -29.0 |
| Private | -22.0 | -19.0 |
| Prolic | -16.0 | -10.0 |
| Cunkemt account | -982.0 | 1,503.0 |
| Direct Investment | 110.0 | 352.0 |
| Portfolio Imvestment | -29.0 | -4.0 |
| other lono-tern capital | 1,573.0 | 930.0 |
| Oravinge | 3,662.0 | 4,308.0 |
| Drescrier | 568.0 | 549.0 |
| Reperments | -2,657.0 | -3,927.0 |
| Short-terim capital | 356.0 | -1,979.0 |
| Aesets | -945.0 | -1.428.0 |
| Credits extended | -862.0 | -607.0 |
| Total chence in Moldines | -103.0 | -821.0 |
| Licbilities | 1,301.0 | -551.0 |
| Credita | 692.0 | -979.0 |
| Deposits | 609.0 | 428.0 |
| Capital accomit | 2,010.0 | -701.0 |
| wer enmons ado anissions | -459.0 | 347.0 |
| ExCeptione fimameime | 0.0 | 0.0 |
| conterpar itens | 426.0 | -261.0 |
| OVEmall ealamce | 993.0 | 888.0 |
| CHMMEE Ifl mesenves | -993.0 | -888.0 |
| IMf | -344.0 | -467.0 |
| Official Reserves | -649.0 | -421.0 |

## Source: Central Eank

## Current Account of the Balance of Payments

For our purpose we need to distinguish in the current account of the balance of payments total exports and imports, interest payments per sector, total profit remittances, foreign transfers to the private sector and the public sector and worker remittances. We also distinguish among imports or irvestment goods, consumption goods and intermediate goods. For this purpose additional information was obtained based on customs statistics.

To preserve the original consistency between the balance of payments data and the national accounts, we adopted the somewhat peculiar system of the Turkish authorities. They consider all current account transactions except interest payments, profit remittances and private and official workers remittances ${ }^{2}$ as goods and non-factor services. Hence, the resource balance includes some transfer items that are assumed to be goods and non-factor services by Turkish officials. Private worker remittances of Table Al. 3 correspond with worker remittances in Table Al.4, foreign transfers to the budget in Table A1.4 correspond with official worker remittances in Table $A 1.3$ while total profit remittances and interest payments in Table Al. 4 are the net of the corresponding debit and credit entries of Table A1.3. Transfers debit, private other transfers credit and public transfers credit from Table A1. 3 are added to exports and imports, respectively, in Table Al.4. In
${ }^{2}$ This category consists mainly of payments by Turkish nationals abroad in lieu of military service.

Ioble A1. 4 Balance of Poyments (USS Million)

|  |  | 1987 | 1988 | source |
| :---: | :---: | :---: | :---: | :---: |
| ${ }_{H D} \mathrm{Xt}$ | Exports | 14,198.0 | 17,398.0 | (Bop data) |
| HD Int | 1 Iports | 15,284.0 | 15,600.0 | (8op data) |
| ${ }_{\text {HD }}$ IML | Investment goods | 3,817.0 | 3,389.0 | (Bop data) |
| HD INT | Consuption gocos | 9,180.0 | 9,261.0 | (Bop data) |
| HD RB | Resource Balance | -1,088.0 | 1.798 .0 | (Calculated) |
| HD ift | Interest Payments | 2,209.0 | 2.527 .0 | (Bop data) |
| HD IFCb | Budget | 1.215 .0 | 1,358.0 | ( F 20 ) |
| HD iFGo | SEEs | 322.0 | 360.0 | ( F 20 ) |
| HD IFGP | Private | 61.8 | 23.2 | (iF*FGp [t-1]) |
| H0 ifge | Banking Systea | 141.9 | 239.0 | (iF* $\mathrm{FFGd-RESO}$ (t-1]) |
| HD iFGC | Central Bank Cs's foreign Reserves (-) | 676.4 | 192.7 245.8 |  |
| HD iRESd | BS's Foreign Reserves (-) | 145.7 | 169.8 |  |
| HD PR | Profit Remittances | -213.0 | -388.0 | (Bop data) |
| HD iftepr | Factor Payments | 1,996.0 | 2,139.0 | (Calculated) |
| HD Tfb | Foreign Transfers to Budget | 81.0 | 89.0 | (Bop data) |
| H0 TfP | Foreign Transfers to PS Workers Remittances | $2,020.0$ | 1,755.0 | (80\% data) |
| Hid Tft | Total foreign Transfers | 2,102.0 | 1,844.0 | (Calculated) |
| HD 59 | Foreign Savings | 982.0 | -1,503.0 | (Bop data) |
| HD DFI | Foreign Imvestment | 110.0 | 352.0 | (Bop data) |
| HD dFcb | Capital Inflows: suadeet | -754.6 | 468.3 | (Fiscal data) |
| HD dFGo | SEES | 1,498.4 | 1.199.7 | (Fiscal data) |
| HD dFGP | Private | -899.2 | -1,052.2 | (Residual) |
| HD dFGd | Banking System | 1,237.8 | 906.2 | (Calc. from CB data) |
| HD dFGc | Central bank | 895.7 | -1,668.9 | (Cale. from C8 data) |
| HD dFt | Total Capital Inflows | 872.0 | -1,855.0 | (Calculated) |
| MD dRESc | Central Bank Banking System | 993.0 103.0 | $\begin{aligned} & 888.0 \\ & 821.0 \end{aligned}$ | $\begin{aligned} & \text { (From Bop) } \\ & \text { (from CB data) } \end{aligned}$ |

Source: See explanation in text and right most colun.
order to make the data on the subcategories of imports consistent with the total we choose to leave imports of consumption goods as the residual.

Interest payments are obtained in two different ways. First, data on interest payments of the budget and the SEEs are taken from the external debt service table. However, this table does not detail payments made/received by the other three sectors. Hence,
in order to ensure consistency, we calculated an implicit foreign interest rate as the ratio of interest payments and the previous end of period stock of external debt of the other three sectors (net of reserves). ${ }^{3}$ Multiplying this interest rate with the respective stocks gives us the required interest payments.

## Balance of Payments in TL

As a matter of principle, we choose to work with period average piices, exchange rates and interest rates. This is motivated by the fact that the majority of the data are only available in flow form. National accounts data and budget data are examples of this, and the standard practice to deflate these data is by means of a period average price index. Hence, we convert US\$ balance of payments flows at the period average exchange rate. This has important implications for the calculation of the "timing effect" necessary to reconcile Tl denominated stocks and flows with US\$ flows as will be explained below. This assumption obviously leads to an approximation of the $T l$ value of the balance of payments transactions since the timing of the transactions is of crucial importance, especially when large exchange rate swings occur. If more information is available on the timing of flows or the exchange rate process this should be taken into account.

A1.2. The monetary sector

[^7]The basic data for the Central Bank and the domestic banking system are obtajned in the form of balance sheets expressed in TL at the end of the year. In order to obtain information on the net foreign asset position of these institutions and on the foreign exchange deposits from other sectors in the economy, the original data has to be complemented with two additional sources. The Reserve Money table is used to derive all foreign asset positions of the Central Bank vis-a-vis the other sectors, while a special table (E10) provides the same infomation on the domestic banking system.

A further complication arises from the existence of public banks that are included in fiscal data as well as data on the banking system. In order to avoid double counting and to group activities in meaningful sectors we decided to include the financial state enterprises in the domestic banking system. Hence, the fiscal data are adjusted in order to exclude the financial SEEs. The Turkish fiscal data explicitly distinguished the category of financial SEEs that consist only of deposit money banks and development banks.

For assets and liabilities denominated in Tl, we can readily derive the corresponding financing flows as the changes in the $T l$ stocks. We assume that relative prices other than the exchange rate are constant. However, for the assets and liabilities expressed in Tl but denominated in foreign currency, we face the problem of reconciliating dollar flows and TL flows. First, flows are evaluated at period average exchange rates while stocks use
end-of-period exchange rates (the "timing effect"). Second, Tl stocks change not only due to quantity changes but also due to end-of-period exchange rate fluctuations (the "revaluation effect").

## Revaluation effects

We will discuss the general solution of the problem of revaluation effects using the reserves of the Central Bank as an example. All other foreign currency denominated assets are treated in the same way.

The change in the domestic currency equivalent of reserves d(Ee•RESC) can be decomposed as:
(A1.6) $d(E e \cdot R E S C)=E e \cdot d R E S c+d E e \cdot R E S C(t-1)$

Ee is the end of period exchange rate while $E$ is the period average rate. Adding and subtracting E•dRESc, we obtain:
(A1.7) $A(E e \cdot R E S C)=E \cdot d R E S C+(E e-E) \cdot d R E S C+d E e \cdot R E S C(t-1)$

Note that we have already decomposed E•dRESc in dollar terms into the cross-currency effect and the balance of payment flows in equations Al. 2 through Al.4. Here we translate this into $T l$ by multiplying with the average exchange rate:
(A1.8) $E \cdot d R E S C=E \cdot K$ dRESC $+E \cdot C C$ dRESc

The remaining two terms on the right hand side of equation A1.7 constitute the "timing effect" ((Ee-E)•dRESC) and the "revaluation effect" (dEe•RESc (t-1)\}. We denote the sum as:
(A1.9) $\quad$ dRV1c $=(E e-E) \cdot d R E S c+d E e \cdot R E S c(t-1)$

The "timing effect" is the result of the fact that stocks are evaluated at the end of period rates while flows are evaluated at period average exchange rates. The "revaluation effect" is due to fluctuations in the end of period dollar exchange rate.

The top section of Table Al. 5 represents the simplified stock balance sheet of the Central Bank. All stock data on the balance sheet are taken from the original data set and do not require further manipulation. From the change in the stock balance sheet we derive the capital account of the central Bank. On the asset side, the change in the $T l$ value of reserves is decomposed using equations A1. 6 through A1.9. To save notation in the model, we denote E•K dRESc as dARESC and E•CC dRE as CCRIc. On the liability side the same is done with the total liabilitit; (Ee.Fc). They consist not only of external debt (Ee•FGC) but also of the sum of all foreign currency denominated deposits of dcmestic sectors with the Central Bank (Ee•FXt). In the capital account of Table Al. 5 we decompose the total liabilities (dEe•Fc) into the balance of payments flow (dAFGc), the total flow from other domestic sectors (dFXt), the "cross-currency" effect on both (CCR2c) and the sum of the "timing and revaluation" effects on both (dRV2c). The counterpart of cross-currency, timing and revaluation effects (RVTC, dRVTC) is entered (with a negative sign) in net other liabilities (NOL, dNOLC) as they constitute a claim of the central

Teble A1.5 Central ganking Accounts (TL Billion)

| A | stocxs | 1987 | 1 | A | stocx | 988 | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | H | 4,933.6 |  |  | H | 9,100.0 |
| Eerrese | 3,313.3 | cut | 3,044.1 | Eeoresc | 6,662.5 | cut | 4,518.4 |
| CRt | 2,080.2 | cup | 2,274.7 | CRt | 1,394.6 | Oup | 3,4.25.6 |
| cro | 2,062.0 | cald | 769.4 | crb | 1,567.6 | cald | 1,092.8 |
| Cro | 501.1 | Ddc | 1,889.5 | CRo | 674.9 | Dode | 21,743.8 |
| Crd | -482.9 | Ee-Fc | 14,427.2 | Crd | -847.9 | WOL | -22.786.7 |
|  |  | HOL | -13,967.3 |  |  | muc | -6,793.1 |
|  |  | Mic | -5,397.4 |  |  | RUTC | -15,993.6 |
|  |  | RUTC | -8,569.9 |  |  |  |  |
|  |  | $\Delta A$ | CAPITAL ACCOMA, 1988 |  | $\triangle L$ |  |  |
|  |  |  |  | d ${ }^{\text {H }}$ | 4.166.4 |  |  |
|  |  | d(Ee-RESC) 3 | 3,349.2 | dcut | 1,474.3 |  |  |
|  |  | dares 1 | 1.257 .8 | dalp | 1.150.9 |  |  |
|  |  | ccric | -654.8 | coud | 323.4 |  |  |
|  |  | dRVic 2 | 2.746 .2 | dode | 2,692.1 |  |  |
|  |  | dcret | -685.6 | d(Ee-Fc) | 7,316.6 |  |  |
|  |  | dCRb | -494.4 | dafge | -2,364.0 |  |  |
|  |  | dCRd | 173.8 | dFXt | 165.5 |  |  |
|  |  | dCRd | -365.0 | CCR2c | -847.7 |  |  |
|  |  |  |  | divac | 10,362.7 |  |  |
|  |  |  |  | cwole | -8,819.4 |  |  |
|  |  |  |  | couc | -1,395.7 |  |  |
|  |  |  |  | divtc | -7,423.7 |  |  |
|  |  | R | Current account 88 |  | EES |  |  |
|  |  |  | $\begin{array}{r} 531.0 \\ 1,069.2 \\ 3,680.5 \\ 274.3 \end{array}$ | $\mathrm{i}_{\infty} 0^{\text {00p }} 1$ | 1,794.9 |  |  |
|  |  |  |  | $\mathrm{i}^{-} \cdot{ }^{\text {crad-1 }}$ | -245.6 |  |  |
|  |  |  |  | $i_{F} \cdot E \cdot F x_{p d-1}$ | 378.6 |  |  |
|  |  |  |  | $\mathrm{i}_{\mathrm{F}} \cdot \mathrm{E} \cdot \mathrm{FGd}-1$ | 338.6 |  |  |
|  |  |  |  | Patd | 5,087.0 |  |  |
|  |  |  |  | cowd |  |  |  |

Source: See explanation in text.
Bank on the budget. Net worth (NWC) and its change (dNWc, savings of the Central Bank) close the stock balance sheet and the capital account, respectively.

There are no data available on the current account (revenue and expenditure) of the Central Bank. We calculate a current account based on the balance sheet of the previous period by applying the corresponding interest rates to the respective assets and liabilities. Given the change in net worth of the Central Bank
(dNWC), this allows us to determine the distributed profits and losses (P\&LC) as the residual variable in the current account. Profits and losses contain all the items other than interest payments and receipts such as operating costs, exceptional revenues and costs, etc. These profits and losses are transferred as factor incolue to the budget. Jhe bottom part of Table Al. 5 presents the current account of the Central Bank.

The construction of the accounts of the domestic banking system follow exactly the same procedure. Table Al. 6 presents the stock balance sheets for 1987 and 1988 , the capital account and the current account for 1988. The existence of financial SEEs (deposit money banks and development finance institutions owned by the public sector) forces us to adjust the balance sheet of the domestic banking system in order to inciude explicitly some transactions between the budget and these financial institutions. Hence, the stock balance sheet contains paid in capital (Kbd) and real assets (Kd). Since we do not have information on the stocks of these two variables, they are obtained as the accumulation of flow data which we obtain from fiscal data. pajd in capital is the accumulation of equity transfers from the ceritral Government (KTbd), while real assets correspond with the accumulation of purchases of existing real estate by the financial SEEs (KTdp).4

[^8]The change in foreign liabilities (dFd) in the capital account of the banking system is the net flow from new external borrowing, private sector deposits in foreign currency and deposits of the banking system at the Central Bank in foreign currency. In Table A1. 6 dAFd is the $T l$ equivalent of the balance of payments flow, CCRd is the $T$. equivalent of the cross-currency effect and dRVd is the sum of the timing and revaluation effects. Similarly to the Central Bank account, dRVTd is the offsetting item in nat other liabilities. The current account shows all interest payments and receipts. Rather than adding all interest payments and receipts on foreign currency denominated assets and liabilities in a single item, we present each item separately. Distributed profits and losses ( $\mathrm{P} \& \mathrm{Ld}$ ) are again the residual item that includes all costs and revenues other than interest payments. The current account shows the interest payments received and disbursed for each of the three categories of foreign currency assets separately.

The interest rates used in the current account correspond with our assumption on the number of different types of assets. In reality, a larger array of different interest rates applies. rowever, as long as the theoretical model does not identify \&fferent behavioral relations for these different assets it is not meaningful to use a larger number of interest rates. The possible under- or over-estimations of current revenue and expenditure simply show up in distributed profits and losses.

Table A1.6 sonking system accounts (TL Billion)

| A | stocxs 1987 |  | $L$ | A | stock 1988 |  | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| covd | 769.4 | 00p | 6,400.8 | ard | 1,092.8 | DOp | 7,873.8 |
| Dodc | 1,899.5 | CRd | -482.9 | Dodc | 4.581 .6 | crd | -847.9 |
| Bd | 8,503.5 | Ee.Fd | 4,212.8 | $8 d$ | 10,882.1 | Ee-Fd | 6,589.0 |
| Bdb | 855.0 | and | 76.5 | Bab | 2,256.5 | Khad | 245.2 |
| Bod | 1.721 .8 | mold | 1,065.6 | Bod | 3,265.5 | mold | 3,420.4 |
| 8 pd | 5,926.7 | Und | -1,866.0 | Bpd | 5,360.1 | Mid | 3,420.4 |
| Kd | 110.4 | 2VTd | 2,732.2 | Kd | 724.0 | RVTa | 0.0 |
|  |  | $\Delta \lambda$ | CAPITAL ACCONT 1988 |  | $\Delta$ |  |  |
|  |  | doud | 323.4 | didop | 1,473.0 |  |  |
|  |  | dode | 2,692.1 | derad | -365.0 |  |  |
|  |  | cild | 2,378.6 | d(Ee-Fd) | 2,376.2 |  |  |
|  |  | dibl | 1,401.5 | dAFd | -356.0 |  |  |
|  |  | disod | 1,543.3 | ccrad | -346.4 |  |  |
|  |  | cispd | -566.6 | deva | 3,078.6 |  |  |
|  |  | KT¢ | 613.6 | KTbl | 168.7 |  |  |
|  |  |  |  | coud | 2,354.8 |  |  |
|  |  |  |  | ands | 5,087.0 |  |  |
|  |  |  |  | civico | -2,732.2 |  |  |
|  |  | R | CURREMT ACCOUNT 88 |  | ERS |  |  |
|  |  |  |  |  | 1,794.9 |  |  |
|  |  |  | 1,069.2 | $\mathrm{i}^{\text {P }}$ - ${ }^{\text {crd-1 }}$ | -245.6 |  |  |
|  |  |  | 3,680.5 | $\mathrm{i}_{\mathrm{F}} \mathrm{E}$ E- FXpd-1 | 378.6 |  |  |
|  |  |  | -1 274.3 |  | 338.6 |  |  |
|  |  |  |  | PLId | -1.798.4 |  |  |
|  |  |  |  | coud | 5,087.0 |  |  |

Source: See explanation in text.

## A1.3 Fiscal Accounts

The public sector consist of two different subsectors: the SEEs (non-financial state economic enterprises), called "other" sector, and the budget. As explained before, public barks are classified under the domestic banking system and all fiscal accounts were adjusted accordingly. In the case of Turkey, the budget includes the consolidated Central Government, the extrabudgetary funds, local administrations, revolving funds and the social security administration.

## The Budget

The current account of the budget is given by:

```
        OFIb + P&LC + i ir FXbc-1+TI + TDO + TDp + Tfb =
```

$=\mathrm{Sub}+\mathrm{Tbo}+\mathrm{Tbp}+\mathrm{i}_{\mathrm{R}} \cdot \mathrm{CRb}-1+\mathrm{i}_{\mathrm{C}} \cdot \mathrm{Bbd}-1+\mathrm{i}_{\mathrm{C}} \cdot \mathrm{Bbp}-1+\mathrm{i}_{\mathrm{F}} \cdot \mathrm{E} \cdot \mathrm{FGb}-1+\mathrm{Cb}+\mathrm{Sb}$

Distributed profits and losses, interest receipts from FX deposits at Central Bank and interest payments on advances of the Central Bank do not appear in the original fiscal data. However, their inclusion does not alter total expenditure or revenue by construction. From total fact.or income obtained as hard data from fiscal accounts we subtract profits and losses from the central Bank (P\&Lc) and interest receip ${ }^{+}$; on FX deposits ( $i_{F} \cdot F X b c-1$ ) to obtain other factor income from the budget. This operation leaves total fiscal revenue unaffected. On the expenditure side current transfers to the private sector (Tbp) adjust to maintain the total level of expenditure.

The other variables of the budget's current account with the exニこption of subsidies (Sub), public consumption (Cb), transfers from abroad ( Tfb ) and stocks of domestic debt (Bbp,Bbd) are also obtained from originai fiscal data. Subsidies and public consumption are taken from the national accounts to ensure consistency. ${ }^{5}$ Transfers from abroad are obtained from the kalance of payments by multipiying the doliar value with the average
$s$ Aithough consumption data from both sources were identical, subsidies could not be identified from the fiscal data.
exchange rate. Finally, given total interest payment on domestic debt and the average interest rate $i_{c}$, it is straightforward to calculate outstanding government debt Bb using the formula $\mathrm{i}_{\mathrm{c}} \cdot \mathrm{Bb}$ $=$ interest payments. The part of public debt held by the banking system (Bbd) can readily be identified from the banking system data, hence, Bbp, the part held by the private sector is obtained as the residual. In order to close the fiscal account, transfers to the private sector (Tbp) are left as the residual.

The capital account of the budget can be written as:
(A1.11) $\quad \mathbf{S b}+\mathrm{dCRb}+\mathrm{dBbd}+\mathrm{dBbp}+\mathrm{E} \cdot \mathrm{dFGb}=$
$=\mathrm{Ib}+\mathrm{E} \cdot \mathrm{dFXbc}+\mathrm{KTbo}+\mathrm{KTbp}+\mathrm{KTbd}$

Investment data are taken from fiscal accounts and are consistent with the national accounts data. All data on capital transfers and savings are also obtained from fiscal data. The central Bank accuunts determine dFXbc and dCRb , while balance-of-payment data determine $E \cdot d F b$ and the domestic banking system accounts dBbd. Consequently, to close the accounts, borrowing from the private sector (dBbp) is left as the residual.

|  |  | 1987 | 1988 | Source |
| :---: | :---: | :---: | :---: | :---: |
| H FIb | Factor Income | 1,392.1 | 3,058.3 | (Fiscal data) |
| $H$ Pelc | Profits and Losses of CB | 1.433 .3 | 1,285.6 | (Calc from CB) |
| H ifxbe | Interest Received from FX Deposits at CB | 50.0 | . 106.2 | (CB data) |
| H OFIb | Other Factor Income | -91.3 | 1,666.4 | (Calculated) |
| H TI | Indirect Taxes | 6.618.9 | 11.255.6 | (Fiscal data) |
| H TDO | Direct Taxes from SEEs | 6.741 .1 | . 852.9 | (Fiscal data) |
| H T0p | Direct Taxes from PS | 6,010.6 | 9.725 .0 | (Fiscal date) |
| H REVb | Total Revenues | 14.831.8 | 25,017.9 | (Calculated) |
| HCb | Consumption | 5.320.0 | 8.814 .7 | (MA data) |
| H Tbo | Iransfers to SEEs | 216.2 | 426.3 | (Fiscal data) |
| H Tbp | Iransfers to PS | 1.941 .4 | 2.888 .9 | (Residual) |
| H Sub | Subsidies | 1.267.9 | 2,229.6 | (MA data) |
| H icRb | Interest Payments on: Central Bank Credit | 798.5 | 1.048.8 | (iR^CRb(t-1)) |
| H ibb | Domestic Bonds | 1,274.6 | 3,346.7 | (fiscal data) |
| H iblad | To Banking Systea | . 23.4 | 531.0 | (iR*Bbd $(t-1)$ ) |
| H isto | To Private Sector | 1.251 .2 | 2,815.7 | (Calculated) |
| H iffo | Foreign Bonds | 1.039 .7 | 1,923.6 | (table F19) |
| H ECLRb | Current Expenditures | 11,838.3 | 20,678.6 | (Calculated) |
| H Sb | Savings | 2,993.5 | 4,339.3 | (Fiscal data) |
| H Ib | Investment | 4.205 .8 | 6,321.2 | (Fiscal data) |
| H dFXbe | Foreign Exchange deposits at CB | 191.1 | . 183.9 | (CB data) |
| ${ }^{4} \times 160$ | Capital Transfers to SEEs | 289.7 | 666.2 | (Fiscal data) |
| ${ }_{\text {H K Kibd }}$ | Capital Transfers to (public) Banks | 101.7 | 213.3 | (Fiscal data) |
| H KTGP | Capital Transfers to Private | 459.9 | 472.1 | (Fiscal data) |
| H ECAPb | Capital Expenditures | 5,248.2 | 7.856.7 | (Calculated) |
| H DEFb | Deficit | 2,254.7 | 3,517.4 | (Calculated) |
|  | Financing: ${ }^{\text {Central }}$ Bank Credit | -1.4 | -494.4 |  |
| H dib | Donestic Borrowing | 2.910 .4 | 3,348.5 | (Calculated) |
| 4 dibd | Fram 8erking Systee | 8.802 .5 | 1,401.5 | (From ${ }^{\text {SS }}$ stocks) |
| H dibp | From Private Sector | 2,107.9 | 1,947.0 | (Residuti) |
| H dFEb | Foreign Borrowing | -654.3 | 663.3 | (Fiscal data) |

Source: See explanation in text and right most colun.

## The cther public sector (non-financial SEES)

The current and capital accounts of the SEEs can respectively be written as:

```
(A1.12) FIO + TbO + + ir }\cdot\mathrm{ FXOC-1 = TDO + ing.CRO-1+ ic
+ i
(A1.13) SO + KTbO & dCRO + dBOd + dBOp+E.dFGO = IO +E.dFXOC+ETOP
Given the fact that the SEEs do not raise financing directly in
domestic capital markets there is no relationship with the private
```

Ieble A1.8 Other Public Sector (TL billion)

|  |  | 1987 | 198 | Source |
| :---: | :---: | :---: | :---: | :---: |
| H Fio | Fector Income | 2,309.8 | 3,416.6 | (Residual) |
| H Tbo | Current Irensfers from Budget | 216.2 | 426.3 | (fiscal data) |
| H ifxoc | Interest Received from FX Deposits at Cs | 15.0 | 12.9 | (Calculated) |
| H REVO | Revenues | 2,541.0 | 3,855.9 | (Calculated) |
| H TDO | Direct raxes | 741.1 | 852.9 | (Fiscal deta) |
| H iCRo | Interest Poyments on: Central senk Credit | -11.8 | 254.9 |  |
| H $\mathbf{1 8 0}$ | Domestic Eonds | 486.2 | 1069.2 | (Calculated) |
| $n$ ibop | To Private Sector | 0.0 | 0.0 |  |
| 4 ibod | To banking System | 486.2 | 1,069.2 | (Bodic) |
| H ifgo | Foreign Eorrowing | 275.5 | 509.9 | (BOP deta) |
| H ECURo | Current Expenditure | 1,491.0 | 2,686.9 | (Calculated) |
| H So | Savings | 1,050.0 | 1,168.9 | (kesidual) |
| H 10 | Ifvestment | 3.555 .6 | 4,624.6 | (Fiscal data) |
| H difloc | Foreign Exchange Deposits at CB | -88.2 | 145.1 | (C8 date) |
| H KTOP | Cepital Transfers to PS | 315.3 | 482.3 | (Fiscal dots) |
| н ECAPO | Capital Expenditures | 3.782 .7 | 5,252.0 | (Calculated) |
| h Defo | Deficit | 2732.7 | 4083.1 | (Calculoted) |
|  | Financing: | 209.7 | 666.2 |  |
| H ${ }_{\text {H }}$ | Central Benk Credit | 531.5 | 173.8 | (Fram ce stocks) |
| H dio | Domestic Borrowing | 629.3 | 1543.7 | (calculated) |
| H disod | From Benking System | 629.3 | 1543.7 | (From es stocks) |
| H diop | From Private Sector | 0.0 | 0.0 |  |
| H difeo | Foreign Borrowing | 1282.2 | 1699.4 | (Fiscal data) |

Source: See explanation in text and right most colum.
sector in either current or capital account and both $i_{c} \cdot$ Bop-1 and dBop are equal to zero. Consequently our strategy of selecting the private sector as a residual cannot work in this case.

In the capital account (equation A1.12) all financing variables are already determired in the monetary sector. Investment is given from fiscal data and consistent with ratione? accounts data. Transfers from the budget and purchases of existing real assets from the private sector are given from fiscal data. Consequently, savings of the SEEs is determined as the residual of
the capital account. Unfortunately, savings thus obtained does not correspond with fiscal data since the financing flows from the monetary sector are inconsistent with tnose data. Given savings from the capital account, the only variable that is left to close the current account is factor income (FIo). This factor income id defined as the return to capital employed by the SEEs. Therefore, it includes retained profits and depreciation but not wage payments. Again, this figure does not match the data obtained from the fiscal accounts.

## A1.4. National Accounts

The national accounts identity can be expressed as:

```
(A1.14) OFIb + FIo + VAp + TI - Sub \(=\mathrm{E} \cdot \mathrm{XI}-\mathrm{E} \cdot \mathrm{IMt}+\mathrm{Cb}+\mathrm{Cp}+\)
    \(+I g+I d+I p\)
```

Both sides of the equation must sum to GDP at market prices. The left hand side of the equations sums value added, indirect taxes and subsidies (-). Given other factor income of the budger and factor income of the SEEs (Flo), we can derive a concept of value added of the: private sector using GDP at market prices as hard data. The concept of value adued of the private sector is not a pure concept as it also includes wage payments received from other sectors, non-retained profits and the value of free services provided by the public sector. Consequently, VAp is the residual.

The right hand side of the equation sums the various components of expenditure. All but $C p$ and Ip are known. In order to consistently close the model we take private investment (Ip) from national accounts data and leave private consumption as the
residual. This is in line with standard national accounting practices. Table A1.9 gives a summary view of the national accounts.

Table A1.9 Mational Accounts (Curent Prices)

|  |  | 1987 | 1988 | Source |
| :---: | :---: | :---: | :---: | :---: |
| H Ofio | Other factor Income sudet | -93.1 | 1,666.4 | (Fiscal data) |
| H flo | SEEs factor Income | 2,309.8 | 3,416.6 | (Fiscal data) |
| H Vap | Private sector Value Added | 50,710.5 | 86,463.9 | (Residum) |
| HIL | Indirect texes | 6,618.9 | 11,255.6 | (Fiscal data) |
| H sub | Subsidies (-) | 1,247.9 | 2,229.6 | (MA data) |
| H ©SP | Cop | 58,300.0 | 100,573.0 | (Standard Tables 3) |
| H IMt | Total Inports | 13,078.4 | 22,097.2 | (80p data) |
| H Xt | Total Exports | 12,147.4 | 24,064.1 | (Bop data) |
| ${ }^{\mathrm{H}} \mathrm{RG}$ | Resource Gep | 931.0 | -2,546.8 | (Calculated) |
| HCb | Qudget Consumption | 5,320.0 | 8,814.7 | (fiscal data) |
| HCP | Private Consamption | 39,062.7 | 65,164.9 | (Residual) |
| MCt | Potal Consumption | 44,382.7 | 73,979.6 | (Calculated) |
| 4 Igid | Prolic Investrent | 7,786.6 | 10,990.4 |  |
| 1 lb | Budiet Investment | 4,205.8 | 6,321.2 | (Fiscal data) |
| H 10 | SEEs Investiment | 3,555.6 | 4,624.6 | (Fiscal data) |
| H Id | Sankin sector investment (Public) | 25.2 | 44.6 |  |
| H ip | Private Imwestment | 7.061 .7 | 13,056.2 |  |
| H It | rotal Investiment | 14,848.3 | 24,046.6 | (Calculated) |

Source: See explanation in text and right most colum.

## A1.5. Private sector

The flow of funds methodoiogy is based on double entiy accounting. In all other accounts the private sector variables are obtained residually. The inherent consistency of the methodology ensures that the private sector's budget constraint is automatically satisfied. The private sector accounts can therefore be read as a check of the historical data in terms of the quality of consistency.

A1.6. The Matrix-Representation of the Flow-of-Funds
In the preceding sections of the appendix we presented the budget constraints of all but the private sector individually. In the theoretical section of the paper we discussed the matrix representation of the budget constraints. This identifies the bilateral relations between the various sectors in concise format. Table Al. 10 presents this matrix with actual data for 1988. The nomenclature of the variables is identical to that of the Tables A1. 4 through Al. 9 without the prefix H. Balance of payments data are multiplied by the average exchange rate to obtain Tl values. In the banking system and the Central Bank accounts we disaggregate the net foreign asset position (excluding cross-currency, timing and revaluation effects) in order to show all bilateral flows.

Table All. 10 SOURCES AND USES OF FUNDS MATRIX FOR 1988

| CURREN: account: | Budget |  | Other <br> Public |  | Private Sector |  | Central Bank |  | Banking System |  | Balance of Payments |  | Production Account |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Budget |  |  | 100 | 853 | TDp | 9725 | $\left\lvert\, \begin{aligned} & \text { P\&LL } \\ & \text { i } F X b c \end{aligned}\right.$ | $\begin{array}{r} 1286 \\ 106 \end{array}$ |  |  | Tfb | 126 | $\left\lvert\, \begin{aligned} & \mathrm{TI} \\ & \text {-sub } \\ & \text { OF } 1 \mathrm{l} \end{aligned}\right.$ | $\begin{gathered} 11256 \\ -2230 \\ 1666 \end{gathered}$ | 22788 |
| Other Public | Tbo | 42.6 |  |  |  |  | ifXoc | 13 |  |  |  |  | fio | 3417 | 3856 |
| Private Sector | rbp i8sp | $\begin{aligned} & 28899 \\ & 2816 \end{aligned}$ | iBop | 0 |  |  |  |  | iTpd P\&Ld | $\begin{array}{r} 2173 \\ -1798 \end{array}$ | $\begin{aligned} & \mathrm{Tfp} \\ & \mathrm{WR}^{2} \end{aligned}$ | $\begin{array}{r} 0 \\ 2486 \end{array}$ | vap | 86464 | 95030 |
| Central Bank | icRb | 1049 | iCro | 255 |  |  |  |  | iCRd | -246 | $\begin{gathered} \text {-iFGC } \\ \text { iRESC } \end{gathered}$ | $\begin{array}{r} -1123 \\ 348 \end{array}$ |  |  | 283 |
| Banking System | i8bod | 531 | ibod | 1069 | ispd | 3680 | iFXdc | 274 |  |  |  |  |  |  | 5555 |
| Balance <br> Payments | if6b | 1924 | ifgo | 510 | iFgp $P R$ | $\begin{array}{r} 33 \\ -550 \end{array}$ |  |  | ifgd | 579 |  |  | $\begin{aligned} & \operatorname{sint} t \\ & -x t \end{aligned}$ | $\begin{array}{r} 22097 \\ -24644 \end{array}$ | -292 |
| C \& S Account | $\left\lvert\, \begin{aligned} & \mathrm{Cb} \\ & \mathrm{Sb} \end{aligned}\right.$ | $\begin{aligned} & 8815 \\ & 4339 \end{aligned}$ | Sa | 1169 | $\left\lvert\, \begin{aligned} & \mathrm{cp} \\ & \mathrm{sp} \end{aligned}\right.$ | $\begin{aligned} & 65165 \\ & 16976 \end{aligned}$ | donlc | -1396 | conld | 5087 |  | -2129 |  |  | 98026 |
| Total |  | 22738 |  | 3856 |  | 95030 |  | 283 |  | 5555 |  | -292 |  | 98026 |  |


| CAPITAL ACCOUNT: | Budget |  | Other Public |  | Private Sector |  | Central Bank |  | Banking System |  | Balance of Payments |  | Savings Accounts |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Budget |  |  |  |  | dBbp | 1992 | dCRb | -494 | dBbd | 1402 | dFGb | 663 | Sb | 4339 | 7901 |
| Other Puhlic | KIbo | 656 |  |  | dBop | 0 | dCRo | 174 | dBod | 1544 | dFGo | 1699 | So | 1169 | 5252 |
| Private | ETlop | 517 | KTop | 482 |  |  |  |  | dBpd | - 567 | dFGp | - 1490 | Sp | 16976 | 17030 |
| Sector |  |  |  |  |  |  |  |  | KTdp | 614 | dFt | 499 |  |  |  |
| Central Bank | df Xbc | 184 | dsxoc | 145 | dCup | 1151 |  |  | dDdc dFXdc dCUd | $\begin{array}{r} 2692 \\ -163 \\ 323 \end{array}$ | $\underset{\text { ARES }}{\substack{c}}$ | $\begin{aligned} & -2364 \\ & -1258 \end{aligned}$ | dNWC | -1396 | -686 |
| Banking System | xtbd | 169 |  |  | CDOp dFXpd | $\begin{aligned} & 1473 \\ & -641 \end{aligned}$ | dCRd | -365 |  |  | dAFGd | 1285 | dind | 5087 | 5844 |
| Balanca Paytrents |  |  |  |  |  |  |  |  |  |  |  |  | Sf | -2129 | -2129 |
| Invest. Accolent | 16 | 63.66 | 10 | 4625 | Ip | 13056 |  |  |  |  |  |  |  |  | 24047 |
| Totel |  | 7901 |  | 5252 |  | 17030 |  | -686 |  | 5844 |  | -2129 |  | 24047 |  |

[^9]
## APPENDIX 2: Gistorical Data and Output of the Model

|  |  | COMERM | $\begin{aligned} & \text { LDPEII } \\ & \text { ises } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1392.1 | 3058.3 | (Fiscal deto) |  |
| 0 fib | Fector lincome | 1433.3 | 1205.6 | (celc from CB) |  |
| P Prec | Proterest Recrivind fromi FX Deposits at Ca | 50.0 | 106.2 | (ce dintal |  |
| - ifribc | interes factor insome | -91.3 | 18665 | (celculated), |  |
| 11 | Indirect Taxes | 6618.9 | 11252.6 | (fiscal deto) |  |
| -100 | Direct lakes from sees | 6010.4 | 9725.0 | (riscal deto) |  |
| ${ }^{4100}$ | Direct laxes irom PS | 69.3 | 126.1 | (cop date) |  |
| W MEW | Total hevemes | 14631.6 | 25017.9 | (colculated) |  |
|  |  | 5320.0 | 8014.7 | (wh deta) |  |
| ${ }_{0}^{\text {co }}$ | Iransfers to SEEs | 216.2 | 426.3 | (fiscal dete) |  |
| 0160 | Irensfers to pls | 1941.4 | 2220.9 229.6 | (ma deto) |  |
| 0 Scib | Subsidies <br> Interest Poyments on: | 267.9 798.5 | 1088.8 | (ia*cabr $(-1)$ ) |  |
| ${ }^{\prime \prime}$ icab | Central Mank credit | 1274.6 | 3366.7 | (Fiscal data) |  |
|  | Domestic tomas | 23.6 | 531.0 | (i8*Obde (-1)) |  |
| ${ }^{\omega}$ isbod | io sank ing sysiem | 1251.2 | 2015.7 | (Calculoted) |  |
| \% intp | To Private sector foreigh Bands | 1039.7 | 1923.6 | (Tabin fi9) | 1 |
| * Ecuat | Current Expendiotures | 11830.3 | 20678.6 | (Calculated) | $\cdots$ |
| n sb | Savings | 2993.5 | 4339.3 | (Fiscal deta) |  |
| 4 16 | Investment | 4231.0 | 6365.8 | (Fiscal cante) |  |
| W dixbe | Foreigh Exchange deposits at CB | 191.1 | 183.9 | (fisiscal data) |  |
| W Kibo | Capital Iranfers to SEEs ${ }^{\text {a }}$ ( ${ }^{\text {a }}$, | 299.7 76.5 | 168.7 | (Fiscal deta) |  |
| M Kibd | Capital Iransfers to (public) Banks | 485.1 | 516.7 | (Fiscal deta) |  |
| n Ecapt | Capital Experafisures | 5273.4 | 7901.3 | (Colculated) |  |
| H 0ffb | Deficit | 2279.9 | 3562.0 | (Calculated) |  |
|  | Financing: ${ }^{\text {Central }}$ Band credit | -1.6 | -499.4 | (From cs stocks) |  |
| ack | Domestic exorroming | 2935.6 | 3393.1 | (Caiculated) |  |
| $1{ }^{\text {a }}$ | From earmjng system | 802.5 | 1401.5 | (fromes stocks) |  |
| $\cdots$ asbo | from Private sector | 2133.1 -654.3 |  | (Fiscal date) |  |
| $n \mathrm{drcb}$ | Foreign Barsosing |  |  |  |  |
|  | Stocks of Debs: |  |  |  |  |

## IABIE 1 : HISIORICAI OAIA

| H CRD | Central Bank Credit |
| :--- | :---: |
| H Bb | Domestic Bonds |
| H Bbd | Held by Banking Systen |
| H Blyp | Held by Private Secto:s |
| H Ib | Foreign Debs |

## codes

$H$ : 10
$H$
4 ibo
Factor Income
Current iransfers from tweyed

n REvo
Reverakes

Direce loaes
Interest Peymenss on:
Ceniral Ben's Credis
Domestar Eonds
to Privote sector
lo Bariking Sysiem
Foreign Borrosing
current Experaditure

Savings
H 10
H dfxac
H kiop

- ECAPO

Investment
Foreign Exchange Depusis at ce
Capital Iransters to PS

H DEFO

H $\times 160$
H dCRO
$H$
$H$
$H$
${ }^{4}$ d8od
H d8op
H dfGo

## Capital Expendiqures

Deficit
Financing:
Capiral Transfers from Qudget
Central Bank Credis
Donestic Borrowing
from Banking System
from privare Sec:

Stocks of Debr:

| 2062.0 | 1567.6 | (CB data) |
| ---: | ---: | :--- |
| 2864.2 | 5389.2 | (H 日bp/iC=88) |
| 855.0 | 2256.5 | (CB dato) |
| 2009.2 | 3132.7 | (i8bp/iC=1988) |
| 19934.1 | 34884.6 | (Calculated from BOP data) |
|  |  |  |


|  |  |
| :---: | :---: |
| (resichas) <br> (riscol Eata) <br> (Calcuiored) |  |
|  |  |
|  | (Calculared) |
|  | (Piscal dota) |
|  | (iascro (Calculcited) |
|  | $\begin{aligned} & \left(00 j^{2} i C\right) \\ & \left.(80)^{2} \operatorname{dat}\right) \end{aligned}$ |
|  | (Calculased) |
|  | (Residual) |
|  | (Fiscal data) (ce dale) <br> (Fiscal dota) |
|  | (Calculated) |
| (Calculated) |  |
| (Fiscal data) <br> (From CB stocks) <br> (Calculated) <br> (from BS stocks) |  |

(Fiscal data)
table 1 : hisionical daia

## N CRO Central Bank Credit <br> Domestic Bonds <br> Banking Systen <br> foreign Debt

| 501.1 | 674.9 |
| ---: | ---: |
| 1721.8 | 3265.5 |
| 1721.8 | 3265.5 |
| 0.0 | 0.0 |
| 4215.3 | 7466.6 |
|  |  |
| BALANCE OF PAYMEMIS (MLL USS) |  |


| Codes |  |
| :---: | :---: |
| MD Xt | Exports |
| H0 IMt | Imports |
| HD IAI | Investment goods |
| HD 1MC | Consumption goods |
| sD Inv | Intermediate goods |
| HD RB | Resource 8abarce |
| HD IFt | Interest Peyments |
| HD IFCb | Gudget |
| HD IVGO | Sees |
| Ho isgp | Private |
| H0 ifGd | Eanking Sysiem |
| mD ifuc | Central dans |
| H0 iaESc | CS's foreign laseryes 1 - ${ }^{\text {a }}$ |
| (10) vesd | BS's Foreign Reserves |
| *D PR | Proitit mentutunces |
| H5 IfPAPR | factor Poyments |
| Hi) 10 | foreign Transfers to Budget |
| HO If | Foreign Iransiers to PS |
| HD UR | Workers Remittances |
| Ho rite | lotal foreign Iransfers |
| HO St | Foreign Savings |
| HD OFI | foreign Investment |
| HD dicb | Capital Inflows: Budget |
| HD digo | SEES |
| HD digp | Private |


| 14196.0 | 17398.0 | (80P data) |
| :---: | :---: | :---: |
| 15284.0 | 15600.0 | (80P data) |
| 3817.0 | 3989.0 |  |
| 2287.0 | 2370.0 |  |
| 9180.0 | 9261.0 |  |
| - 1088.0 | 1798.0 | (Colculated) |
| 2209.0 | 2527.0 |  |
| 1215.0 | 1350.0 | (Stendard lobles) |
| 322.0 | 559.0 | (Siendard Tibles) |
| 61.8 | 23.2 | (ifarp) |
| 287.6 | 408.8 | (1FPFd) |
| 676.4 | 703.? | dibafr |
| 208.7 | 2450 | (198NAFC) |
| 145.7 | ? 60 |  |
| -293.65 | . 20.30 | rang atmint |
| 1996.0 | 21700 | (Colculased) |
| 81.0 | A9.0 | (res dota) |
| 0.0 | 0.0 | (rop ciama |
| 202:.0 | 1755.0 | (BOP data) |
| 2102.0 | 1044.9 | ¿Colculated) |
| 982.0 | - 1503.0 | (BO? deta) |
| 110.0 | 352.0 | (80p data) |
| -764.6 | 468.3 | ( H dFb/D AER) |
| 1498.4 | 1199.7 | ( H dFo/D AER) |
| -899.2 | -1052.2 | (Residual) |

TABLE 1 : Wistonical dain

table 1 : histcrical daia

| H ifcp | Private |
| :---: | :---: |
| H if Gd | Banking System |
| H ifge | Centrol Bank |
| $n$ iresc | co's foreign Reserves (-) |
| H iRESd | aS's foreign Reserves (-) |
| H 88 | Profit Remittances |
| H iftepr | factor Payments |
| H Tfb | foreign Irensfers to Oudget |
| Hifp | foreign Transfers to PS |
| H WR | Workers memittences |
| $n$ Ift | lotal forelen Irmensfers |
| H Sf | foreign Savings |
| H DFI | foreign Investment |
| H dfib | Capital Inflows: Budget |
| H dFGo | SEES |
| H dFGp | Privase |
| H dafged | Banking System |
| $n$ dafge | Central Bank |
| H dft | Jotai Capital Inflows |
|  | Changes in foreign Reserves |
| H daresc | Central benk |
| H daresa | Banking System |
|  | Stocks of Debt: |
| H fi | lotal Debt |
| H fb | Budget |
| H fo | SEEs. |
| Hfp | Private Sector |
| H fc | Central Bank |
| H Fd | Ganking System |
| h resc | foreign Reserves of CB |
| Ccodes |  |
|  | CURREMT ACCOMN: |



| h iresc | 1. Reverures: Interest Received from: foreign Reserves |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| H icrb | Budget | 778.1 | 348.2 | (iF*MFAC) |
| Hicro | SEEs | -11. | 1048.8 | (iR*CRb) |
| H icrad | Banking System | -11.8 -209.4 | 254.9 -245.6 | (iR*CRo) <br> (iR*CRd) |
| 4, Expenditures: $\begin{aligned} & \text { 2. Expesi Payments on fx Deposirs: }\end{aligned}$ |  |  |  |  |
|  |  |  |  |  |
| h ifmos | Budget | 578.8 | 1122.8 | (if*fc) |
| H ifroc | SEES | 50.0 | 106.2 |  |
| ${ }_{\text {H }}^{4} \mathrm{HFR}$ | ganting Systen | 115.2 | 274.3 |  |
| ${ }_{\text {H Patc }}$ | Profir 8 lesses | 1653.3 | 1285.6 | (Residicoi) |
| 4 हुy | changen in "rs 2 erth | 3435.9 | -9395.7 | (Residued CO'0 siceks: |
| CAFITAL ACCOUH: <br> 1. Change in Assers |  |  |  |  |
|  | Foreign peserves 'xjus (ed) | 849.7 | -257.8 | GCotc. iron criesos oniel |
| 4 uner | Cross Cursency Revatustion | 285.2 | . 056.8 | delc. irsor cham onies |
|  | Reyalsarion Evice: | ? $¢ 0.5$ | 2746.2 |  |
| H.asc | foresgn Peserves | 1364.4 | 5449.2 | (Frat stocts: |
| $\mathrm{Hac}^{\text {a }} \mathrm{rab}$ |  |  |  | (Calculared) |
| H arro | SEEs | 531.5 | - 594.6 | (From Srocks) |
| HaClid | Ganking System | 581.5 | -385.0 | (from Stocks) |
| \# dera | latal Domestic credit | 588.2 | -685.6 |  |
| 2. Change in tiobilities |  |  |  |  |
| $H$ acut Currency in circulation 1010.3 |  |  |  |  |
| H dcuip | Currency in Private Sector | 1010.3 859.6 | 1474.3 |  |
| ${ }^{H}$ dcud | Vault Cesh Private sector | 859.6 150.7 | 1550.9 323.6 | (From Stocks) |
| H dildc | Deposits of Banking System | 328.0 | 3692.1 268.1 | (From Stocks) |
| H dh | Base Money | 1338.3 | 4166.4 | (Calculated) |
| H dafici | foreign Debt (Adjusted) | 766.4 | -2364.0 | (Calc. from cerbop data) |
| ${ }_{\text {H }}^{\text {H }}$ dfXbc | Oudget |  |  |  |
| H dfxoc $H$ $H$ dixde | SEEs | -88.2 | 145.1 |  |
| H dixdc | Banking System | 667.3 |  |  |

table 1 : mistorical data


IABLE 1 : HISIORICAL DAIA

| H in | Rate of Rediscount |
| :--- | :--- |
| Hic | Interest Rate on Domestic Conds |
| H iOD | Interest Rate on Deposits |

Interest Rate on Deposits

| 0.387 | 0.509 |
| :--- | :--- |
| 0.445 | 0.621 |
| 0.100 | 0.280 |

(Calculated from CD data) (Table 34) (Calculated from ca date)

BAMKIMG SYSTEM

CuAREMT ACCOUNT:

1. Revenue

Returns from:
SEES Bonds
Private Bonds
Iotel Returns from Bonds
ifxdc Interest from FX Deposits at CB Interest from foreign Reserves
2. Expenditure

Interest Payments to:
Private Sector Demend Deposita FX Deposits
central Bank
Fortion Sector
Profit 1 Losses
Met Worth

CAPITAL ACCOUNT:

1. Change in Assets

Veult Cash
Deposits at CB

## Bonds:

Aludge
SEEs
Private Sector
Iotal fonds
IX Deposits at CB
Reserves of Banking System
H Kldp Capital Iransfers to Private Sector


## TABLE 1 ：HISIORICAL DAIA

| $n \mathrm{id}$ <br> th iesd |  |
| :---: | :---: |
| foxtes |  |
|  |  |
| ：i in | Valued added |
| －U． | Horkers Remizi znces |
| $\cdots$ | Transfers from abroad |
| $\therefore$ |  |
|  | Inferest Received frav． |
| $\cdots$ | Budget lorads |
| $\therefore$ | SFES Bonds |
|  | Demend Depo：${ }^{\text {t }}$ ．．．${ }^{\text {a }}$ ．$\cdot .$. ＂isten |
| ， |  |
| ， | ES＇Promiss and troser |

$\begin{array}{lr}6500.6 & 11890.0 \\ 2287.8 & 5301.0\end{array}$
PRIVATE SECTOR

| 50710.5 | $0 \times 363.9$ |  |
| :---: | :---: | :---: |
| 1729.3 | 24959 | （800 dete） |
| 0.0 | 00 | （80\％date） |
| 1961．4 | 2388.9 | （Residuol Eut． |
| 1251.2 | －9「． | （18b－ 06.3 ） |
| 00 | 0 － |  |
| 392.7 | －ぶ， | （18） and $^{\text {a }}$ |
| 142.2 | ア7A |  |
| 498.4 | $\cdots \cdots$ | （Pes－otri M ${ }^{\text {a }}$ |
| 8010.4 | 125.0 | thata 6 |
| ：2．0 | $9 \%$ | Gramp： |
| ：30？？ |  | －roeprs |
| 862 3 | $\cdots{ }^{\prime}$ |  |
| 404955 | $\cdots \cdots \cdots$ | （ratchis：m |
| 30052.1 | $\therefore \times 4.3$ | （Resicta ．$\because$ |
| 104208 | ［ss．0． 3 | ＇Res！dus： |
| －789．5 | \％＇mon 5 |  |
| 94.8 | 100.6 |  |
| 3 n 2.8 | ． 5 \％ 5 | cromas strex． |
| 315.3 | 422.3 | （riscal dobe． |
| 485.1 | 316.7 |  |
| 110.6 | A13．6 |  |
| －869．7 | 2598.2 |  |
| 2833.1 | 1891.6 |  |
| 0.0 | 0.0 | （Residuel Oiner＇s KA） |
| 859.6 | 1150.9 | （From CB stocks） |
| 2474.3 | 1473.0 | （From BS stocks） |
| 1130.4 | －641．5 |  |
| 7061.7 | 13056.2 | （NA data） |
|  | ． |  |
| $\begin{array}{r} -49.9 \\ -3917.5 \end{array}$ | $\begin{array}{r} -864.8 \\ -2227.4 \end{array}$ |  |

iable 1 : historical daia

| Codes |  |
| :---: | :---: |
| H Oflb | Other factor Income Budgat |
| H fio | SEEs valued Added |
| h vap | Private Sector Valued added |
| $\mathrm{HII}^{\text {I }}$ | Indirect laxes |
| H Sub | Subsidies (-) |
| H GOP | GDP |
| H Ine | rotal teports |
| H Xt | Total Exports |
| m RG | Resource Gap |
| 4 CD | Budget conslametion |
| H C | Privale Constrmation |
| 4 tt | lotat Consumplian |
| $4 \mathrm{Ha}_{4}$ | Public Investmens |
| 4 it | gudge it Investment |
| ${ }^{\mu}{ }^{10}$ | SLEs Investment |
| Hip | Private Inves?ment |
| H : | igtal investment |
| 4 S. |  |
| 1 Sb |  |
| 115 |  |
| 0 dtuc |  |
| 9 dxud |  |
| H Sp |  |
| codes |  |
| HK Ofit | Other factor Income 8udiget |
| HK flo | SEEs Volued Added |
| hK vap | Private Sector valurd added |
| HK CDP | GDP |
| h gdp |  |

## maylomal accoumts (Current Prices)




| H ${ }^{\boldsymbol{M}}$ <br> H Cut <br> H DOP | Money Stock Currency in Circulation Demand Deposits |
| :---: | :---: |
|  | Demand Components: |
| HI PCDP | Price Level |
| HK CDP | Real Income |
| H rCOP.M | Velocity of circulation |
|  | Supply Side: |
| H H | 日ase Money |
| H Cut | Currency fotal |
| M Cup | Currancy in Private Sector |
| H Cus | Currency in Banks |
| H Ode | Reserves |
| M rM.H | Money multiplier |
| H rCut.DOp | Currency/Deposits |
| H rode.00p | Meserves/Deposits |

MOMEY MARKET
9444.9 -.........................
$\begin{array}{lll}9444.9 & 12392.2 & \text { ( } \\ 3044.1 & 7510.4 & \end{array}$

1able 1 : historical data


| Coxdes | EXIERNAL SECIOR |
| :---: | :---: |
|  | (a) Prices |
| AK AER | Real Exchange Rate (AEQ) |
| AER | (Nominal AER) |
| EfR | [ Hominal EER) |
| - Eer | [Real Exchange Rate (EER)] |
|  | (b) External Debt (uss) |
| Al) 5Gc | CB (HIL US5) |
| A 20 ¢G0 | Foreign loans so ybibso |
| AO rict fag | Share of tib in telso |
| AL ISUSDDP | BS Debt/(1-re) ${ }^{\text {D }}$ Dp |
| AD : Wiochop | PS Debt/GOP |
|  | (c) Imports |
|  | Per Etasticiny of: |
| 4 -1m: afa | ronsumplion fupotis. |
| A Amidita | inwestmens lmaxit. |
| A SME. RIa |  |
|  | Elesticigy of inturis cas |
| $\therefore$ alm CS | consump ${ }^{\text {anem }}$ |
|  | fovestmme |
| A s:M, \%is | 5 |
| att 3 PMs | [lmpor: prus inmins is |
|  | (6) Esporis |
|  | Elasticities: |
| A Mat yr | fareigh licme |
| \& Mi Rer | -2a |
| - . | *iretgn lacome Groxit |
| 1 maxi | lEapoiss frice lixdex 38i |
|  | (e) Iransiers (Mll US\$) |
| 20 14 t | Budgetary Govermment |
| AD If P | Pilvate Sector |
| AB WR | Workers lemittances |
|  | (f) Other |
| AD DFI | Foreign Investment |
|  | hatlowal accoumis |
|  | (@) Consumption |
| A rep.rd | Cp's share rd |
|  | (b) Investment |
| A ICOR | ICOR |
|  | (c) Other |
| A rGDP. FGDP | Capacity Utilization |
| A TPR.COP | Profit Remittances/CDr |


| 1988 | 1989 | 1890 | 1991 | 1892 | 1993 | 1894 | 1895 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.000 | 0.936 | 0.875 | 0.875 | 0.875 | 0.875 | 0.875 | 0.875 |
| 1.416 | 2.138 | 3.355 | 5.473 | 9.045 | 14.874 | 24.520 | 40.448 |
| 1.815 | 2.746 | 4.414 | 7.259 | 11.960 | 19.697 | 32.484 | 45.373 |
| 0.968 | 0.906 | 0.875 | 0.875 | 0.975 | 0.875 | 0.675 | 0.875 |
|  | 7882.2 | 6682.8 | 5880.4 | 4828.3 | 4106.1 | 3488.5 | 2965. 2 |
| 24851.4 | 25563.5 | 28509.4 | 27690.2 | 285074 | 29582.1 | 30655.9 | 31790.2 |
| 0.871 | 3.817 | c. 607 | 0.797 | 0.737 | 0.777 | 0.70 ? | 0.757 |
| 2.552 | 1.820 | 1.770 | 1.560 | 1.330 | 1.100 | 1.000 | 1.000 |
| 0.010 | 0.010 | 0.008 | 3.008 | 0.008 | 0.008 | $0 . C 08$ | 0008 |
| 2.637 | . 28.35 | -2.657 | $\therefore .457$ | 2.527 | 2.57 | $\therefore 25 ?$ | 2.43 |
| -1553 | -1.55 | -1.55? | 1.553 | 1.55: | -3.555 | 1.55 | -5i5 |
| - 038 ? | 0.327 | C.sat | $\bigcirc 527$ | $22^{2}$ | 2.525 | J.527 | 2.527 |
|  | 1300 | *.ate | 1 1 $\because$ | $\therefore 1 \times 0$ | $\hat{i}$, | B. | i. 000 |
|  | i. 000 | 3.000 | i $\because$ - | \%.6\% | 1.2ns |  | $\bigcirc \mathrm{OCJ}$ |
|  | 1000 | $\because .060$ | - -00 | 1.0.j | 1. ne | 1.: | 3.60 |
|  | $\therefore \mathrm{x} \times 3$ | crse | 3 y | $\therefore \ldots$ | 1 \% | $\therefore 5$ | 0.050 |
|  | 1.30 | 1. 10 | 1.650 | - 200 | 1. 5 | 1.200 | i.45: |
| 1.150 | 1.850 | 1. ${ }^{15}$ | i. $: 53$ | 1. 50 | $1.15 \%$ | : . 50 | 1.150 |
|  | 0.018 | 0.030 | ? 030 | 0.030 | C. $3 \times 0$ | 0.030 | 0.030 |
| 1.000 | 1.590 | 2.978 | 5.08 | 3.ESS | $-5.290$ | 24.45 | 45.500 |
| 126.1 | 132.1 | 158.7 | 165.7 | 153.0 | 160.0 | 168.6 | 177.1 |
|  | 0.0 | 0.0 | 0.0 | 4.0 | 0.0 | 6.0 | 0.0 |
| 2485.9 | 2605.7 | 2300.0 | 2415.0 | 635.8 | 2682.5 | 2785.7 | 2935. |
| 498.6 | 522.6 | 548.7 | 576.2 | 005.0 | 635.2 | 667.0 | 700.6 |
| 0.793 | 0.812 | 0.840 | 0.840 | 0.840 | 0.840 | 0.840 | 0.840 |
| 5.500 | 5.500 | 5.500 | 5.500 | 5.500 | 5.500 | 5.500 | 5.500 |
| 0.991 -0.005 | 0.481 -0.006 | 0.950 -0.006 | 0.965 -0.006 | 0.970 -0.007 | 0.970 -0.007 | 0.970 .0 .007 | 0.970 -0.008 |





| TABLE 3 : DERIVED IndICATORS |  |  |  |  |  |  |  |  | Base Case Scenario |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
| radefb.cdp | B) Inftation-Adjusted PSER: Budget Deficit/CDP | 0.004 | 0.016 | 0.013 | 0.015 | 0.015 | 0.016 | 0.016 | 0.016 |
| TAdCRb.GDP | dCRb/COP | -0.017 | -0.007 | -0.002 | 0.000 | 0.001 | 0.001 | 0.002 | 0.002 |
| radib. CDP | d8d/cop | 0.015 | 0.016 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.011 |
| rdfb.cop | dFb/CDP | 0.007 | 0.007 | 0.005 | 0.005 | 0.005 | 0.004 | 0.004 | 0.004 |
| TADEFO.COP | SEEs Deficit/cop | 0.026 | 0.011 | 0.010 | 0.012 | 0.012 | 0.012 | 0.013 | 0.013 |
| radcrio.cop | dCRo/GDP | -0.001 | -0.002 | -0.002 | 0.000 | 0.000 | 0.000 | 0.001 | 0.001 |
| radilo. COP | CBo/GOP | 0.004 | 0.002 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.002 |
| rdFo.GDP | dFioh ${ }^{\text {cop }}$ | 0.017 | 0.004 | 0.005 | 0.005 | 0.004 | 0.004 | 0.004 | 0.004 |
| rKIbo.GOP | KIbo/CDP | 0.007 | 0.007 | 0.007 | 0.007 | 0.007 | 0.007 | 0.007 | 0.007 |
| TADEFg.GOP | Mon-Financial Public Def./GDP | 0.024 | 0.021 | 0.017 | 0.021 | 0.021 | 0.022 | 0.022 | 0.023 |
| radCRg. CDP | dCRg/GDP | -0.019 | -0.008 | -0.004 | -0.001 | 0.001 | 0.002 | 0.002 | 0.003 |
| radig. COP | clag/COP | 0.019 | 0.018 | 0.011 | 0.012 | 0.011 | 0.011 | 0.012 | 0.012 |
| rdfg.cop | dfg/CDP | 0.023 | 0.011 | 0.010 | 0.010 | 0.009 | 0.009 | 0.008 | 0.008 |
| rADEFPS.COP | Consal idated Public Def./GOP | 0.051 | 0.041 | 0.034 | 0.037 | 0.037 | 0.037 | 0.036 | 0.035 |
| rail. CDP | dH/CDP | 0.041 | 0.048 | 0.046 | 0.044 | 0.044 | 0.046 | 0.046 | 0.044 |
| radBecRps.GD | dBECRps/CDP | 0.020 | 0.018 | -0.003 | -0.007 | -0.006 | -0.003 | 0.004 | 0.010 |
| rdFps.cop | drps/GOP | -0.011 | -0.024 | -0.008 | -0.001 | -0.001 | -0.004 | -0.012 | -0.019 |
|  | galamce of Paymemis |  |  |  |  |  |  |  |  |
|  | As a share of cDP: |  |  |  |  |  |  |  |  |
| rifitere cop | Resource balance | 0.025 | 0.002 | -0.012 | -0.013 | -0.011 | -0.008 | -0.005 | -0.003 |
| rifttepr.cop rift.gDP | Interest Payments | -0.030 | -0.020 | -0.015 | -0.013 | -0.011 | -0.009 | -0.007 | -0.005 |
| rSf.GDP | Cas | 0.021 | 0.016 | -0.001 | 0.025 0.000 | 0.024 0.003 | 0.025 0.007 | 0.022 0.010 | 0.021 |
| rFt.cDP | Total Debt/EDP | 0.714 | 0.647 | 0.580 | 0.526 | 0.474 | 0.433 | 0.402 | 0.321 |
| rfotc. $60 p$ | Public Debt/cDP | 0.637 | 0.572 | 0.505 | 0.458 | 0.418 | 0.386 | 0.359 | 0.203 |
| ripld.CDP | Private Debt/cDP | 0.077 | 0.075 | 0.076 | 0.067 | 0.056 | 0.046 | 0.043 | 0.038 |
| rift.xt | Total Interest/Exports | 0.145 | 0.133 | 0.126 | 0.116 | 0.107 | 0.098 | c 092 | 0.089 |
| rifghic.nt | Public Interest/Exports | 0.144 | 0.111 | 0.104 | 0.094 | 0.087 | 0.081 | 0.077 | 0.076 |
| rfpld.xt | Private Interest/Exports | 0.025 | 0.022 | 0.022 | 0.022 | 0.020 | 0.018 | 0.015 | 0.015 |
| D RESC | Stock of Reserves (US\$) | 3671.2 | 6128.9 | 6627.9 | 6674.5 | 6937.4 | 7764.9 | 9861.8 | 13276.5 |



|  |  | E 6 : F | Scal acc | anis |  |  |  | Base Cas | Scenario |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1988 | 1909 | 1990 | 1991 | 1992 | 1993 | 1996 | 1995 |
|  | Shares of COP: |  |  |  |  |  |  |  |  |
| TREVG.CDP | Revenues | 0.249 | 0.218 | 0.218 | 0.217 | 0.217 | 0.217 | 0.217 | 0.217 |
| TECURD.CDP | Current Expenditures | 0.206 | 0.200 | 0.201 | 0.204 | 0.208 | 0.211 | 0.216 | 0.218 |
| rsb.cop | Savings | 0.043 | 0.018 | 0.016 | 0.013 | 0.009 | 0.006 | 0.003 | -0.001 |
| rECAPD. CDP | Capital Expenditures | 0.079 | 0.061 | 0.060 | 0.060 | 0.060 | 0.060 | 0.068 | 0.061 |
| TDEFB.CDP | Pudget Deficit | 0.035 | 0.043 | 0.044 | 0.047 | 0.05 \% | 0.054 | 0.058 | 0.062 |
| rdCRb.CDP | dcab | -0.005 | -0.001 | 0.001 | 0.002 | 0.003 | 0.004 | 0.004 | 0.005 |
| rdib.cop | d9d | 0.034 | 0.036 | 0.037 | 0.040 | 0.043 | 0.046 | 0.049 | 0.053 |
| rdf Cb.cDP | dFb | 0.007 | 0.007 | 0.005 | 0.005 | 0.005 | 0.006 | 0.004 | 0.006 |
| Codes B. Dther public sectar |  |  |  |  |  |  |  |  |  |
| $f 10$ | factor Income | 3416.6 | 6967.6 | 12727.9 | 22737.4 | 41181.4 | 74224.0 | 131112.9 | 242476.0 |
| Ibo | Current Irensfers from sudget | 426.3 | 716.6 | 1296.9 | 2347.5 | 4263.0 | 7657.7 | 13700.4 | 24799.0 |
| ifxoc | Interest on FX Deposits at CB | 12.9 | 29.3 | 46.7 | 76.3 | 128.0 | 216.9 | 365.5 | 629.2 |
| REVo | Reverues | 3855.9 | 7713.3 | 14071.5 | 25161.6 | 45572.5 | 82096.6 | 148258.8 | 267904.2 |
| 100 | Direct laxes | 852.9 | 764.0 | 1395.6 | 2693.2 | 4515.6 | 8138.8 | 14705.7 | 26587.9 |
| Interest Payments on: |  |  |  |  |  |  |  |  |  |
| i $\mathrm{BO}^{\text {o }}$ | Domestic gonds | 1069.2 | 1960.7 | 3916.5 | 7514.6 | 13979.9 | 25179.4 | 45965.4 | 83774.5 |
| i ${ }^{\text {opp }}$ | to Private Sector | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| iBod | to ganking System | 1069.2 | 1960.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ifGo | Foreign Barrowing | 509.9 | 581.9 | 1000.1 | 1787.1 | 3270.6 | 5971.5 | 11028.2 | 20570.7 |
| ECURa | Current Expenditures | 2686.9 | 3672.0 | 6802.1 | 12263.6 | 22436.5 | 40514.6 | 74213.9 | 136503.0 |
| So | Savings | 1168.9 | 4041.3 | 7269.4 | 12898.1 | 23136.0 | 41502.2 | 74044.9 | 131400.4 |
| 10 | Investment | 4626.6 | 7698.6 | 13712.5 | 26907.3 | 45374.1 | 81780.5 | 147662.4 | 266626.5 |
| drxac | fx Deposits ot Central Bark | 145.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Klop | Capital Irensfers to PS | 482.3 | 810.7 | 1467.3 | 2656.4 | 4823.0 | 8663.7 | 15590.6 | 28056.6 |
| ECAPo | Cepital Expenditures | 5252.0 | 8509.3 | 15179.7 | 27563.7 | 50197.2 | 90444.1 | 163253.0 | 294683. 1 |
| DEfo | Deficit | 4083.1 | 4468.0 | 7910.3 | 14665.6 | 27061.2 | 48862.0 | 89208.1 | 163282.7 |
|  | Financing: |  |  |  |  |  |  |  |  |
| Xibo | Capital Iransfers from Budget | 666.2 | 1119.8 | 2026.7 | 3669.2 | 6662.0 | 11967.1 | 21535.2 | 38754.6 |
| dCRo | Central Bank Credit | 173.8 | 116.4 | -0.9 | 271.5 | 850.8 | 1887.6 | 4390.6 | 9856.3 |
| dio | Domestic Barrow ${ }^{\text {a }}$ ( | 1543.7 | 2493.4 | 4414.5 | 8184.4 | 15102.1 | 27268.4 | 49784.4 | 91123.3 |
| dBod | trom lanking System | 1543.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| diop | from Privare sector | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| dr co | foreign Borrowing | 1699.4 | 738.3 | 1469.9 | 2540.4 | 4446.3 | 7758.9 | 13497.8 | 23548.6 |


|  |  | TABLE 4: f | iscal acc | ounis |  |  |  | Base Case | Se Scenario |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 |
|  | Stocks of Debt: |  |  |  |  |  |  |  |  |
| Cro | Central mank Credit | 674.9 | 791.3 | 790.4 | 1061.9 | 1912.8 | 3800.3 | 8190.9 | 18047.2 |
| 80 | Domestic lionds | 3265.5 | 5758.9 | 10i73.5 | 18357.9 | 33460.0 | 60728.4 | 110512.8 | 201636.1 |
| god | held by Banking System | 3265.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| $\begin{aligned} & 8 o p \\ & \text { fo } \end{aligned}$ | held by Private Sector | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
|  | foreign Debt | 7466.6 | 12246.8 | 21617.0 | 38922.9 | 70007.6 | 125547.8 | 224933.3 | 340595.5 |
| Shares of CDP: |  |  |  |  |  |  |  |  |  |
| rREVO.CDP | Revenues | 0.038 | 0.045 | 0.045 | 0.045 | 0.045 | 0.045 | 0.045 | 0.045 |
| rECURO.CDP | Current Expenditures | 0.027 | 0.021 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.023 |
| rSo.cop | Sevings | 0.012 | 0.024 | 0.023 | 0.023 | 0.023 | 0.023 | 0.022 | 0.022 |
| recapo.gip | Capital Expenditures | 0.052 | 0.049 | 0.049 | 0.069 | 0.049 | 0.049 | 0.049 | 0.050 |
| TDEFO.CDP | SEEs Deficit | 0.041 | 0.026 | 0.025 | 0.026 | 0.026 | 0.027 | 0.027 | 0.027 |
| rdCRo.GOP | dCRb | 0.002 | 0.001 | 0.000 | 0.000 | 0.001 | 0.001 | 0.001 | 0.002 |
| rdao.GOP | dBd | 0.015 | 0.015 | 0.014 | 0.015 | 0.015 | 0.015 | 0.015 | 0.015 |
| rdf Go.cop | dFb | 0.017 | 0.004 | 0.005 | 0.005 | 0.004 | 0.004 | 0.004 | 0.004 |



| 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| -1395.7 | -2559.1 | -6589.6 | -5847.5 | -3422.4 | 6389.0 | 32486.9 |
| -7423.7 | -5992.5 | -7291.3 | -8825.6 | -9496.0 | -4867.6 | 21032.7 |
| -8814.4 | -8551.6 | -11880.9 | -14673.1 | -12918.4 | 1521.4 | 53519.6 |

## Wet Worth divic Total Revaluation effects Met Other Li bilities

```
14423.7 -5992.5 -7291.3
```

a. cemitral anak
stocks:

1. Assets:

|  | Domestic Credit $80:$ |
| :---: | :---: |
| CRb | Budget |
| CRo | SEEs |
| cred | Banking System |
| CRt | Jotal Domestic Credit |


| 1567.6 | 1433.5 | 1732.4 | 2827.6 | 5741.7 | 12424.3 | 27302.3 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 674.9 | 791.3 | 790.4 | 1061.9 | 1912.8 | 3800.3 | 8190.9 |
| -847.9 | -1337.6 | 1976.6 | 13919.2 | 41462.7 | 9686.0 | 188776.9 |
| 1394.6 | 887.1 | 4499.4 | 17808.7 | 49117.2 | 113092.6 | 224270.2 |
| - |  |  |  |  |  |  |

2. Liabilities:

Currency in circulation
Currency in private sector Voult Cash
Deposits of Banking System
Base Money
fC foreign Debt

## Whe Net Worth Revaluation <br> Net Other Liabitities

## Memorandum Items:

```
D RESc Foreign Reserves (USs m.)
Interest Rate on Domestic Bonds
Interest Rate on Deposits
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline 4518.4 & 8988.4 & 16179.2 & 29122.5 & 52420. & 943 & 109042.7 \\
\hline 3425.6 & 6814.5 & 12266.2 & 22079.1 & 39742.4 & & \\
\hline 1092.8 & 2173.9 & 3913.0 & 7043.6 & 12678.2 & 22820.8 & 41077.4 \\
\hline 4581.6 & 8301.6 & 14942.8 & 26897.1 & 48416.7 & 87146.5 & 156863.7 \\
\hline 9100.0 & 17290.0 & 31122.0 & 58019.6 & 100835.3 & 181503.5 & 326706.3 \\
\hline 21743.8 & 31766.2 & 45849.5 & 68131.5 & 102062.0 & 153826.0 & 233689.5 \\
\hline -6793.1 & -9352.2 & -13941.7 & -19789.2 & -23211.6 & -16822.5 & 15664.4 \\
\hline 15993.6 & 21986.1 & -29277.4 & -38103.1 & -47599.1 & -52486.7 & -31434.1 \\
\hline 22786.7 & 31338.3 & -43219.1 & -57992.3 & -70810.6 & -69289.3 & -15769.7 \\
\hline 367: 2 & 612 b .9 & 0627.9 & 6674.5 & 6937.4 & 7764.9 & 9861.8 \\
\hline 0.509 & 0.541 & 0.622 & 0.593 & 0.631 & 0.640 & 0.662 \\
\hline 0.621 & 0.600 & 0.680 & 0.739 & 0.762 & 0.753 & 0.757 \\
\hline 0.280 & 0.252 & 0.322 & 0.336 & 0.406 & 0.450 & 0.506 \\
\hline
\end{tabular}

\section*{B. bamkimg systen}

Codes CuRpent account
\begin{tabular}{|c|c|}
\hline & 1. Revence: \\
\hline & Returns from: \\
\hline i Bbd & Budget Bonds \\
\hline iBod & SEEs Eonds \\
\hline ifpd & Private Bonds \\
\hline ibed & Iotal Returns irom Bonds \\
\hline if Xde & Interest from fx Deposits at CB \\
\hline & 2. Expenditure: \\
\hline & Interest Payments to: \\
\hline 11 pd & Private sector \\
\hline 100p & Demand Deposits \\
\hline ifxpd & FX Deposits \\
\hline icrad & Central Bank \\
\hline iffed & Foreign Debt \\
\hline PILd & Profitillosses \\
\hline cand & Change in Met Morth \\
\hline & capital account \\
\hline & 1. Change in Assets \\
\hline dcud & Veult Cash \\
\hline dDade & Deposits at CB \\
\hline df Xdc & FK Deposits at Central Bank \\
\hline & Bonds: \\
\hline dibld & Budget \\
\hline dBod & SEEs \\
\hline clapd & Private Sector \\
\hline cisd & Total 8onds \\
\hline K1dp & Capital Iransfers to Private Sector \\
\hline & 2. Change in Liabilities \\
\hline dopp & Demand Deposits \\
\hline dFXpd & FX deposits of Private Sector \\
\hline dCkd & Credit from Central Bank \\
\hline KIbd & Capital Transfers from ludget \\
\hline difced & foreign forrowing (Adjusted) \\
\hline CCRd & Cross-Currency Revaluation \\
\hline devad & Revaluation Effect \\
\hline dif & Fureign Borrowing \\
\hline cinud & Net Morth \\
\hline splda & Revaluation Account \\
\hline culd & met Orher tiabilities \\
\hline
\end{tabular}
\begin{tabular}{rrrrrrrr}
531.0 & 1354.9 & 0.0 & 0.0 & 0.0 & 0.0 & 0.0 \\
1069.2 & 1960.7 & 0.0 & 0.0 & 0.0 & 0.0 & 0.0 \\
3680.5 & 3218.4 & 0.0 & 0.0 & 0.0 & 0.0 & 0.0 \\
5280.7 & 6533.9 & 13649.1 & 29442.3 & 58166.3 & 105096.7 & 184613.1 \\
274.3 & 321.0 & 511.0 & 835.0 & 1401.0 & 2350.9 & 3998.9 \\
& & & & & & & \\
& & & & & & \\
2173.4 & 2387.4 & 5686.2 & 10527.7 & 22355.8 & 44101.2 & 88223.3 \\
1794.9 & 1983.0 & 5042.5 & 9476.0 & 20591.1 & 41160.1 & 83186.2 \\
378.6 & 404.4 & 643.7 & 1051.7 & 1764.7 & 2961.1 & 5037.0 \\
-245.6 & -459.1 & -831.6 & 1172.2 & 8788.0 & 26548.3 & 64097.5 \\
579.0 & 796.5 & 1339.9 & 2442.2 & 3984.8 & 6208.3 & 9560.8 \\
-1798.4 & -1798.4 & -1798.6 & -1798.4 & -1798.4 & -1798.4 & -1798.4 \\
5087.0 & 6320.8 & 10450.8 & 19168.1. & 28515.6 & 36594.0 & 36198.6
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline 323.4 & 1081.1 & 1739.1 & 3130.4 & 5634.8 & 10142.6 & 18256.6 \\
\hline 2692.1 & 3720.0 & 6661.2 & 11954.2 & 21517.6 & 38731.8 & 69717.2 \\
\hline -163.5 & 0.0 & 0.0 & 0.0 & 0.0 & 0.0 & 0.0 \\
\hline 1401.5 & 0.0 & 0.0 & 0.0 & 0.0 & 0.0 & 0.0 \\
\hline 1543.7 & 0.0 & 0.0 & 0.0 & 0.0 & 0.0 & 0.0 \\
\hline -566.6 & -5360.1 & 0.0 & 0.0 & 0.0 & 0.0 & 0.0 \\
\hline 2378.6 & 9198.0 & 19779.8 & 36522.1 & 63277.1 & 103985.2 & 164561.2 \\
\hline 613.6 & 0.0 & 0.0 & 0.0 & 0.0 & 0.0 & 0.0 \\
\hline 1473.0 & 7789.5 & 12530.7 & 22555.2 & 40599.3 & 73078.8 & 131541.9 \\
\hline -641.5 & 0.0 & 0.0 & 0.0 & 0.0 & 0.0 & 0.0 \\
\hline - 365.0 & -489.7 & 3314.2 & 11942.6 & 27563.5 & 55405.2 & 91909.0 \\
\hline 168.7 & 283.6 & 513.2 & 929.2 & 1687.0 & 3030.4 & 5453.3 \\
\hline 1285.0 & 719.3 & 2429.2 & -1054.0 & -4399.2 & -8889.7 & -1032.7 \\
\hline -346.4 & 0.0 & 0.0 & 0.0 & 0.0 & 0.0 & 0.0 \\
\hline 3078.6 & 3408.4 & 6554.6 & 10627.8 & 14052.2 & 15611.4 & 16779.4 \\
\hline 5389.4 & 7026.0 & 14681.8 & 20261.9 & 29062.1 & 41874.7 & 79647.8 \\
\hline 5087.0 & 6320.8 & 10450.8 & 19168.1 & 28515.6 & 36594.0 & 36198.6 \\
\hline 2732.2 & 3408.4 & 6554.6 & 10627.8 & 14052.2 & 15611.4 & 16779.4 \\
\hline 7819.2 & 9729.2 & 17005.4 & 29795.9 & 42567.8 & 52205.4 & 52978.0 \\
\hline
\end{tabular}


\begin{tabular}{|c|c|}
\hline Codes & \\
\hline 0 xt & Exports \\
\hline D Int & Imports \\
\hline 0 Q8 & Resource salance \\
\hline 0 ift & Jotal Interest Payments \\
\hline D ifcb & Budpet \\
\hline D IFGO & SEES \\
\hline 0 ifge & Private Sector \\
\hline D ifGd & Domestic ES \\
\hline D ifge & Central Gank Debt \\
\hline D IRESC & Central Bank Reserves (-) \\
\hline D PR & Profit Remittences \\
\hline 0 iftlpr & Factor Payments \\
\hline 0176 & Foreign Iransfers to Budget \\
\hline D If & foreign Iransfers to PS \\
\hline D WR & Morkers Remittances \\
\hline 0 Tft & Total foreign Iransfers \\
\hline D 51 & Foreign Savings \\
\hline D OFI & Foreign Direct Investment \\
\hline D dfeb & Capital Inflows : Budget \\
\hline D dFGo & SEEs \\
\hline D dFGp & Private Sector \\
\hline D dfed & Domestic OS \\
\hline D dFCe & Central Pank \\
\hline D dft & Total Capital Inftoms \\
\hline 0 drese & Changes in forcign teazrves \\
\hline - diesd & Changes in 0 S Reserves \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{2}{|r|}{\multirow[b]{2}{*}{Stocks of Debt:}} & 1988 & 1989 & 1990 & 1991 & 1992 & 1993 & 1994 & 1985 \\
\hline & & & & & & & & & \\
\hline 0 ft & Total Met & 39592.2 & 40524.6 & 40926.2 & 40793.5 & 40553.3 & 40369.8 & 40896.6 & 42122.7 \\
\hline 0 Fb & Budget & 19222.2 & 19788.9 & 20296.6 & 20813.2 & 21338.8 & 21873.3 & 22416.6 & 22968.7 \\
\hline 0 f Gb & External Debt & 20318.7 & 20885.4 & 21393.1 & 21909.7 & 22435.3 & 22969.8 & 23513.1 & 24065.2 \\
\hline - fxbc & FX Deposits at CB & 1096.5 & 1096.5 & 1096.5 & 1096.9 & 1096.5 & 1096.5 & 1096.5 & 1096.5 \\
\hline 0 fo & SEEs & 4114.3 & 4459.6 & 4897.8 & 5362.8 & 5853.6 & 6373.9 & 6924.4 & 7506.5 \\
\hline 0 fro & External Debt & 4332.7 & 4678.1 & 5116.3 & 5580.5 & 6072.1 & 6592.4 & 7142.8 & 7725.0 \\
\hline 0 froc & IX Oeposits at Ca & 218.5 & 218.5 & 218.5 & 218.5 & 218.5 & 218.5 & 218.5 & 218.5 \\
\hline D Fp & Private Sector & -2277.3 & -2179.8 & -2268.8 & -2187.6 & -2106.2 & -2022.7 & -1932.1 & -1834.0 \\
\hline 0 fig & External Debt & 733.7 & 831.2 & 742.2 & 823.6 & 904.8 & 988.3 & 1078.9 & 1177.0 \\
\hline D Expd & EX Deposits at es & 3011.0 & 3011.0 & 3011.0 & 3018.0 & 3011.0 & 3011.0 & 3011.0 & 3011.0 \\
\hline 0 fc & Central bank & 11981.4 & 11567.6 & 10388.3 & 9385.8 & 8533.8 & 7809.5 & 7183.9 & 6670.6 \\
\hline D fGc & External Debt & 8276.0 & 7862.2 & 6682.8 & 5680.4 & 4828.3 & 4104.1 & 3488.5 & 2965.2 \\
\hline - fxbc & fx Deposits of eudget & 1096.5 & 1096.5 & 1096.5 & 1096.5 & 1046.5 & 1096.5 & 1096.5 & 1096.5 \\
\hline D frac & FX Deposits of SEEs & 218.5 & 218.5 & 218.5 & 218.5 & 218.5 & 218.5 & 218.5 & 218.5 \\
\hline - Fxdc & FX Oeposits of BS & 2390.5 & 2390.5 & 2390.5 & 2390.5 & 2390.5 & 2390.5 & 2390.5 & 2390.5 \\
\hline D fd & Banking System & 6551.7 & 6888.2 & 7612.3 & 7419.7 & 6933.4 & 6335.7 & 6293.6 & 6810.9 \\
\hline D FGd & External Debt & 5931.2 & 6267.7 & 6991.8 & 6799.2 & 6312.9 & 5715.2 & 5673.1 & 6190.3 \\
\hline D Expd & FX Deposits of Private Sector & 3011.0 & 3011.0 & 3011.0 & 3011.0 & 3011.0 & 3011.0 & 3011.0 & 3011.0 \\
\hline D Exdc & FX Deposits at CB & 2390.5 & 2390.5 & 2390.5 & 2390.5 & 2390.5 & 2390.5 & 2390.5 & 2390.5 \\
\hline - RESC & foreign Reserves of CB & 3671.2 & 6128.9 & 6627.9 & 6674.5 & 6937.4 & 7764.9 & 9861.8 & 13276.5 \\
\hline D FNt & & 33000.0 & 31182.6 & 30763.9 & 30231.1 & 29339.3 & 27900.5 & 25859.8 & 23154.0 \\
\hline D RESd & & 2924.0 & 3215.1 & 3534.4 & 3887.9 & 4276.6 & 4704.3 & 5174.7 & 5692.2 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|}
\hline Codes & \\
\hline \(x\) \% & Exports \\
\hline Int & Imports \\
\hline R8 & Resource Balance \\
\hline ift & Total Interest Payments \\
\hline ifgb & Budget \\
\hline iFGo & SEEs \\
\hline ifGp & Private Sector \\
\hline if Gd & Domestic es \\
\hline ifGc & Central amk Debt \\
\hline iaESc & Central Iank Reserves (-) \\
\hline PR & Profit Remirtences \\
\hline iftepr & zactor Payment: \\
\hline & \begin{tabular}{l}
Foreign Iransfers to Oudget \\
Foreign Iransfers to PS \\
Morkers Remittunces
\end{tabular} \\
\hline Ift & Total foreign Iransfers \\
\hline 51 & foreign Sevinge \\
\hline DFI & Foreign Direct Investment Capital Inflows \\
\hline df Gb & Qudget \\
\hline dico & SEEA \\
\hline df Gp & Private Sectur \\
\hline dafgod & Domestic is \\
\hline dit & Total Capital Inflows \\
\hline danesc & Changes in Foreign Reserves \\
\hline & Stocke of Debit \\
\hline \(f t\) & Total Debt \\
\hline fb & Sudget \\
\hline \(f 0\) & SFEE \\
\hline \(f\) p & Private Sector \\
\hline 1 c & Central gent \\
\hline fd & Omaning System \\
\hline 2ESc & Foreign Reserves of CB \\
\hline
\end{tabular}
tasle 6.b : balamce of payments (bll. l.L.) base Case Scenario
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline 1988 & 1989 & 1990 & 1991 & 1992 & 1995 & 1994 & 1995 \\
\hline 24646.1 & 39895.1 & 68634.5 & 123386.6 & 224414.1 & 405496.4 & 733473.6 & 1325692.1 \\
\hline 22097.2 & 39534.6 & 72460.5 & 130456.6 & 235217.6 & 419499.8 & 750017.6 & 1341756.i \\
\hline 2546.8 & 360.6 & -3826.2 & -7070.1 & -10803.6 & -14003.6 & -16544.0 & -16064.4 \\
\hline 3579.5 & 5317.9 & 8663.1 & 14295.1 & 23908.0 & 39881.5 & 67533.6 & 11777.9 \\
\hline 1923.6 & 2728.7 & 4464.8 & 7472.4 & 12840.7 & 22063.6 & 38425.6 & 67715.6 \\
\hline 509.9 & 581.9 & 1000.1 & 1787.1 & 3270.6 & 5971.5 & 11028.2 & 20570.7 \\
\hline 32.8 & 98.5 & 177.7 & 259.2 & 682.7 & 899.8 & 2853.4 & 3107.1 \\
\hline 579.0 & 796.5 & 1339.9 & 2442.2 & 3984.8 & 6208.3 & 9560.8 & 16337.9 \\
\hline 1122.8 & 1111.4 & 1680.7 & 2334.2 & 3329.1 & 4748.4 & 6865.6 & 10046.5 \\
\hline 348.2 & 493.0 & 1310.2 & 2315.1 & 3911.6 & 6822.5 & 12989.7 & 28401.2 \\
\hline -569.6 & -986.7 & -1875.0 & -3504. 3 & -6795.0 & -12816.3 & -24216.5 & -45758.8 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline 126.1 & 282.5 & 465.4 & 197.3 & 1383.6 & 2389.0 & 4135.3 & 7162.6 \\
\hline 0.0 & 0.0 & 0.0 & 0.0 & 0.0 & 0.0 & 0.0 & 0.0 \\
\hline 2485.96 & 5570.15 & 7715.56 & 13216.33 & 22936. 7 & 39603.13 & 88550.52 & 118734.36 \\
\hline 2612.0 & 5852.6 & 8181.0 & 14013.6 & 24320.4 & 41992.2 & 72685.8. & 125896.9 \\
\hline -2129.0 & -2768.0 & 436.2 & 237.7 & -2594.2 & -11951.8 & -33684. 3 & -81117.4 \\
\hline 498.6 & 1117.2 & 1840.8 & 3153.2 & 5672.4 & 9448.8 & 16355.2 & 28328.4 \\
\hline 663.3 & 1211.5 & 1703.0 & 2827.4 & 4754.1 & 7950.0 & 13322.4 & 22330.9 \\
\hline 1699.6 & 758.3 & 1469.9 & 2540.6 & 4446.3 & 7738.9 & 13497.8 & 23548.6 \\
\hline - 1490.5 & 208.5 & -298. 7 & 445.7 & 733.8 & 1263.2 & 2220.2 & 3960.1 \\
\hline 1265.0 & 719.3 & 2429.2 & -1054.0 & -6399.2 & -8889.7 & -1032.7 & 20922.7 \\
\hline -2364.0 & -884.6 & -3956.1 & -5485.9 & -7707.2 & -10772.7 & - 95095.0 & -21165.6 \\
\hline -206.8 & 1993.0 & 1347.3 & -726.6 & -2172.2 & -2730.3 & 16912.8 & 49804.7 \\
\hline 1257.8 & 5253.9 & 1674.0 & 256.9 & 2377.7 & 12309.1 & 51617.2 & 138119.4 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline 71852.0 & 111286.4 & 18063 & 296 & 485 & 7951 & 1328496 & 1913242.8 \\
\hline 34884.4 & 54363.2 & 89580.9 & 151082.7 & 255207.5 & 430843.8 & 728190.0 & 1062162.9 \\
\hline 7466.6 & 12246.8 & 21617.0 & 38922.9 & 70007.6 & 125547.8 & 226933.3 & 340595.5 \\
\hline -4132.8 & -5986.0 & -10013.6 & -15870.0 & -25190.2 & -39440.8 & -62763.4 & -83216.8 \\
\hline 21743.8 & 31766.2 & 45849.5 & 68131.5 & 102062.0 & 153826.0 & 233609.5 & 302687.7 \\
\hline 11890.0 & 18916.0 & 33597.8 & 53859.7 & 82921.9 & 1247\%. 5 & 204646.4 & 309031.5 \\
\hline 6662.5 & 16030.9 & 29253.0 & 48450.1 & 82969.5 & 152947.6 & 320356.0 & 602399.0 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{2}{|l|}{\multirow[t]{2}{*}{}} & \multicolumn{5}{|c|}{table 7 : mailomal accounis} & \multicolumn{4}{|c|}{Base Case Scenario} \\
\hline & & 1988 & 1989 & 1990 & 1991 & 1992 & 1993 & 1994 & 1995 & \\
\hline \multicolumn{11}{|l|}{Codes 1. Curreni prices} \\
\hline Of 16 & Other factor Income Budget & 1866.4 & 2849.2 & \[
5156.7
\] & \[
9355.6
\] & 16950.2 & 30488.0 & 54792.2 & 98603.4 & \\
\hline flo & Stes Value Added & 3416.6 & \(6 \times 67.4\) & 12727.9 & 22737.4 & 41181.4 & 74224.0 & 134112.9 & 242476.0 & \\
\hline vap & Private Sector value added & 86463.9 & 148256.9 & 268207.2 & 485868.5 & 882266.5 & 1584580.0 & 2850965.0 & 5129431.4 & \\
\hline PR & Profit Remittances & -549.6 & -986.7 & -1875.0 & - 3 [764. 3 & -6795.0 & -12816.3 & -24216.5 & -45758.8 & \\
\hline 11 & Indirect laxes & 11255.6 & 17630.0 & 31907.9 & 57766.1 & 104882.8 & 188402.7 & 339037.5 & 610127.6 & \\
\hline Sub & Subsidies (-) & 2229.6 & 3767.8 & 6783.0 & 12280.0 & 22296.1 & 40050.8 & 72072.9 & 129701.5 & \\
\hline cop & cop & 100573.0 & 171955.7 & 311216.6 & 583427.7 & 1022984.9 & 1837603.8 & 3306834.7 & 5950936.7 & \\
\hline Int & Jotal Imports & 22097.2 & 39534.6 & 72460.5 & 130456.6 & 235217.6 & 419699.8 & 750017.6 & 1361756.5 & \\
\hline xt & Total Exports & 24664.1 & 39895.1 & 68634.3 & 123386.6 & 224414.1 & 405496.4 & 733473.6 & 1325692.1 & \\
\hline RG & Resource Gap & -2546.8 & -360.6 & 3826.2 & 7070.1 & 10803.6 & 14003.4 & \(16544 . \mathrm{C}\) & 16064.6 & \\
\hline cb & Budget Consumption & 8814.7 & 18175.8 & 32491.5 & 59027.1 & 107575.2 & 193998.3 & 350508.8 & 633353.2 & \\
\hline \({ }_{\text {cp }}\) & Private Consumption & 65164.9 & 115843.8 & 212232.3 & 385116.3 & 700406.1 & 1259337.5 & 2267948.4 & 4086313.6 & \\
\hline ct & total Consumption & 73979.6 & 134123.6 & 244723.7 & 444143.5 & 807979.2 & 1453335.8 & 2618457.3 & 4717606.8 & \\
\hline 19 & Public investment & 10990.4 & 15865.1 & 28258.4 & 51328.5 & 93506.2 & 168531.8 & 304300.1 & 549459.2 & \\
\hline 16 & Budget Investment & 6365.8 & 8168.5 & 14545.9 & 26421.2 & 48132.1 & 86751.3 & 156637.7 & 282832.7 & \\
\hline 10 & SEEs Investment & 4624.6 & 7698.6 & 13712.5 & 24907.3 & 45976.1 & 81780.5 & 147662.4 & 240626.5 & \\
\hline p & Private Investment & 13056.2 & 21606.4 & 42060.6 & 75025.7 & 132303.0 & 229739.6 & 400621.3 & 699875.2 & \\
\hline it & lotal Investment & 24046.6 & 37471.5 & 70319.0 & 126354.3 & 225809.2 & 398271.4 & 704921.3 & 1249334.4 & 1 \\
\hline \multicolumn{11}{|r|}{Savings: 0} \\
\hline Sf & foreign & -2129.0 & -2768.0 & 436.2 & 237.7 & -2594.2 & -11951.8 & -33684. 3 & -81117.4 & 1 \\
\hline sb & Budget & 4339.3 & 3130.2 & 5077.8 & 7256.9 & 9031.2 & 11770.0 & 9032.3 & -7078.5 & \\
\hline So & SEES & 1168.9 & 4041.3 & 7269.4 & 12898.1 & 23136.0 & 41582.2 & 74044.9 & 831400.4 & \\
\hline cinc & Central Bank & - 1395.7 & -2559.1 & -4589.6 & -2847.5 & -3622.4 & 6389.0 & 32486.9 & 81139.8 & \\
\hline dinud & Banking System & 5087.0 & 6320.8 & 10450.8 & 19168.1 & 28515.6 & 36594.0 & 36198.6 & 16220.3
11077698 & \\
\hline Sp & Private & 16976.1 & 29306.3 & 51674.4 & 92641.0 & .70543.1 & \(3!3888.0\) & 586843.0 & 1107769.8 & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{2}{|r|}{\multirow[b]{2}{*}{2. COnstant prices}} & \multicolumn{5}{|c|}{table 7 : matiomal accounts} & & \multicolumn{2}{|r|}{Lese case Scemario} \\
\hline & & 1988 & 1989 & 1990 & 1991 & 1992 & 1993 & 1994 & 1995 \\
\hline \begin{tabular}{l}
K OFIb \\
K Flo \\
K Vhp
\end{tabular} & Other factor Income Budget SEE: Volue Added Private Sector Value added & \[
\begin{aligned}
& 1666.4 \\
& 3616.6
\end{aligned}
\]
\[
86463.9
\] & \[
\begin{array}{r}
0.0 \\
8122.7 \\
8726.0
\end{array}
\] & \[
\begin{array}{r}
0.0 \\
9272.9 \\
90040.1
\end{array}
\] & \[
\begin{array}{r}
0.0 \\
4556.2 \\
95222.6
\end{array}
\] & \[
\begin{array}{r}
0.0 \\
4650.5 \\
99632.3
\end{array}
\] & \[
\begin{array}{r}
0.0 \\
10354.5 \\
103537.4
\end{array}
\] & \[
\begin{array}{r}
0.0 \\
5067.5 \\
107726.2
\end{array}
\] & \[
\begin{array}{r}
0.0 \\
5209.6 \\
11109.7
\end{array}
\] \\
\hline k CDP & GDP & 100575.0 & 101748.9 & 104478.8 & 110422.9 & 115523.3 & 120186.1 & 12494.3 & 129819.8 \\
\hline \[
\begin{array}{ll}
K & \text { int } \\
k & X t \\
K & X G
\end{array}
\] & Jotal luports Jotal Exports Resource Gap & \[
\begin{aligned}
& 22007.2 \\
& 24644.1 \\
& -2546.8
\end{aligned}
\] & \[
\begin{array}{r}
24902.8 \\
23600.6 \\
1306.2
\end{array}
\] & \[
\begin{array}{r}
27800.9 \\
23001.3 \\
4759.6
\end{array}
\] & \[
\begin{aligned}
& 29219.9 \\
& 26181.8
\end{aligned}
\]
\[
5034.1
\] & \begin{tabular}{l}
30357.2 \\
25342.6 5014.7
\end{tabular} & \[
\begin{array}{r}
31356.4 \\
26521.0 \\
4655.4
\end{array}
\] & \[
\begin{aligned}
& 32388.0 \\
& 2771.4 \\
& 4673.4
\end{aligned}
\] & 33651.9 28920.0 6531.9 \\
\hline \[
\begin{aligned}
& k c b \\
& k c c p \\
& k c c t
\end{aligned}
\] & Budget Consumption Private Consumption total Consumption & 0816.7
65166.9 & \[
\begin{aligned}
& 10749.2 \\
& 68554.5 \\
& 79303.8
\end{aligned}
\] & \[
\begin{aligned}
& 11091.4 \\
& 72448.3
\end{aligned}
\]
\[
83539.7
\] & \begin{tabular}{l}
1177.9 \\
76843.5 \\
88621.3
\end{tabular} & \[
\begin{aligned}
& 12380.8 \\
& 8060.1 \\
& 92969.9
\end{aligned}
\] & 12962.4 6015.4 96957 & \[
\begin{array}{r}
13520.0 \\
87480.7 \\
101000.7
\end{array}
\] & 16114.6 91021.3 105136.0 \\
\hline \[
\begin{aligned}
& k i g \\
& k 10 \\
& k \\
& k 10 \\
& k 10 \\
& k
\end{aligned}
\] & Public Investment Budget Investment SEEs Investment Private Investment Total investment & 10990.4
6365.8
4626.6
13055.2
20046.6 & 9846.4
4914.0
4632.4
13001.1
22547.5 & 9836.0
5063.0
772.9
1660.9
26476.1 & 10430.0
5360.0
5061.2
15265.3
25675. & 10940.2
5635.3
5312.7
15690.8
26639.8 & 11428.5
5682.8
5545.7
15579.1
27007.6 & 11921.4
6136.5
5766.9
15694.9
27616.3 & \[
\begin{array}{r}
12427.0 \\
6397.2 \\
6030.6 \\
15030.0 \\
28257.0
\end{array}
\] \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline & & & Table 7 : & matiomal a & ccaumis & & & & Cese scenerio & \\
\hline & & 3988 & 1989 & 1990 & 1991 & 1992 & 1993 & 1994 & 1995 & \\
\hline & 3. MOMEY Mantel & & & & & & & & & \\
\hline \(n\) & Money Stock & 12392.2 & 24651.8 & 44373.2 & 79071.7 & 143769.1 & 258706.3 & 465811.8 & 038461.3 & \\
\hline Cut & Currency in Circulation & 6510.4 & 8988.6 & 16179.2 & 29122.5 & 52420.6 & 96357.0 & 169042.7 & 305716.8 & \\
\hline 00p & Demind Ceposita & 7875 & 15663.3 & 28194.0 & 50749.2 & 91346.5 & 164427.3 & 295969.2 & 532746.5 & \\
\hline & Demend Determinents: & & & & & & & & & \\
\hline 1 PCOP & Price Level & 1.346 & 2.263 & 3.695 & 6.510 & 11.201 & 19.379 & 53.552 & 58.128 & \\
\hline \(\times\) cop & Real income & 100573.0 & 10174A.9 & 104476.8 & 110423.9 & 115523.3 & 12018.1 & 124949.3 & 129819.8 & \\
\hline rCDP.M & Velocity of Circulation & 10.924 & 9.338 & 8.700 & 9.000 & 9.000 & 9.000 & 9.000 & 9.000 & \\
\hline & Supply Side: & & & & & & & & & \\
\hline M & Base Money & 9100.0 & 17290.0 & 31122.0 & 56019.6 & 100835.3 & 181503.5 & 326706.3 & 588071.6 & \\
\hline Cut & Currency Iotel & 4518.4 & 8988.4 & 16179.2 & 29122.5 & \(52^{1} \cdot 20.6\) & 94357.0 & 16942.7 & 305716.8 & \\
\hline Cup & Currency in Private Sector & 3425.6 & 6814.5 & 12266.2 & 22079.1 & 31742.4 & 71536.3 & 128765.3 & 231777.5 & \\
\hline cud & Currency in Benks & 1092.8 & 2173.9 & 3913.0 & 7043.4 & 12678.2 & 22820.8 & 61077.4 & 73939.3 & \\
\hline Ddc & Reserves & 4581.6 & 8301.6 & 16942.8 & 26897.1 & 48414.7 & 87146.5 & 156863.7 & 282354.6 & \\
\hline re. \({ }^{\text {r }}\) & Money Multiplier & 1.362 & 1.426 & 1.426 & 1.426 & 1.426 & 1.426 & 1.426 & 1.426 & \\
\hline rcut.D & Currency/Deposits & 0.574 & 0.574 & 0.574 & 0.574 & 0.574 & 0.574 & 0.574 & 0.574 & \\
\hline rode.D & Reserves/Deposits & 0.582 & 0.530 & 0.530 & 0.530 & 0.530 & 0.530 & 0.530 & 0.530 & \\
\hline & Memoraruth It itms: & & & & & & & & & \\
\hline & Exchange Rates: & & & & & & & & & 1 \\
\hline AER & Mominal (Period Average) & 1.416 & 2.138 & 3.355 & 5.673 & 9.045 & 14.874 & 24.520 & 40.448 & \\
\hline EER & Mominal (End of Period) & 1.815 & 2.746 & 4.414 & 7.259 & 11.960 & 19.697 & 32.484 & 45.373 & \(\omega\) \\
\hline K AER & Real (Period Average) & 1.000 & 0.936 & 0.875 & 0.875 & 0.875 & 0.875 & 0.875 & 0.875 & 1 \\
\hline & Interest Rates: & & & & & & & & & \\
\hline ic & Donestic Bond & 0.621 & 0.600 & 0.680 & 0.739 & 0.762 & 0.753 & 0.757 & 0.758 & \\
\hline iod & Demand Deposits & 0.280 & 0.252 & 0.322 & 0.336 & 0.405 & 0.450 & 0.506 & 0.559 & \\
\hline iR & Rediscount Rate & 0.509 & 0.541 & 0.622 & 0.593 & 0.631 & 0.640 & 0.662 & 0.680 & \\
\hline Di & Foreign Rate & 7.58X & 6.28x & 6.377 & 6.38x & 6.48x & 6.61\% & \(6.82 \%\) & 7.12\% & \\
\hline & Prices (Period Averages): & & & & & & & & & \\
\hline 1 PCOP & COP Deflator (End-of-Period) & 1.346 & 2.263 & 3.695 & 6.510 & 11.201 & 19.379 & 33.552 & 58.128 & \\
\hline 1 Pacd & CDP Deflator & 1.000 & 1.690 & 2.979 & 5.102 & 8.855 & 15.290 & 26.465 & 45.840 & \\
\hline 1 PACp & Private Consumption & & & & & & & & & \\
\hline 1 pacb & Public Consumption & & & & & & & & & \\
\hline 1 palt & Investment & 1.000 & 1.682 & 2.873 & 4.921 & 8.541 & 14.747 & 25.526 & 44.212 & \\
\hline 1 pint & Iaports (End of Period IL) & 1.310 & 2.082 & 3.513 & 6.066 & 90.495 & 18.149 & 31.427 & 46.091 & \\
\hline Di pla & laports (End of Period 3) & 0.722 & 0.758 & 0.796 & 0.836 & 0.878 & 0.921 & 0.987 & 1.016 & \\
\hline I palk & Imports (IL) & 1.000 & 1.582 & 2.606 & 4.465 & 7.748 & 13.378 & 23.157 & 40.110 & \\
\hline DI pal & Imports (\$) & 0.706 & 0.740 & 0.777 & 0.816 & 0.857 & 0.899 & 0.944 & 0.992 & \\
\hline 1 paxt & Exports (IL) & 1.000 & 1.690 & 2.979 & 5.102 & 0.855 & 15.290 & 26.465 & 45.840 & \\
\hline DI pax & Exports (\$) & 0.706 & 0.791 & 0.888 & 0.932 & 0.979 & 1.028 & 1.079 & 1.133 & \\
\hline
\end{tabular}

1. 10A:
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline colp & cross Disbursements & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline Aplp & martifation Payments & & 3.50 & 3.62 & 3.66 & 4.35 & 5.02 & 5.32 & 5.32 \\
\hline mie & Met Distursements & & -3.50 & -3.62 & -3.66 & -4.35 & -5.02 & -5.32 & -5.32 \\
\hline Die & Existion Oebt & 168.19 & 162.69 & 159.00 & 155.41 & 151.06 & 168.06 & 140.72 & 135.60 \\
\hline Re & Snterest Date & & \(0.7 \%\) & 0.78 & 0.78 & 0.78 & 0.78 & 0.78 & 0.78 \\
\hline sple & Interest Payments & & 1.24 & 1.21 & 1.19 & 1.16 & 1.12 & 1.08 & 1.05 \\
\hline & \multicolumn{9}{|l|}{2. otier matilateqal comeessiomal :} \\
\hline coze & Gross Disbursements & & 37.72 & 47.18 & 17.60 & 10.64 & 6.07 & 0.99 & 0.65 \\
\hline apze & Amortization Payments & & 42.71 & 51.58 & 29.70 & 34.35 & 32.66 & 54.38 & 72.48 \\
\hline moze & met Disbursements & & -4.99 & -4.40 & -12.02 & -23.71 & -26.59 & -53.39 & -71.83 \\
\hline 02e & Existing Debt & 106\%.13 & 1059.12 & 1054.71 & 1042.70 & 1018.99 & 992.40 & 939.01 & 867.17 \\
\hline R2e & Interest aate & & 3.88 & 4.18 & 4.18 & 4.18 & 4.2x & 4.2x & 4.38 \\
\hline 1p2e & Interest Payments & & 40.78 & 43.82 & 43.67 & 43.14 & 42.63 & 41.40 & 40.76 \\
\hline & \multicolumn{9}{|l|}{3. Ine0:} \\
\hline & a) Concessional & & & & & & & & \\
\hline cosce & Gross Disbursements & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline apsce & Amortization Payments & & 0.70 & 0.75 & 0.80 & 0.86 & 0.91 & 0.97 & 1.04 \\
\hline mase & Mex Disbursements & & -0.70 & -0.75 & -0.80 & -0.86 & -0.91 & -0.97 & -1.06 \\
\hline D3ce & Existing Debt & 49.98 & 49.28 & 48.53 & 47.73 & 46.88 & 45.97 & 45.01 & 43.97 \\
\hline R3Ce & Interest Rate & & \(4.9 \%\) & 4.8\% & 4.8x & 4.88 & 4.8x & 4.78 & 4.78 \\
\hline IP3ce & Interest Payments & & 2.44 & 2.39 & 2.34 & 2.29 & 2.23 & 2.17 & 2.11 \\
\hline & \multicolumn{9}{|l|}{8) Monconcessional} \\
\hline cc3me & Gross Disbursements & & 637.86 & 510.52 & 401.25 & 323.94 & 259.77 & 194.60 & 128.35 \\
\hline ap3me & Amortization Payments & & 473.26 & 584.45 & 664.35 & 719.41 & 736.28 & 763.39 & 730.77 \\
\hline mo3me & met Disbursements & & 164.60 & -73.93 & -263.09 & -395.47 & -476.51 & -568.71 & -602.42 \\
\hline 03 me & Existing Debt & 6079.76 & 6244.36 & 6170.43 & 5907.34 & 5511.87 & 5035.36 & 4466.65 & 3866.23 \\
\hline a3ne & Interest Rate & & 8.77 & 8.6\% & 825.5\% & 8.48 & 8.3\% & \[
8.3 x
\] & \[
0.24
\] \\
\hline If3me & Jnterest Payments & & 528.91 & 538.73 & 525.61 & 497.81 & 659.77 & 415.84 & 365.88 \\
\hline & \multicolumn{9}{|l|}{C) Iotal} \\
\hline coje & Gross Disbursements & & 637.86 & 510.52 & 401.25 & 323.94 & 259.77 & 194.68 & 428.35 \\
\hline aple & Mmortizetion Payments & & 473.96 & 585.20 & 665.15 & 720.26 & 737.18 & 764.35 & 731.80 \\
\hline mase & Met Disbursements & & 163.90 & -74.68 & -263.89 & -396.33 & -477.41 & . 569.68 & -603.45 \\
\hline D3e & Existing Debt & 61.9974 & 6293.64 & 6218.9\% & 5955.07 & 5558.74 & 5081.33 & 4512.65 & 3908. 20 \\
\hline M3e & Interest Rate & & 8.7\% & 8.6\% & \({ }^{8.58}\) & 80.42 & 6.3\% & 8.24 & 0.28 \\
\hline IP3e & Interest Payments & & 531.35 & 541.12 & 527.95 & 500.10 & 462.00 & 410.01 & 367.99 \\
\hline
\end{tabular}
\(19881989 \quad 1990 \quad 1991 \quad 1992 \quad 1993 \quad 1994 \quad 1995\)
6. Other mal tilaieral nonconcessidonal :
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline cote & Gross Disbursements & & 33.59 & 45.31 & 35.43 & 19.13 & 11.68 & 7.74 & 5.86 \\
\hline aphe & meortization Payments & & 113.26 & 208.21 & 190.47 & 273.95 & 249.05 & 315.24 & 166.16 \\
\hline mate & Met Disbursements & & -79.67 & -162.90 & -155.04 & -254.82 & -237.37 & -307.50 & -160.30 \\
\hline O6e & Existing Dett & 1432.87 & 1353.20 & 1190.29 & 1035.26 & 780.44 & 543.07 & 235.57 & 75.27 \\
\hline Rue & Interest Rate & & 7.3x & 7.4X & 7.77 & 7.48 & 7.6\% & 7.7 x & 10.3\% \\
\hline tP6e & Interest Payments & & 103.91 & 100.20 & 91.11 & 76.72 & 59.40 & 42.05 & 24.21 \\
\hline \multicolumn{10}{|c|}{5. Bilateral concessiowal :} \\
\hline cose & Gross Disbursements & & 367.54 & 386.55 & 251.03 & 104.69 & 47.81 & 20.24 & 8.75 \\
\hline ap5e & Amortization Payments & & 352.70 & 367.12 & 390.59 & 414.58 & 384.58 & 408.49 & 421.86 \\
\hline moSe & Met Distursements & & 14.84 & 19.44 & -139.56 & -309.88 & -336.77 & -388.17 & -413.13 \\
\hline 0Se & Existing Debt & 5431.91 & 5426.75 & 5446.19 & 5306.63 & 4996.75 & 4659.97 & 4271.81 & 3858.68 \\
\hline QSe & Interest Rate & & 3.2x & 3.38 & 3.4\% & 3.4\% & 3.4\% & 3.5\% & 3.5x \\
\hline IP5e & Interest Payments & & 173.31 & 180.46 & 183.17 & 178.99 & 171.62 & 163.67 & 151.32 \\
\hline \multicolumn{10}{|c|}{6. gilateral momCOnCESSIOMAL:} \\
\hline cobe & Gross Disbursements & & 340.87 & 323.36 & 157.91 & 65.56 & 23.53 & 2.40 & 0.00 \\
\hline apbe & amortization Payments & & 876.41 & 810.82 & 551.26 & 390.50 & 297.62 & 239.72 & 221.59 \\
\hline udbe & Met Disbursements & & -535.54 & -487.46 & -393.35 & -324.94 & -274.09 & -237.32 & -221.59 \\
\hline Obe & Existing Debt & 3103.10 & 2567.56 & 2080.10 & 1686.75 & 1361.80 & 1087.71 & 850.39 & 628.80 \\
\hline abe & Interest Rate & & 8.0\% & 8.5\% & 8.3\% & 8.3x & 8.2\% & 0.2\% & 8.4\% \\
\hline IP6e & Interest Payments & & 247.61 & 217.28 & 173.63 & 139.71 & 111.85 & 89.22 & 71.02 \\
\hline \multicolumn{10}{|c|}{7. PRIVAIE combs:} \\
\hline cole & Gross Distursements & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline ap7e & Amortization Payments & & 0.90 & 1.06 & 1.10 & 1.15 & 1.21 & 1.26 & 1.44 \\
\hline mo7e & Met Disbursements & & -0.90 & -1.04 & -1.10 & -1.15 & -1.21 & -1.26 & -1.44 \\
\hline D7e & Enisting Debt & 15.94 & 15.05 & 16.01 & 12.98 & 11.75 & 10.55 & 9.29 & 7.85 \\
\hline 97 & Interest Rate & & 4.17 & 4.6\% & 4.6\% & 4.6\% & 6.65 & \(6.6 \%\) & 5.02 \\
\hline IP7e & Interest Payments & & 0.66 & 0.69 & 0.65 & 0.60 & 0.54 & 0.49 & 0.47 \\
\hline \multicolumn{10}{|c|}{8. PRIVATE COmercial games:} \\
\hline code & Gross Disbursements & & 932.38 & 407.74 & 291.97 & 181.59 & 122.07 & 32.19 & 0.00 \\
\hline aple & Amortization Payments & & 5146.06 & 1160.42 & 1303.74 & 1335.12 & 1123.46 & 778.09 & 1154.02 \\
\hline mote & Het Disbursements & & -4213.66 & -752.68 & -1011.77 & - 1153.53 & -1001.38 & -745.90 & -1154.02 \\
\hline De & Existing Debt & 11341.30 & 7127.64 & 6374.95 & 5363.18 & 4209.66 & 3208.28 & 2462.38 & 1308.36 \\
\hline ate & Interest Rate & & 8.0\% & 8.5x & 8.22 & 8.0\% & \(8.0 \%\) & 8.18 & 8.1\% \\
\hline IPBe & Interest Payments & & 906.79 & 606.79 & 522.92 & 429.93 & 336.46 & 260.25 & 200.31 \\
\hline
\end{tabular}

TaBLE 9: PIPELINE DATA
\begin{tabular}{cccccccccc}
1988 & 1989 & 1990 & 1991 & 1992 & 1993 & 1994 & 1995
\end{tabular}
9. OIMER PRIVAIE:
\begin{tabular}{|c|c|}
\hline co9e & Gross Disbursements \\
\hline apge & Amortization Payments \\
\hline moge & Wet Disbursements \\
\hline 09e & Existing Debt \\
\hline 19e & Interest Pate \\
\hline iple & Interest Payments \\
\hline
\end{tabular}
\begin{tabular}{rcccccrr} 
& 452.65 & 208.27 & 138.22 & 137.00 & 61.16 & 3.18 & 0.00 \\
& 443.63 & 497.92 & 452.30 & 416.47 & 351.71 & 316.46 & 403.64 \\
2389.20 & 83.82 & -289.65 & -316.08 & -277.46 & -290.55 & -313.26 & -403.66 \\
& 239.01 & 2108.37 & 179.28 & 1516.81 & 1226.26 & 913.01 & 509.37 \\
& \(8.8 \%\) & \(8.1 \%\) & \(7.6 x\) & \(7.6 \%\) & \(7.3 \%\) & \(7.1 x\) & \(6.7 x\) \\
& 210.41 & 193.21 & 163.47 & 135.88 & 110.72 & 87.40 & 61.11
\end{tabular}
10. privait mom-gurranteed
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline cople & Gross Disbursement: & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline apple & Amortization Payments & & 94.50 & 73.00 & 99.20 & 94.36 & 102.28 & 71.57 & 0.00 \\
\hline maphe & Met Disbursements & & -94.50 & -73.00 & -99.28 & -94.36 & -102.28 & -71.57 & 0.00 \\
\hline DPAE & Existing Debt & 535.00 & 440.50 & 367.50 & 260.22 & 173.85 & 71.58 & 0.01 & 0.01 \\
\hline tple & Interest Rate & & 9.97 & 14.3x & 10.8\% & 11.0\% & 11.9\% & 18.0x & 0.0x \\
\hline fprore & Interest Payments & & 53.04 & 63.03 & 39.84 & 29.53 & 20.70 & 12.88 & 0.00 \\
\hline
\end{tabular}
11. IMF purcmases:
```

CDIMFe Gross Disbursements
APIMFe Amortization Payments
DIMFe Net Disbursements
DIMFe Existing Debt
Dlure
Interest Rate

```
IPIMfe interest Payments
12. met shoal term capital:

CDSIe Gross Disbursements
\begin{tabular}{|c|c|}
\hline apste & Amortization P \\
\hline maste & Wet Distursements \\
\hline DSte & Existing Debt \\
\hline Ste & Interest Rate \\
\hline
\end{tabular}
\begin{tabular}{rccccccr} 
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
7704.00 & 7704.00 & 7704.00 & 7704.00 & 7704.00 & 7704.00 & 7704.00 & 7704.00 \\
& \(0.0 x\) & \(0.0 x\) & \(0.0 x\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00
\end{tabular}
1989
1990
1991
1992
1993
1994
\(19 \%\)

\section*{ASE YEAR:} Closure: RE

\section*{A) comitions of mew bebl}

3. IERD:
A) Monconcessional
\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline H3MS & Medius and Slow Disb. Maturity & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 \\
\hline G3us & Grace Period & 4.00 & 6.00 & 4.00 & 4.00 & 6.00 & 4.00 & 4.00 \\
\hline a3msn & Interest Rate & 7.7\% & 7.78 & 7.78 & 7.78 & \(7.7 \%\) & 7.78 & 7.76 \\
\hline 13 ms & Time Profite of cosusn & 78 & 19\% & 21\% & 178 & 13\% & 78 & 4\% \\
\hline H3MF & fest Oisbursement Maturity & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 \\
\hline G3MF & Grace Period & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 \\
\hline R3men & Interest Rate & 7.78 & 7.78 & 7.78 & 7.74 & \(7.7 \%\) & \(7.7 \%\) & 7.78 \\
\hline 13MF & IIme Profile of co3mfn & 33\% & 33\% & 33\% & 08 & \(0 \%\) & 08 & 08 \\
\hline & Concessionat & & & & & & & \\
\hline M3C & Maturity & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 \\
\hline 635 & Grace Period & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 \\
\hline e3cn & Interest Rate & 0.78 & 0.77 & 0.73 & \(0.7 \%\) & 0.73 & 0.73 & 0.73 \\
\hline 13c & lime Profile of coscn & \(54 \%\) & 108 & 112 & 97 & 78 & 3x & 22 \\
\hline
\end{tabular}
table 10: ASSUMPTIONS



\section*{B) AVAHABILITIES CASE:}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline & Mew Comitments: & & & & & & & \\
\hline A Ct & 10a & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline A C2 & Other Mult. Conc. & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline A C3 & 18RD & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline A. C3C & Concessional & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline A C3m & Monconcessional & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline A C3mf & fast Disbursement & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline a C3ms & Stow Distursement & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline
\end{tabular}

ClOSURE: ..... 1988

CLOSURE: RE
\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline A C4 & Other mult. Monc. & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline A C5 & Silateral Conc. & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline A C6 & Bilateral \#onconc. & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline A C7 & Private Bonds & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline \(A\) cs & Commercial Banks & 10000.00 & 4000.00 & 6000.00 & 8000.00 & 8000.00 & 9000.00 & 8000.00 \\
\hline A 69 & Other Private & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0,00 & 0.00 \\
\hline A CPR & Private Mon-guaranteed & 2000.00 & 500.00 & 1000.00 & 1000.00 & 1000.00 & 1000.00 & 1000.00 \\
\hline A CIMF & IMf Purchases & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline A C5I & Wet Short Term Capital & 2000.00 & 2500.00 & 2000.00 & 4000.00 & 4000.00 & 5000.00 & 1000.00 \\
\hline \multicolumn{9}{|c|}{Mew Distoursements:} \\
\hline A coin & IDA & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline A CO2n & Other Mult. Conc. & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline A C03n & IBRD & -0.40 & -0.40 & -0.40 & -0.40 & -0.40 & -0.40 & -0.40 \\
\hline A coscn & Concessional & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline A cosmn & Monconcessional & -0.40 & -0.40 & -0.40 & -0.40 & -0.40 & -0.40 & -0.40 \\
\hline a cosmfn & Fast Distursement & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline A cosusn & Stow Distursement & -0.40 & -0.40 & -0.40 & -0.40 & -0.40 & -0.40 & -0.40 \\
\hline A C04n & Other Mult. Monc. & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline A cosn & Bilateral Conc. & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline A cobr & Bilateral Monconc. & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline A coin & Private Bonds & 1441.37 & 447.91 & 731.57 & 944.06 & 1064.54 & 1184.17 & -3433.69 \\
\hline A cosn & Commercial lanks & 15443.30 & 2225.13 & 4464.48 & 5434.81 & 12222.84 & 8462.46 & -41397.25 \\
\hline A coin & Other Private & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline A coprn & Private Mon-guaranteed & 1029.55 & 148.34 & 297.63 & 362.32 & 541.90 & 530.29 & - 2849.57 \\
\hline A coimfn & IMf Purchases & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline A cosin & Net Shart Term Capital & 2676.84 & 3062.53 & 3836.37 & 4778.40 & 5651.99 & 6418.24 & -1757.92 \\
\hline \multicolumn{9}{|c|}{C) REQUIREMENTS CASE:} \\
\hline \multicolumn{9}{|c|}{Share of n -Creditor in New Debt:} \\
\hline betas & 10A & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.08 & 0.08 & 0.0x \\
\hline BE1A2 & Dther Mult. Conc. & 0.0\% & 0.0x & 0.0\% & 0.0x & 0.0x & \(0.0 \%\) & 0.0x \\
\hline BEIA3 & 18RD & 0.0\% & 0.0x & 0.0\% & 0.0x & 0.0\% & 0.0\% & 0.0x \\
\hline BEJASC & Concessional & 0.0\% & 0.0x & 0.0x & 0.0\% & 0.0x & 0.0\% & 0.0x \\
\hline 日ETA3M & Hanconcessional & 0.0\% & 0.0\% & 0.0\% & 0.0x & 0.08 & 0.0x & 0.0x \\
\hline eetajaf & fast Disbursement & 0.0\% & 0.0\% & 0.0x & 0.0x & 0.0\% & 0.0x & 0.0\% \\
\hline 8EIASMS & Slom Disbursement & 0.0\% & 0.0x & 0.0\% & 0.0\% & 0.04 & 0.0x & 0.0\% \\
\hline getab & Other mult. Monc. & 0.0\% & 0.0x & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline 日EIAS & Bilateral Conc. & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0x \\
\hline BEIAG & Bilateral Monconc. & 0.0\% & 0.0x & 0.0\% & 0.0\% & 0.0\% & 0.08 & 0.0\% \\
\hline betat & Private Bonds & 7.0\% & 7.0\% & 7.0\% & 7.0\% & 7.0x & 7.08 & 7.0\% \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline & & \multicolumn{12}{|c|}{lable 10: ASSUMPIIONS} \\
\hline & & \multicolumn{2}{|l|}{1989} & 1990 & \multicolumn{2}{|l|}{1991} & \multicolumn{2}{|l|}{1992} & \multicolumn{2}{|l|}{1993} & \multicolumn{2}{|l|}{1994} & 1995 \\
\hline & \begin{tabular}{l}
BASE YEAR: \\
CLOSURE: RE
\end{tabular} & & 1988 & & & & & & & & & & \\
\hline & D) COMAM ASSUMPTIOMS On & debt & -RESTR & IURING: & & & & & & & & & \\
\hline & yead of resiruciuring: & & & & & & & & & & & & \\
\hline \[
\begin{aligned}
& \text { Reb } \\
& \text { ASeb }
\end{aligned}
\] & Exit Bonds: Interest pate Amortization Schedule & & 2.5\% & 2.5\% & & 2.5\% & & 2.5\% & & 2.5\% & & 2.58 & 2.58 \\
\hline & Equity: & & & & & & & & & & & & \\
\hline ak & Rdditionality
Rate of Return & & 0.0x & 0.08 & & 0.08 & & 0.0x & & \(0.0 x\)
0.08 & & 0.08 & 0.08
0.08 \\
\hline A.clutb & * of Debt-Equity Suaps Finenced by Money Creation & & 50x & 50\% & & 50\% & & 50\% & & \(50 \%\) & & 50\% & \(50 \%\) \\
\hline
\end{tabular}

TABLE 11: TOIAL CREDIIORS
a. Exisiling debi:

Gross Disbursements Mmortization Payments met Disbursements
Stack of Debt
Interest Rate (Implicit)
Interest Payments
B. RESTRUCTURED DEBT:

Gross Distursemens
Amortization Payments
Het Disbursements
Stock of Debt
Of which: Exit bonds
interest Rate (laplicit) Interest Payments
C. MEL OEAT:

GDn Gross Disbursements Amortization Payments Net Pisbursements Wer Misburseme
Stock of Debt
Stock of Debt
Interest Rate (Implicit)
Interest Rate (Impl
Interest Payments
D. JoIAL CEBI:

Gross Disbursements
Amortization Payments
Met Disbursements
Stock of Debt
Of which: Exit bonds
Interest Rate (Implicit)
Interest Payments
E. EFFECIS OS DEBI-RESTRUCIURING:
A) on Debt:

CDf
APf
NDf
Df
Deb
Rf
IPf
\(19891990 \quad 1991 \quad 1992 \quad 1993 \quad 1994\)

1995
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline 2802.41 & 1928.94 & 1293.49 & 842.55 & 532.09 & 261.41 & 143.59 \\
\hline 7547.60 & 3758.93 & 3687.25 & 3683.09 & 3204.76 & 2954.77 & 3178.31 \\
\hline -4745.19 & . 1829.99 & -2393.76 & -2840.54 & -2752.67 & -2693.37 & 3034.72 \\
\hline 34846.94 & 33016.95 & 30623.19 & 27782.64 & 25029.97 & 22336.60 & 19301.88 \\
\hline 5.73\% & 5.58\% & 5.29\% & \(5.01 \%\) & \(4.74 x\) & 4.46\% & 4.11\% \\
\hline 2269.09 & 1945.81 & 1747.38 & 1535.73 & 1317.02 & 1116.45 & 918.24 \\
\hline 2802.41 & 1928.94 & 1293.49 & 842.55 & 532.09 & 261.41 & 143.59 \\
\hline 7547.60 & 3758.93 & 3687.25 & 3883.09 & 3284.76 & 2954.77 & 3178.31 \\
\hline -4745.19 & - 1829.99 & -2393.76 & -2840.54 & -2752.67 & -2693.37 & - 3034.72 \\
\hline 34846.94 & 33016.95 & 30623.19 & 27782.64 & 25029.97 & 22336.60 & 19301.88 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 5.73\% & 5.58x & \(5.29 x\) & 5.01\% & \(4.74 x\) & 4.46\% & 4.11x \\
\hline 2269.09 & 1945.81 & 1747.38 & 1535.73 & 1317.02 & 1116.45 & 916.24 \\
\hline 20591.07 & 5883.91 & 9330.05 & 11519.59 & 19481.27 & 16595.17 & -49438.36 \\
\hline 0.00 & 2917.07 & 3377.41 & 4273.18 & 12781.40 & 10700.89 & 13455. 22 \\
\hline 20591.07 & 2966.84 & 5952.64 & 7246.41 & 6719.87 & 5894.28 & -62893.58 \\
\hline 20591.07 & 23557.91 & 29510.55 & 36756.96 & 43476.83 & 49371.11 & -13522.48 \\
\hline \(9.67 \%\) & 9.677 & 9.677 & \(9.67 \%\) & 9.677 & \(9.67 \%\) & 9.67 x \\
\hline 0.00 & 1990.13 & 2276.87 & 2852.19 & 3552.56 & 4202.04 & 4771.72 \\
\hline 23393.48 & 7812.84 & 10623.54 & 12362.14 & 2001..- & 16856.58 & -49294.77 \\
\hline 7547.60 & 6676.00 & 706466 & 7956.27 & 16046.16 & 13655.67 & 16633.53 \\
\hline 1584588 & 1136.84 & 3558.88 & 4405.87 & 3967.20 & 3200.91 & -65928.30 \\
\hline 55438.01 & 56574.85 & 60133.73 & 64539.60 & 68506.80 & 71707.71 & 5779.41 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline \(5.73 \%\) & 7.10\% & 7.11\% & 7.30\% & 7.55\% & 7.76\% & 7.93x \\
\hline 2269.09 & 3935.94 & 4024.25 & 4387.92 & 4869.58 & 5318.49 & 5689.95 \\
\hline
\end{tabular}
table 11: toial CREDITORS

日) On Reserves:
Change in Reserves
C) On forcign Invesiment: Increased foreign Profits Increase in OFI
D) On Money Creation Increase in lase Money to finence Debt-Equity Suaps
\(19891990 \quad 1991 \quad 1992 \quad 1993 \quad 1994\) 1995
\(\qquad\)
0.00
0.00
0.00
0.00
0.00
0.00 0.00
0.00
0.00

00

0.00
0.00
0.00
0.00 0.00

TABLE 12: 1DA

\section*{A. Pipelime debt:}
\begin{tabular}{ll} 
GD1p & Gross Disbursements \\
AP1p & Amortization Payments \\
MD1p & Met Disbursements \\
D1p & Existim Debt \\
Q1p & Interest Gate \\
IP1p & Interest Payments
\end{tabular}
\begin{tabular}{cccccccr} 
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& 3.50 & 3.62 & 3.66 & 4.35 & 5.02 & 5.32 & 5.32 \\
& -3.50 & -3.62 & -3.66 & -4.35 & -5.02 & -5.32 & -5.32 \\
166.19 & 162.69 & 159.08 & 155.41 & 151.06 & 146.04 & 140.72 & 135.40 \\
& \(0.7 x\) & \(0.7 x\) & 0.77 & \(0.7 x\) & \(0.7 x\) & \(0.7 x\) & \(0.7 \%\) \\
& 1.24 & 1.21 & 1.19 & 1.16 & 1.12 & 1.08 & 1.05
\end{tabular}
8. DEET RESTRUCTLATMG IMSTRUMEMIS:
1. RESCHEDU IMCS:
A) Pure Rescheduling Change in the Contractual Stream of: Amortization Payments Interest Payments
\begin{tabular}{cccccccc} 
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& & & & & & & \\
& & & & & & & \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & \(0.0 c\) & 0.00 \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& \(5.0 x\) & \(5.0 x\) & \(5.0 x\) & \(5.0 x\) & \(5.0 x\) & \(5.0 x\) & \(5.0 x\) \\
9 & 9 & 9 & 9 & 9 & 9 & 9 & 9 \\
3 & 3 & 3 & 3 & 3 & 3 & 3 & 3
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{2}{|l|}{\multirow[t]{2}{*}{}} & \multirow[b]{2}{*}{1988} & \multirow[b]{2}{*}{1989} & \multirow[b]{2}{*}{1990} & \multirow[b]{2}{*}{1991} & Table 12: & \multicolumn{3}{|l|}{10a} \\
\hline & & & & & & 1992 & 1993 & 1994 & 1995 \\
\hline \multicolumn{10}{|c|}{6) financing:} \\
\hline C88 1 & Cost of Buyback & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline Ef881 & Externally financed & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline UR881 & Use of Reserves & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline E8B81 & Exit 8onds & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline DEAB1 & Debt-Equity Swaps & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & C) Effects on: & & & & & & & & \\
\hline daplibs & Amortization Payments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline apleb & Of which: Exit Bunds & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline diplibb & Interest Payments & & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline IP1eb & Of which: Exit Bords & & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline dibb & Stock of Debt & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline E8881 & Of which: Exit Bonds & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline \multicolumn{10}{|c|}{3. accumalailion of abrears:} \\
\hline \multicolumn{10}{|c|}{A) Arrears on:} \\
\hline ARIAP & Amportization Payments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline ARIJP & Interest Payments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline dcolar & 8) Capitalization: & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline Riar & Interest rate & 0.01 & 0.01 & 0.01 & 0.01 & 0.01 & 0.01 & 0.01 & 0.01 \\
\hline Miar & Maturity & 30.00 & 30.00 & 30.00 & 30.00 & 30.00 & 30.00 & 30.00 & \% 0.00 \\
\hline Glar & Grace Perisd & 5.00 & 5.00 & 5.00 & 5.00 & 5.00 & 5.00 & 5.00 & . 00 \\
\hline \multicolumn{10}{|c|}{C) Effects on:} \\
\hline dcolar & Gross Disbursements & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline daplar & Amortization Payments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline diplar & Interest Payments & & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline \multicolumn{10}{|c|}{4. WRIIE-OFFS:} \\
\hline LOFf 1 & A) Debt forgiven & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline \multicolumn{10}{|c|}{B) Effects on:} \\
\hline dupinof & Amortization Payments & & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline dipisorf & Interest Payments & & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline dilmotf & Stock of Debt & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline \multicolumn{10}{|c|}{C. EXISIING DEBT:} \\
\hline coie & Gross Disbursements & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline APle & Amortization Payments & & 3.50 & 3.62 & 3.66 & 4.35 & 5.02 & 5.32 & 5.32 \\
\hline mole & Net Distursements & & -3.50 & -3.62 & -3.66 & -4.35 & -5.02 & -5.32 & -5.32 \\
\hline Die & Restructured Debs & 166.19 & 162.69 & 159.08 & \[
155.41
\] & 151.06 & 146.04 & \(1 / 0.72\) & 135.40 \\
\hline Dieb & Of which: Exit Bonds Interest Rate: & & 0.06 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline R1p & On Mrn-Restructured Debt & & \(0.7 \%\) & \(0.7 \%\) & 0.78 & 0.77 & 0.77 & 0.77 & 0.74 \\
\hline Rie & Implicit & & \(0.7 \%\) & 0.7\% & 0.78 & \(0.7 \%\) & 0.77 & \(0.7 \%\) & 0.77 \\
\hline JPIe & Interest Payments & & 1.24 & 1.21 & 1.19 & 1.16 & 1.12 & 1.08 & 1.05 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline & & 1988 & 1989 & 1990 & 1991 & \[
\begin{aligned}
& \text { ABLE 12: } \\
& 1992
\end{aligned}
\] & \[
\begin{aligned}
& 1 D \hat{} \\
& 1993
\end{aligned}
\] & 1994 & 1995 \\
\hline \multicolumn{10}{|c|}{D. HEW DEET:} \\
\hline W1 & Maturity & 30.00 & 30.00 & 30.00 & 30.00 & 30.00 & 30.00 & 30.00 & 30.00 \\
\hline 61 & Grace Period & 5.00 & 5.00 & 5.00 & 5.00 & 5.00 & 5.00 & 5.00 & 5.00 \\
\hline 11 & Itme Profite of coin & & 25x & 25\% & 25\% & 25\% & 0x & 0\% & 0x \\
\hline C1 & Commitments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline coin & Gross Disbursements & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline Apin & Amortization Payments & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline MDin & Met Distursements & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline Din & Stock of Debt & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline R10 & Interest Rate & 0.7\% & 0.7\% & 0.77 & 0.78 & \(0.7 \%\) & 0.78 & 0.77 & 0.73 \\
\hline IP1n & Interest Payments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline \multicolumn{10}{|c|}{E. TOTAL DEBT:} \\
\hline coit & Gross Disbursements & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline APIt & Amortization Payments & 0.00 & 3.50 & 3.62 & 3.68 & 4.35 & 5.02 & 5.32 & 5.32 \\
\hline NDIt & Net Disbursements & 0.00 & -3.50 & -3.62 & -3.66 & -4.35 & -5.02 & -5.32 & -5.32 \\
\hline D18 & Stock of Debt & 186.19 & 162.69 & 159.08 & 155.41 & 151.06 & 146.04 & 140.72 & 135.40 \\
\hline R1t & Interest iete & & \(0.75 \%\) & 0.74\% & \(0.74 x\) & 0.75\% & 0.74 x & \(0.74 \%\) & 0.14x \\
\hline IPIt & Interest rayments & & 1.24 & 1.21 & 1.19 & 1.16 & 1.12 & 1.08 & 1.05 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{15}{|c|}{A. existing debt:} \\
\hline coze & Gross Disbursements & & 37.72 & 47.18 & 17.68 & 10.64 & 6.07 & 0.99 & 0.65 & 0.25 & 0.10 & 0.00 & 0.00 & 0.00 \\
\hline arze & Amortization Payments & & 42.71 & 51.58 & 29.70 & 34.35 & 32.66 & 54.38 & 72.48 & 206.44 & 169.35 & 156.85 & 182.38 & 183.10 \\
\hline unde & Met Disbursements & & -4.99 & -4.40 & -12.02 & -23.71 & -26.59 & -53.39 & -71.83 & -206.19 & -169.25 & - 156.65 & -182.38 & - 183.10 \\
\hline D2e & Existing Debt & 1064. 10 & 1059.12 & 1054.71 & 1042.70 & 1018.99 & 992.40 & 939.01 & 867.17 & 660.98 & 491.73 & 334.88 & 152.50 & -30.60 \\
\hline R2e & Interest Rate & & 3.8\% & 4.1\% & 4.17 & 4.1\% & 4.2\% & 4.2\% & \(4.3 \%\) & 4.12 & 4.0x & 3.68 & \(5.6 \%\) & 12.4\% \\
\hline 1P2e & Interest Paymenits & & 40.78 & 43.82 & 43.47 & 43.14 & 42.63 & 41.40 & 40.76 & 35.55 & 26.72 & 17.93 & 18.86 & 18.90 \\
\hline
\end{tabular}
B. DEBT RESIRUCIURING IMSIRUEENIS:
1. RESCHEDULINGS:
A) Pure Rescheduling

Change in the Contractual stream of: Amortization Payact Interest Payments
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0x & 0.0\% & 0.0\% & 0.0\% & 0.07 & 0.08 & 0.0x & 0.0x \\
\hline 10 & 10 & 10 & 10 & 10 & 10 & 10 & 10 & 10 & 10 & 10 & 10 \\
\hline 3 & 3 & 3 & 3 & 3 & 3 & 3 & 3 & 3 & 3 & 3 & 3 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.06 & 0.00 & 0.00 & 0.00 \\
\hline
\end{tabular}

\section*{2. Debt muybacks:}
A) Conditions:

Exit Bonds (\%)
Interest Rate
Maturity
Grace Period
Debt-Equity Swaps (\%)
Mdditionalify of DFI
Profit Rate
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0x & 0.0\% & 0.0\% & 0.0\% & 0.0x & 0.0x & 0.0x & 0.0x \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.0\% & 0.0\% & \(0.0 \%\) & \(0.0 \%\) & 0.0x & 0.0x & \(0.8 \%\) & 0.0\% & 0.08 & 0.0\% & 0.0x & 0.08 \\
\hline 100.0\% & 100.0\% & 100.0\% & 100.0\% & 100.0\% & 100.0\% & 100.0\% & 100.0x & 100.0x & 100.08 & 100.0\% & 100.0\% \\
\hline 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0x & 0.0\% & 0.08 & 0.0\% & 0.08 \\
\hline 2.5\% & 2.5\% & 2.5\% & \(2.5 \%\) & 2.5\% & 2.5\% & 2.5\% & 2.5\% & 2.5\% & 2.58 & 2.5\% & 2.5x \\
\hline 10 & 10 & 10 & 10 & 10 & 10 & 10 & 10 & 10 & 10 & 10 & 10 \\
\hline 3 & 3 & 3 & 3 & 3 & 3 & 3 & 3 & 3 & 3 & 3 & 3 \\
\hline 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0x & 0.0\% & 0.0x & 0.0\% & 0.08 & 0.08 & 0.0x & 0.0x \\
\hline 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0x & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.08 & 0.0x & 0.0\% \\
\hline 0.0\% & 0.0\% & 0.0\% & \(0.0 \%\) & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.08 & 0.08 & 0.08 & 0.08 \\
\hline
\end{tabular}

1able 13: otmer matilatean comeessiomal

c) Effects on:
ap2tb Amortization Payments
ap2eb of mhich; Exit Oonds
IP2tb Interest Payments

Of which: Exie gand
3. accumartiom of araenas:
\begin{tabular}{|c|c|}
\hline & A) Arrears on: \\
\hline ar2ap & maortization Paymen \\
\hline an21P & Interest Payments \\
\hline cozar & 8) Capitalization: \\
\hline R2ar & Interest rate \\
\hline M2ar & Maturity \\
\hline G2ar & Grace Period \\
\hline
\end{tabular}
C) Effects on:
Golar Gross Disbursements
ap2ar Amortization Payments aplar Amortization Payments
4. wille-offs:
MOFF2 a) Debt Forgiven
a) Effects on:
\begin{tabular}{l} 
Ap2woff Amortization Payments \\
IP2mofi Interest Payments
\end{tabular}
C. RESTRUCTURED DEBT:

C02r Gross Disbursements
AP2r Amortization Payments
ND2r Met Disbursements
D2r Restructured Debt
D2eb Resiructured Debt Interest Rate
\begin{tabular}{ll} 
& \\
R2e & On Non-Restructured Debt \\
R2r & Inplicit \\
IP2, & Interest Payments
\end{tabular}

On won-Restructurea Deb
Interest Payments
\begin{tabular}{lrrrrrrrrrrrrr}
1988 & 1969 & 1990 & 1991 & 1992 & 1993 & 1994 & 1995 & 1996 & 1997 & 1990 & 1999 & 2000
\end{tabular}

table 13: other militlaieral concessiowal
\(\begin{array}{lllllllllllllllllll}1988 & 1989 & 1990 & 1991 & 1992 & 1993 & 1996 & 1995 & 1996 & 1997 & 1998 & 1999 & 2000\end{array}\)

\section*{D. MEW DEBT}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline M2 & Maturity & 38.00 & 38.00 & 38.00 & 38.00 & 38.00 & 38.00 & 38.00 & 38.00 & 38.00 & 38.00 & 38.00 & \(38.0{ }^{\circ}\) & 38.00 \\
\hline G2 & Grace Period & 10.00 & 10.00 & 10.00 & 10.00 & 10.00 & 10.00 & 10.00 & 10.00 & 10.00 & 10.00 & 10.00 & 10.00 & 10.00 \\
\hline 12 & Jime Profile of co2n & & 2\% & \(9 \%\) & \(17 \%\) & 22x & 19x & 13\% & 10\% & 7\% & 0x & 0\% & 0x & 0x \\
\hline C2 & Comabitments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline co2n & Gross Distursements & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline AP2n & Amortization Payments & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline MD2n & Met Disbursements & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline D2n & Stock of Debt & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline R2n & Interest Rate & 1.40\% & \(1.40 \%\) & 1.40\% & 1.40 x & 1.402 & \(1.40 \%\) & 1.40\% & 1.40\% & 1.40\% & 1.40x & 1.40\% & 1.40\% & 1.40\% \\
\hline IP2n & Interest Payments & & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & E. Total debr : & & & & & & & & & & & & & \\
\hline co2t & Gross Disbursements & 0.00 & 37.72 & 47.18 & 17.68 & 10.64 & 6.07 & 0.99 & 0.65 & 0.25 & 0.10 & 0.00 & 0.00 & 0.00 \\
\hline AP2t & Amortization Payments & 0.00 & 42.71 & 51.58 & 29.70 & 34.35 & 32.66 & 54.38 & 72.48 & 206.44 & 169.35 & 156.85 & 182.38 & 183.10 \\
\hline ND2t & Met Disbursements & & -4.99 & 4.40 & - 12.02 & -23.71 & -26.59 & -53.39 & -71.83 & -206. 19 & - 169.25 & - 356.85 & -182.38 & - 183.10 \\
\hline D2t & Stock of Debt & 1064. 10 & 105s. 12 & 1054.71 & 1042.70 & 1018.99 & 992.40 & 939.01 & 867.17 & 680.98 & 491.73 & 334.88 & 152.50 & - 30.60 \\
\hline R2t & Interest Rate & & 3.83\% & 4.14\% & 4.12x & 4.14x & 4.18x & \(4.17 \%\) & 4.34\% & 4.10\% & 4.04\% & 3.65\% & 5.63\% & 12.39\% \\
\hline IP2t & Interest Payments & & 40.78 & 43.82 & 43.47 & 43.14 & 42.63 & 41.40 & 40.76 & 35.55 & 26.72 & 17.93 & 18.86 & 18.90 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline & & 1988 & 1989 & 1990 & 1991 & \[
\begin{aligned}
& \text { TABLE } 14: \\
& 1992
\end{aligned}
\] & \[
\begin{aligned}
& 1880 \\
& 1993
\end{aligned}
\] & 1994 & 1995 \\
\hline \multicolumn{10}{|c|}{D. MEU DEBT:} \\
\hline 038 & maturity & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 \\
\hline 635 & Grace Period & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 \\
\hline Q3cn & & 0.77 & 0.77 & 0.78 & 0.73 & 0.77 & 0.77 & 0.75 & \(0.7 \%\) \\
\hline 13C & Sime profile of coscn & & 54\% & 10\% & 11\% & \(9 \%\) & 78 & \(3 x\) & 22 \\
\hline c3c & Commitments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline coscon & Gross Disbursements & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline ap3con & hemortization Payments & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline mjicn & Met Disbursements & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 03 Cn & Stack of 0ebt & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.90 & 0.00 & 0.00 \\
\hline R3Cn & Interest Rate & 0.7K & 0.77 & 0.75 & \(0.7 \%\) & 0.72 & \(0.7 \%\) & 0.75 & 0.77 \\
\hline P3cn & Interest Payments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline \multicolumn{10}{|c|}{E. loial concessiomal deat} \\
\hline cosct & Gross Disbursements & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline apsct & Amortization Payments & 0.00 & 0.70 & 0.75 & 0.80 & 0.86 & 0.91 & 0.97 & 1.04 \\
\hline mosct & Met Disbursements & 0.00 & -0.70 & -0.75 & -0.80 & -0.86 & -0.91 & -0.97 & -1.04 \\
\hline DSCt & stock of eebt & 49.98 & 49.28 & 48.53 & 47.73 & 46.88 & 45.97 & 45.08 & 43.97 \\
\hline asct & Interest Rate & & \(4.89 \%\) & 4.85\% & 4.822 & \(4.80 \%\) & 4.76\% & \(4.72 \%\) & 4.69\% \\
\hline IP3Ct & Interest Payments & & 2.44 & 2.39 & 2.36 & 2.29 & 2.23 & 2.17 & 2.11 \\
\hline \multicolumn{10}{|c|}{3. TOIAL IERD} \\
\hline \multicolumn{10}{|c|}{A. EXISIIME DEEI:} \\
\hline CD3e & Gross Disbursements & & 637.86 & 510.52 & 401.25 & 323.94 & 259.77 & 194.68 & 128.35 \\
\hline aple & Mmortization Payments & & 473.96 & 585.20 & 665.15 & 720.26 & 737.18 & 764.35 & 751.80 \\
\hline mase & Met Dishursements & & 163.90 & -74.68 & -263.89 & -396.33 & -677.41 & -569.68 & -603.45 \\
\hline D3e & Existing Dett & 6129.74 & 6293.64 & 6218.96 & 5955.07 & 5558.74 & 5001.33 & 4511.65 & \\
\hline R3e & Interest Rate & & 8.7\% & 8.6\% & 8.54 & 8.4\% & 8.3\% & 8.27 & 8.2x \\
\hline IP3e & Interest Payments & & 531.35 & 541.12 & 527.95 & 500. 10 & 462.00 & 418.01 & 367.99 \\
\hline \multicolumn{10}{|c|}{8. RESTRUCTURED DEBI:} \\
\hline co3r & Gross Distursements & & 637.86 & 510.52 & 401.25 & 323.94 & 259.77 & 194.68 & 128.35 \\
\hline ap3r & Amortization Payments & & 473.96 & 585.20 & 665.15 & 720.26 & 737.18 & 764.35 & 733.80 \\
\hline mo3r & Met Disbursements & & 163.90 & -74.68 & -263.89 & -396.33 & -477.61 & -569.68 & -603.45 \\
\hline DSr & Restructured Debt & 6129.74 & \[
6293.64
\] & \[
6218.96
\] & 5955.07 & \[
5558.74
\] & \[
5081.33
\] & \[
4511.65
\] & \[
3908.20
\] \\
\hline D3eb & Of wich: Exit Bonds Interest Rate: & & 0.00 & \[
0.00
\] & 0.00 & \[
0.00
\] & \[
0.00
\] & \[
0.00
\] & \[
0.00
\] \\
\hline Q3e & On Mon-Restructured Debt & & 8.7\% & 8.6\% & 8.5\% & 8.4\% & 8.3\% & 8.2\% & 8.2\% \\
\hline R3\% & Implicit & & 6.7\% & 8.6\% & 8.5\% & 8.4x & 8.3\% & 8.2\% & \(8.2 \%\) \\
\hline 193 r & Interest Payments & & 531.35 & 541.12 & 527.95 & 500.10 & 462.00 & 418.01 & 367.99 \\
\hline
\end{tabular}

TABLE 16: 18RD
\(19881989 \quad 1990 \quad 1991 \quad 1992 \quad 1993 \quad 1994\)

\section*{C. 酸 OEBI:}
\begin{tabular}{|c|c|}
\hline C3 & Comitents \\
\hline co3n & Gross Disbursements \\
\hline ap3n & Amortization Payments \\
\hline M03n & met Distursements \\
\hline 030 & Stock of Debt \\
\hline R3n & Interest pate \\
\hline IP3n & Interest Papments \\
\hline & D. iotal oebt: \\
\hline cost & Gross Disbursements \\
\hline Ap3t & Aemortization Payments \\
\hline mo3t & Net Disbursements \\
\hline 03 t & Stack of Debt \\
\hline [3t & Interest Rate \\
\hline IP38 & Interest Payments \\
\hline
\end{tabular}
\begin{tabular}{rrrrrrrr} 
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& & & & & & & \\
& & & & & & & \\
0.00 & 637.86 & 510.52 & 401.25 & 323.94 & 259.77 & 194.68 & 128.35 \\
0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
0.00 & 163.90 & -74.68 & -263.69 & -396.33 & -677.61 & -569.68 & -603.45 \\
6129.74 & 6293.64 & 6218.96 & 5955.07 & 5558.74 & 5081.33 & 4511.65 & 3908.20 \\
& \(8.67 x\) & \(8.60 x\) & \(8.69 x\) & \(8.60 \%\) & \(8.31 \%\) & \(8.23 \%\) & \(8.16 x\) \\
& 531.35 & 541.12 & 527.95 & 500.10 & 462.00 & 418.01 & 367.99
\end{tabular}
\begin{tabular}{llllllll}
1988 & 1989 & 1990 & 1991 & 1992 & 1993 & 1994 & 1995
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{10}{|c|}{D. NEW DEBT:} \\
\hline & D1. Fast Disbursement & & & & & & & & \\
\hline M3NF & Maturity & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 \\
\hline 63NF & Grace Period & 4.00 & 16.00 & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 \\
\hline R3MFn & & \(7.7 \%\) & 7.7\% & 7.7\% & 7.7\% & 7.7\% & 7.7\% & 7.7\% & 7.7\% \\
\hline \multirow[t]{2}{*}{T3NF} & Time Profile of GD3NFn & & 33\% & 33\% & 33\% & 0\% & 0\% & 0\% & 0\% \\
\hline & \multicolumn{9}{|l|}{D2. Slow Disbursement} \\
\hline M3HS & Maturity & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 \\
\hline G3NS & Grace Period & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 \\
\hline R3NSn & & 7.7\% & 7.7\% & 7.7\% & 7.7\% & 7.7\% & 7.7\% & 7.7\% & 7.7\% \\
\hline 13NS & Time Profile of GD3NSn & & 7\% & 19\% & 21\% & 17\% & 13\% & 7\% & 4\% \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline C3N & Cormitments & & 1451.69 & -797.01 & 2055.02 & -1504.83 & 3280.63 & -636.12 & -916.10 \\
\hline C3NF & Fast Disbursement & & 251.95 & 218.62 & 113.97 & 355.21 & 274.64 & 334.89 & 283.94 \\
\hline C3NS & Slow Disbursement & & 1199.74 & -1015.64 & 1941.04 & -1860.04 & 3005.99 & -971.01 & -1200.04 \\
\hline co3nn & Gross Disbursements & 0.00 & 167.96 & 313.71 & 389.70 & 458.54 & 495.88 & 716.07 & 573.61 \\
\hline co3nfn & Fast Disbursement & 0.00 & 83.98 & 156.86 & 194.85 & 229.27 & 247.94 & 321.58 & 297.82 \\
\hline co3nsn & Slow Disbursement & 0.00 & 83.98 & 156.86 & 194.85 & 229.27 & 247.94 & 394.49 & 275.79 \\
\hline AP3Nn & Arortization Payments & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 111.67 & 50.36 \\
\hline AP3MFn & Fast Disbursement & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 19.38 & 36.20 \\
\hline AP3MSn & Slow Disbursement & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 92.29 & 14.16 \\
\hline ND3Nn & Net Disbursements & 0.00 & 167.96 & 313.71 & 389.70 & 458.54 & 495.88 & 604.40 & 523.25 \\
\hline ND3MFn & fast Disbursement & 0.00 & 83.98 & 156.86 & 194.85 & 229.27 & ? 47.94 & 302.20 & 261.63 \\
\hline ND3NSn & Slow Disbursement & 0.00 & 83.98 & 156.86 & 194.85 & 229.27 & 747.94 & 302.20 & 261.63 \\
\hline D3Nn & Stock of Debt & 0.00 & 167.96 & 481.68 & 871.37 & 1329.91 & 1825.79 & 2430.19 & 2953.44 \\
\hline D3NFn & Fast Disbursement & 0.00 & 83.98 & 240.84 & 435.69 & 664.96 & 912.90 & 1215.09 & 1476.72 \\
\hline D3NSn & Slow Disbursement & 0.00 & 83.98 & 240.84 & 435.69 & 664.96 & 912.90 & 1215.09 & 1476.72 \\
\hline R3Mn & Interest Rate & & \#ARITH & 7.7\% & 7.7\% & 7.7\% & 7.7\% & 7.7\% & 7.7\% \\
\hline R3NFn & Fast Disbursement & 7.7\% & 7.7\% & 7.7\% & 7.7\% & 7.7\% & 7.7\% & 7.7\% & 7.7\% \\
\hline R3NSn & Slow Disbursement & \(7.7 \%\) & 7.7\% & \(7.7 \%\) & 7.7\% & 7.7\% & 7.7\% & 7.7\% & 7.7\% \\
\hline 1P3Nn & Interest Payments & & 0.00 & 12.93 & 37.09 & 67.10 & 102.40 & 140.59 & 187.12 \\
\hline 1P3MFn & Fast Disbursement & & 0.00 & 6.47 & 18.54 & 33.55 & 51.20 & 70.29 & 93.56 \\
\hline IP3NSn & Slow Disbursement & & 0.00 & 6.47 & 18.54 & 33.55 & 51.20 & 70.29 & 93.56 \\
\hline
\end{tabular}

\section*{E. TOTAL NONCONCESSIONAL DEBT:}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline CDSNt & Gross Disbursements & 258.47 & 506.60 & 520.16 & 524.92 & 561.59 & 567.55 & 767.12 & 607.19 \\
\hline AP3Nt & Amortization Payments & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 223.34 & 100.72 \\
\hline ND3Nt & Net Disbursements & -18.84 & 228.10 & 214.61 & 215.93 & 246.92 & 246.42 & 313.41 & 221.68 \\
\hline D3Nt & Stock of Debt & 3374.20 & 3602.90 & 3817.51 & 4033.44 & 4280.36 & 4526.79 & 4840.20 & 5061.88 \\
\hline R3Nt & Interest Rate & & 9.25\% & 8.83\% & 8.56\% & 8.38\% & 8.22\% & 8.08\% & 7.98\% \\
\hline 1P3Nt & Interest Payments & 287.18 & 312.20 & 318.20 & 326.79 & 337.97 & 351.80 & 365.62 & 386.01 \\
\hline
\end{tabular}

B. DEBT RESTRUCTURING INSTMUAEMIS:
1. RESCHEDULINGS:
A) Pure Rescheduling

Change in the Contractual Stream of
\begin{tabular}{lllllllllll} 
\\
RS3CAP & Amortization Payments & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
RS3CIP & Interest Payments & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline & B) Refinancing Reduction in: Amortization Payments & & & 0.00 & & 0.00 & & 0.00 & 0.00 \\
\hline \[
\begin{aligned}
& \text { RF3CAP } \\
& \text { RF3CIP }
\end{aligned}
\] & Amortization Payments
Interest Payments & & 0.00
0.00 & 0.00
0.00 & 0.00
0.00 & 0.00
0.00 & 0.00
0.00 & 0.00
0.00 & 0.00
0.00 \\
\hline co3Crs & Capitalization: & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline R3Crs & Interest Rate & 2.0\% & \(2.0 \%\) & 2.0\% & 2.0\% & 2.0\% & 2.0\% & 2.0\% & 2.0\% \\
\hline n3crs & Maturity & 10 & 10 & 10 & 10 & 10 & 10 & 10 & 10 \\
\hline 63Crs & Grace Period & 3 & 3 & 3 & 3 & 3 & 3 & 3 & 3 \\
\hline
\end{tabular}
C) Effects on:
Gross Disbursements
\begin{tabular}{lllllll}
0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00
\end{tabular}
2. DEBT BUYBACKS:
A) Conditions:
\begin{tabular}{|c|c|}
\hline DELTASC & Bac \\
\hline B83C & Debt Bought Back \\
\hline EF.CBB3 & Externally Financed (\%) \\
\hline UR.CBB3 & Use of Reserves (\%) \\
\hline E8.CBB3 & Exit Bonds (\%) \\
\hline Reb & Interest Rate \\
\hline Meb & Maturity \\
\hline Geb & Grace Period \\
\hline DE.CB83 & Debt-Equity Swaps (\%) \\
\hline A.DEBB & additionality of DF: \\
\hline Rk & Profit Rate \\
\hline
\end{tabular}
\begin{tabular}{ccccccc}
\(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) \\
0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) \\
\(100.0 \%\) & \(100.0 \%\) & \(100.0 \%\) & \(100.0 \%\) & \(100.0 \%\) & \(100.0 \%\) & \(100.0 \%\) \\
\(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) \\
\(2.5 \%\) & \(2.5 \%\) & \(2.5 \%\) & \(2.5 \%\) & \(2.5 \%\) & \(2.5 \%\) & \(2.5 \%\) \\
10 & 10 & 10 & 10 & 10 & 10 & 10 \\
3 & 3 & 3 & 3 & 3 & 3 & 3 \\
\(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) \\
\(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) \\
\(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\)
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{2}{|l|}{\multirow[t]{2}{*}{}} & \multicolumn{5}{|c|}{TABLE 14: Ibrd} & \multirow[b]{2}{*}{1993} & \multirow[b]{2}{*}{1994} & \multirow[b]{2}{*}{1995} \\
\hline & & 1988 & 1989 & 1990 & 1991 & 1992 & & & \\
\hline & B) Financing: & & & & & & & & \\
\hline C8B3C & Cost of Buyback & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline Efb83C & Externally Financed & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline URBB3C & Use of Reserves & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline EbBb3C & Exit Bonds & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline debb3C & Debt-Equity Swaps & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & C) Effects on: & & & & & & & & \\
\hline AP3Cbb & Amortization Payments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline AP3Ceb & Of which: Exit Bonds & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 1 P 3 Cbb & Interest Payments & & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline IP3Ceb & Of which: Exit Bonds & & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 3. accumulation of arrears: & & & & & & & & \\
\hline & A) Arrears on: & & & & & & & & \\
\hline ar3cap & Amortization Payments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline AR3CIP & Interest Payments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline cos3Car & B) Capitalization: & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline R3Car & Interest rate & 0.01 & 0.01 & 0.01 & 0.01 & 0.01 & 0.01 & 0.01 & 0.01 \\
\hline M3Car & Maturity & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 \\
\hline 63Car & Grace Period & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 \\
\hline & C) Effects on: & & & & & & & & \\
\hline co3Car & Gross Disbursements & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline AP3Car & Amortization Payments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline IP3Car & Interest Payments & & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 4. WRITE-OFFS: & & & & & & & & \\
\hline woff3C & A) Debt Forgiven & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & B) Effects on: & & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline IP3Cwof & Interest Payments & & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & C. RESTRUCTURED DEBT: & & & & & & & & \\
\hline co3cr & Gross Disbursements & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline APSCr & Amortization Payments & 5.56 & 5.52 & 2.16 & 2.27 & 2.38 & 2.50 & 2.61 & 2.41 \\
\hline no3cr & Wet Disbursements & -5.56 & -5.52 & -2.16 & -2.27 & -2.38 & -2.50 & -2.61 & -2.41 \\
\hline \({ }_{03 \mathrm{Cr}}\) & Restructured Debt & 33.79 & 28.27 & \(26.1{ }^{\circ}\) & 23.85 & 21.47 & 18.98 & 16.37 & 13.96 \\
\hline D3Ceb & Of which: Exit Bonds Interest Rate: & & 0.00 & 0.02 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline R3Ce & On Non-Restructured Debt & & 4.5\% & 4.5\% & 4.5\% & 4.5\% & 4.4\% & \(4.4 \%\) & 4.3\% \\
\hline R3Cr & Implicit & & 4.5\% & 4.5\% & 4.5\% & 4.5\% & 4.4\% & 4.4\% & 4.3\% \\
\hline \({ }_{\text {IP3Cr }}\) & Interest Payments & 1.84 & 1.52 & 1.28 & 1.18 & 1.07 & 0.96 & 0.83 & 0.71 \\
\hline
\end{tabular}

TABLE 14: IBRD
\begin{tabular}{llllllll}
1988 & 1989 & 1990 & 1991 & 1992 & 1993 & 1994 & 1995
\end{tabular}
D. NEW DEBT:
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline M3C & Maturity & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 & 17.00 \\
\hline G3C & Grace Period & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 \\
\hline i SCn & & 0.7\% & 0.7\% & 0.7\% & 0.7\% & 0.7\% & 0.7\% & 0.7\% & 0.7\% \\
\hline T3C & Time Profile of G03Cn & & 54\% & 10\% & 11\% & 9\% & 7\% & 3\% & \(2 \%\) \\
\hline C3C & Commi tments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.09 & 0.00 & 0.00 \\
\hline cD3Cn & Gross Disbursements & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline AP3Cn & Amortization Payments & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline NDSCN & Net Disbursements & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline D3Cn & Stock of Debt & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline R3Cn & Interest Rate & \(0.7 \%\) & 0.7\% & 0.7\% & 0.7\% & 0.7\% & 0.7\% & 0.7\% & 0.7\% \\
\hline IP3Cn & Interest Payments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline
\end{tabular}
E. TOTAL CONCESSIONAL DEBT:
\begin{tabular}{ll} 
GD3Ct & Gross Disbursements \\
AP3Ct & Amortization Payments \\
ND3Ct & Net Disbursements \\
D3Ct & Stock of Debt \\
R3Ct & Interest Rate \\
IP3Ct & Interest Payments
\end{tabular}
\begin{tabular}{cccccccc}
0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
5.56 & 5.52 & 2.16 & 2.27 & 2.38 & 2.50 & 2.61 & 2.41 \\
-5.56 & -5.52 & -2.16 & -2.27 & -2.38 & -2.50 & -2.61 & -2.41 \\
33.79 & 28.27 & 26.11 & 23.85 & 21.47 & 18.98 & 16.37 & 13.96 \\
& \(4.51 \%\) & \(4.53 \%\) & \(4.51 \%\) & \(4.48 \%\) & \(4.45 \%\) & \(4.39 \%\) & \(4.32 \%\) \\
1.84 & 1.52 & 1.28 & 1.18 & 1.07 & 0.96 & 0.83 & 0.71
\end{tabular}

\section*{3. TOTAL IBRD}
A. EXISTING DEBT:
\begin{tabular}{ll} 
co3e & Gross Disbursements \\
AP3e & Amortization Payments \\
ND3e & Net Disbursements \\
03e & Existing Debt \\
R3e & Interest Rate \\
1P3e & Interest Payments
\end{tabular}
\begin{tabular}{rcccccrr}
258.47 & 338.63 & 206.44 & 135.23 & 103.05 & 71.67 & 51.06 & 33.58 \\
282.87 & 283.42 & 307.70 & 311.26 & 717.04 & 323.63 & 344.64 & 337.56 \\
-24.40 & 55.21 & -101.26 & -176.02 & 13.99 & -251.95 & -293.59 & -303.98 \\
3408.00 & 3463.21 & 3361.95 & 3185.92 & 2971.93 & 2719.97 & 2426.39 & 2122.41 \\
& \(9.2 \%\) & \(8.9 \%\) & \(8.7 \%\) & \(8.5 \%\) & \(8.4 \%\) & \(8.3 \%\) & \(8.2 \%\) \\
289.02 & 313.72 & 306.55 & 290.87 & 271.95 & 250.35 & 225.87 & 199.60
\end{tabular}
B. RESTRUCTURED DEBT:
\begin{tabular}{ll} 
CO3r & Gross Disbursements \\
AP3r & Amortization Payments \\
ND3r & Net Disbursements \\
D3r & Restructured Debt \\
O3eb & Of which: Exit Bonds \\
& Interest Rate: \\
R3e & On Non-Restructured Debt \\
R3r & Implicit \\
IP3r & Interest Payments
\end{tabular}
\begin{tabular}{rrrrrrrr}
258.47 & 338.63 & 206.44 & 135.23 & 103.05 & 71.67 & 51.06 & 33.58 \\
282.87 & 283.42 & 307.70 & 311.26 & 317.04 & 323.63 & 344.64 & 337.56 \\
-24.40 & 55.21 & -101.26 & -176.03 & -213.99 & -251.95 & -293.59 & -303.98 \\
3408.00 & 3463.21 & 3361.95 & 3185.92 & 2971.93 & 2719.97 & 2426.39 & 2122.41 \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& & & & & & & \\
& \(9.2 \%\) & \(8.9 \%\) & \(8.7 \%\) & \(8.5 \%\) & \(8.4 \%\) & \(8.3 \%\) & \(8.2 \%\) \\
289.02 & 313.72 & 306.55 & 290.87 & 271.95 & 250.35 & 225.87 & 199.60
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{2}{|l|}{\multirow[t]{2}{*}{}} & \multicolumn{5}{|c|}{TABLE 14: IBRD} & \multirow[b]{2}{*}{1993} & \multirow[b]{2}{*}{1994} & \multirow[b]{2}{*}{1995} \\
\hline & & 1988 & 1989 & 1990 & 1991 & 1992 & & & \\
\hline \multicolumn{10}{|c|}{C. NEW DEBT:} \\
\hline C3 & Commitments & & 1451.59 & -797.01 & 2055.02 & -1504.83 & 3280.63 & -636.12 & -916.10 \\
\hline CO3n & Gross Disbursements & 0.00 & 167.97 & 313.71 & 389.70 & 458.54 & 495.88 & 716.07 & 573.61 \\
\hline AP3n & Amortization Payments & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 111.67 & 50.36 \\
\hline ND3n & Net Disbursements & 0.00 & 167.97 & 313.71 & 389.70 & 458.54 & 495.88 & 604.40 & 523.25 \\
\hline D3n & Stock of Debt & 0.00 & 167.97 & 481.68 & 871.37 & 1329.91 & 1825.79 & 2430.19 & 2953.44 \\
\hline R3n & Interest Rate & & \#ARIth & 0.08 & 0.08 & 0.08 & 0.08 & 0.08 & 0.08 \\
\hline 1P3n & Interest Payments & & 0.00 & 12.93 & 37.09 & 67.10 & 102.40 & 140.59 & 187.12 \\
\hline \multicolumn{10}{|c|}{D. TOTAL DEBT:} \\
\hline co3t & Gross Disbursements & 258.47 & 506.60 & 520.16 & 524.92 & 561.59 & 567.55 & 767.12 & 607.19 \\
\hline AP3t & Amortization Payments & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 223.34 & 100.72 \\
\hline ND3t & Net Disbursements & -24.40 & 223.18 & 212.45 & 213.66 & 244.55 & 243.93 & 310.81 & 219.27 \\
\hline 03t & Stock of Debt & 3408.00 & 3631.17 & 3843.63 & 4057.29 & 4301.84 & 4545.77 & 4856.57 & 5075.84 \\
\hline R3t & Interest Rate & & 9.21\% & 8.80\% & 8.53\% & 8.36\% & 8.20\% & 8.06\% & 7.96\% \\
\hline IP3t & Interest Payments & 289.02 & 313.72 & 319.48 & 327.96 & 339.04 & 352.75 & 366.46 & 386.72 \\
\hline
\end{tabular}

TABLE 15: OTHER : 15 LILATERAL mONCONCESSIONAL
\begin{tabular}{ccccccccc}
1988 & 1989 & 1990 & 1991 & 1992 & 1993 & 1994 & 1995
\end{tabular}

\section*{A. EXISTING DEBT:}
\begin{tabular}{llrrrrrrr} 
CD4e & Gross Disbursements & 130.88 & 146.95 & 159.77 & 143.41 & 117.19 & 81.44 & 51.66 \\
AP4e & Amortization Payments & 62.55 & 57.23 & 64.69 & 71.65 & 82.65 & 93.63 & 99.10 \\
N04e & Net Disbursements & 68.33 & 89.72 & 95.08 & 71.75 & 34.54 & -12.19 & -47.43 \\
D4e & Existing Debt & 1099.05 & 1188.77 & 1283.85 & 1355.61 & 1390.15 & 1377.96 & 1330.52 \\
R4e & Interest Rate & & \(10.1 \%\) & \(10.4 \%\) & 1253.00 \\
IP4e & Interest Payments & 94.99 & 111.20 & 123.60 & 132.14 & \(13 \%\) & \(10.1 \%\) & \(9.9 \%\) \\
\hline
\end{tabular}
8. DEBT RESTRUCTURING INSTRUMENTS:
-.....
A) Pure Rescheduling

Change in the Contractual Stream of: Amortization Payments
Interest Payments
B) Refinancing
Reduction in:

Anortization Payments
Interest Payments
\begin{tabular}{ll} 
COLrs & Capitalization: \\
R4rs & Interest Rate \\
M4rs & Maturity \\
G4rs & Grace Period
\end{tabular}
10
3
C) Effects on:
Gross Disbursements
Amortization Payments

Interest Payments
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 2.0\% & 2.0\% & 2.0\% & 2.0\% & 2.0\% & 2.0\% & 2.0\% \\
\hline 10 & 10 & 10 & 10 & 10 & 10 & 10 \\
\hline 3 & 3 & 3 & 3 & 3 & 3 & 3 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 100.0\% & 100.0\% & 100.0\% & 100.0\% & 100.0\% & 100.0\% & 100.0\% \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 5.00 \\
\hline 2.5\% & 2.5\% & 2.5\% & 2.5\% & 2.5\% & 2.5\% & 2.5\% \\
\hline 10 & 10 & 10 & 10 & 10 & 10 & 10 \\
\hline 3 & 3 & 3 & 3 & 3 & 3 & 3 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.0\% & 0.0\% & 0.6\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & \(0.0 \%\) & 0.0\% \\
\hline
\end{tabular}

TABLE 15: OTHER MULTILATERAL NONCONCESSIOMAL
8) Financing:
\begin{tabular}{|c|c|}
\hline CBB4 & \begin{tabular}{l}
B) Financing: \\
Cost of Burback
\end{tabular} \\
\hline EFB84 & Externally financed \\
\hline URBB4 & Use of Reserves \\
\hline EBBB4 & Exit 8onds \\
\hline DEBB4 & Debt-Equity Swaps \\
\hline & C) Effects on: \\
\hline AP406 & Amortization Payments \\
\hline AP4eb & Of which: Exit Bonds \\
\hline 1P4bb & Interest Payments \\
\hline IP4eb & Of which: Exit 8o \\
\hline
\end{tabular}
3. ACCUMRHÁIION OF ARREARS:

\section*{AR4AP}
A) Arrears on:
ApRIIP Amortization Payment
B) Capitalization:

Interest rate
R4ar
4 ar
haturity
C) Effects on:

Gross Disbursements
Amortization Payments
Interest Payments
4. WRITE-OFFS:
woff4
A) Debt Forgiven
B) Effects on:

AP4woff Amortization Payments interest Payments
C. RESTRUCTURED DEBT:
GD4r Gross Disbursements

AP4r Amortization Payments
ND4r Net Disbursements
D4r
D4eb
Reszructured Debt
Of which: Exit Bonds Interest Rate:
On Non-Restructured Debt On Non-Re
Implicit
IP4r
Interest Payments
\begin{tabular}{rrrrrrrr}
130.88 & 146.95 & 159.77 & 143.41 & 117.19 & 81.44 & 51.66 & 29.24 \\
62.55 & 57.23 & 64.69 & 71.65 & 82.65 & 93.63 & 99.10 & 106.76 \\
68.33 & 89.72 & 95.08 & 71.75 & 34.54 & -12.19 & -47.43 & -77.52 \\
1099.05 & 1188.77 & 1283.85 & 1355.61 & 1390.15 & 1377.96 & 1330.52 & 1253.00 \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& \(10.1 \%\) & \(10.4 \%\) & \(10.3 \%\) & \(10.1 \%\) & \(9.9 \%\) & \(9.8 \%\) & \(9.7 \%\) \\
& \(10.1 \%\) & \(10.4 \%\) & \(10.3 \%\) & \(10.1 \%\) & \(9.9 \%\) & \(9.8 \%\) & \(9.7 \%\) \\
94.99 & 111.20 & 123.60 & 132.14 & 137.28 & 138.13 & 134.94 & 128.75
\end{tabular}

TABLE 15: OTHER RULTILATERAL NONCONCESSIONAL
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline & & 1988 & 1989 & 1990 & 1991 & 1992 & 1993 & 1994 & 1995 \\
\hline \multicolumn{10}{|c|}{D. NEW DEBT:} \\
\hline \(\mathrm{H}_{4}\) & Naturity & 20.00 & 20.00 & 20.00 & 20.00 & 20.00 & 20.00 & 20.00 & 20.00 \\
\hline G4 & Grace Period & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 & 4.00 \\
\hline 14 & Time Profile of codn & & 10\% & 12\% & 16\% & 18\% & 16\% & 12\% & 9\% \\
\hline C4 & Commitments & & 569.68 & 380.40 & -46.24 & -23.36 & 187.68 & 1009.11 & 4.12 \\
\hline CDin & Gross Disbursements & 0.00 & 56.97 & 106.40 & 132.17 & 155.52 & 168.19 & 240.60 & 236.85 \\
\hline AP4n & Amortization Payments & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 35.60 & 59.38 \\
\hline MDEn & Net Disbursements & 0.00 & 56.97 & 106.40 & 132.17 & 155.52 & 168.19 & 204.99 & 177.47 \\
\hline 04n & Stock of Debt & 0.00 & 56.97 & 163.37 & 295.54 & 451.06 & 619.25 & 824.24 & 1001.71 \\
\hline R4n & Interest Rate & 7.8\% & 7.8\% & 7.8\% & 7.8\% & 7.8\% & 7.8\% & 7.8\% & 7.8\% \\
\hline 1P4n & Interest Payments & & 0.00 & 4.44 & 12.74 & 23.05 & 35.18 & 48.30 & 64.29 \\
\hline \multicolumn{10}{|c|}{E. TOTAL DEBT:} \\
\hline 6045 & Gross Disbursements & 130.88 & 203.91 & 266.17 & 275.58 & 272.71 & 249.63 & 292.26 & 266.09 \\
\hline AP4t & Amortization Payments & 62.55 & 57.23 & 64.69 & 71.65 & 82.65 & 93.63 & 134.70 & 166.14 \\
\hline ND4t & Net Disbursements & 68.33 & 146.69 & 201.48 & 203.93 & 190.06 & 156.00 & 157.56 & 99.95 \\
\hline 04 t & Stock of Debt & 1099.05 & 1245.76 & 1447.22 & 1651.15 & 1841.21 & 1997.20 & 2154.76 & 2254.71 \\
\hline R4t & Interest Rate & & 10.12\% & 10.28\% & 10.01\% & \(9.71 \%\) & 9.41\% & 9.17\% & 8.96\% \\
\hline IP4t & Interest Payments & 94.99 & 111.20 & 128.05 & 144.89 & 160.34 & 173.31 & 183.24 & 193.04 \\
\hline
\end{tabular}

TABLE 16: BILATERAL CONCESSIONAL

1. RESCHEDULINGS:
A) Pure Rescheduling

Change in the Contractual Stream of: Amortization Payments
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline 10 & 10 & 10 & 10 & 10 & 10 & 10 & 10 \\
\hline 3 & 3 & 3 & 3 & 3 & 3 & 3 & 3 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline & 100.0\% & 100.0\% & 100.0\% & 100.0\% & 100.0\% & 100.0\% & 100.0\% \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline & 2.5\% & 2.5\% & 2.5\% & 2.5\% & 2.5\% & 2.5\% & 2.5\% \\
\hline & 10 & 10 & 10 & 10 & 10 & 10 & 10 \\
\hline & 3 & 3 & 3 & 3 & 3 & 3 & 3 \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline
\end{tabular}
A) Conditions:

DELITA5
Discount Rate
BB5 Debt Bought Back
EF.CBBS Externally Financed (\%)
UR.C885 Use of Reserves (\%)
EB.CBB5
Reb
Meb
Exit Bonds (\%)
Interest Rate
Interest
Maturity
Maturity
Grace Period
DE.CBB5 Debt-Equity Swaps (\%)
A.DEBB Additionality of DFI

Rk Profit Rate
B) Refinancing
Reduction in:
Amortization Payments
Interest Payments

GD5rs Capitalization:
R5rs
M5rs
C. Effects on:

Gross Disbursements
Amortization Payments
Interest Payments
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline 1988 & 1989 & 1990 & 1991 & 1992 & 1993 & 1994 & 1995 \\
\hline
\end{tabular}
B) Financiny:
\begin{tabular}{ll} 
CBB5 & Cost of Buyback \\
EFBB5 & Externally Financed \\
URBB5 & Use of Reserves \\
EBBB5 & Exit Bonds \\
DEBB5 & Debt-Equiry Swaps
\end{tabular}
C) Effects on:

APSbb Amortization Payments
Of which: Exit Bonds Interest Payments Of which: Exit Bonds
3. accumulation of arrears:
A) Arrears on: Amortization Payments Interest Payments
B) Capitalization: Interest rate Maturity Grace Period
C) Effects on:

Gross Disbursements
Amortization Payments
Interest Payments
4. WRITE-OFFS:

MOFFS
A) Debt Forgiven
B) Effects on: amortization Peyment interest Payments
C. RESTRUCTURED DEBT:
\begin{tabular}{ll} 
CD5r & Gross Disbursements \\
AP5r & Amortization Paynents \\
MDSr & Met Disbursements \\
D5r & Restructured Debt \\
D5eb & Of which: Exit Bonds \\
& Interest Rate: \\
R5e & On Non-Restructured Debt \\
R5r & Implicit \\
IPSr & Interest Paymenis
\end{tabular}
\begin{tabular}{lllllll}
0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& & & & & & \\
0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{} & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.03 & 0.03 & 0.03 & 0.03 & 0.03 & 0.03 & 0.03 & 0.03 \\
\hline 22.00 & 22.00 & 22.00 & 22.00 & 22.00 & 22.00 & 22.00 & 22.00 \\
\hline \multirow[t]{7}{*}{6.40} & 6.40 & 6.40 & 6.40 & 6.40 & 6.40 & 6.40 & 6.40 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline
\end{tabular}
\begin{tabular}{rrrrrrrr}
766.88 & 486.93 & 432.48 & 371.95 & 247.41 & 75.00 & 38.75 & 19.98 \\
11.71 & 123.31 & 137.54 & 223.25 & 281.61 & 344.29 & 365.23 & 382.58 \\
755.17 & 363.61 & 294.93 & 148.70 & -34.20 & -269.29 & -326.48 & -362.60 \\
4719.19 & 5082.80 & 5377.74 & 5526.43 & 5492.24 & 5222.95 & 4896.47 & 4533.87 \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& \(3.5 \%\) & \(3.5 \%\) & \(3.4 \%\) & \(3.4 \%\) & \(3.3 \%\) & \(3.2 \%\) & \(3.2 \%\) \\
& \(3.5 \%\) & \(3.5 \%\) & \(3.4 \%\) & \(3.4 \%\) & \(3.3 \%\) & \(3.2 \%\) & \(3.2 \%\) \\
52.96 & 165.81 & 175.95 & 183.51 & 185.23 & 179.27 & 168.29 & 155.95
\end{tabular}

TABLE 16: BILATERAL CONCESSIONAL
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline & & 1988 & 1989 & 1990 & 1991 & 1992 & 1993 & 1994 & 1995 \\
\hline \multicolumn{10}{|c|}{D. NEH DEBT:} \\
\hline M5 & Maturity & 22.00 & 22.00 & 22.00 & 22.00 & 22.00 & 22.00 & 22.00 & 22.00 \\
\hline 65 & Grace Period & 6.40 & 6.40 & 6.40 & 6.40 & 6.40 & 6.40 & 6.40 & 6.40 \\
\hline T5 & Time Profile of GD5n & & 18\% & 33\% & 23\% & 25\% & 8\% & 2\% & 1\% \\
\hline C5 & Commitments & & 1354.60 & 46.61 & 1326.50 & -674.85 & 2874.66 & -1547.14 & 3650.46 \\
\hline GD5n & Gross Disbursements & 0.00 & 243.83 & 455.41 & 565.71 & 665.64 & 719.85 & 877.38 & 759.58 \\
\hline AP5n & A ortization Payments & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline NDSn & Net Disbursements & 0.00 & 243.83 & 455.41 & 565.71 & 665.64 & 719.85 & 877.38 & 759.58 \\
\hline 05n & Stock of Debt & 0.00 & 243.83 & 699.24 & 1264.94 & 1930.59 & 2650.44 & 3527.82 & 4287.41 \\
\hline \(85 n\) & Interest Rate & 3.4\% & 3.4\% & 3.4\% & 3.4\% & 7.4\% & 3.4\% & 3.4\% & 3.4\% \\
\hline 1 P 5 n & Interest Payments & & 0.00 & 8.29 & 23.77 & 43.01 & 65.64 & 90.11 & 119.95 \\
\hline \multicolumn{10}{|c|}{E. TOTAL DEBT:} \\
\hline GOSt & Gross Disbursements & 766.88 & 730.75 & 887.88 & 937.66 & 913.05 & 794.85 & 916.14 & 779.56 \\
\hline APSt & Amortization Payments & 11.71 & 123.31 & 137.54 & 223.25 & 281.61 & 344.29 & 365.23 & 382.58 \\
\hline ND5t & Net Disbursements & 755.17 & 607.44 & 750.34 & 714.41 & 631.45 & 450.57 & 550.90 & 396.98 \\
\hline DSt & Stock of Debt & 4719.19 & 5326.63 & 6076.97 & 6791.38 & 7422.83 & 7873.39 & 8424.30 & 8821.28 \\
\hline R5t & Interest Rate & & 3.51\% & 3.46\% & 3.41\% & 3.36\% & 3.30\% & 3.28\% & 3.28\% \\
\hline IP5t & Interest Payments & 52.96 & 165.81 & 184.24 & 207.29 & 228.24 & 244.91 & 258.40 & 275.90 \\
\hline
\end{tabular}

TABLE 17: BILATERAL NONCONCESSIONAL

A. EXISTING DEBT:
\begin{tabular}{llrcrrrrrr} 
CD6e & Gross Disbursements & 31.37 & 72.32 & 40.14 & 24.10 & 8.04 & 0.00 & 0.00 & 0.00 \\
APGe & Amortization Payments & 27.48 & 95.41 & 107.45 & 202.23 & 245.25 & 245.71 & 244.22 & 238.18 \\
ND6e & Net Disbursements & 3.90 & -23.09 & -67.31 & -178.13 & -237.21 & -245.71 & -244.22 & -238.18 \\
D6e & Existing Debt & 1426.00 & 1402.91 & 1335.60 & 1157.47 & 920.26 & 674.55 & 430.33 & 192.15 \\
R6e & Interest Rate & & \(8.3 \%\) & \(8.2 \%\) & \(8.0 \%\) & \(7.8 \%\) & \(7.6 \%\) & \(7.4 \%\) & \(7.0 \%\) \\
IPGe & Interest Payments & 67.42 & 119.05 & 115.57 & 106.58 & 89.98 & 70.13 & 49.98 & 30.07
\end{tabular}
B. DEBT RESTRUCTURING INSTRUMENTS:
1. RESCHEDULINGS:
A) Pure Rescheduling

Change in the Contractual Stream of: Amortization Payments
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 2.0\% & 2.0\% & 2.0\% & 2.0\% & 2.0\% & 2. \(2 \%\) & 2.0\% \\
\hline 10 & 10 & 10 & 10 & 10 & 10 & 10 & 10 \\
\hline 3 & 3 & 3 & 3 & 3 & 3 & 3 & 3 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline & 100.0\% & 100.0\% & 100.0\% & 100.0\% & 100.0\% & 100.0\% & 100.0\% \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline & 2.5\% & 2.5\% & 2.5\% & 2.5\% & 2.5\% & 2.5\% & 2.5\% \\
\hline & 10 & 10 & 10 & 10 & 10 & 10 & 10 \\
\hline & 3 & 3 & 3 & 3 & 3 & 3 & 3 \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline
\end{tabular}
C) Effects on: Gross Disbursements Amortization Payments Interest Payments
2. DEBT BUYBACKS:
A) Conditions:

DELTAG Oiscount Rate Debt Bought Back
UR.CBB6 Externally Financed (\%)
R.CBB6 Use of Reserves (\%)

E8.CBB
Reb
Meb
Geb A. DEBB

RK
Exit Bonds (\%)
Interest Rate
Maturity
Grace Period
Debt-Equity Swaps (X)
Additionality of DFI
Profit Rate

TABLE 17: BILATERAL NONCOMCESSIOMAL

\section*{C) Effects on \\ ortization Payments \\ Of Which: Exit Bonds}

Interest Payments
Of which: Exif Bonds
3. ACCUMLLATIOM OF MRREARS:
A) Arrears on:

Amortization Payments
Interest Payments
B) Capitalization:

Interest rate
Maturity
Grace Period
C) Effects on:

Gross Disbursements
Amortization Payments
Interest Payments
4. WRITE-OFFS:

LOFF6

APGHOt
IPGwoff
A) Debt Forgiven
B) Effects on

Amortization Payments
Interest Payments
C. RESTRUCTURED DEBT:
\begin{tabular}{ll} 
GD6r & Gross Disbursements \\
AP6r & Amortization Payments \\
ND6r & Net Disbursements \\
D6r & Restructured Debt \\
D6eb & Of which: Exit Bonds \\
& Interest Rate: \\
R6e & On Non-Restructured Debt \\
R6r & Implicit \\
IP6r & Interest Payments
\end{tabular}
\begin{tabular}{rrrrrrrr}
31.37 & 72.32 & 40.14 & 24.10 & 8.04 & 0.00 & 0.00 & 0.00 \\
27.48 & 95.41 & 107.45 & 202.23 & 245.25 & 245.71 & 244.22 & 238.18 \\
3.90 & -23.09 & -67.31 & -178.13 & -237.21 & -245.71 & -244.22 & -238.18 \\
1426.00 & 1402.91 & 1335.60 & 1157.47 & 920.26 & 674.55 & 430.33 & 192.15 \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& & & & & & & \\
& \(8.3 \%\) & \(8.2 \%\) & \(8.0 \%\) & \(7.8 \%\) & \(7.6 \%\) & \(7.4 \%\) & \(7.0 \%\) \\
67.42 & 119.05 & 115.57 & 106.58 & 89.98 & 70.13 & 49.98 & 30.07
\end{tabular}

TABLE 17: BILATERAL NONCONCESSIONAL
\begin{tabular}{llllllll}
1988 & 1989 & 1990 & 1991 & 1992 & 1993 & 1994 & 1995
\end{tabular}
D. NEW DEBT:
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline M6 & Maturity & 13.00 & 13.00 & 13.00 & 13.00 & 13.00 & 13.00 & 13.00 & 13.00 \\
\hline G6 & Grace Period & 3.00 & 3.00 & 3.00 & 3.00 & 3.00 & 3.00 & 3.00 & 3.00 \\
\hline T6 & Time Profile of coon & & 13\% & 30\% & 25\% & 15\% & 8\% & 5\% & 4\% \\
\hline C6 & Commitments & & 517.89 & -227.85 & 731.42 & -433.47 & 1465.28 & -1364.07 & 2707.45 \\
\hline GD6n & Gross Disbursements & 0.00 & 67.33 & 125.75 & 156.20 & 183.80 & 250.55 & 271.27 & 311.88 \\
\hline APGn & Amortization Payments & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 51.79 & 29.00 & 102.15 \\
\hline ND6n & Net Disbursements & 0.00 & 67.33 & 125.75 & 156.20 & 183.80 & 198.77 & 242.26 & 209.74 \\
\hline Dón & Stock of Debt & 0.00 & 67.33 & 193.07 & 349.28 & 533.07 & 731.84 & 974.10 & 1183.84 \\
\hline R6n & Interest Rate & 9.9\% & 9.9\% & 9.9\% & 9.9\% & 9.9\% & 9.9\% & 9.9\% & 9.9\% \\
\hline IP6n & Interest Payments & & 0.00 & 6.67 & 19.11 & 34.58 & 52.77 & 72.45 & 96.44 \\
\hline & E. TOTAL DEBT: & & & & & & & & \\
\hline G06t & Gross Disbursements & 31.37 & 139.65 & 165.89 & 180.30 & 191.84 & 250.55 & 271.27 & 311.88 \\
\hline AP6t & Amortization Payments & 27.48 & 95.41 & 107.45 & 202.23 & 245.25 & 297.53 & 273.22 & 340.33 \\
\hline ND6t & Net Disbursements & 3.90 & 44.24 & 58.44 & -21.92 & -53.42 & -46.95 & -1.95 & -28.45 \\
\hline 06t & Stock of Debt & 1426.00 & 1470.24 & 1528.67 & 1506.75 & 1453.33 & 1406.39 & 1404.43 & 1375.99 \\
\hline R6t & Interest Rate & & 8.35\% & 8.31\% & 8.22\% & 8.27\% & 8.46\% & 8.71\% & 9.01\% \\
\hline IP6t & Interest Payments & 67.42 & 119.05 & 122.23 & 125.70 & 124.56 & 122.90 & 122.43 & 126.50 \\
\hline
\end{tabular}

TABLE 18: PRIVATE BONDS
A. EXISTIMG DEBT:
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline cole & Gross Disbursements & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline AP7e & Amortization Payments & 169.93 & 167.30 & 173.60 & 151.87 & 36.43 & 34.44 & 10.60 & 5.26 \\
\hline mD7e & Net Disbursements & -169.93 & -167.30 & -173.60 & -151.87 & -36.43 & -34.44 & - 10.60 & -5.26 \\
\hline D7e & Existing Debt & 579.50 & 412.20 & 238.60 & 86.73 & 50.30 & 15.86 & 5.26 & 0.00 \\
\hline R7e & Interest Rate & & 7.3\% & 7.0\% & 6.4\% & 6.3\% & 6.0\% & 6.3\% & 3.8\% \\
\hline 1P7e & Interest Payments & 56.25 & 42.46 & 28.79 & 15.22 & 5.49 & 3.00 & 0.99 & 0.20 \\
\hline
\end{tabular}

\section*{8. DEBT RESTRUCTURING INSTRUMENTS:}
1. RESCHEDULINGS:
A) Pure Rescheduling

Change in the Contractual Stream of:


Amortization Payments
\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline Amortization Payments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline Interest Payments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline \multicolumn{9}{|l|}{8) Refinancing} \\
\hline \multicolumn{9}{|l|}{Reduction in:} \\
\hline Amortization Payments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline Interest Payments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline Capitalization: & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline Interest Rate & & 2.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline Maturity & 10 & 10 & 10 & 10 & 10 & 10 & 10 & 10 \\
\hline Grace Period & 3 & 3 & 3 & 3 & 3 & 3 & 3 & 3 \\
\hline \multicolumn{9}{|l|}{C) Effects on:} \\
\hline Gross Disbursements & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline Amortization Payments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline Interest Payments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline
\end{tabular}
2. Debt buybacks:
```

A) Conditions: Rate
B87 Debt Bought 3ack
EF.CBB7 Externally Financed (\%)
UR.CBB7 Use of Reserves (\%)
$\begin{array}{lc}\text { EB.CBB7 Exit Bonds (\%) } \\ \text { Reb } & \text { Interest Rate }\end{array}$
$\begin{array}{ll}\text { Reb } \quad \text { Interest R } \\ \text { Meb } & \text { Maturity }\end{array}$

```
```

DE.CBB7 Debt-Equity Swaps (\%
A.DEBB Additionality of DFI

```
delta7

RK Profit Rate
\begin{tabular}{rcccccccc}
1988 & 1989 & 1990 & 1991 & 1992 & 1993 & 1994 & 1995 \\
\hline & & & & & & & & \\
0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
169.93 & 167.30 & 173.60 & 151.87 & 36.43 & 34.44 & 10.60 & 5.26 \\
-169.93 & -167.30 & -173.60 & -151.87 & -36.43 & -34.44 & -10.60 & -5.26 \\
579.50 & 412.20 & 238.60 & 86.73 & 50.30 & 15.86 & 5.26 & 0.00 \\
& \(7.3 \%\) & \(7.0 \%\) & \(6.4 \%\) & \(6.3 \%\) & \(6.0 \%\) & \(6.3 \%\) & \(3.8 \%\) \\
56.25 & 42.46 & 28.79 & 15.22 & 5.49 & 3.00 & 0.99 & 0.20
\end{tabular}
B) Refinancing
\begin{tabular}{ccccccc}
\(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) \\
0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) \\
\(100.0 \%\) & \(100.0 \%\) & \(100.0 \%\) & \(100.0 \%\) & \(100.0 \%\) & \(100.0 \%\) & \(100.0 \%\) \\
\(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) \\
\(2.5 \%\) & \(2.5 \%\) & \(2.5 \%\) & \(2.5 \%\) & \(2.5 \%\) & \(2.5 \%\) & \(2.5 \%\) \\
10 & 10 & 10 & 10 & 10 & 10 & 10 \\
3 & 3 & 3 & 3 & 3 & 3 & 3 \\
\(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) \\
\(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) \\
\(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\)
\end{tabular}

TABLE 18: PRIVATE BONDS
\begin{tabular}{ll} 
& B) Financing: \\
CBB7 & Cost of Buyback \\
EF887 & Externally Financed \\
URB87 & Use of Reserves \\
EBB87 & Exit Bonds \\
CEBB7 & Debt-Equity Swaps
\end{tabular}
C) Effects on:

\begin{tabular}{cccccccc}
1988 & 1989 & 1990 & 1991 & 1992 & 1993 & 1994 & 1995
\end{tabular}
3. ACCUMMLATION OF ARREARS:
\begin{tabular}{ll} 
& \begin{tabular}{c} 
A) Arrears on: \\
AR7AP \\
Amortization Payments \\
AR7IP
\end{tabular} \\
Interest Payments
\end{tabular}
\begin{tabular}{llllllll} 
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.09 & 0.00 \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& 0.10 & 0.10 & 0.10 & 0.10 & 0.10 & 0.10 & 0.10 \\
0.00 & 6.00 & 6.00 & 6.00 & 6.00 & 6.00 & 6.00 & 6.00 \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& & & & & & & \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& & & & & & & \\
& & & & & & & \\
& & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00
\end{tabular}
C. RESTRUCTURED DEBT:
\begin{tabular}{ll} 
CO7r & Gross Disbursements \\
AP7r & Amortization Payments \\
ND7r & Met Disbursements \\
O7r & Restructured Debt \\
D7eb & Of which: Exit Bonds \\
& Interest Ratez \\
R7e & On Non-Restructured Debt \\
R7r & Implicit \\
IP7r & Interest Payments
\end{tabular}
\begin{tabular}{rrrrrrrr}
0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
169.93 & 167.30 & 173.60 & 151.87 & 36.43 & 34.44 & 10.60 & 5.26 \\
-169.93 & -167.30 & -173.60 & -151.87 & -36.43 & -34.44 & -10.60 & -5.26 \\
579.50 & 412.20 & 238.60 & 86.73 & 50.30 & 15.86 & 5.26 & 0.00 \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& & \(7.3 \%\) & \(7.0 \%\) & \(6.4 \%\) & \(6.3 \%\) & \(6.0 \%\) & \(6.3 \%\) \\
& \(7.3 \%\) & \(7.0 \%\) & \(6.4 \%\) & \(6.3 \%\) & \(6.0 \%\) & \(6.3 \%\) & \(3.8 \%\) \\
56.25 & 42.46 & 28.79 & 15.22 & 5.49 & 3.00 & 0.99 & 0.20
\end{tabular}

\title{
table 18: private bonds
}
\begin{tabular}{cccccccc}
1988 & 1989 & 1990 & 1991 & 1992 & 1993 & 1994 & 1995
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline & D. NEM DEBT: & & & & & & & & \\
\hline M7 & Maturity & 6.00 & 6.00 & 6.00 & 6.00 & 6.00 & 6.00 & 6.00 & 6.00 \\
\hline G7 & Grace Period & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 17 & Time Profile of cD7n & & 100\% & 0\% & 0\% & 0\% & 0\% & 0\% & 0\% \\
\hline C7 & Commi tments & & 19.74 & 40.15 & 55.77 & 73.15 & 89.73 & 117.44 & 127.48 \\
\hline c07n & Gross Disbursements & 0.00 & 19.74 & 40.15 & 55.77 & 73.15 & 89.73 & 117.44 & 127.48 \\
\hline AP7n & Amortization Payments & 0.00 & 0.00 & 3.29 & 9.98 & 19.28 & 31.47 & 46.42 & 66.00 \\
\hline MD7n & Net Disbursements & 0.00 & 19.74 & 36.86 & 45.79 & 53.88 & 58.27 & 71.02 & 61.48 \\
\hline 07n & Stock of Debt & 0.00 & 19.74 & 56.60 & 102.39 & 156.26 & 214.53 & 285.55 & 347.03 \\
\hline R7n & Interest Rate & & 10.0\% & 10.0\% & 10.0\% & 10.0\% & 10.0\% & 10.0\% & 10.0\% \\
\hline IP7n & Interest Payments & & 0.00 & 1.97 & 5.66 & 10.24 & 15.63 & 21.45 & 28.55 \\
\hline & E. TOTAL DEBT: & & & & & & & & \\
\hline co7t & Gross Disbursements & 0.00 & 19.74 & 40.15 & 55.77 & 73.15 & 89.73 & 117.44 & 127.48 \\
\hline AP7t & Amortization Payments & 169.93 & 167.30 & 176.89 & 161.85 & 55.71 & 65.91 & 57.02 & 71.26 \\
\hline ND7t & Net Disbursements & -169.93 & -147.57 & -136.74 & -106.08 & 17.45 & 23.83 & 60.42 & 56.22 \\
\hline D7t & Stock of Debt & 579.50 & 431.93 & 295.19 & 189.12 & 206.56 & 230.39 & 290.81 & 347... \\
\hline R7t & Interest Rate & & 7.33\% & 7.12\% & 7.07\% & 8.31\% & 9.02\% & 9.74\% & 9.89\% \\
\hline 1P7t & Interest Payments & 56.25 & 42.46 & 30.76 & 20.87 & 15.72 & 18.63 & 22.45 & 28.75 \\
\hline
\end{tabular}

TABLE 19: PRIVATE COMMERCIAL BANKS
\begin{tabular}{cccccccc}
1988 & 1989 & 1990 & 1991 & 1992 & 1993 & 1994 & 1995
\end{tabular}
A. Existing debt:
\begin{tabular}{ll} 
GD8e & Gross Disbursements \\
AP8e & Anortization Payments \\
ND8e & Met Disbursements \\
D8e & Existing Debt \\
R8e & Interest Rate \\
IP8e & Interest Payments
\end{tabular}
\begin{tabular}{rcccrrrr}
8.00 & 93.32 & 47.00 & 32.90 & 23.50 & 35.25 & 11.75 & 0.00 \\
621.19 & 359.07 & 531.48 & 537.14 & 531.83 & 1357.73 & 1933.96 & 1160.51 \\
-613.19 & -265.75 & -484.48 & -504.24 & -508.33 & -1322.48 & -1922.21 & -1160.51 \\
9768.83 & 9503.09 & 9018.60 & 8514.36 & 8006.03 & 6683.55 & 4761.34 & 3600.83 \\
& \(11.9 \%\) & \(12.8 \%\) & \(13.4 \%\) & \(15.1 \%\) & \(14.7 \%\) & \(15.3 \%\) & \(17.8 \%\) \\
859.18 & 1166.51 & 1218.28 & 1209.65 & 1286.60 & 1180.77 & 1022.77 & 849.49
\end{tabular}
B. DEBT RESTRUCTURING INSTRLMENTS:
1. RESCHEDULINGS:
A) Pure Rescheduling

Change in the Contractual Stream of: Amortization Payments
\begin{tabular}{lllllll}
0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00
\end{tabular}
B) Refinancing

Reduction in:
Amortization Payments
Interest Payments
Capitalization:
Interest Rate
Maturity
Grace Period
C) Effects on:

Gross Disbursements
Amortization Payments
Interest Payments
10
3
2. DEBT BUYBACKS:
A) Conditions:

DELTAB Discount Rate Debt 8ought Back

\section*{EF.CBBB Externally financed (\%)}

UR.CBB8 Use of Reserves (\%)
EB.CBB8 Exit Bonds (Z)
Reb Interest Rate
Meb
Interest Rate
Maturity
Geb
DE.CBB8
A.DEBB Rk
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{2}{|l|}{\multirow[t]{2}{*}{}} & \multicolumn{8}{|c|}{table 19: private comercial banks} \\
\hline & & 1988 & 1989 & 1990 & 1991 & 1992 & 1993 & 1994 & 1995 \\
\hline & B) Financing: & & & & & & & & \\
\hline C888 & Cost of Buyback & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline EFB68 & Externally Financed & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline URBB8 & Use of Reserves & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline EbBb8 & Exit Bonds & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline DEBB8 & Debt-Equity Swaps & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & C) Effects on: & & & & & & & & \\
\hline AP8bb & Anortization Payments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline AP8eb & Of which: Exit Bonds & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline IP8bb & Interest Payments & & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline IP8eb & Of which: Exit Bonds & & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline \multicolumn{10}{|c|}{3. accumulation of arrears:} \\
\hline \multicolumn{10}{|c|}{A) Arrears on:} \\
\hline arsap & Amortization Payments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline AR8IP & Interest Payments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline cisiar & B) Capitalization: & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline R8ar & Interest rate & 0.09 & 0.09 & 0.09 & 0.09 & 0.09 & 0.09 & 0.09 & 0.09 \\
\hline m8ar & Maturity & 8.00 & 8.00 & 8.00 & 8.00 & 8.00 & 8.00 & 8.00 & 8.00 \\
\hline c8ar & Grace Period & 3.00 & 3.00 & 3.00 & 3.00 & 3.00 & 3.00 & 3.00 & 3.00 \\
\hline \multicolumn{10}{|r|}{} \\
\hline codar & Gross Disbursements & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline Ap8ar & Amortization Payments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 1 P8ar & Interest Payments & & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline \multicolumn{10}{|c|}{4. WRITE-OFFS:} \\
\hline WOFF8 & A) Debt forgiven & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline \multicolumn{10}{|c|}{B) Effects on:} \\
\hline AP8woff & Amortization Payments & & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline IP8woff & Interest Payments & & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline \multicolumn{10}{|c|}{C. restrlctured debt:} \\
\hline cobr & Gross Disbursements & 8.00 & 93.32 & 47.00 & 32.90 & 23.50 & 35.25 & 11.75 & 0.00 \\
\hline ap8r & Amortization Payments & 621.19 & 359.07 & 531.48 & 537.14 & 531.83 & 1357.73 & 1933.96 & 1160.51 \\
\hline M08r & Net Disbursements & -613.19 & -265.75 & -484.48 & -504.24 & -508.33 & - 1322.48 & -1922.21 & -1160.51 \\
\hline D8r & Restructured Debt & 9768.83 & 9503.09 & 9018.60 & 8514.36 & 8006.03 & 6683.55 & 4761.34 & 3600.83 \\
\hline D8eb & Of which: Exit Bords & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline RBe & Interest Rate:
On Won-Restructured Debt & & 11.9\% & 12.8\% & 13.4\% & 15.1\% & 14.73 & 15.3\% & 17.8\% \\
\hline KËr & laplicit & & 11.9\% & 12.8\% & 13.4\% & 15.1\% & 14.73 & 15.3\% & 17.8\% \\
\hline 1 PBr & Interest Payments & 859.18 & 1166.51 & 1218.28 & 1209.65 & 1286.60 & 1180.77 & 1022.77 & 849.49 \\
\hline
\end{tabular}

TABLE 19: PRIVATE COmmercial banks
\begin{tabular}{cccccccc}
1988 & 1989 & 1990 & 1991 & 1992 & 1993 & 1994 & 1995
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline M8 & Maturity & 8.00 & 8.00 & 8.00 & 8.00 & 8.00 & 8.00 & 8.00 & 8.00 \\
\hline 68 & Grace Period & 3.00 & 3.00 & 3.00 & 3.00 & 3.00 & 3.00 & 3.00 & 3.00 \\
\hline 18 & Time Profile of coln & & 43\% & 25\% & 13\% & 9\% & 8\% & 2\% & 0\% \\
\hline c8 & Commitaments & & 1060.19 & 1363.77 & 1346.36 & 1477.32 & 1874.48 & 2821.11 & 2226.39 \\
\hline c08n & Gross Disbursements & 0.00 & 455.88 & 851.47 & 1057.70 & 1244.55 & 1557.94 & 2125.23 & 2174.25 \\
\hline AP8n & Amortizstion Payments & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 212.04 & 484.79 & 754.06 \\
\hline ND8n & Met Disbursements & 0.00 & 455.88 & 851.47 & 1057.70 & 1244.55 & 1345.90 & 1640.43 & 1420.19 \\
\hline D8n & Stock of Debt & 0.00 & 455.88 & 1307.35 & 2365.05 & 3609.60 & 4955.50 & 6595.94 & 8016.12 \\
\hline R8n & Interest Rate & 8.6\% & 8.6\% & 8.6\% & 8.6\% & \[
8.6 \%
\] & 8.6\% & 8.6\% & 8.6\% \\
\hline IP8n & Interest Payments & & 0.00 & 39.21 & \[
112.43
\] & 203.39 & \[
310.43
\] & & \[
567.25
\] \\
\hline \multicolumn{10}{|c|}{E. TOTAL DEBT:} \\
\hline c08t & Gross Disbursements & \[
8.00
\] & 549.20 & 898.47 & 1090.60 & 1268.05 & 1593.19 & 2136.98 & 2174.25 \\
\hline AP8t & Amortization Payments & 621.19 & 359.07 & 531.48 & 537.14 & 531.83 & 1569.77 & 2418.75 & 1914.58 \\
\hline W08t & Met Disloursements & -613.19 & 190.14 & 366.99 & 553.46 & 736.22 & 23.42 & -281.78 & 259.67 \\
\hline 08t & Stock of Debt & 9768.83 & 9958.97 & 10325.95 & 10879.41 & 11615.63 & 11639.05 & 11357.28 & 11616.95 \\
\hline R8t & Interest Rate & & 11.94\% & 12.63\% & 12.80\% & 13.70\% & 12.84\% & 12.45\% & 12.47\% \\
\hline IP8t & Interest Payments & 859.18 & 1166.54 & 1257.48 & 1322.08 & 1490.00 & 1491.19 & 1448.95 & 1416.74 \\
\hline
\end{tabular}

TABLE 20: DTHER PRIVATE
A. EXISTING DEBT:
\begin{tabular}{ll} 
CD9e & Gross Disbursements \\
AP9e & Amortization Payments \\
MD9e & Net Disbursements \\
D9e & Existing Debt \\
R9e & Interest Rate \\
IP9e & Interest Payments
\end{tabular}

\section*{B. DEBT RESTRUCTURING INSTRUMENTS:}

\section*{1. RESCHEDULINGS}
A) Pure Rescheduling

Change in the Contractual stream of:
Amortization Payments
\begin{tabular}{lllllll}
0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00
\end{tabular}

Capitalization:
Interest Rate
Maturity
Grace Period
C) Effects on:

Gross Disbursements
Amortization Payments
Interest Payments
A) Conditions:

Diltas Discount Rate
889 Debt Bought Eack
EF.CBB? Externally Financed (\%)
UR.CB89 Use of Reserves (\%)
E8.C889
Reb
Meb
Exit Bonds (\%) Interest. Rate Interest.
Maturity
Geb
DE.CBB9 A.DEB Rk Grace Period Debt-Equity Swaps (\%) sdditionality of DFI Profit Rate
\begin{tabular}{rccc}
134.71 & 117.94 & 59.75 & 40.64 \\
39.70 & 310.51 & 282.46 & 292.96 \\
95.01 & -192.58 & -222.71 & -252.32 \\
2170.09 & 1977.51 & 1754.80 & 1502.48 \\
& \(7.2 \%\) & \(7.0 \%\) & \(6.9 \%\) \\
91.91 & 155.48 & 138.97 & 121.53
\end{tabular}
29.22
192.85
-163.64
1338.85
\(6.9 \%\)
103.29
12.75
298.40
-285.65
1053.20
\(6.4 \%\)
86.29
0.87
278.88
-278.02
775.18
6.04
62.87
0.00
244.88
-244.88
530.30
\(5.4 \%\)
41.55
\(1988-1989 \quad 1990\)

1992
1993
1994
1995 \(\qquad\) ----------
-- 0.00
244.88
-244.88
530.30
\(5.4 \%\)
41.55
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{2}{|l|}{\multirow[t]{2}{*}{}} & \multicolumn{8}{|c|}{table 20: other private} & \\
\hline & & 1988 & 1989 & 1990 & 1991 & 1992 & 1993 & 1994 & 1995 & \\
\hline & \multicolumn{10}{|l|}{8) Financing:} \\
\hline CBB9 & Cost of Buyback & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & \\
\hline EfB69 & Externally Financed & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & \\
\hline URB89 & Use of Reserves & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & \\
\hline E8889 & Exit Bonds & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & \\
\hline DEEB9 & Debt-Equity Swaps & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.05 & \\
\hline & \multicolumn{10}{|l|}{C) Effects on:} \\
\hline AP9bb & Amortization Payments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & \\
\hline AP9eb & Of which: Exit Bonds & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & \\
\hline 199bb & Interest Payments & & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & \\
\hline 199eb & Of which: Exit Bonds & & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & \\
\hline \multicolumn{11}{|c|}{3. accumulation of arrears:} \\
\hline \multicolumn{11}{|c|}{A) Arrears on:} \\
\hline AR9AP & Amortization Payments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & \\
\hline AR9IP & Interest Payments & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & \\
\hline cD9ar & B) Capitalization: & & 0.00 & 0.00 & 0.1. & 0.00 & 0.00 & 0.00 & 0.00 & \\
\hline R9ar & Interest rate & & 0.10 & 0.10 & 0.10 & 0.10 & 0.10 & 0.10 & 0.10 & \\
\hline M9ar & Maturity & 6.00 & 6.00 & 6.00 & 6.00 & 6.00 & 6.00 & 6.00 & 6.00 & \(\checkmark\) \\
\hline 69ar & Grace Period & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & N \\
\hline \multicolumn{11}{|c|}{C) Effects on:} \\
\hline GD9ar & Gross Disbursements & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & \\
\hline AP9ar & Amortization Payments & & 0.00 & 0.00 & 0.00 & 4.00 & 0.00 & 0.00 & 0.00 & \\
\hline 1P9ar & Interest payments & & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & \\
\hline \multicolumn{11}{|c|}{4. WRITE-OFFS:} \\
\hline W0FF9 & a) Debt Forgiven & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & \\
\hline \multicolumn{11}{|l|}{\multirow[t]{3}{*}{\(\begin{array}{llllll}\text { B) } & \text { Effects on: } & \\ \text { AP9woff } \\ \text { Anortization Payments } & \\ \text { APSoff }\end{array}\)}} \\
\hline & & & & & & & & & & \\
\hline & & & & & & & & & & \\
\hline \multicolumn{11}{|c|}{C. restructured debt:} \\
\hline c09r & Gross Disbursements & 134.71 & 117.94 & 59.75 & 40.64 & 29.22 & 12.75 & 0.87 & 0.00 & \\
\hline AP9r & Amortization Payments & 39.70 & 310.51 & 282.46 & 292.96 & 192.85 & 298.40 & 278.88 & 244.88 & \\
\hline n09r & Met Disbursements & 95.01 & -192.58 & -222.71 & -252.32 & -163.64 & -285.65 & -278.02 & -244.88 & \\
\hline 09r & Restructured Debt & 2170.09 & 1977.5: & 1754.80 & 1502.48 & 1338.85 & 1053.20 & 775.18 & 530.30 & \\
\hline D9eb & Of which: Exit Bonds Interest Rate: & & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & \\
\hline R9e & On Mon-Restructured Debt & & 7.2\% & 7.0\% & 6.9\% & \(6.9 \%\) & 6.4\% & \(6.0 \%\) & \(5.4 \%\) & \\
\hline R98 & Implicit & & 7.2\% & 7.0\% & 6.9\% & 6.9\% & \(6.4 \%\) & \(6.0 \%\) & 5.48 & \\
\hline 1P9r & Interest Payments & 91.91 & 155.48 & 138.97 & 121.53 & 103.29 & 86.29 & 62.87 & 41.55 & \\
\hline
\end{tabular}

TABLE 20: OTHER PRIVATE
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline & & 1988 & 1989 & 1990 & 1991 & 1992 & 1993 & '994 & 1995 \\
\hline \multicolumn{10}{|c|}{D. \(R\) EEBT:} \\
\hline M9 & Maturity & 6.00 & 6.00 & 6.00 & 6.00 & 6.00 & 6.00 & 6.00 & 6.00 \\
\hline 69 & Grace Period & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 19 & Time Prcfile of GD9n & & 100\% & 0\% & 0\% & 0\% & 0\% & 0\% & 0\% \\
\hline C9 & Commitments & & 94.90 & 193.06 & 268.17 & 351.76 & 431.49 & 564.72 & 612.99 \\
\hline cD9n & Gross Disbursements & 0.00 & 94.90 & 193.06 & 268.17 & 351.76 & 431.49 & 564.72 & 612.99 \\
\hline AP9n & Amortization Payments & 0.00 & 0.00 & 15.82 & 47.99 & 92.69 & 151.32 & 223.23 & 317.35 \\
\hline MD9n & Het Disbursements & 0.00 & 94.90 & 177.25 & 220.18 & 259.07 & 280.17 & 341.48 & 295.64 \\
\hline D9n & Stock of Debt & 0.00 & 94.90 & 272.15 & 492.33 & 751.40 & 1031.57 & 1373.06 & 1668.69 \\
\hline R9\%1, & Interest Rate & & 10.0\% & 10.0\% & 10.0\% & 10.0\% & 10.0\% & 10.0\% & 10.0\% \\
\hline IP9n & Interest Payments & & 0.00 & 9.49 & 27.21 & 49.23 & 75.14 & 103.16 & 137.31 \\
\hline \multicolumn{10}{|c|}{E. TOTAL DEBT:} \\
\hline GD9t & Gross Disbursements & 134.71 & 212.83 & 252.81 & 308.81 & 380.98 & 444.24 & 565.38 & 612.99 \\
\hline AP9t & Amortization Payments & 39.70 & 310.51 & 298.27 & 340.95 & 285.54 & 449.71 & 502.11 & 562.23 \\
\hline ND9t & Net Disbursements & 95.01 & -97.68 & -45.46 & -32.14 & 95.44 & -5.47 & 63.47 & 50.76 \\
\hline 09t & Stock of Debt & 2170.09 & 2072.41 & 2 26 2.95 & 1994.81 & 2090.25 & 2084.77 & 2148.24 & 2199.00 \\
\hline R9t & Interest Rate & & 7.16\% & 7.16\% & \(7.34 \%\) & 7.65\% & 7.72\% & 7.96\% & 8.33\% \\
\hline IP9t & Interest Payments & 91.91 & 155.48 & 148.46 & 148.75 & 152.52 & 161.43 & 166.02 & 178.86 \\
\hline
\end{tabular}
\begin{tabular}{cccccccc}
1988 & 1989 & 1990 & 1991 & 1992 & 1993 & 1994 & 1995
\end{tabular}
A. EXISTING DEBT:
\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline Gross Disbursements & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline Amortization Payments & 100.00 & 118.00 & 120.00 & 113.00 & 128.00 & 125.00 & 118.00 & 100.00 \\
\hline Met Disbursements & -100.00 & -118.00 & -120.00 & -115.00 & -128.00 & -125.00 & -118.00 & -100.00 \\
\hline Existing Debt & 992.43 & 874.43 & 754.43 & 639.43 & 511.43 & 385.43 & 268.43 & 168.43 \\
\hline Interest Rate & & 8.4\% & 8.3\% & 8.4\% & 8.4\% & 8.3\% & 8.0\% & 8.2\% \\
\hline Interest Payments & 123.00 & 83.00 & 72.40 & 63.20 & 54.00 & 42.40 & 31.10 & 22.10 \\
\hline
\end{tabular}
B. debt restructurimg instrments:
1. RESCHEDULIMGS:
A) Pure Reschectuting

Change in the Contractual Stream of: Amortization Payments
\begin{tabular}{cccccccc} 
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& & & & & & & \\
& & & & & & & \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& & & & & & & \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
3 & \(2.0 \%\) & \(2.0 \%\) & \(2.0 \%\) & \(2.0 \%\) & \(2.0 \%\) & \(2.0 \%\) & \(2.0 \%\) \\
& 10 & 10 & 10 & 10 & 10 & 10 & 10 \\
& 3 & 3 & 3 & 3 & 3 & 3 & 3 \\
& & & & & & & \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00
\end{tabular}
B) Refinancing

Reduction in:
Amortization Payments
Interest Payments

\title{
Cepitalization \\ Interest Rate \\ Maturity \\ Grace Period
}
\(0.00 \quad 0.00\)
Gross Disbursements
Amortization Payments
0.00
0.00
2. DEBT BUYBACKS:
A) Conditions:

DELTAPR
88PR
EF.CB8PR
EF.CB8PR
Discount Rate
Debt Bought Back
\begin{tabular}{ll} 
EF.CB8PR & Externally Financed \\
UR.CBPPR & Use of Reserves ( \\
\hline
\end{tabular}
Exit Bonds (\%)
Interest Rate
Maturity
Grace Period
Reb
neb

\section*{Geb}

DE.CBBPR A.DEBB Rk

Debt-Equity Swaps (\%) Additionality of DFI Profit Rate
\begin{tabular}{ccccccc}
\(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) \\
0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) \\
\(100.0 \%\) & \(100.0 \%\) & \(100.0 \%\) & \(100.0 \%\) & \(100.0 \%\) & \(100.0 \%\) & \(100.0 \%\) \\
\(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) \\
\(2.5 \%\) & \(2.5 \%\) & \(2.5 \%\) & \(2.5 \%\) & \(2.5 \%\) & \(2.5 \%\) & \(2.5 \%\) \\
10 & 10 & 10 & 10 & 10 & 10 & 10 \\
3 & 3 & 3 & 3 & 3 & 3 & 3 \\
\(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) \\
\(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) \\
\(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\) & \(0.0 \%\)
\end{tabular}
table 21: PRIVATE NON-GUARANTEED

\section*{8) Financing:}
\begin{tabular}{ll} 
& 8) Financing: \\
CBBPR & \begin{tabular}{l} 
Cost of Blyback
\end{tabular} \\
EFBBPR & Externally Financed \\
URBBPR & Use of Reserves \\
EBBBPR & Exit Bonds \\
DEBBPR & Debt-Equity Swaps
\end{tabular}

\section*{C) Effects on: \\ APPRiob Amortization Payments \\ APPReb of which: Exit Bonds \\ IPPRbb interest Payments}

IPPReb Of which: Exit Bonds

\section*{3. ACClmallation of arrears:}
A) Arrears on:

Amortization Payments
Interest Payments
\begin{tabular}{|c|c|}
\hline COPRar & B) Capitalization \\
\hline RPRar & Interest rate \\
\hline MPRar & Maturity \\
\hline
\end{tabular}
\begin{tabular}{llllllll} 
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
0.09 & 0.09 & 0.09 & 0.09 & 0.09 & 0.09 & 0.09 & 0.09 \\
2.00 & 8.00 & 8.00 & 8.00 & 8.00 & 8.00 & 8.00 & 8.00 \\
3.00 & 3.00 & 3.00 & 3.00 & 3.00 & 3.00 & 3.00 & 3.00 \\
& & & & & & & \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& & & & & & & \\
& & & & & & & \\
& & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& & & & & & & \\
& & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& & 0.00 & 0.00 & 0.00 & 0.00 & 0.00
\end{tabular}
C. RESTRUCTURED DEBT:
\begin{tabular}{ll} 
GPPRr & Gross Disbursements \\
APPRr & Amortization Payments \\
NDPRr & Net Disbursements \\
DPRr & Restructured Debt \\
OPReb & Of which: Exit Bonds \\
& Interest Rate: \\
RPRe & On Non-Restructured Debt \\
RPRr & Implicit \\
IPPRr & Interest Payments
\end{tabular}
\begin{tabular}{rrrrrrrr}
0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
100.00 & 118.00 & 120.00 & 115.00 & 128.00 & 125.00 & 118.00 & 100.00 \\
-100.00 & -118.00 & -120.00 & -115.00 & -128.00 & -125.00 & -118.00 & -100.00 \\
972.43 & 874.43 & 754.43 & 639.43 & 511.43 & 386.43 & 268.43 & 168.43 \\
& 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
& & & & & & & \\
& \(8.4 \%\) & \(8.3 \%\) & \(8.4 \%\) & \(8.4 \%\) & \(8.3 \%\) & \(8.0 \%\) & \(8.2 \%\) \\
123.00 & \(83.4 \%\) & \(8.3 \%\) & \(8.4 \%\) & \(8.4 \%\) & \(8.3 \%\) & \(8.0 \%\) & \(8.2 \%\) \\
& 83.00 & 72.40 & 63.20 & 54.00 & 42.40 & 31.10 & 22.10
\end{tabular}

TABLE 21: PRIVATE NON-GUARANTEED
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline & & 1988 & 1989 & 1990 & 1991 & 1992 & 1993 & 1994 & 1995 \\
\hline \multicolumn{10}{|c|}{D. NEW DEBT:} \\
\hline MPR & Maturity & 8.00 & 8.00 & 8.00 & 8.00 & 8.00 & 8.00 & 8.00 & 8.00 \\
\hline GPR & Grace Period & 3.05 & 3.00 & 3.00 & 3.00 & 3.00 & 3.00 & 3.00 & 3.00 \\
\hline TPR & Time Profile of GDPRn & 100\% & 100\% & 0\% & 0\% & 0\% & 0\% & 0\% & 0\% \\
\hline CPR & Commitments & & 41.99 & 78.43 & 97.42 & 114.63 & 132.37 & 175.18 & 174.38 \\
\hline CDPRn & Gross Disbursements & 0.00 & 41.99 & 78.43 & 97.42 & 114.63 & 132.37 & 175.18 & 174.38 \\
\hline APPRn & Amortization Payments & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 8.40 & 24.08 & 43.57 \\
\hline NDPRn & Net Disbursements & 0.00 & 41.99 & 78.43 & 97.42 & 114.63 & 123.97 & 151.10 & 130.81 \\
\hline DPRn & Stock of Debt & 0.00 & 41.99 & 120.42 & 217.84 & 332.48 & 456.45 & 607.55 & 738.36 \\
\hline RPRn & Interest Rate & 8.6\% & 8.6\% & 8.6\% & 8.6\% & 8.6\% & 8.6\% & 8.6\% & 8.6\% \\
\hline IPPRn & Interest Payments & & 0.00 & 3.61 & 10.36 & 18.73 & 28.59 & 39.25 & 52.25 \\
\hline \multicolumn{10}{|c|}{E. TOTAL DEBT:} \\
\hline GDPRt & Gross Disbursements & 0.00 & 41.99 & 78.43 & 97.42 & 114.63 & 132.37 & 175.18 & 174.38 \\
\hline APPRt & Amortization Payments & 100.00 & 118.00 & 120.00 & 115.00 & 128.00 & 133.40 & 142.08 & 143.57 \\
\hline NDPRt & Net Disbursements & -100.00 & -76.01 & -41.57 & -17.58 & -13.37 & -1.03 & 33.10 & 30.81 \\
\hline DPRT & Stock of Debt & 992.43 & 916.42 & 874.85 & 857.27 & 843.90 & 842.87 & 875.97 & 906.79 \\
\hline RPRt & Interest Rate & & 8.36\% & 8.29\% & 8.41\% & 8.48\% & 8.41\% & 8.35\% & 8.49\% \\
\hline IPPRt & Interest Payments & 123.00 & 83.00 & 76.01 & 73.56 & 72.73 & 70.99 & 70.35 & 74.35 \\
\hline
\end{tabular}
A. EXISTIMG DEBT:
CDIMFe Gross Disbursements
APIMFe Amortization Payments
MDIMFe Met Disbursements
DIMFe Existing Debt
RIMFe Interest Rate
IPIMFe Interest Payments
\begin{tabular}{rr} 
& 0.00 \\
195.77 & 196.42 \\
-195.77 & -196.42 \\
1093.13 & 896.72 \\
& \(7.7 \%\) \\
74.11 & 83.73
\end{tabular}
\begin{tabular}{cc}
0.00 & 0.00 \\
307.31 & 259.94 \\
-307.31 & -259.94 \\
589.41 & 329.47 \\
\(10.7 \%\) & \(12.0 \%\) \\
96.38 & 70.57
\end{tabular}
0.00
132.45
-132.45
197.02
\(15.2 \%\)
49.94
0.00
55.43
-55.43
141.59
\(20.1 \%\)
39.61
0.00
80.85
-80.85
60.74
\(23.3 \%\)
33.05
0.00
61.64
-61.64
-0.90
\(41.7 \%\)
25.35
B. DEBT RESTRUCTURING INSTRLMENTS:
1. RESCHEDULINGS:
A) Pure Rescheduling

Change in the Contractual Stream of:
Amortization Payments
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline & \[
0.00
\] & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & \[
0.00
\] & \[
0.00
\] & \[
0.00
\] & \[
0.00
\] & \[
0.00
\] & \[
0.00
\] & \[
0.00
\] \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 2.0\% & 2.0\% & 2.0\% & 2.0\% & 2.0\% & 2.0\% & 2.0\% \\
\hline 10 & 10 & 10 & 10 & 10 & 10 & 10 & 10 \\
\hline 3 & 3 & 3 & 3 & 3 & 3 & 3 & 3 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline & 100.0\% & 100.0\% & 100.0\% & 100.0\% & 100.0\% & 100.0\% & 100.0\% \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline & 2.5\% & 2.5\% & 2.5\% & 2.5\% & 2.5\% & 2.5\% & 2.5\% \\
\hline & 10 & 10 & 10 & 10 & 10 & 10 & 10 \\
\hline & 3 & 3 & 3 & 3 & 3 & 3 & 3 \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline
\end{tabular}
B) Refinancing

Reduction in:
FIMFAP Amortization Payments
RFIMFIP Interest Payments
CDIMFrs Capitalization:
RIMFrs Interest Rate
MIMFrs Maturity
GIMFrs Grace Period

C) Effects on:

GDIMFrs Gross Disbursements
APIMFrs Amortization Payments
IPIMFrs Interest Payments


TABLE 22: IMF
\begin{tabular}{cccccccc}
1988 & 1989 & 1990 & 1991 & 1992 & 1993 & 1994 & 1995
\end{tabular}
D. MEY DEBT:
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline MIMF & Maturity & 3.00 & 3.00 & 3.00 & 3.00 & 3.00 & 3.00 & 3.00 & 3.00 \\
\hline GIMF & Grace Period & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline TIMF & Time Profile of CDIMFn & & \(50 \%\) & 50\% & 0\% & 0\% & 0\% & \(0 \%\) & 08 \\
\hline CIMF & Commitments & & 111.98 & 171.82 & 277.18 & \$92.49 & 495.75 & 690.79 & 717.40 \\
\hline CDIMFn & Gross Disbursements & 0.00 & 55.99 & 141.90 & 224.50 & 339.84 & 449.12 & 593.27 & 704.10 \\
\hline APIMFn & Amortization Payments & 0.00 & 0.00 & 37.33 & 94.60 & 186.99 & 283.83 & 391.81 & 529.68 \\
\hline MDIMFn & Met Disbursements & 0.00 & 55.99 & 104.57 & 129.90 & 152.85 & 165.29 & 201.47 & 174.42 \\
\hline DimFn & Stock of Debt & 0.00 & 55.99 & 160.56 & 290.46 & 443.30 & 608.60 & 810.06 & 984.48 \\
\hline RIMFn & Interest Rate & \(8.7 \%\) & 8.74 & \(8.7 \%\) & 8.7\% & \(8.7 \%\) & \(8.7 \%\) & \(8.7 \%\) & \[
8.7 x
\] \\
\hline IPIMFn & Interest Payments & & 0.00 & 4.87 & 13.97 & 25.27 & 38.57 & 52.95 & 70.48 \\
\hline & \multicolumn{9}{|l|}{E. TOTAL DEBT:} \\
\hline coimft & Gross Disbursements & 0.00 & 55.99 & 141.90 & 224.50 & 339.84 & 449.12 & 593.27 & 704.10 \\
\hline APIMFt & Amortization Payments & 195.77 & 196.42 & 344.63 & 354.54 & 319.44 & 339.26 & 472.65 & 591.32 \\
\hline mpIMFt & Net Disbursements & -195.77 & -140.43 & -202.74 & -130.04 & 20.40 & 109.87 & 120.62 & 112.78 \\
\hline Danct & Stock of Debt & 1093.13 & 952.70 & 749.97 & 619.92 & 640.32 & 750.19 & 870.81 & 983.58 \\
\hline RIMFt & Interest Rate & & 7.66\% & 10.63\% & \(11.27 \%\) & 12.13\% & 12.21\% & 11.46\% & 11.00\% \\
\hline IPIMFt & Interest Payments & 74.11 & 83.73 & 101.25 & 84.54 & 75.21 & 78.18 & 86.00 & 95.63 \\
\hline
\end{tabular}

TABLE 23: SHORT TERM CAPITAL
A. Existing debt:
CDSTE Gross Disbursements
APSTe Amortization Payments
MDIe Net Disbursements
OSTe Existing Debt

\section*{Existing Debt}

Interest Rate
Interest Payments
0.00
2.57
3888.00
341.00
\begin{tabular}{cc}
0.00 & 0.00 \\
0.00 & 0.00 \\
0.76 & -0.22 \\
3888.00 & 3888.00 \\
\(10.0 \%\) & \(10.0 \%\) \\
0.00 & 0.00
\end{tabular}
0.00
0.00
-0.58
3888.00
\(10.0 \%\)
0.00
0.00
0.00
-1.30
3888.00
\(10.0 \%\)
0.00
0.00
0.00
-1.50
3888.00
\(10.0 \%\)
0.00
\begin{tabular}{rr}
0.00 & 0.00 \\
0.00 & 0.00 \\
-1.50 & -1.69 \\
3888.00 & 388.00 \\
\(10.0 \%\) & \(10.0 \%\) \\
0.00 & 0.00
\end{tabular}
E. DEBT RESTRUCTURING INSTRUMENTS:
1. RESCHEDULINGS:
A) Pure Rescheduling

Change in the Contractual Strearn of: Amortization Payments
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline & \[
\begin{aligned}
& 0.00 \\
& 0.00
\end{aligned}
\] & 0.00
0.00 & 0.00
0.00 & 0.00
0.00 & 0.00
0.00 & 0.00
0.00 & \[
\begin{aligned}
& 0.00 \\
& 0.00
\end{aligned}
\] \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 2.0\% & 2.0\% & 2.0\% & 2.0\% & 2.0\% & 2.0\% & 2.0\% \\
\hline 10 & 10 & 10 & 10 & 10 & 10 & 10 & 10 \\
\hline 3 & 3 & 3 & 3 & 3 & 3 & 3 & 3 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.09 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & C 00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & C. 00 & 0.00 \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline & 100.0\% & 100.0\% & 100.0\% & 100.0\% & 100.0\% & 100.0\% & 100.0\% \\
\hline & 0.0\% & 0.0\% & c.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0x \\
\hline & 2.5\% & 2.5\% & 2.5\% & 2.5\% & 2.5\% & 2.5\% & 2.5\% \\
\hline & 2.5\% & 2.5\% & 2.5\% & 2.5\% & 2.5\% & 2.5\% & 2.5\% \\
\hline & 10 & 10 & 10 & 10 & 10 & 10 & 10 \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline
\end{tabular}
B) Refinancing

Reduction in:
Amortization Payments
Interest Payments

C) Effects on:

Gross Disbursements Amartization Payments
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline & \[
\begin{aligned}
& 0.00 \\
& 0.00
\end{aligned}
\] & 0.00
0.00 & 0.00
0.00 & 0.00
0.00 & 0.00
0.00 & 0.00
0.00 & \[
\begin{aligned}
& 0.00 \\
& 0.00
\end{aligned}
\] \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 2.0\% & 2.0\% & 2.0\% & 2.0\% & 2.0\% & 2.0\% & 2.0\% \\
\hline 10 & 10 & 10 & 10 & 10 & 10 & 10 & 10 \\
\hline 3 & 3 & 3 & 3 & 3 & 3 & 3 & 3 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.09 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & C 00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & C. 00 & 0.00 \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline & 100.0\% & 100.0\% & 100.0\% & 100.0\% & 100.0\% & 100.0\% & 100.0\% \\
\hline & 0.0\% & 0.0\% & c.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0x \\
\hline & 2.5\% & 2.5\% & 2.5\% & 2.5\% & 2.5\% & 2.5\% & 2.5\% \\
\hline & 2.5\% & 2.5\% & 2.5\% & 2.5\% & 2.5\% & 2.5\% & 2.5\% \\
\hline & 10 & 10 & 10 & 10 & 10 & 10 & 10 \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% & 0.0\% \\
\hline
\end{tabular}
2. DEBT BUYBACKS:
A) Conditions: DELTAST Discount Rate
BBST Debt Bought Back
EF.CBBS Externally Financed (\%)
UR.CBBS Use of Reserves (\%)
Exit Bonds (\%)
Interest Rate
Interest Rate
aeb
Reb Interest Rat
OE.CBBS Maturity
DEBQ Debt-Equity Swaps (\%)
ak Profit Rate

TABLE 23: SHORT TERM CAPITAL

\begin{tabular}{cccccccc}
1988 & 1989 & 1990 & 1991 & 1992 & 1993 & 1994 & 1995
\end{tabular}

ARSTAP
ARSTIP
\begin{tabular}{ll} 
GDSTar & B) Capitalization: \\
RSTOr & Interest rate \\
MSTar & Maturity \\
GSTar & Grace Period
\end{tabular}
C) Effects on

Gross Disbursements
APSTar Amortization Payments
IPSTar
A) Arrears on:

Amortization Payments
Interest Payments

Interest Payments
4. WRITE-OFFS:

WOFFST A) Debt Forgiven
B) Effects on:

APSTwof Amortization Payments Interest Payments
C. RESTRUCTURED DEBT:

Gross Disbursements
Amortization Payments
Net Disbursements
Restructured Debt
Of which: Exit Bonds
Interest Rate:
On Mon-Restructured Debt Implicit
Interest Payments
0.00
0.00
0.00
3888.00
0.00
3888.00
341.00
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.00 & C. 00 & 0.00 & 0.00 & n.v0 & 0.00 & 0.00 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.10 & 0.10 & 0.10 & 0.10 & 0.10 & 0.10 & 0.10 \\
\hline 1.00 & 1.00 & 1.00 & 1.00 & 1.00 & 1.00 & 1.00 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline
\end{tabular}

TABLE 23: SHORT TERM CAPITAL
D. NEW DEBT:
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline MST & Maturity & 1.00 & 1.00 & 1.00 & 1.00 & 1.00 & 1.00 & 1.00 & 1.00 \\
\hline GST & Grace Period & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 & 0.00 \\
\hline TST & Iime Profile of costn & & 100\% & 0\% & \(0 \%\) & 0\% & 0\% & 0\% & 0\% \\
\hline CST & Commitments & & 179.86 & 515.80 & 933.10 & 1424.11 & 1955.12 & 2602.33 & 3162.64 \\
\hline cDSTn & Gross Disbursements & 0.00 & 179.86 & 515.80 & 933.10 & 1424.11 & 1955.12 & 2602.33 & 3162.64 \\
\hline APSTn & Amortization Payments & 0.00 & 0.00 & 179.86 & 515.80 & 933.10 & 1424.11 & 1955.12 & 2602.33 \\
\hline NDSTn & Net Disbursements & 0.00 & 179.86 & 335.93 & 417.30 & 491.02 & 531.01 & 647.21 & 560.31 \\
\hline DSTE & Stock of Debt & 0.00 & 179.86 & 515.80 & 933.10 & 1424.11 & \(1: 55.12\) & 2602.33 & 3162.64 \\
\hline RSTn & Interest Rate & & 10.0\% & 10.0\% & 10.0\% & 10.0\% & 10.0\% & 10.0\% & 10.0\% \\
\hline IPSTM & Interest Payments & & 0.00 & 17.99 & 51.58 & 93.31 & 142.41 & 195.51 & 260.23 \\
\hline \multicolumn{10}{|c|}{E. TOTAL DEBT:} \\
\hline GDSTt & Gross Disbursements & 0.00 & 179.86 & 515.80 & 933.10 & 1424.11 & 1955.12 & 2602.33 & 3162.64 \\
\hline APSTt & Amortization Payments & 0.00 & 0.00 & 179.86 & 515.80 & 933.10 & 1424.11 & 1955.12 & 2602.33 \\
\hline NDSTt & Net Disbursements & 0.00 & 179.86 & 335.93 & 417.30 & 491.02 & 531.01 & 647.21 & 560.31 \\
\hline DSTt & Stock of Debt & 3888.00 & 4067.86 & 4403.80 & 4821.10 & 5312.11 & 5843.12 & 6490.33 & 7050.64 \\
\hline RST t & Interest Rate & & 0.00\% & 0.44\% & 1.177 & 1.94\% & 2.68\% & 3.35\% & \(4.01 \%\)
260.23 \\
\hline IPST & Interest Payments & 341.00 & 0.00 & 17.99 & 51.58 & 93.31 & 142.41 & 195.51 & 260.23 \\
\hline
\end{tabular}
\(\left.\begin{array}{lllll} & \text { PRE Workinc Paper Series }\end{array}\right)\)

\section*{PRE Working Paper Series}
\begin{tabular}{|c|c|c|c|c|}
\hline & Inle & Author & Date & Contact for paper \\
\hline WPS483 & An Evaluation of the Main Elements in the Leading Proposals to Phase Out the Multi-Fibre Arrangement & Refik Erzan Paula Holmes & August 1990 & \[
\begin{aligned}
& \text { G. Ilogon } \\
& 33732
\end{aligned}
\] \\
\hline WPS484 & Stock Markets, Growth, and Poiicy & Ross Levine & August 1990 & R. Levine 39175 \\
\hline WPS485 & Do Labor Market Distortions Cause Overvaluation and Rigidity of the Real Exchange Rate? & Ramón Lopez Luis Riveros & August 1990 & \[
\begin{aligned}
& \text { R. Luz } \\
& 34303
\end{aligned}
\] \\
\hline WPS486 & A RMSM-X Model for Turkey & Luc Everaert Fernando Garcia-Pinto Jaume Ventura & August 1990 & S. Aggarwal
\[
39176
\] \\
\hline
\end{tabular}```


[^0]:    The PRE Working Paper Series disseminates the findings of work under way in the Bank's Policy, Research, and External Affairs Complex. An objective of the series is to get these findings out quickly, even if presentations are less than fully polished. The findings, interpretations, and conclusions in these papers do not necessarily represent official Bank policy.

[^1]:    $2 Y_{d}$ can be obtained from (2.5):
    $Y_{d}=\left[V A_{p}+T_{b p}+E \bullet\left(T^{*}{ }_{f p^{\prime}}+W R^{*}-P R^{*}\right)+r_{c}{ }^{\bullet} B_{p-1}+r_{D D}{ }^{\bullet D D_{-1}+P \& L_{d}-T D_{p}-}\right.$
    
    Note that interest payments have been corrected of advanced capital payments due to inflation. Hence $r_{i}$ is the real interest on the asset i. In the case, of foreign debt $x$ is the nominal foreign interest rate corrected for foreign inflation.

[^2]:    4 That is, if savings variables are always obtained as residuals.

[^3]:    5 This type of closure is consistent with the Fund's financial programming approach as presented in IMF Institute (1981).

[^4]:    7 Unless otherwise specified all variables are defined in the current period (T). When the variables refer to a period other than $T$ we use a time subscript relating the date of the variable with F . for instance, the total stock of debt in year $T$ will be denoțed $F_{t}{ }^{*}$, while the same variable in year $T-1$ will be denoted by $F_{t,-1}{ }^{*}$

[^5]:    Source: See explanation in text and right nost colun.

[^6]:    ${ }^{1}$ We assume, according to common practice, that the external debt is expressed is the US\$.

[^7]:    ${ }^{3}$ Expressed using symbols of Tables AII. 4 and AII.1, the formula is:

    $$
    i_{F}=(H D i F t-H D i F G O-H D i F G b)(88) /(F t-F G b-F G O)(87)
    $$

[^8]:    4 The fiscal data report new fixed investment of the financial SEEs. This item $j$ c classified under the investment of the budget to maintain the total figure for public investment in the public sector. The corresponding offsetting item is the reduction in capital transfers from the budget to the banking system.

[^9]:    Sources: See explanation in text

