The Kenyan Interim Poverty Reduction Strategy: A Policy Framework for Growth and Poverty Reduction?

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Country Economic Report

2001:5

This country economic report on Kenya a is part of a series of annual studies, which are undertaken by the departments of economics of three Swedish universities in collaboration with the regional departments of Sida, under an agreement with the Division for Policy and Socio-Economic Analysis. The purpose of these studies is to improve Sida's economic analysis and knowledge of the programme countries for Swedish development cooperation in order to enhance the effectiveness of programme as well as project support.

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ISBN 91-586-8971-0
ISSN 1404-031x

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1. Introduction

In recent years economic performance has been disappointing in Kenya. Policy uncertainties and weather disruptions have had a negative impact on the agricultural sector. Competition from imports, the poor state of infrastructure and high domestic interest rates are some of the other factors explaining reduced economic activity. In order to achieve sustained and increased growth rates the government needs to restore credibility and demonstrate a strong commitment to the reform process. This goes beyond pronouncements. It encompasses an intricate web of political issues, rule of law, security, adherence to the constitution and a focus into the future, including political succession.

Kenya, as well as many other Sub-Saharan African countries, has had the intention of allocating expenditures towards activities which would reduce inequality and poverty. However, the outcome was often unsatisfactory. One reason for the disappointing results is the failure to link policy, planning and budgeting. In many countries, policy making, planning and budgeting take place independently of each other. Planning is often confined to investment activities, which in many developing countries refers to a series of donor-funded projects. Capital expenditures are already largely accounted for through the planning process, and large portions of recurrent expenditures are re-committed to the wage bill. For this reason, annual budgeting is reduced to allocating resources thinly across donor and domestically funded "investment" projects and to the non-wage portion of the recurrent budget. In addition, unpredictability of funding, from one year to the next and within the budget year, is one of many factors that contribute to the poor operational performance of public sectors.

The poor outcome of the reform process both in terms of economic growth and in efficiency and delivery of public service has finally been recognised by the government and a new strategy paper has recently been finalised. The interim Poverty Reduction Strategy Paper (PRSP) outlines a preliminary policy framework, which will be fully developed in the context of the full PRSP, scheduled to be finalised by May 2001. A recently introduced Medium Term Expenditure Framework (MTEF) was used to prioritise the policies contained in the interim PRSP and is the basis for the 2000/01 fiscal program. As the MTEF is a relatively new tool, the focus of this

report will be on the MTEF strategy. We highlight some positive developments as well as some shortcomings experienced in the Kenyan process.

The report proceeds as follows: In the next section, we present a brief overview of the macroeconomic situation in Kenya, reviewing the economic development since the last annual report. The third chapter briefly analyses the interim PRSP, as well as the MTEF. The analysis covers the macroeconomic as well as sectoral perspectives. Issues that will be discussed include the resource envelope and how expenditures have been allocated given the priorities set by the Government. An important issue expected to take place in the next financial year is retrenchment of public employees. This will also be covered in the third chapter. In the fourth chapter we discuss the linkage between the interim PRSP, the MTEF and the budget. Finally, the MTEF is a new instrument in the Kenyan policy formulation process and, as such, there is a need to review some of the analytical tools on how to formulate and evaluate a pro-poor growth strategy.

2. Macroeconomic review

2.1 Economic growth and sectoral developments

In 1999, Kenya's gross domestic product (GDP) increased by 1.4 percent, which implied that per-capita growth continued to fall (Table 2.1). The slowdown in economic activities was reflected in most of the key sectors in the economy. Agricultural growth fell to 1.3 percent and there was a significant decline in the production of tea, wheat, sugar cane and maize. Good performance was, however, recorded in the coffee sub-sector and among other non-conventional crops such as pyrethrum, sisal, rice and dairy produce. The horticultural sector continues to show improved performance and favourable world market prices. In value terms exports expanded by 49 percent making it the third largest foreign exchange earner. However, some key agricultural sub-sectors such as the coffee, tea and sugar industries have been marred by violence, corruption and government interference. These factors may not sustain a strong recovery in the sector.

Table 2.1: Sectoral and overall growth rates, 1995-1999

	1995	1996	1997	1998	1999
Agriculture	4.8	4.5	1.2	1.6	1.3
Manufacturing	3.9	3.6	1.9	1.4	1.0
Building & Construction	2.7	2.8	2.3	1.5	0.9
Trade, Restaurants & Hotels	8.6	8.0	4.0	2.3	2.0
Transport, Storage & Comm.	4.2	4.0	2.0	1.2	1.4
Finance, Real Estate & Bus.	6.9	7.1	5.3	3.2	2.0
Other	6.4	6.2	3.5	2.7	2.3
Government Services	1.8	1.6	1.1	0.8	0.7
GDP	4.8	4.6	2.4	1.8	1.4

Source: Republic of Kenya (various issues)

The manufacturing sector continued to perform poorly as a result of intense competition from abroad, power rationing, poor infrastructure and low aggregate demand in the economy. It is becoming clear that economic liberalisation in Kenya was half-hearted. This is because at the firm level, liberalisation took place, but crucial services to help such firms to thrive were still under control and not liberalised, such as marketing services, transport and communication services and energy provisions among others. So firms continue to incur heavy costs on transport, power blackouts and rationing, communications via telephones and a host of other

depressant factors. These factors check the performance of the manufacturing sector. Recorded output growth in the sector was estimated at 1.0 percent, which is far below the target of 7.8 percent in the current National Development Plan. However, performance varied a lot across sub-sectors. For example, the vegetables and canned fruits sub-sector had the fastest growth rate of 14.7 percent, while the clay and other products sub-sector recorded the highest decline rate of 33.4 percent. The output in the textile industries recorded growth after years of reduced output, while the output in the leather and footwear industries continued with the downward trend. The meat and dairy products industry recorded growth of 10.4 percent in 1999 and the sugar industry achieved the highest output since the inception of sugar production in the country. Intermediate producing sectors such as industrial chemicals, non-electrical machinery and electrical equipment experienced a drop in output as a result of depressed domestic demand and slow growth in building and construction activities.

The financial sector recorded a growth rate of 2.0 percent during 1999. A majority of the public financial institutions recorded huge losses while the private financial institutions realised reduced profits compared to 1998. This was partly due to the implementation of international accounting standards, requiring banks to include bad debts in their profit and loss accounts. Still, as at March 2000, the level of non-performing advances was estimated to 34 percent of gross loans, compared to 31 percent of gross loans in March 1999. The Central Bank of Kenya continues to insist on more realistic provisions for bad and doubtful debts in view of the observed high level of non-performing loans.

The tourism sector, the second highest foreign exchange earner, experienced an improvement in 1999. The number of tourists increased by 22 percent compared to 1998 and it seems that a more stable situation at the coast and the depreciation of the shilling has had some impact in reviving the tourism industry. Improved performance also had a positive impact on the transport, storage and communications sector. Otherwise major factors affecting the transport sector negatively are poor infra-structure and the low volume of traffic through the Mombasa Port.

The recession also had an impact on investment activities in the economy. Real capital formation declined by 4.6 percent in 1999. The decline could be observed in all sectors except Finance, Insurance, Real Estate and Business services which recorded a growth rate of 5.5 percent (Table 2.2). In the manufacturing sector

investment declined by 8.1 percent during 1999. While 1998 saw some positive developments in the agriculture sector, investment was reduced in 1999.

Table 2.2: Annual growth rates of capital formation, 1995-1999

	1995	1996	1997	1998	1999
Agriculture	19.3	-17.1	-5.6	12.3	-10.0
Manufacturing	43.2	21.3	-3.3	0.3	-8.1
Building & Construction	43.3	24.2	4.9	5.9	-7.3
Transport, Storage & Comm.	-20.9	-1.5	2.8	-3.3	-1.2
Government Services	57.3	-15.1	7.5	-5.8	-3.2
Trade, Restaurants & Hotels	34.7	-9.6	7.1	-7.6	-2.2
Finance, Real Estate & Bus.	12.9	11.7	6.7	3.7	5.5
Other	-2.0	-11.4	1.0	3.5	-3.3
Total	15.8	1.1	2.1	-0.1	-4.6

Source: Republic of Kenya (various issues)

Continued low investment levels are of course of serious concern and the much-awaited take-off in economic growth cannot be realised if investment remains at the current level. The question then is what has led to this significant and prolonged pause in private investment? There are several factors: First, the domestic and external debt overhang has effected the domestic interest rate structure leading to a wait-and-see attitude by private investors. Second, policy uncertainties and political risk have increased the risk of losing capital. Third, lack of complementary public expenditure, especially in infrastructure and depressed economic activity, has reduced the return on investments.

2.2 Employment and earnings

The low activity in the economy has also had a significant impact on the labour market. In 1999, only 8,700 new jobs were created in the formal sector. Employment in the private sector grew by 2.4 percent while employment in the public sector declined by 2.1 percent (Table 2.3 and Table 2.4). The expansion in wage employment within the private sector was notable in community, social and personal service, and in trade, restaurant and the hotel industry.

The manufacturing sector, however, continues to grow slowly, far below expectations. Reductions of public sector employment are a result of the ongoing public sector reform programme which currently involves a freeze in employment and natural attrition with a view of reducing and downsizing staff in the Civil Service. In

order to speed up the process further, a second retrenchment programme will be launched during 2000 and 2001, where 48,000 civil servants are expected to be re-trenched.

Table 2.3: Public sector employment (annual % changes)

	1995	1996	1997	1998	1999
Agriculture	-1.0	-1.2	-2.1	-2.2	-3.0
Manufacturing	0.0	-2.8	-2.1	-3.5	-1.4
Building and construction	1.0	0.6	-1.8	-3.2	-3.3
Trade, restaurants and hotels	1.4	0.0	-7.1	-1.5	-1.6
Transport and communications	-0.5	9.3	-4.7	-1.9	-4.3
Finance, Insurance and real estate	2.2	0.5	-3.3	-3.4	-4.7
Community, social and personal services	0.3	1.8	1.3	0.5	-1.6
Total	0.2	1.6	0.0	-0.4	-2.1

Source: Republic of Kenya (various issues)

Table 2.4: Private sector employment (annual % changes)

	1995	1996	1997	1998	1999
Agriculture	6.4	4.3	1.7	1.9	1.8
Manufacturing	4.6	4.1	2.8	2.1	1.8
Building and construction	6.6	5.2	4.1	0.6	0.6
Trade, restaurants and hotels	6.9	6.5	4.0	1.8	2.1
Transport and communications	2.4	8.7	4.1	0.0	1.4
Finance, Insurance and real estate	4.6	4.9	4.5	2.1	1.9
Community, social and personal services	7.7	8.7	3.6	3.5	4.4
Total	6.1	5.9	3.1	2.1	2.4

Source: Republic of Kenya (various issues)

Employment in the informal sector expanded by 11.5 percent, creating 385,000 additional jobs (Table 2.5). Urban areas continue to dominate informal sector activities and Nairobi absorbed the highest proportion among the provinces. The wage level is on average lower in the informal sector than in the formal sector and the trend of an increasing share of informal sector employees therefore increased the number of poor households, particularly in the urban areas.

The informalisation of the labour market is a result of a combination of events. First, liberalising trade in conjunction with nominal wage rigidities and rising utility prices slowed down activities in the economy affecting urban-biased sectors, such as the construction and manufacturing industry. In the mid-1990s the outcome became even more disappointing as nominal wages were increased and public sector employees were retrenched. In response to this, activities within the informal sector increased tremendously and an increasing number of individuals were forced to live below the poverty line. This scenario is still operative, especially in view of the

planned retrenchment without provision of adequate safeguards in the labour market and at a time when the economy is in a recession.

Table 2.5: Informal sector employment (annual % increase)

	1995	1996	1997	1998	1999*
Manufacturing	25.3	15.2	13.2	11.8	10.5
Construction	21.3	14.1	17.5	25.8	15.0
Wholesale and retail trade, hotels and restaurants	24.8	19.2	12.9	12.0	11.6
Transport and communications	21.5	18.3	13.0	12.8	11.4
Community , social and personal services	27.5	18.7	11.9	13.5	13.7
Urban	26.2	15.1	14.6	12.1	10.3
Rural	22.8	23.6	10.0	12.7	13.7
Total	25.0	18.0	13.0	12.3	11.5

Source: Republic of Kenya (various issues) * Provisional

2.3 Balance of payment

The recession has also had a dramatic impact on the demand of foreign exchange. Since the mid-1990s there has been a steady decline in the import-GDP ratio. At the same time a combination of reduced incentives and institutional constraints have slowed down export performance. Thus, despite a lower import bill, the trade balance has remained in deficit of 4-7 percent of GDP (Table 2.6). Outflows of net factor incomes have fallen during the period, while net transfers from abroad have remained at a high level, particularly private inflows. Thus, despite poor export performance the current account deficit remained at a reasonable level and had a surplus of 0.1 percent of GDP in 1999. During this time, there has also been a surplus in the capital account, despite some large debt repayments, implying a built-up of foreign exchange reserves.

Table 2.6: Balance of payments, 1999-1995 (% of GDP)

	1995	1996	1997	1998	1999
Exports	32.8	32.6	28.0	25.0	25.0
Imports	38.7	36.9	35.4	32.6	29.6
Trade balance	-5.9	-4.3	-7.4	-7.6	-4.7
Net factor incomes from abroad	-4.0	-2.4	-2.2	-1.5	-1.5
Net transfers from abroad	5.5	6.3	5.4	5.0	6.3
Current account	-4.4	-0.4	-4.2	-4.2	0.1
Capital account	2.7	6.4	4.1	5.6	1.7
Overall balance	-1.6	6.0	0.0	1.5	1.8

Source: Republic of Kenya (various issues)

Despite poor export performance Kenya remains an important trading partner in the region. The share of exports destined to other African countries continued to be high. In 1999 approximately 46 percent of Kenya's export earnings came from other African countries, of which about 61 percent from Uganda and Tanzania. Although the share of imports from other African countries increased, it was still only about 11 percent. The major share of non-oil imported goods still originates from Europe.

2.4 Fiscal and monetary policies

The government has been running a rather tight fiscal and monetary policy since the mid-1990s. The overall budget deficit has since the mid-1990s been close to balanced (Table 2.7). Thus, the situation looks quite satisfactory. However, there are at least three issues that need to be considered. First, although revenue has been increasing as a result of improvements in tax administration, the tax-base is relatively small and the marginal tax rate is quite high, which is a serious impediment to faster growth and hence future revenue mobilisation.

Table 2.7: Government expenditure and revenue 1995/1996-1999/2000 (K£ Million)

	1995/96	1996/97	1997/98	1998/99	1999/00
Current Revenue	7142.2	7275.2	9030.8	8985.8	9408.5
Current Expenditure	6747.7	6926.7	8231.6	8249.8	9343.2
Current Surplus	394.5	348.4	799.2	736.0	65.3
Capital Revenue	29.0	79.0	52.0	24.5	43.8
Development Expenditure	896.5	782.4	695.7	615.4	885.0
Net Lending	16.2	154.4	32.5	151.4	14.4
External Grants	290.7	289.2	263.6	130.9	231.6
Overall Deficit	-198.5	-220.2	386.6	124.7	-558.6
Overall Deficit (% of GDP)	-0.9	-0.7	1.2	0.6	-1.4
Financing of deficit					
External Loans	-3.3	-331.7	-356.7	-826.2	-688.2
Domestic Borrowing	-108.2	955.1	561.1	559.7	868.75
Long Term (Net)	-352.5	-206.1	57.25	1375.0	224.1
Short Term (Net)	244.3	1161.2	503.8	-815.3	644.65
Change in Cash Balance	309.6	-403.2	-590.9	141.8	378.1
Public Debt Redemption	1464.0	1265.8	6682.0	3104.0	4109.7
External	960.3	918.0	1068.7	1151.4	1607.6
Internal	503.6	347.8	5613.3	1952.6	2502.2

Source: Republic of Kenya (2000)

Second, efficiency and delivery of public services have been extremely low despite increased allocations over the years. Thus, a major challenge in Kenya is how to allocate the resources efficiently. This touches on the issue of fiscal management, an issue we will discuss in greater detail in chapter three.

The third point, which will be elaborated on a bit further, relates to the government's policy of financing the deficit. The government continues to issue Treasury bills, mainly short-term, and additional borrowing from the Central Bank will be used to finance the deficit and to reduce foreign and domestic debt to commercial banks. The market remained heavily skewed towards the 91-days, which makes it extremely important that the current strategy of reducing the deficit succeeds. Otherwise interest rates will continue to remain at a high level, thus depressing economic activities. There are several implications for continued borrowing using short-term (91 days) government commercial paper. First, it bids the interest rate high since it has to be made attractive relative to other short-term assets. This, being a benchmark for other interest rates, will push other interest rates high. This has the negative effect of discouraging long-term fixed investments and robs the country of any chance of an early recovery. Second, most of these T-bills are held by the banking sector. Since it is default-free paper, the banks relegate their intermediation and screening of new borrowers to the background, which effectively checks financial sector development. These two points create a vicious circle of their own. Third, since the T-bills have become an important instrument of raising domestic debt for the government and it is short-term with high interest rates, the risk of rollover has been immense. Of necessity, the government has to play a ponzi game, which robs it of the flexibility of fiscal adjustment; the idea of tight fiscal policy thus becomes difficult to achieve due to the fact that debt service for domestic debt is ever increasing.

Finally, in a floating exchange rate (or managed floating) regime, the interest rate is an important instrument to achieve the twin goal of low inflation and a stable exchange rate. But because interest rates are already high, and with a liberalised capital account, they attract short- term capital flows that disturb the exchange rate. Trying to stabilise the exchange means living with a high interest rate regime that also attracts footloose capital, which has to be sterilised to remove the effect of liquidity injection. This creates another vicious circle and complicates short-run macro economic management. These factors have become even more critical in the past

when quick disbursement of donor funds was withdrawn. But substantial efforts will be required to reduce the stock of debt to minimise rollover risks and change the maturity profile. These vicious cycles may not dissipate with immediate resumption of donor funding. They require tightening of fiscal policy and use of the MTEF to break the expectation of short run policies, risk of policy reversals and continuity of government policies.

2.5 Changes in relative prices and allocation of resources

We now highlight some of the macroeconomic shifts, notably changes in relative prices that characterised the period 1980-99. The political and economic trade-offs inherent in reforming economies are sometimes portrayed with the help of the dependent-economy model (Bevan et al. 1990), where the goods are divided into tradables and nontradables. In an economy like Kenya the tradable sector tends to be split into exportables (in Kenya mainly coffee, tea and horticultural products), which compete with the rest of the world, and importables (the bulk of the manufacturing sector) which operate behind tariff walls. Since adjustment shifts relative prices, it also is bound to bring about real changes in production patterns, and ultimately in the welfare of the households engaged in the two sectors.

The analysis is done with the help of two relative prices: the export-to-import price ratio (P_x/P_m) and the nontradable to import price ratio (P_n/P_m). When controlled economies are opened up, the P_x/P_m ratio rises as import tariffs and related taxes are lowered. This should then draw resources from the importable sector towards exports. However, the ultimate outcome is a result of adjustments in internal demand. To ensure that resources actually flow to exportables, the rise in the P_n/P_m ratio, which can also be regarded as a proxy for the domestic cost structure, should not be large. Otherwise, resources would flow into nontradables (or services) and the export expansion would not be realised.

In Figure 2.1 we have plotted the P_x/P_m and P_n/P_m ratios on the vertical and horizontal axes, respectively, for the period 1980-99. The points have been joined to indicate clearly the regime shifts over the period. Ideally, we would expect that fiscal and monetary policies would ensure that P_n remains relatively constant to enable a real depreciation to take place. On the other hand, we would want the implied export

promotion drive to lead to a rise in the P_x/P_m ratio in order to ensure that resources flow towards exportables. Thus from the point of view of economic liberalisation, only upward movements in the P_x/P_m - P_n/P_m space would be desirable, while downward or leftward movements would indicate relative price changes that would favour importables and nontradables. The liberalisation effort would have failed.

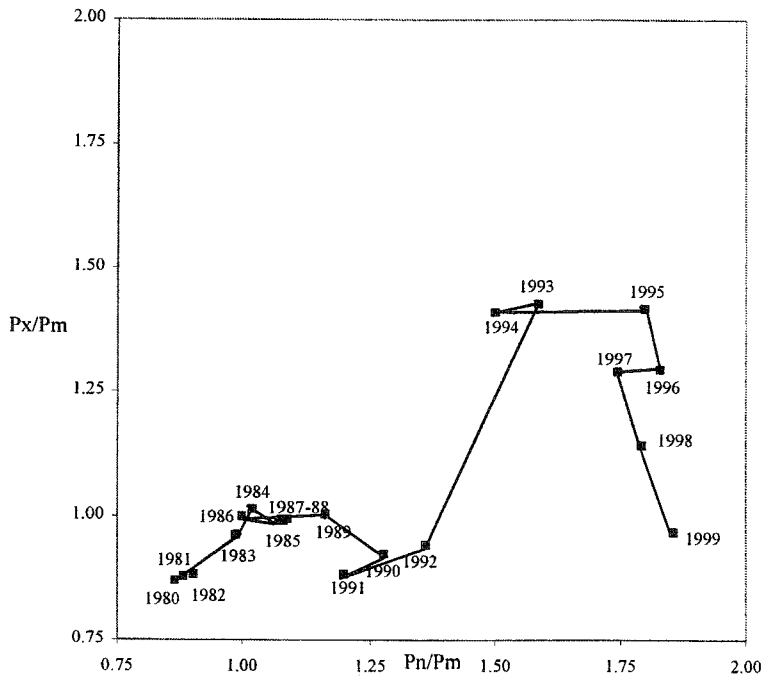


Figure 2.1: Changes in relative prices 1980-1999

Figure 2.1 shows three distinct 'policy clusters', separated by slow and rapid implementation periods. The increase in the P_x/P_m ratio in the early 1980s is mainly a result of the commodity price booms. At the beginning of the 1990s the policy regime clearly turned against exporters, i.e. coffee farmers and tea producers. During 1993-94, the aid-embargo, as well as associated responses by the government, led to a dramatic improvement in the P_x/P_m ratio benefiting exporters. Movements since 1995 show that exporters were once again losing the edge to the nontradable sector, as a result of declining export prices. Taken as a whole, therefore, little liberalisation was effected during 1990-1999. Movements in relative prices can also be used as proxy for changes in the real exchange rate. While there is need for a deeper analysis

determining movements in the real exchange rate, our relative price changes suggest that the real exchange rate has appreciated during the last years.

Thus, despite the fact that the overriding objectives in economic management have been to stimulate economic recovery and increase the investment response, the results have been disappointing. Economic growth has been modest and below the population growth rate and with per capita incomes falling and approximately half of the population below the poverty line, it is now realised that drastic measures are needed to reverse the deteriorating situation. Fiscal adjustment is one area where the earlier economic reform programmes failed. In particular, efforts to improve efficiency in the public sector to enhance delivery of public service have been disappointing. This is now, under the current reform efforts, considered to be one of the key components in moving the economy into higher growth paths and making a profound impact on poverty eradication.

3. The Interim Poverty Reduction Strategy

As described in the previous chapter, policy failures in the early 1990s led to a dramatic decline in economic activities. This also had a severe impact on the population. In the early 1990s almost half of the population was classified as poor (Demery and Squire, 1996). There were some improvements, compared to the early 1980s, as the share of population below the poverty line was reduced, but the number of poor increased in absolute terms. However, in the 1990s, the situation deteriorated as a result of failure to sustain prudent macroeconomic policies and slow progress in structural reform. Together with poor infrastructure and services provided by public enterprises, inefficient allocation of public resources, deteriorating security, and constraining government regulations, these have had a profound impact on the level and quality of investment. As a result, economic growth has dwindled and unemployment has risen, factors which, when combined with declines in access to essential services by the poor, have contributed to significant increases in poverty. Preliminary results of the 1997 monitoring survey indicate that the overall national incidence of poverty was 52 percent (Mwabu et. al., 2000).

The Kenyan government, motivated by potential resumption of aid-disbursements, has prepared an interim Poverty Reduction Strategy Paper (PRSP) to address the increasing problem of widespread poverty in Kenya. The interim PRSP outlines a preliminary policy framework, which will be fully developed in the context of the full PRSP, scheduled to be finalised by May 2001. A medium-term expenditure framework (MTEF) has been used to prioritise the policies contained in the interim PRSP and is the basis for the 2000/01 fiscal program. The implementation of these policies, as well as those to be developed in the subsequent full PRSP, is intended to achieve the objectives of the National Poverty Eradication Plan (NPEP) for the period 1999-2015. That is, reduce the number of the poor by one-half by 2015, and provide better coverage of basic services, particularly education, health, and water and sanitation, as well as the need for broad-based economic growth.

3.1 Macroeconomic framework

While there are some new innovations in the institutional set-up to implement the current strategy, the policies are quite familiar and have been on the agenda for at

least a decade. With regard to the fiscal policies the objective is to gradually reduce the fiscal deficit and to bring down the domestic debt burden in order to reduce real interest rates. Monetary policy follows the standard prescription and continues to be geared toward maintaining low inflation and gradually raising international reserves.

With regard to exchange rate policy the central bank will continue to maintain exchange rate flexibility and any intervention in the exchange markets will be guided by the need to achieve the program's net foreign assets targets. Trade policies in Kenya have been flawed with political inference and policy reversals. A new attempt has been made to simplify the trade regime to make it more transparent and predictable. Moreover, the government intends to prepare a program to rationalise and lower import duties in line with Kenya's commitment under the Cross-Border Initiative and to facilitate achievement of the common external tariff structure under the Common Market for Eastern and Southern Africa (COMESA) and the East African Co-operation (EAC).

3.2 The Medium Term Expenditure Framework

Perhaps the most important component in the interim PRSP is the Medium Term Expenditure Framework (MTEF). This is a tool that is now widely used in developing countries and also among developed countries. The MTEF is a tool for determining the available resources and allocating these resources in line with government priorities. In most situations, needs and priorities will far exceed available resources and the MTEF can provide a mechanism for assisting decision-making in the allocation of limited resources between sectors and specific activities within sectors.

The MTEF process involves three main steps: First, estimate resource availability over the medium term, either a three or five year period; Second, estimate the actual costs of existing government policy and targets in each sector and; Third, put the information together in an expenditure framework as the basis for making decisions on how resources will be allocated to the sector ministries. Thus the MTEF consists of a top-down resource envelope, a bottom-up estimation of the current and medium-term costs of existing policy and, ultimately, the matching of these costs with available resources. The matching of costs should normally occur in the context of the annual budget process, which should focus on the need for policy change to reflect

changing macroeconomic conditions as well as changes in strategic priorities of the government.

Kenya has just completed its first MTEF and Ministry of Finance has, since the Leakey team came into office, made progress in finalising the interim PRSP and the MTEF. Both documents have been prepared and finalised in a short period and under pressure to comply with conditions set by the Bretton-Woods institutions. The potential for a resumption of balance of payment support was the main factor driving the process and in this regard it has been a successful exercise as both the IMF and the World Bank have announced that aid will be resumed. The IMF approved in August a three-year loan for balance of payments support. The World Bank has also approved funds for budget support and a urban roadwork rehabilitation project.

As this is the first MTEF produced by the government, there are a number of issues that need to be improved upon. First, it is not clear if the current system of allocating public resources is the most efficient and transparent one. In the Kenyan MTEF strategy, allocation of resources is distributed among seven broad categories and sectoral targets are set by Ministry of Finance (MoF).[1] Each Ministry then submits its budget proposals and negotiates with MoF on the amount of resources that would be allocated from each broad category. For example, Ministry of Education will request resources from three broad sectors. First, on the wage bill a request is made to the public administration sector. Second, with regard to development expenditures a request is made to the physical infrastructure sector and finally the request to finance other charges is made to the human resource development sector. Altogether this could imply that distribution among expenditure categories might not be the optimal as each Ministry's bids are treated separately among the three different categories. This also makes prioritisation and the bottom-up cost-calculations less important (which should be in line with top-down expenditure ceilings) as the incentives are distorted. Still the process has certainly improved compared to previous strategies where no prioritisation took place. Important though is to include parastatals in the process, as parastatals often drain resources from the public and there are still lingering problems in privatisation process.

[1] Sectors included are; Public safety, law & order, public administration, human resource development, agriculture & rural development, physical infrastructure, tourism trade & industry and national security.

The MTEF emphasises allocation of the resources to line ministries and to programmed activities. Quite often more resources will be required than are available in the resource envelope. A good example is the poverty eradication programme. It takes the position that even though growth is the most effective weapon to fight poverty, there is need in the short-run to have specific interventions because the trickle-down effect from growth may take a long time to influence the poor effectively. But causes of poverty are diverse and the resource requirements may be prohibitively high and may also have the moral hazard spill-over of dependency. This implies that if there are not enough resources, the MTEF will not be a remedy. In addition, countries vulnerable to shocks, like Kenya, may throw programmed expenditures out of gear. The problem becomes severe if these shocks are persistent. The MTEF framework may not adequately deal with these external shocks that require resources beyond the resource envelope.

3.2.1 The Kenyan MTEF macroeconomic strategy 2000/01-2002/03

The MTEF has the objective of addressing the weaknesses of macroeconomic management in order create an environment which would support efficient production, thereby attracting both foreign and domestic investment. Equally important is to improve public sector performance by concentrating resources on a focused range of activities to support a pro-poor growth strategy.

A crucial element in the MTEF strategy is to determine the resource envelope available during the period. Three important steps in the process are that: First, projections have to be made on the likely growth pattern during the period; Second, a prognosis has to be made on expected domestic revenue collected by the tax authorities and; Third, projections have to be made on the amount of external aid entering into the government budget.

During 2000/01-2002/03 economic growth is projected to recover towards the end of the period reflecting the fact that it will take some time before sound macroeconomic management generates positive results (Table 3.1). Population growth is expected to decline, which implies that per-capita growth would increase by 3 percent in year 2002. Highest growth rates are assumed in the service sectors followed by agricultural and manufacturing. A tight fiscal and monetary policy is expected to reduce interest rates and inflation to 15 and 5 percent, respectively. Fiscal

surplus in conjunction with lower interest rates is assumed to lower the domestic debt, which could in turn reduce interest rates further and hence stimulate private investment.

While projections are sometimes difficult to make given uncertainties on a number of variables, it is, however, important that the projections are realistic because these projections will determine the amount of resources that can be spent during the period. Still, adjustments will be made during the process but in order to secure credibility, the deviation from the initial projections should not be too large. One issue that needs to be improved upon is the modelling framework used in the current MTEF.[2]

Table 3.1: Macroeconomic Indicators/Targets

	1997	1998	1999	2000	2001	2002
Population growth rate	2.5	2.4	2.4	2.3	2.1	2.0
GDP growth rate	2.4	1.8	1.5	3.0	4.0	6.0
Agricultural growth	1.0	1.5	1.4	2.8	3.8	5.6
Industrial growth	1.9	1.4	1.2	2.4	3.2	4.8
Services growth	5.3	3.2	2.8	4.6	6.0	7.0
Average inflation rate	11.2	6.6	5.6	5.4	5.2	5.0
Treasury Bill rate (91 days)	26.4	20.6	19.0	19.0	17.5	15.0
Overall budget deficit/GDP	-2.1	0.6	-0.4	-0.6	0.0	0.8
Total domestic debt/GDP	22.0	20.8	21.5	19.1	16.6	14.2

Source: Interim Poverty Reduction Paper 2000-2003 (May 17)

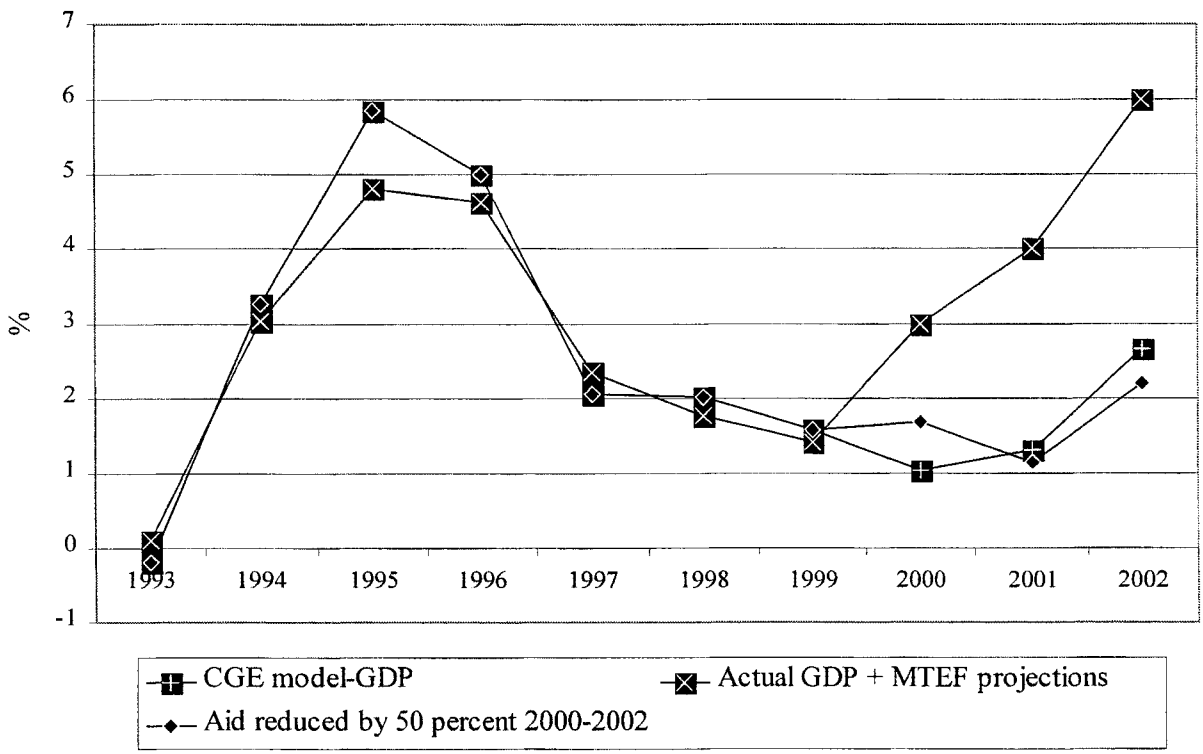
The macroeconomic model used in the current MTEF strategy has some limitations that prevent it from being used as an efficient tool in forecasting important macroeconomic variables. With regard to the modelling aspects, the main weaknesses of the current model, which is a version of the World Bank's RMSM-X model, is that relative prices are assumed constant.[3] This implies that the model fails to incorporate important changes in the production structure and the labour market following policy changes. This is a serious shortcoming as changes in economic policies not only involve shifts in macroeconomic aggregates but also in the sectoral structure of demand, trade, resource allocation and production. Does this have any implications for the current projections outlined in the MTEF strategy paper? Is the growth scenario achievable?

[2] The KIPPRA-Treasury Macro Model has recently been launched, which will improve the ability to forecast important macroeconomic variables.

[3] Easterly (1999) reviews the underlying assumptions and the performance of gap-models including the RMSM-X model and concludes that these types of models fail all theoretical and empirical checks.

Figure 3.1 presents the historical growth path of the economy and two growth paths generated using a computable general equilibrium (CGE) model, which incorporates changes in relative prices.[4] The actual growth path also includes the government's projection during the MTEF strategy. The major difference between the two models is that the MTEF projections are more optimistic than the projections by the CGE model. While the MTEF is assuming a GDP growth rate of 6.0 percent in 2002, the CGE model reaches 2.5 percent only. Thus, we should expect higher growth rates than in the past but the MTEF target of 6.0 percent seems to be on the higher side.

Figure 3.1: Changes in Gross Domestic Product 1993-2002



One advantage with CGE models is that they are useful to evaluate counterfactual scenarios. For example, a question that could be asked is what would be the impact of external grants if they were less than expected? The third graph in Figure 3.1 shows for example the impact of a 50 percent reduction in external grants during the MTEF period. It seems that a reduction in aid would have some positive impact initially but later the economy would be better off if aid is fully disbursed.

[4] The model is briefly described in appendix 1.

Thus, too much aid in the initial stage of the reform process might be harmful but when the reform process has stabilised aid would be supportive.

3.3 Fiscal policy and the macroeconomic contexts

In the fiscal strategy there are two key elements. The first, is to achieve a sustainable reduction in the share of public expenditure in GDP and the second is to run a surplus on the current budget to allow for a reduction in the domestic debt to GDP ratio. While the design of macroeconomic polices to stabilise the economy is relatively straightforward it is much more difficult to proceed towards a sustainable growth-oriented strategy. Sources of growth will inevitably lie in the private sector, with the Government attempting to minimise factors that may inhibit this and promote those that encourage it. Therefore a difficult choice in the short run is over the volume of resources the government can devote to its spending programmes without crowding out the recovery of private sector activities.

Table 3.2 shows estimates on resources likely to be available to the government during 1999/2000-2002/2003. It is expected that the revenue-GDP ratio would stay constant, around 24 percent of GDP during the period. Still, in absolute terms, this means that revenue collection has to increase at an annual rate of 6 percent. As the tax authorities are not planning any major tax reform, increased administrative efficiency has to deliver the revenue gains. However, a crucial factor determining the outcome is the composition of economic growth. For example, a higher growth rate in the manufacturing sector relative to the agriculture sector would generate more revenue than if the growth rate in the two sectors is uniform.

Table 3.2: Resource envelope 1999/2000-2002/2003 (% of GDP)

	1999/2000	2000/2001	2001/2002	2002/2003
Direct taxes	7.3	7.0	7.0	7.0
Indirect taxes	13.0	12.9	12.8	12.7
Other revenue	4.0	3.6	3.5	3.5
Revenue enhancement measures	0.0	0.5	0.8	0.9
Grants	0.8	1.2	1.2	0.8
Total revenue (excl. grants)	24.4	24.0	24.0	24.0
Total revenue (incl. Grants)	25.2	25.2	25.2	24.8

Source: Interim Poverty Reduction Paper 2000-2003 (May 17)

While domestic revenue as a share of GDP is expected to stay constant the aid flows is initially assumed to increase while towards the end of the period it will decline. This reflects not only uncertainties in the reform process, but also the unwillingness of many donors to indicate forward commitment. This highlights the serious consequence of the failure to fully integrate donor funds into the budget.

In recent years the government has been running a fairly tight fiscal policy where the fiscal balance has been under control (Table 3.1). The current strategy aims at moving towards a budget surplus in the second and the third year of the MTEF, in order to reduce the stock of domestic debt and real interest rates and hence stimulate private investments. In the process of negotiations between the government and the IMF, the Government has argued for a more relaxed fiscal stance while the IMF has opposed the idea of running a deficit.

Behind the need for a balanced budget is the premise that a higher deficit would be inflationary and increased public expenditure would crowd out the private sector. It seems, however, that private investment is not constrained by the demand side, it is constrained more by supply side factors. Political risk is one key factor that has led to an investment pause. The would-be investors acquire a waiting option because they are uncertain about future returns and continuity of the government and government policies. This has become a recognised factor in the current literature on irreversibility of private investments. Once an investor decides to commit his resources, he realises that fixed investments are irreversible once made, as they are sector specific; hence the only option he has is the timing of investment. With political uncertainty hanging in Kenya, lack of security becoming a critical problem, road networks being very poor and in a horrible state, water shortage problems and above all electricity supply rationing, private firms in Kenya have seen their transactions costs increase by a large factor. Given these crucial problems, the government would need an expansionary fiscal stance to rectify these problems and reduce transaction costs.

3.4 Allocation of expenditures

One of the key objectives with the interim PRSP strategy is to improve the provision to the poor of basic social services, such as preventive health care, primary and

secondary education, and water and sanitation. Three important elements to achieve this are: first, shifting resources from wage to non-wage expenditures; second, improve targeting of subsidies; and third improve the efficiency of service delivery. During 2000/01 total expenditure is targeted to rise to 26.3 percent of GDP, as a result of the civil service reform and increased recurrent expenditure (Table 3.3). Still, even after the retrenchment, expenditures on wages and salaries will increase slightly owing to wage drifts and increased housing allowances for civil servants and teachers.

Other recurrent expenditure (excluding retrenchment costs) would increase from 12.4 percent of GDP in 1999/2000 to 13.0 percent in 2000/01 on account of higher non-wage expenditure in road maintenance, water and sanitation, and security, as well as larger transfers to local authorities. Development expenditure is expected to decline from 4.4 percent GDP to 3.7 percent, reflecting government efforts to scale down the number of investment projects. Consistent with the objective of reducing the domestic debt burden, the fiscal program envisages net debt repayment and the elimination of pending bills. Still, at the same time the program allows for additional outlays (MTEF reallocations) in the priority areas of education, health, water and sanitation, and rural infrastructure.

Table 3.3: Proposed expenditure pattern (% of GDP)

	1999/00	2000/01	2001/02	2002/03
Current expenditure				
Wages and salaries	8.7	8.8	8.0	6.9
Goods and services	7.6	7.4	7.2	6.8
Consolidated fund services	4.7	5.3	5.0	3.9
Other Expenditures	0.1	0.3	0.1	0.2
Sub-total	21.1	21.8	20.3	17.8
Capital expenditure				
Development expenditures	4.4	4.1	3.9	3.7
MTEF reallocations	0.0	0.3	0.9	2.3
Sub-total	4.4	4.4	4.8	6.0
Total expenditures	25.6	26.2	25.1	23.8
Overall deficit	-0.4	-1.0	0.0	0.9

Source: Interim Poverty Reduction Paper 2000-2003 (May 17)

Whether these expenditure allocations will be implemented remains to be seen. It will be a difficult task even more so because of external shocks and political uncertainties. For example, there has been a running drought for the last two years. Food relief, power and water rationing will all spill into government expenditure. The public civil service retrenchment scheme has already started and even though this may be

accelerated by donor funds, the immediate impact on the budget before donor funds start flowing is not yet assessed. But the immediate effect will be loss of tax revenue. The members of parliament have awarded themselves large increases in salaries and travel allowances. This will have a direct impact on the wage bill. Finally, the electioneering is drawing close. This will be a complicated set of activities because it is embedded with succession issues. With fear of losing the political control, the ruling party may not at all adhere to fiscal stringency.

3.4.1 Structural Reforms

As with the macroeconomic policies the proposed structural reforms are similar to ones that have been proposed earlier. What is really different from previous strategies is that the government emphasises its commitment to implement the strategy (which is perhaps not new, as that has also been promised before). Still, the government has the intention to accelerate and broaden the scope of structural reforms. Priority areas include public service reform, re-prioritisation of government expenditure, acceleration of the privatisation of key state-owned utilities and the removal of other structural constraints, especially in agriculture.

As rural development is the key to increased growth and reduced poverty the government once again emphasises the importance of removing structural constraints and improving rural infrastructure. For example, in the coffee-tea sector a new attempt is made to liberalise the marketing process of the two crops. In the coffee sector the government will also liberalise production and processing of coffee by December 2000. To improve rural infrastructure, the government will provide increased fiscal expenditure allocations toward the building and maintenance of feeder roads and will sub-contract maintenance to local communities in areas where labour-intensive techniques are appropriate.

Another important component is to accelerate privatisation of public enterprises. Under the first phase of the privatisation program, which was initiated in 1992, the government privatised a large number of small and medium-sized enterprises, but progress in privatising key utilities and transportation enterprises has been slow. In the second phase of the privatisation programme the government will continue to limit its role in commercial activities. For example, the Kenya Posts and Telecommunications Corporation has been split into TELKOM and the Postal

Authority, and a regulatory body has been created. The separation of Kenya Power and Lighting Company into power generation (KenGen) and power distribution (KPLC) is well advanced and will pave the way for the restructuring and privatisation of both companies. While the hydroelectric power supply is being seriously undermined by recurrent drought conditions, the energy crisis is not only due to adverse weather conditions. It is also a result of severe mismanagement among public stakeholders in the industry. While the government is investigating various short-term options to minimise the adverse impact of power shortages on production and living conditions a comprehensive strategy will be needed in the longer term. This would require a new institutional framework where the government's role is reduced to the minimum.

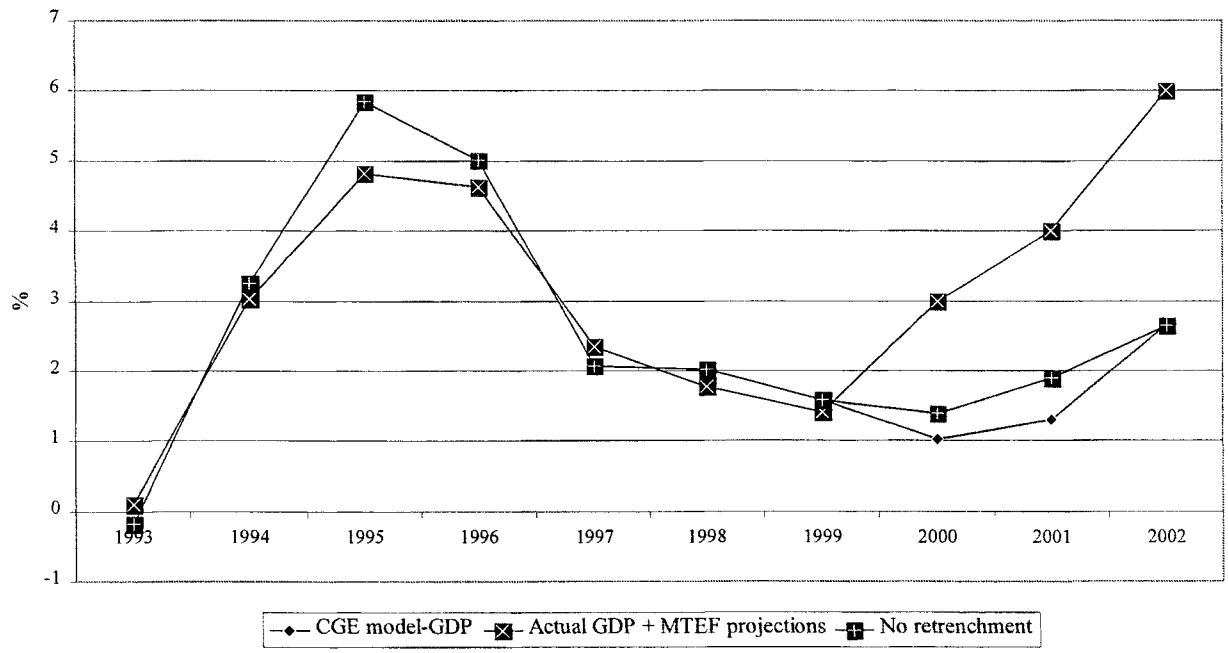
The main objective of the public service reform is to establish an efficient and affordable public sector. The government is making headway in trimming the size of the civil service, using the "golden handshake" of early retirement. The plan is to reduce the civil service by 48,000 employees. The retrenched civil servants will be provided with adequate severance pay, in accordance with a plan developed with the assistance of the World Bank staff and donors. In addition to the expected improvement in the efficiency of the public service, this reform will allow the government to increase the allocation of resources to priority areas, and to gradually improve the civil service pay structure. This trimming may raise productivity, but civil service wages and salaries will also be raised. The result might be a smaller labour force in the public sector with a higher wage bill than before the retrenchment exercise. Still, in terms of GDP or total expenditure the wage bill is expected to decline during the period (Table 3.3).

An issue that has been discussed is the impact on poverty of the retrenchment exercise. Experience from the previous retrenchment exercise in the mid-1990s shows that retrenchment has, in the short-term, a negative impact on poverty. However, the impact is to a large degree dependent on the response by the private sector. If there is a crowding-in effect, as a result of improved fiscal management, which stimulates private investment and employment, some of those laid off in the public sector could be re-employed in the private formal sector. However, if most of the retrenched workers would end up in the informal sector this would suppress the wage rate in the informal sector, having a negative impact on poor households in urban areas.

Still, reducing the size of the workforce in the civil service is necessary to improve efficiency but it could have a negative impact on aggregate demand in the

economy, unless the workers are compensated. Figure 3.2 shows again the actual growth path with the two scenarios discussed in section 3.2. The third graph shows the impact in the case of no retrenchment. We note that initially GDP will be higher compared to the case with retrenchment. This is due to a reduction in aggregate demand, which implies that the compensating mechanism is important not only from the individual point of view but also from a macroeconomic point of view. Towards the end of the period the two scenarios converge and would result in higher future growth rates and a more efficient public sector.

Figure 3.2: Changes in Gross Domestic Product 1986-2002



4. The MTEF strategy and poverty eradication

The main objective of the MTEF macroeconomic strategy is to create a conducive macroeconomic environment for private sector-led growth and enhance improvement in public sector service delivery. While higher economic growth is a necessary condition for increasing employment and reducing poverty, specific policies and measures are needed to ensure that the benefits of growth will reach the poor. These are the key linkages between the MTEF and the poverty reduction strategy, which we will discuss further.

4.1 Growth and poverty scenarios

What is the impact on poverty if the economy experiences a slight recovery following increased aid-flows? Let us return to the growth scenarios outlined in section 3.2. Table 4.1 shows the impact on poverty among 10 socio-economic groups following the historical and projected growth path of the model presented in section 3.2.[5]

Table 4.1: Changes in poverty 1986-2002

	Coffe1	Coffee2	Coffe3	Food1	Fodd2	Food3	Urban1	Urban2	Urban3	Urban4	TOTAL
1986	40.4	16.7	8.0	51.9	32.1	13.8	43.8	36.8	25.8	0.9	32.2
1987	55.3	29.9	16.8	44.5	28.7	17.2	33.3	28.9	25.1	9.5	32.1
1988	55.5	25.2	13.9	63.6	35.6	16.0	36.0	33.7	26.0	8.7	36.9
1989	56.2	30.1	15.7	46.0	29.1	17.1	33.9	30.2	25.3	9.2	32.7
1990	60.9	30.6	15.3	50.5	29.8	16.3	35.7	32.5	25.1	9.0	34.4
1991	58.4	26.8	16.1	58.6	31.1	16.1	35.5	32.6	25.4	8.9	35.4
1992	58.3	27.2	18.7	56.8	29.1	16.3	31.9	29.2	25.6	9.4	34.1
1993	85.2	26.0	12.9	99.0	41.8	13.3	43.5	47.8	25.2	7.9	49.1
1994	65.6	31.2	12.9	66.3	31.1	15.5	35.1	39.1	24.5	8.6	38.6
1995	70.7	36.5	10.3	61.4	32.8	15.5	39.9	40.4	23.9	8.6	39.6
1996	68.4	38.0	8.5	54.4	37.3	16.1	49.5	39.2	23.3	8.7	39.6
1997	84.2	47.0	8.8	59.8	33.3	15.1	43.4	39.7	23.8	8.6	41.9
1998	70.6	41.3	10.4	42.0	32.1	16.2	43.4	34.4	23.8	9.0	36.1
1999	73.7	41.7	11.1	41.3	31.2	16.0	44.4	33.4	23.6	9.1	36.0
2000	69.1	40.6	11.7	40.5	30.9	16.2	36.5	31.7	24.0	9.4	34.7
2001	64.9	39.1	11.9	40.9	31.2	16.3	30.2	29.5	24.6	9.7	33.8
2002	61.4	37.4	11.8	41.8	32.0	16.4	27.8	29.7	24.6	9.7	33.6

Source: Own calculations

[5] The base-year of the model is 1986. The poverty lines are assumed to be one third of average income for urban and rural regions, respectively. As the poverty line is not equivalent to the one used in the official Kenyan statistics, comparisons with poverty measures presented in Economic Survey 2000 would not be possible. However, the model-generated poverty index tracks the changes in the official poverty index quite well for those years (1994, 1997) where survey data is available.

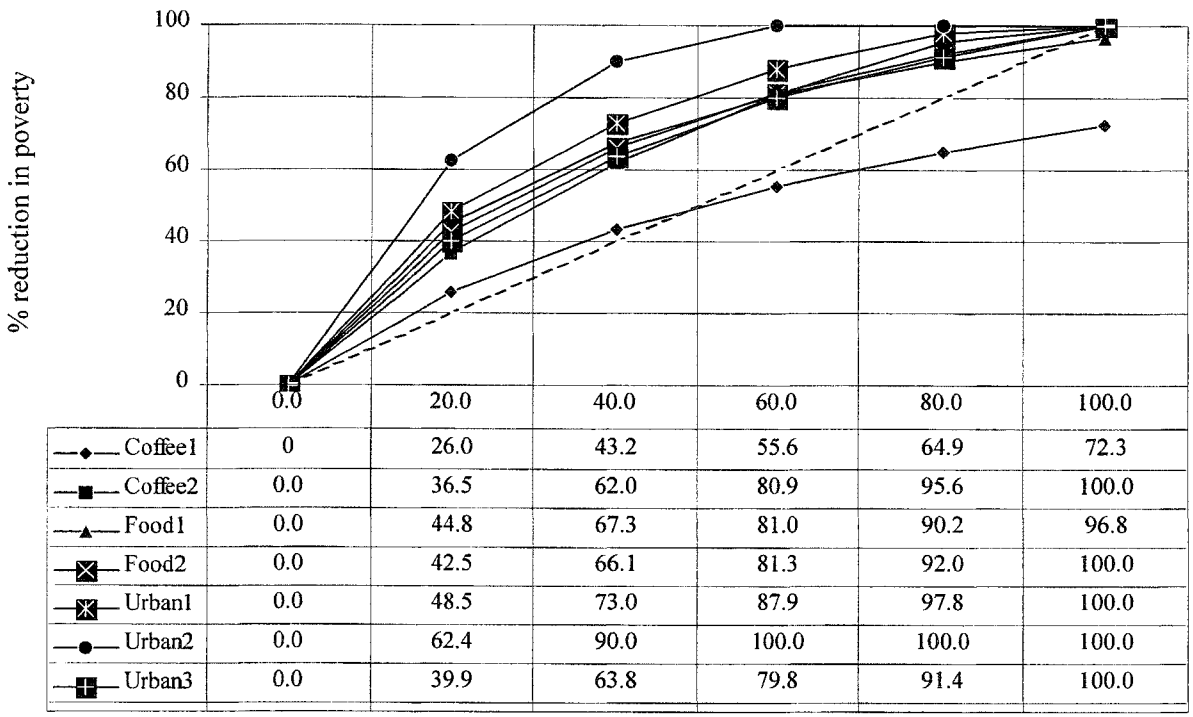
In general, the situation has worsened over the last 13 years. In the late 1980s the poverty index was around 32 percent and deteriorated quite dramatically in the 1990s, particularly after the drought in 1993. Then too, the extraordinary policy failures during this period had a dramatic impact on the number of poor.

Improved performance in the agricultural sector helped to reduce the poverty index in 1994, but among the less fortunate socio-economic groups, poverty has remained at a high level. Growth in the agriculture sector slowed down in 1997, which had a negative impact on poverty. There was a slight improvement in growth rates 1998 and 1999 and the overall poverty index declined but remained at a high level. Could we expect poverty to decline in the near future? With increasing aid-flows and a tight fiscal policy there will be a slight decline in poverty. However, the poverty situation remains severely depressed among poorer groups, increasing the demand for supplementary measures targeted to these groups.

What is the impact of targeted transfers on poverty alleviation in Kenya? Again, we use the CGE model to evaluate different transfer scenarios and the poverty impact on various socio-economic groups. With limited resources available, is it possible to reduce poverty substantially? What would be the marginal effects if the size of the transfer programme would change? Figure 4.1 and the corresponding Table show changes in poverty on the vertical axis while changes in transfers as a percentage of base year income are shown on the horizontal axis. The dotted line is the 45-degree line illustrating a one-to-one relationship between changes in poverty and transfers.

When the transfer programme is financed by aid, most household groups located in urban areas and in the food region see their incomes rise more than the transfers they receive, a positive leakage. One household group in the coffee/tea region, however, sees its real income increase less than the transfer they receive (when the transfer exceeds 50 percent of the benchmark income). In all household groups the marginal rate of return of transfers on poverty reduction is diminishing. The implication of this is that an excessive use of transfers as a means of eradicating poverty is not an effective policy. Still, as a component in a growth-oriented strategy, transfers could be useful as the return on initial transfers is quite high. An interesting question is then to determine the optimal size of the transfers to be allocated. While this raises some questions on the dynamics of aid, poverty and growth, we conclude by suggesting some critical issues derived from our comparative static analysis.

Figure 4.1: Poverty changes with varying levels of transfer (aid financed)



	0.0	20.0	40.0	60.0	80.0	100.0
Coffee1	0	26.0	43.2	55.6	64.9	72.3
Coffee2	0.0	36.5	62.0	80.9	95.6	100.0
Food1	0.0	44.8	67.3	81.0	90.2	96.8
Food2	0.0	42.5	66.1	81.3	92.0	100.0
Urban1	0.0	48.5	73.0	87.9	97.8	100.0
Urban2	0.0	62.4	90.0	100.0	100.0	100.0
Urban3	0.0	39.9	63.8	79.8	91.4	100.0

Transfers as % of benchmark income

Table 4.1 shows the impact of modest changes in the transfer scheme.[6] We distinguish two approaches, the first assumes that the transfer scheme is fully financed by foreign aid while the second uses a combination of aid and expenditure-reducing policies.

Table 4.1: Transfer impact on poverty, real exchange rate and GDP

	Aid financed transfer scheme			Aid financed + reduction of government expenditures		
Transfer (% of GDP)	Poverty index[1]	Real exchange rate[1]	GDP[1]	Poverty index[1]	Real exchange rate[1]	GDP[1]
0.4	-2.2	-2.0	0.0	-1.0	-0.3	0.0
0.8	-4.2	-3.9	0.0	-2.0	-0.7	0.0
1.2	-6.2	-5.8	-0.1	-3.0	-1.1	0.0
1.7	-8.1	-7.6	-0.4	-3.9	-1.4	0.0
2.1	-9.8	-9.5	-0.6	-4.7	-1.8	-0.1
2.5	-11.5	-11.2	-1.0	-5.6	-2.2	-0.1
2.9	-13.2	-13.0	-1.4	-6.4	-2.6	-0.1
3.3	-14.7	-14.7	-1.9	-7.2	-3.0	-0.1
3.7	-16.2	-16.4	-2.4	-7.9	-3.4	-0.2
4.1	-17.6	-18.1	-2.5	-8.6	-3.9	-0.2

Note: 1/Percentage changes compared to base-run.

[6] While a dynamic analysis would be more appropriate our comparative static approach pinpoint some aspects that need to be considered.

Totally relying on foreign aid does lead to a faster retreat in poverty, but at the expense of slower growth and an appreciating real exchange rate. Thus, even with a relatively small amount of donor-financed transfers there is an important trade-off between poverty reduction, price incentives through changes in the real exchange rate and economic growth.

We can thus summarise the short-term impact of the MTEF strategy on growth and poverty as follows: In the current MTEF period (2000-2002) we will not see any dramatic improvements in either growth or poverty reduction. Still the strategy will be important in order to lay the foundation for higher growth and reduced poverty in the future. We will highlight some of the critical issues that need to be considered in order to achieve this.

4.2 Macroeconomic policies and pro-poor growth

There are several important stylized facts about Kenya's economic performance after years of economic reforms:

1) Economic recovery has been rather disappointing.
2) Economic management has tended to be extremely short-term with conflicting goals and outcomes characteristic of a policy dilemma.
3) One of the key factors behind this rather poor performance or precarious recovery is the slow response of private investment to macroeconomic stabilization and realignment of prices.
4) Related to the above is the existence of pervasive risks which are both policy and politically induced.
5) Existence of a large domestic debt which has given rise to the debt overhang problem which has adverse effects on interest rates and hence investment and growth.
6) Productivity growth and competitiveness in Kenya's manufacturing sector has been falling.

We have already highlighted some of the short-term measures needed to rectify these stylised facts. An important question is then how these short-term policies can lead to

a realignment of a long-term pro-poor growth strategy. The current empirical literature suggests that economic growth and other related macroeconomic targets, such as exports, savings and private investment, are associated with five broad categories of variables:

1) Macroeconomic policy environment
2) Macroeconomic uncertainty and instability
3) External shocks
4) Human capital and regional spill-over effects
5) Institutional and political uncertainty variables

We elaborate on the links through which the five categories of variables affect growth and thus attempt to explain the forces behind the observed slow growth in Africa and thus derive some lessons for Kenya.

4.2.1 Macroeconomic Policy Environment

This mainly reflects the extent of departure from fundamental macroeconomic balance or the degree and quality of intermediate macroeconomic public sector policies and outcomes, such as public investment policy. The central role attached to fiscal reforms in the context of structural adjustment programs (SAPs) should in principle be to enhance macroeconomic performance in reforming countries. However, the highest and most sustainable pay-off of fiscal adjustment was usually associated with deeper and more extensive structural reforms, that go beyond reducing the overall fiscal deficit (see for example Easterly and Schmidt-Hebbel, 1991). In particular, it has been noted by many observers that fiscal consolidation often takes the form of reduced public investment, that may be complementary to private investment (see for example Blejer and Khan, 1984; Serven and Solimano, 1993).

Even though the evidence on the complementarity of public and private investment in Africa is mixed, the more recent evidence seems to suggest that there are certain categories of public investment (especially in the areas of infrastructure, human capital and law and order) that tend to strongly crowd-in private investment, as

well as enhance private sector exports and overall growth. As we argued earlier this is clearly the case for Kenya, where the decline in private investment and competitiveness has been linked to the inadequate provision of public services and the poor state of public infrastructure.

Exchange rate policies affect real macroeconomic target variables through the Real Exchange Rate (RER), which is the economy-wide relative price affecting intersectoral resource allocation. A major RER disequilibrium, especially an overvaluation, could be very harmful to overall economic competitiveness and to investment and economic growth. In the short run, however, corrective real devaluation to eliminate RER overvaluation, can have a contractionary effect on private investment in countries where prices of capital goods have been made artificially cheap by the overvalued currency. On the other hand, real depreciation will also cause the relative domestic currency price of exportables to rise. Despite the possible contractionary effects of RER depreciation on investment and growth in the short run, the ensuing initial positive incentive effects for exportables and the subsequent resources reallocation towards the export sector should eventually lead to an export-led spur on private investment and growth. Two observations emerge. The challenge in Kenya has been to maintain a competitive RER level and at the same time deal with short-term capital flows and a Central Bank that is anxious to sterilise their effects. This worsens the short-term economic management. Indeed, the analysis in section 2.5 pointed out that relative price changes in the 1990s were not moving as expected.

4.2.2 Macroeconomic Uncertainty

As has been argued in the recent literature, the importance of uncertainty arises from the nature of the investment process itself, which is that capital equipment takes time to build and is partially irreversible or sector-specific. It has been shown that under conditions of uncertainty, risk-averse firms associate the latter with greater variability in expected profits, and may curtail their investment altogether. Risk-neutral firms, on the other hand, may prefer the "waiting option" to undertaking physical investment, and instead invest in information-gathering, to reduce the source of uncertainty.

Two sources of economic policy-based risk and uncertainty affecting private investment decisions can be identified. One stems from the risk associated with economic variables that are important determinants of overall economic stability. This is captured by the volatility of these variables, such as the terms of trade, inflation and real exchange rate. For example, high volatility in the last two variables reduces the informational content of prices as co-ordinators of economic activity, and hence increases the riskiness of long-term investment.

The other source of economic uncertainty is the potential for future policy reversals, or lack of policy implementation. In this case, uncertainty is caused by low credibility of the current policy framework, which induces a postponement of the investment decision. This source of uncertainty is likely to dominate cases of highly indebted countries undergoing far-reaching structural reforms, or cases of reforming countries with a long history of policy reversals (Collier, 1996). Most countries in the SSA region fall into this category.

In addition, an unstable macroeconomic environment is likely to generate fluctuation in capital formation. This may then result in a "direct" adverse impact on output growth, via a reduction in the efficiency of the production process (Fosu, 1991). Thus, even if investment levels were unaffected by uncertainty, as may be the case with risk-neutral firms, economic growth could still be reduced by the investment instability generated in an unstable macroeconomic environment.

Risk and uncertainty are as we have pointed out earlier, two of the key factors explaining Kenya's poor performance in the 1990s. The new strategy is a promising attempt to reduce risk and uncertainties; however, an effective implementation is required to restore credibility. Moreover, the Kenyan history of policy reversals requires extraordinary commitment by the Government.

4.2.3 Human capital and regional Effects

The importance of human capital for creating knowledge and technology-based externalities, which could permit significant increases in the productivity of capital, is now very firmly established in the new growth literature, and appears to be strongly corroborated by the recent East Asian "miracle" performance. It can be argued that in a country endowed with a high stock of human capital, and hence a highly-skilled and

educated labour force, expected returns from investment would in general be high, especially in skill-intensive industries. This is because the overall cost of training would be lower, and it would be easier to introduce more advanced equipment and processes to raise productivity and lower unit costs. This argument is consistent with the evidence from the empirical growth literature, which finds the stock of human capital to be among the major determinants of cross-country differences in growth.

The challenge of enhancing the stock of human capital in SSA is mainly in the area of cost effectiveness and mode of delivery, where the private sector could play an important role in the case of higher (post-secondary) education and curative medical services. However, given that the efficiency of public service delivery in SSA is generally lower than in other developing regions (Collier, 1996), higher expenditure on education and health may be required as well, in order for the state to provide an adequate level of services on basic education and health.

Recent results by Hoeffler (1999) have given a new twist to the analysis of the impact of human capital on growth. She finds that education does not affect directly total factor productivity and growth, but has a more roundabout impact as a valid instrument for investment. In other words, these results seem to vindicate the old Schultzian idea that the contribution of education to growth does not come so much from its enhancing the productivity of labour, but results from its impact on adjustment costs: educated people are more adaptive and adapt to shocks faster and more efficiently. In terms of the underlying investment function, Hoeffler's results suggest that education reduces the costs of adjustment of investment to its optimal target value.

However, this approach only takes into account the quantity of education, measured in terms of homogenous number of years. The quality of education seems to matter as well. Azam and Daubrée (1997) found that education in Kenya has indeed a positive impact on output, while Berthélemy and Vourc'h (1997), applying similar methods to the case of Senegal, did not find any significant impact. The explanation for this contrasting result probably comes from the very different education systems at work in the two countries. In Senegal, education is supply-driven, with a public education system that offers a classical type of education to all children. In Kenya, on the contrary, education is to some extent demand-driven, as the government was trying to limit the number of educated people, within a manpower-planning system that was fashionable at that time, during the 60s and the 70s. This attempt at

suppressing education was bypassed by the people, thanks to the *Harambee* movement, a private associative movement that promoted education for a large share of the population.

Economic co-operation has a potential positive impact on national policy credibility, hence on investment and growth, as it could provide a mechanism for collective commitment to economic reform in a context of a reciprocal threat-making arrangement (e.g. Collier, 1991). Furthermore, deeper economic integration in a given region could permit expansion of the regional economy to generate the threshold scales necessary to trigger the much needed strategic complementarity, and to attract the adequate levels of investment required for the development of modern manufacturing cores and the transfer of technology within the region (e.g., Krugman, 1991).

The empirical strand of the literature also supports the investment and growth enhancing effects of economic integration. This literature finds that spillover effects (proxied by regional investment, regional political stability or regional growth) are significantly and robustly linked to variations in investment and growth across countries (e.g. Chua, 1993a,b and Easterly and Levine, 1996). Kenya has entered into various regional pacts, but their operation and commitment has been patchy and with less commitment, credibility and value. Still, increased co-operation in the region will be of crucial importance to revive growth and investment. Renewed efforts of integration in East Africa could promote higher growth in the region, but conflicting views and commitment among the member states, have reduced the initial enthusiasm of the East African Co-operation.

4.2.4 External shocks and external debt burden

External shocks can affect national economies through several channels: Terms of Trade (TOT), capital flows or international interest rates. For Sub-Saharan African (SSA) economies, the most important is likely to be the TOT effect; the remaining two would be reflected primarily through external debt.[7,8] Fluctuations in TOT can

[7] Deaton and Miller (1996), Ghura (1995), and Wheeler (1984) have all found a negative effect of a deterioration in TOT on African economies. For example, Ghura (1995) estimates the impact of changes in TOT on per capita GDP growth during 1970-90 in a sample of 33 SSA countries. He found

affect macroeconomic performance via two possible channels. First, and as has happened in many African countries, a decline in TOT reduces incomes and the profitability of the export sector and hence export growth. If profits are positively correlated across sectors, the fall in incomes and the profitability of the export sector will have a negative effect on overall growth.

Second, TOT deterioration may affect growth indirectly, through a worsening of the current account. Countries have responded to a deteriorating current account by increasing controls on imports, devaluing the exchange rate, or tightening fiscal and monetary policies. Controls on imports of intermediate or capital goods could have a direct adverse effect on private investment. Tight fiscal policies may reduce public investment, while monetary restraint would result in credit rationing, both of which can adversely affect private investment and thus growth.

Shocks through capital flows are likely to be indirect for most SSA economies, since these countries' shares of international capital flows are small. However, the indirect effects can be large. As we pointed out earlier, macroeconomic management has been complicated as a result of short-term private inflows.

Sustainability of the external debt burden may also have its external-shock component. For instance, higher world interest rates would raise the level of debt for variable interest-rate debts. In addition, income TOT shocks may be channelled through a decrease in the sustainability of external debt. Furthermore, previously accumulated debt that siphons off current resources for repayment or creates an uncertain macroeconomic environment for investment purposes has adverse implications for growth in SSA (e.g., Fosu, 1996, 1999, Elbadawi et al. 1996).

The Kenyan external debt-situation is not as serious as in other countries in SSA. Table 4.2 shows net-external loans received and how the external debt profile has changed since 1995. Interestingly, there have been, on a net basis, quite large repayments over the whole period. It appears that the government has borrowed domestically to pay for external loans to avoid eroding its credit rating.

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that a 10 percent deterioration in TOT would lead to a reduction in per capita growth of about 0.6 percent.

[8] The world interest rate has also been observed to be negatively associated with SSA's economic growth. Ghura (1995), finds that an increase of 1 percentage point in the real interest rate would reduce per capita GDP growth in SSA by about 0.1 percent.

Table 4.2: Indicators of External Indebtedness for Kenya

Year	Net External Loans (% of GDP)	Level of debt to GDP (%)	Debt Service*
1995	- 0.5	71.1	24.9
1996	0.0	65.5	24.3
1997	-1.1	56.0	22.4
1998	-1.0	54.3	22.1
1999	-2.2	51.3	18.9

*Debt payments to Exports of goods and Services

The impact of these large net outflows to service its debt obligations works through a number of factors and four implications of these net outflows can be identified:

1) It is a leakage from the economy (liquidity effect). In a simple economic setting this reduces the domestic income via negative multiplier (or divider) effects.
2) Depreciates the currency and complicates economic management in floating exchange rate regime.
3) Fiscal burden - has forced the government to borrow domestically to pay for external loans, hence a form of resource transfer.
4) Creates uncertainty with private investors and economic agents in general.

Thus, even if the level of external debt in percentage of GDP has been falling from 71 percent in 1995 to 51 percent in 1999, which is quite remarkable, the build-up of domestic debt has, as we discussed earlier, created uncertainties in domestic markets. Policy makers are now struggling with a domestic debt-overhang and, as the country cannot expect any debt-forgiveness under the current HIPC debt-relief mechanism, servicing domestic debt becomes a fiscal burden. A squeeze on public resources results in reduced public investments and, while interest rates remain high, private investment is still looming. Reduced investments check further growth via the accelerator principle. This direct channel not only reduces public investments on social infrastructure but also on health and human capital development. This does not create long-term growth, and it disturbs macro-management. The issue is to look for sustainable growth policies or growth-friendly policies, so the goal is to sort out short-term expenditures in favour of fixed long-term development expenditure.

4.2.5 Institutional, political uncertainty and political risk

Another source of uncertainty with similar effects on economic performance is that precipitated by institutional instability in the political environment. Political Instability (PI), judged to be harmful to investment and growth, ranges from rapid government turnover, which affects policy credibility, to more extreme forms of social and political unrest. Such forms include, for example, widespread political violence or civil wars, which in turn create more fundamental aspects of uncertainty such as the collapse of institutions of government and civil society (macro insecurity) and the loss of life, physical property or property rights (micro insecurity, see Collier, 1996).

Either form of PI may take place when, for example, a violent change of government involves a redefinition of the basic "rules of the game", raising the risk of expropriation and nationalisation. As in the case of coups d'Etat, for instance, political instability may discourage the level and efficiency of investment in physical capital by making future returns uncertain, decreasing the supply of funds due to capital flight, and increasing capital costs due to an increased probability of loan defaults. The supply of skilled labour also falls, as workers emigrate in search of better economic opportunities elsewhere. Indeed, as much as one-third or more of the mean GDP growth of SSA during the post-colonial period might be attributable to the rampant incidents of coups d'Etat of the era (Fosu, (1992).

Investors, however, would require more than formal statements in which states pledge to serve as impartial enforcers of contracts. The presence of an efficient and impartial bureaucracy to implement the declared policies is equally important. Hence recent cross-country studies find bureaucratic or institutional stability to be strongly associated with economic performance (e.g. Knack and Keefer, 1995).

Kenya's extremely poor record of good governance has been of serious concern in the donor community for years. Good governance is an essential component if the current strategy will succeed. Since mid-1999 the government has made some progress in addressing this issue. The government has, for instance, adopted a comprehensive set of measures, which include: (i) enhancing accountability and transparency; (ii) strengthening oversight bodies; (iii) strengthening budget planning and execution; (iv) changing the incentive structures faced by potential participants in corruption; and (v) removing rent-seeking opportunities. Some of these

measures will serve as performance criteria or benchmarks under the current program and will be of crucial importance when the programme is evaluated. In addition, improved institutional efficiency will be required if the current reform programme will succeed.

5. How to evaluate an MTEF strategy

We conclude this report by discussing some aspects of the donor's role in the process and give some suggestions on how to evaluate donor-aid in the context of an MTEF. Donor governments and aid agencies are asking new questions about whether the assistance they provide is as effective as possible in promoting economic growth and reducing poverty. Public expenditures have long been considered one of the main channels through which foreign aid influences development outcomes. The link between aid and the recipient's budgetary allocation is not straightforward because some aid may be fungible (Adam *et al*, 1994).

While the empirical evidence for aid fungibility is mixed, it seems that the experience for Sub-Saharan Africa supports the view that aid could distort expenditure patterns (Devarajan et al, 1998). An important implication arising from this evidence is that instruments used by donors to deliver aid are important. If funds are fungible and the recipient's public expenditure program is not satisfactory then project lending may not be a cost-effective instrument. This has indeed been realised by a number of donors, who are now moving away from traditional project support towards a sector development approach. This implies that the evaluation of the impact of aid has to consider not only the impact on the sector itself, but also the overall public expenditure program. The question is then posed: How do we evaluate an MTEF?

There are two broad areas that need to be considered when evaluating an MTEF. First, some judgements have to be made on the macroeconomic impact. What is the broad impact on the economy when for example, the composition of expenditures, the amount of foreign aid and the tax structure are altered? In the report we have illustrated some of the issues involving in using a CGE model to assess the broad impact on the economy.[9] This approach has the advantage that it can be used to evaluate the macroeconomic impact of changes in aid- flows taken into account changes in relative prices. Another advantage of using CGE models is that they are able to incorporate the feedback effects of the various policies and to compare the impact of alternative policies. Depending on data availability, quite detailed analysis could be undertaken to evaluate the impact on alternative public expenditure patterns.

[9] The model we have used lacks some details on the public expenditure side. In particular, utility derived from public services and productivity effects from infrastructure investment is lacking. This is, however, an interesting topic to explore further.

Another important area to consider when evaluating an MTEF is the justification for public sector intervention.[10] The first step is to identify the market failure that the public intervention is expected to correct. Why, precisely, is the private sector unable to achieve an efficient outcome? There are a number of reasons such as: public goods; externalities; competition failures; asymmetric information; and missing markets. However, the existence of a market failure is not sufficient justification for public expenditure as there are few, if any, examples of perfect markets. With budget constraints, competing claims on public money need to be evaluated by how large these market failures are and by how much these problems reduce welfare. The problem is quantitative, not qualitative. A major problem is that while the types of market failures are known, they are rarely measured except by occasional research efforts. Whether accurately measured or not, the impact of public expenditure depends on the precise extent of the gap between social and private benefit. Indeed, these quantities need to be approximated or argued over when decisions are made.

It should also be pointed out that public funds come at a premium. In order to spend money, governments must tax to obtain revenues. Most taxes have a cost in terms of inducing inefficiencies in the economy. For example, income taxes may reduce work effort, or savings, and trade taxes lead to lower consumer welfare. Proponents of particular public expenditures should have to demonstrate that the gains in welfare the expenditure produces over market allocations is at least as great as the welfare loss of raising the taxes to cover them. If it is determined that public spending, per se, is the appropriate means of intervention, it is still necessary to determine the actual effect of the expenditure item.

Finally, another important area to consider when evaluating an MTEF is to assess the welfare impacts of public spending. Information on distributional impacts, particularly the extent to which the poorest strata benefit, can help in making public spending choices. Policy decisions need to be based on quantitative assessments of the impact of public spending on living standards, particularly of the poor.[11]

[10] This section draws in World Bank (2000)

[11] The methods most often found in practice can be classified into "benefit incidence studies" (see Demery 1997, van de Walle 1998a) and "behavioral approaches" (see Grossman 1994, and van de Walle 1998a for reviews). Hammer et al. (1995) provide an example of using the two approaches in a complementary way.

6. Conclusion

The overriding objectives in Kenyan economic management have, since the mid-1990s, been to stimulate economic recovery and increase investment. However, economic growth has been modest, per capita incomes falling and investor response disappointing. Fiscal adjustment is another area where the government has very visibly failed in its effort to improve efficiency in the public sector and to enhance delivery of public service. The persistence of pending bills, recurrence of unconstitutional expenditures and a significant gap between approved and actual expenditure allocations indicated lack of budgetary discipline. Overall, this led to a massive mismatch between what was promised through government policies and what was affordable. A better match between goals and what is affordable is now, under the current reform effort, considered to be one of the key components needed to move the economy into higher growth paths and to make a profound impact on poverty eradication.

With approximately half of the population below the poverty line, the government finally realised that drastic measures were needed to reverse the deteriorating situation. Recently the government finalised an interim Poverty Reduction Strategy Paper (PRSP), which outlined a preliminary policy framework including a Medium Term Expenditure Framework (MTEF). As this is the first MTEF produced by the government there are a number of issues that need to be improved upon. First, it is not obvious if the current system of allocating public resources is the most efficient and transparent one. Second, it is necessary to include parastatals in the process as they are often draining resources from the public. Third, the current model used to derive the macroeconomic projection needs to be improved upon.

With regard to government expenditure, efforts are being made to improve efficiency through a consistent expenditure framework. Whether the current expenditure allocations will be implemented remains to be seen. It will be a difficult task and it has become even more difficult due to weather shocks and political uncertainties. Food relief, power and water rationing will all spill over into increased government expenditure. Members of Parliament have awarded themselves large increases in salaries and travel allowances. Finally, the electioneering is drawing close. This will be a complicated set of activities because it is embedded with

succession issues. With fear of losing political control, the ruling party may not at all adhere to fiscal stringency.

Another important component to enhance efficiency in the public sector is the ongoing retrenchment programme. This will allow the government to increase the allocation of resources to priority areas, and to gradually improve the civil service pay structure. However, experience from the previous retrenchment exercise in the mid-1990s showed that retrenchment had a negative impact on poverty and was dependent on the response by the private sector. If the private sector continues to show low employment growth, a number of retrenched workers could end up in the informal sector, having a negative impact on poor households. It is therefore important to remove regulations, such as multiple licensing procedures in urban and rural centres, for small and medium scale enterprises. In addition, improved access to credit would be necessary to encourage growth of micro-enterprises and hence employment growth.

Increased private investment is a critical issue in order to achieve higher growth rates. The government's strategy to achieve this is based on a tight fiscal policy to reduce domestic debt and interest rates and hence stimulate private investment. It seems, however, that private investment is not constrained by the demand side, but more by supply side factors. Due to the poor road networks, water shortage problems and above all electricity supply rationing, private firms in Kenya have seen their transactions cost increase by a large factor. Given these crucial problems, the government would need an expansionary fiscal stance to rectify these problems and reduce transaction costs. This calls for quality developmental expenditures on infrastructure and other support services. In addition, when a country is in a recession, it requires innovative ways to move it out. Thus, there is a case for increased long-term borrowing on concessional terms in order to both reduce domestic debt and to stimulate private investment and hence growth.

In the short-term (2000-2002) we will not see any dramatic improvements in either growth or poverty reduction. While we agree that GDP growth would increase during the period, the projected "official" growth rate seems too optimistic. Still, it is quite likely that Kenya will achieve higher growth rates than in the past, but the expectation of a fast recovery should be treated cautiously. The current strategy will, however, be important in order to lay the foundation for higher growth and reduced poverty in the future.

Appendix 1: A CGE model for the analysis of growth projections

Modelling the impact of Kenya's MTEF strategy presents two factual difficulties. First, the strategy takes place at the same time as a number of external shocks will affect the economy. The various sources of disequilibria need to be accounted for and isolated. Second, income and expenditure flows between sectors in the economy have to be properly identified. This is because the strategy affects not only macroeconomic aggregates but also the whole sectoral structure of demand, trade, resource allocation and production. To account for all the broad sectoral, household and macroeconomic impact of the strategy, we have developed a dynamic computable general equilibrium model for Kenya that enable a detailed analysis of the impact on households in both rural and urban areas. The model is based on Dervis et al (1982), while the data is drawn from a social accounting matrix (SAM) of Kenya constructed with due regard to important socioeconomic structures.[12]

We shall here only provide a sketch of the full model. To highlight the political economy aspects of our analysis, we describe is some detail the nature of the production structures, income distribution among socioeconomic groups, as well as the behaviour of the government sector.

(a) Sector production

The production side of the model comprises 9 sectors (or sub-sectors): agriculture is divided into cashcrop (coffee/tea) and other agriculture. Manufacturing comprises three sub-sectors: food, consumer goods and capital and intermediates. Services are divided into private and public. The last two are building and construction and a non-agricultural sector. The production structure could also be divided into tradables and nontradables, with government services, building and construction and the non-agricultural sector making up the latter.

In production, each sector's value added is assumed to be a constant elasticity of substitution (CES) function of aggregate labour and capital. The aggregate factor

[12] The SAM is a modified version of the original Kenyan 1986 SAM, prepared as an input to the CGE-model used in the Ministry of Planning and National Development (Damus, 1990 and Damus et al, 1990). The household sector and the labour market have been disaggregated using an Urban Household Budget Survey, Rural Household Budget Survey and Labour Market Surveys for urban and rural areas (Levin, 1998 chapter 5).

inputs are in turn CES functions of finer levels of specification. For example, agricultural capital combines capital and land, while aggregate labour includes categories such as: highly skilled, skilled, semi-skilled, unskilled and casual labour.

The model assumes mobile labour sector-specific capital and land, which is augmented each period through additional investment net of depreciation. In the labour market, factors are demanded up to the point where factor prices, inclusive of sector-specific differentials, equal the value marginal product of the factor. The model follows the neo-classical closure where the wage rate adjusts to clear the labour market.

(b) Government, savings and investment

The government provides public services financed by taxation. Besides direct taxes, government derives revenue from tariffs on imported intermediates and final goods, aid and indirect taxes. The government also receives capital income from production activities (parastatals) and an imputed value of the services rendered by capital in the sector. Government savings equal revenue less current and capital expenditure, transfers and interest payments on domestic and foreign loans.

Total savings are equal to public savings and savings from households and enterprises, total depreciation, and foreign savings. Government investment is exogenous while private investment is assumed to be endogenous. Private investment is determined by the amount of retained earnings and the average return of capital relative to the price of capital in each sector. Goods demanded for investment purposes from the private sector and the government are derived with the help of a capital-coefficient matrix.

(c) External sector

In modelling trade, we define a composite commodity for each sector as a CES function of final commodities produced domestically and imported from abroad. Output in each sector is either sold on the domestic market or exported. There are, however, costs involved in the reallocation of output between domestic and foreign markets, a reflection of product differentiation or market penetration costs. A

Constant Elasticity of Transformation (CET) framework allocates domestic output between exports and domestic sales.

(d) Factors Incomes, socio-economic groups and income distribution

Factor incomes accrue to capital, land and labour. Enterprises retain a fixed proportion of capital income, net of depreciation and taxes, while the remaining share is distributed to households. In cashcrop and food agriculture, factor income from land, plus any government transfers, accrue directly to the households. Factor incomes of the various labour categories, as well as other sources of income such as remittances from abroad and government transfers, are distributed in fixed proportions to the various households. Households pay a direct tax to the government, while a fixed proportion of household disposable income is saved. The consumer demand of the various households is given by a linear expenditure system.

The political economy approach suggests that the power of the electorate to remove politicians from office is a constraint on their utility function. However, the more powerful groups, usually educated, relatively rich and resident in urban areas, will tend to have more political influence than the less endowed and the rural groups. Thus the treatment of socioeconomic groups is important in the model. Table A.1 provides some basic data on the socioeconomic groups represented in our analysis. Rural households are characterised by the size of their land holding and the type of crop activity[13]; coffee (coffee/tea) or food-crop production, while the four urban households are distinguished by the education levels of their heads. In terms of regional distribution, 22 percent of the households reside in the cashcrop region, approximately 51 percent in the food region, while remaining households reside in urban areas.

[13] Districts of the country from where the socioeconomic groups in agriculture are drawn are the following: 1. Cashcrop (Coffee/tea) Region: Kiambu, Muranga, Nyeri, Kirinyaga, Meru, Embu and Kisii. 2. Food Region: Households residing in Kilifi/Tana, Kwale, Taita/Taveta, Kitui, Nyandarua, Nakuru, Kajiado, Uasin Gishu, Trans Nzoia, Baringo/Laikipia, West Pokot, South Nyanza, Kakamega, Busia, Machakos and Narok.

Table A.1: Socioeconomic groups (population and income)

	Number of households	% of total	Average annual income*	% of poor in sub-group
Coffee1	346,105	9.4	16989.0	40.4
Coffee2	413,325	11.3	20085.8	16.7
Coffee3	47,488	1.3	55807.2	8.0
Food1	593,946	16.2	10410.7	51.9
Food2	828,505	22.6	14244.2	32.1
Food3	436,330	11.9	28830.6	13.8
Urban1	138,054	3.8	25810.5	43.8
Urban2	572,370	15.6	24898.0	36.8
Urban3	244,029	6.7	50752.4	25.8
Urban4	48,772	1.3	209671.9	0.9
Total	3,668,924	100.0	23936.7	32.2

Source: Kenya SAM (Levin, 1998)
Notes:
* Kenya shillings 1986 prices

Coffee1: Holding is less than or equal to 2 hectares
Coffee2: Holding is greater than 2 hectares but less than 8
Coffee3: Holding is greater than 8 hectares
Food1: Holding is less than or equal to 2 hectares
Food2: Holding is greater than 2 hectares but less than 8
Food3: Holding is greater than 8 hectares
Urban1: Household head has no schooling
Urban2: Educational status of household head is Primary level up to Form 2
Urban3: Educational status of household head is between Form 3 and 6
Urban4: Educational status of household head is College or above.

Among urban households, approximately 44 percent of those in the poorest group fall below the poverty line.[14] But even groups urban2 and urban3 have high shares of their households in poverty. Among rural households, poverty is highest among smallholders in the food region, with over 50 percent below the poverty line. But even farmers with medium-sized farms located in the same region registered high levels of poverty, over 30 percent. In the cashcrop region, farmers with smallholdings are relatively poor (40 percent below the poverty line) but with rapid welfare improvement for farmers with bigger plots. On the whole, groups residing in the cashcrop region are less poor than those in the food region.

Poverty measures, derived from the household budget survey, are incorporated into the model by constructing a log-normal distribution for each socioeconomic group using the arithmetic mean income from the benchmark data set. The log-variance is then adjusted to replicate the poverty measures outlined in Table 1. In the experiments, the log-variance is assumed fixed implying that within-group income changes are not considered explicitly.

(e) Model closure and dynamics

The closure rules relate to the government budget, the savings-investment balance, and the external account. First, real government expenditure is assumed to be exogenous implying that government savings adjust to balance the budget. Second, investment is determined by savings. Government investment is assumed to be exogenous, while private investment adjusts to the residual pool of savings. The third closure rule relates to the external account. Adjustment takes place via changes in relative prices, with increased import demand financed by increased exports. The numeraire in the model is the aggregate producer price index. An increase in the exchange rate raises tradable relative to nontradable prices, leading to a real depreciation. Thus only relative prices matter. The model is homogenous of degree zero. The model is a recursive dynamic model where exogenous variables are updated each period and private investment is determined endogenously.

[14] The poverty lines are assumed to be one third of average income for urban and rural regions, respectively. For a detailed account of the poverty estimates see Levin (1998)

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ISBN 91-586-8971-0
ISSN 1404-031X