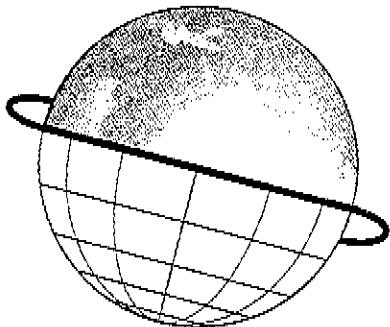


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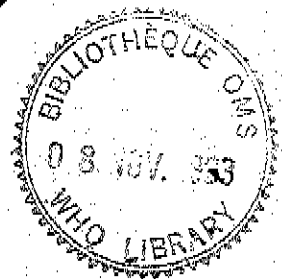
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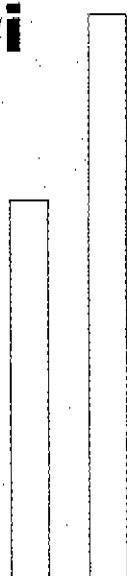
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Macroeconomic Development and the Health Sector in Malawi



Malawi

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Macroeconomic Development and the Health Sector in Malawi

by

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Introduction

Analysis of Macroeconomic Developments

The current population of Malawi, a south-eastern African country, is over 8.2 million, all of whom live within an area of some 118,000 km². Between 1980 and 1988, Malawi registered one of the highest population growth rates in the world, even by African standards - estimated at about 3.8% per annum, including refugees (World Bank, 1990a). Since the country became independent in 1964, the population has more than doubled, and about half are under the age of 15. Life expectancy at birth is about 48 years (UNDP, 1990), while the infant mortality rate is one of the highest in the world: 149 per 1,000 live births (UNDP, 1990; World Bank, 1990b). Among the children who survive beyond their first birthday, malnutrition is rampant — 24% of children under five are underweight (UNDP, 1990) - despite the fact that Malawi is an agricultural country in which food self-sufficiency is an acknowledged success. The context within which the successes and failures in the country are best understood can be divided into two broad periods. The period of highest growth was from immediately after independence until about 1978-79. From 1979 to about 1987, Malawi went through a difficult period, characterized by structural adjustment programmes. Recovery has been recorded over the period 1987-91, but, so far, the economy has not recovered its pre-1979 levels.

In sections 1 to 3 of this paper, we trace some of the development highlights of the growth period, the structural adjustment period and, to the extent possible, the recovery period, from the real side of the economy. The fourth section is devoted entirely to the health sector. The fifth section discusses the implications of macroeconomic developments for the health sector.

1. Post-Independence Economic Development

1.1 Production

Malawi is an agricultural economy by virtue of the fact that it has no commercially exploitable mineral resources. In addition to rich agricultural soils, Malawi has an abundance of labour. These two resources are those that have shaped the macroeconomic policies of the country. In order that an independent economy could be established, a pragmatic policy of agricultural development was instituted at the time of independence, with initial emphasis on smallholders.

The results of the agricultural policy during the first 15 years of independence are very encouraging, as the gross domestic product increased by about 6% per annum (Economist Intelligence Unit, 1991). This increase also resulted in growth of the gross national product, since net factor incomes did not change much in real terms during the period. Most of the growth was generated by the agricultural sector, since the other sectors of the economy were very small. Exports also grew, at a steady rate of 4.1% per annum (World Bank, 1990a). The success of

agriculture was reflected in other sectors, such as manufacturing, which grew at around 8.2% between 1964 and 1978. Consequently, employment increased at an even faster rate - by about 10%. The increase in industrial output was due to the introduction of import substitution industries, expansion of domestic demand and export-orientated light industries. It was during this period that Malawi was described as a "success story" (Acharya, 1981).

That assessment of the economy was short-lived, however, owing to the events that began in 1979. Increases in oil prices and the war in Mozambique destabilized the economy. At the same time, failure to reverse stagnation in the smallholder subsector of agriculture made the economy vulnerable to external shocks, as it could no longer fall back on this subsector (Kydd & Christiansen, 1982).

Consequently, output plunged, and, for the first time since independence, gross domestic product registered negative growth rates, falling from 3.3% in 1979 to -0.4% in 1980 and as low as -5.2% in 1981 (Table 1).

Table 1 : Growth Rates of Gross Domestic Product and its Components, Malawi, 1981-89

Sector	1981	1982	1983	1984	1985	1986	1987	1988	1989
Gross Domestic Product	-5.2	2.7	3.6	4.4	4.3	2.6	1.4	3.6	4.6
Agriculture:	-8.5	6.4	4.4	5.4	1.1	0.1	3.4	3.6	5.3
Small-scale	-8.9	2.5	3.7	7.2	1.2	0.4	2.4	2.6	2.9
Large-scale	4.9	22.4	7.1	0.8	0.6	-1.1	7.2	7.1	13.3
Manufacturing	3.6	-0.3	7.1	2.4	0.5	5.3	0.9	3.8	5.0
Electricity & water	0.7	2.1	8.2	1.9	1.9	6.1	8.1	3.2	4.7
Construction	-17.5	0.6	-8.6	-10.3	32.8	4.6	-0.3	9.0	4.4
Distribution	-11.0	-2.1	2.5	5.6	9.4	3.4	-2.2	-0.7	2.2
Transport & Communication	-7.3	-2.7	-2.5	2.2	4.9	3.7	-5.2	5.5	7.3
Financial & professional services	-7.9	2.3	2.9	1.6	7.2	2.4	0.0	3.9	5.7
Ownership of dwelling	-1.5	2.8	3.0	2.4	4.6	3.0	1.9	2.9	4.4
Per capita services	-6.3	5.5	4.9	10.3	3.2	8.5	2.4	5.3	3.3
Private & social services	5.2	1.3	6.8	3.6	3.8	2.0	1.9	3.6	3.8

From Malawi Government (1990) and Kandoole (1989).

The period between 1979 and 1982 saw the worst downswing, as overall gross domestic product declined by 5.6%, and Malawi's terms of trade fell by 40%, as the civil war in Mozambique forced Malawi to use alternative, more costly routes and ports. These effects indicated that certain mistakes had been made in policy during the period of growth: exports were not diversified from the traditional ones of tobacco, tea and sugar, and alternative transport routes were not developed. Internally, the nature of the growth in agriculture was not analysed, particularly in terms of which subsector was stagnating (see Kydd & Christiansen, 1982).

Other elements of the decline included a rapid rise in the import prices of capital and intermediate goods and inflation in the countries that were Malawi's trading partners. These adverse factors also affected the budget, which experienced a deterioration in absolute terms: The budget deficit rose from 84.2 million kwacha (Malawi's currency) in 1979-80 to 145 million kwachas in 1985-86. In relation to gross domestic product, the deficit was 9.7% in 1979-80, increased to 11.6% in 1980-81 and was 11.7% in 1981-82. In turn, the worsening position of the budget adversely affected the position with regard to the balance of payments (Malawi Government, 1987a; Table 2).

Table 2 : Key Economic Indicators, Malawi, 1977-88
(percentages)

Year	GDP growth rate	Trade balance/GDP	Current account deficit/GDP	Total trade deficit/GDP	Budget deficit/GDP	GDP per capita	Terms of trade	
							Commodity	Income
1977	4.3	2.10	7.10	-4.80	7.60	124.40	NA	NA
1978	8.3	-6.60	17.80	2.50	8.50	130.70	NA	NA
1979	3.3	-8.60	24.70	8.60	12.40	131.00	NA	NA
1980	-0.4	-2.90	22.20	0.70	11.50	126.40	100.00	100.00
1981	-5.2	2.50	11.40	3.30	15.90	116.30	121.61	96.49
1982	2.7	3.90	11.20	5.60	15.60	116.50	123.40	101.68
1983	3.6	2.80	12.40	9.00	11.30	116.20	113.24	123.68
1984	4.4	12.80	1.30	3.40	10.30	117.80	118.10	93.71
1985	4.3	7.20	9.60	6.30	8.80	119.10	119.84	93.71
1986	2.6	9.60	6.20	0.30	8.80	118.20	87.78	86.84
1987	-0.2	7.40	5.10	-1.20	10.30	114.80	93.23	93.06
1988	1.2	5.70	5.50	NA	8.30	113.30	88.04	86.03

From Scarborough (1990), p. 34.

GDP, gross domestic product; NA, not available.

It was against this backdrop that Malawi embarked on a structural adjustment programme. The Government's strategy for tackling the crisis that emerged in 1979 proved inadequate, however, as it failed to bring about the necessary reforms in areas such as the marketing of agricultural produce and the investment strategies of some industries. World Bank structural adjustment loans were required to deal with these problems. The first of three structural adjustment loans introduced in 1981 was intended to solve a number of problems, particularly those related to the incentive structure, agriculture, the balance of payments and

resource management. The first loan was also used to improve the management and financial practices of key institutions in the public and private sectors.

One public enterprise that has played a critical role in the agricultural sector is the Agricultural Development and Marketing Corporation (ADMARC). Its mandate was to provide a market for all the crops grown by smallholders by buying at previously announced, Government-approved prices. It was also entrusted with distributing credit to those farmers. In the process of carrying out its mandate, however, the ADMARC depressed producer prices and transferred the surplus into estate development. Studies commissioned in the early 1980s revealed that part of the stagnation in smallholder output could be explained by the depressed prices at which the ADMARC was purchasing that output (see Kydd & Christiansen, 1982; Tables 3-5).

Although not all crops were profitable to the ADMARC, the profits made on smallholders' tobacco were enough to compensate for the losses incurred on trading in the food crops, as can be seen in Table 5. Between 1974 and 1984, the ADMARC incurred losses on crop trading in only one year, although at the onset of the crisis in 1979, crop-trading profits were negligible.

**Table 3 : Evolution of the Agricultural Development and Marketing Corporation (ADMARC)
Price of Maize, Malawi, 1968-84**

Year	Nominal price (kwacha/tonne)	Retail price (1970 = 100)	Real price (kwacha/tonne)	Index of real price (1970 = 100)
1968	24.38	90.5	26.94	91.2
1969	24.34	91.3	26.66	90.2
1970	29.55	100.0	29.56	100.0
1971	29.39	108.2	27.19	92.0
1972	25.58	112.1	22.80	77.1
1973	28.85	117.8	24.40	81.8
1974	36.11	135.7	26.57	89.9
1975	35.02	157.0	22.31	75.5
1976	45.00	163.8	27.47	92.9
1977	44.45	170.7	26.05	88.1
1978	42.64	185.2	23.02	77.9
1979	42.82	206.1	20.77	70.3
1980	60.06	243.9	24.87	83.3
1981	60.10	267.2	22.49	76.1
1982	100.59	292.8	34.35	116.2*
1983	100.46	349.0	28.78	97.4
1984	108.91	413.0	26.37	89.2

From National Statistical Office, Malawi Statistical Yearbook, 1978 and 1975.

Cited by Ngalande Banda (1989a).

* The price of maize increased by 67% in 1982.

Table 4 : Prices received by the Agricultural Development and Marketing Corporation (ADMARC) at Auction and Prices paid to Smallholders for Dark-fired Tobacco, Malawi, 1966-79

Year	Price to smallholders	Price to ADMARC at auction	Smallholders' price Auction price ^a
1966	0.038	0.070	0.55
1967	0.037	0.078	0.48
1968	0.037	0.087	0.42
1969	0.040	0.106	0.38
1970	0.040	0.122	0.33
1971	0.044	0.132	0.33
1972	0.046	0.148	0.31
1973	0.048	0.184	0.26
1974	0.052	0.223	0.23
1975	0.059	0.277	0.21
1976	0.071	0.296	0.24
1977	0.085	0.300	0.28
1978	0.088	0.289	0.31
1979	0.094 ^b	0.227	0.42

From Kydd & Christiansen (1982), statistics for Figure 3, p.369.

^a Author's calculations.

^b Three-year moving average.

Table 5 : Agricultural Development and Marketing Corporation (ADMARC) Crop Trading and Overall Profit, Malawi, 1974-1985 (in million kwacha)

Year	Tobacco	Cotton	Groundnuts	Rice	Maize	All crops	Overall profit
1974	2.56	1.45	1.77	0.41	1.58	9.98	7.37
1975	4.91	3.16	1.08	0.57	0.22	22.69	23.74
1976	10.61	0.46	1.27	- 0.03	- 2.87	30.04	17.40
1977	15.76	1.91	5.99	- 1.08	- 1.61	4.18	2.62
1978	25.86	1.41	4.50	- 0.78	- 2.33	0.07	- 2.62
1979	4.22	1.21	2.22	- 0.68	- 3.34	0.33	- 6.20
1980	2.71	0.46	3.75	- 1.56	- 4.18	8.86	0.62
1981	3.23	- 0.08	4.23	- 1.40	- 4.49	12.22	3.04
1982	9.14	2.75	3.28	- 0.66	- 5.13	6.55	7.92
1983	18.62	0.72	0.78	- 1.12	- 5.77	12.85	4.27
1984	13.36	- 0.25	0.28	- 0.46	- 5.49	13.53	-26.03
1985	15.73	- 1.21	- 0.90	- 1.18	- 1.18	-	-

From Ministry of Finance and Economic Planning and Development, 1986. Cited by Scarborough (1990).

1.2 Incomes

The gross national product per capita of Malawi in 1988 stood at US\$ 170 (World Bank, 1990a) and has remained at roughly that level. Most income in Malawi is generated from the sale of agricultural produce. Within the smallholder subsector, incomes have been heavily and unfavourably influenced by the activities of the ADMARC. The movements in real producer prices paid to smallholders shown in Table 4 are a clear indication that most smallholders, and particularly those who relied on the sale of maize, did not experience increases in real incomes. Another source of income is wage labour, which also relies on success within the agricultural sector. Labour relations within this sector rely on tenancy arrangements (Kydd & Christiansen, 1982; Ngalande Banda, 1989a), which are unfavourable to the tenant.

In situations in which a formal wage has been agreed upon, the growth of incomes has been restrained by the wage incomes and salaries policy pursued since independence (Ngalande Banda, 1989a; Tables 6 and 7). In order to ensure that the wages prevailing in the economy do not stifle industrial investment and growth, the minimum wage under this policy has been below the marginal productivity of labour and has been worsened further by long periods of unadjustment (Malawi Government, 1987a; Ngalande Banda, 1989a). I shall return to this point later.

For the rest of the economy, the wage incomes and salaries policy has required that all incomes be made uniform, in order to discourage rapid manpower turnover. Further, before a salary revision can be approved, evidence of increased productivity must be provided. The effect of this policy has been less than satisfactory in safeguarding against manpower losses to other economies in the region and in ensuring economic stability.

1.3 Wages and employment

The policy discussed above was used with a combination of actions to form a tight wage policy. The wage restraint policy was intended to stabilize production costs, sustain international competitiveness and generate adequate employment (Kandoole, 1989). In order to ensure the success of the minimum wage legislation, all union representation was rendered ineffective, not by disbanding the trade unions but by tying their hierarchy to that of the political system. This measure, however, removed only one of the obstacles to pursuing wage restraint (Ngalande Banda, 1989a). As a result, wage movements in Malawi have been small even since implementation of the structural adjustment programmes.

Table 6 : Nominal and Real Evolution of Wages, Malawi, 1970-87

Year	Nominal wage ^a (kwachas/month)	Retail index ^b (1980 = 100)	Real wage (kwachas/month at 1980 value)	Annual growth rate of real wages (%)
1970	9.88	41.0	24.10	-
1971	9.88	44.4	22.27	-7.59
1972	9.88	46.0	21.50	-3.46
1973	10.40	48.3	21.53	0.14
1974	10.40	55.6	18.69	-13.19
1975	10.40	64.4	16.16	-13.54
1976	10.40	67.2	15.49	-4.15
1977	10.40	70.0	14.86	-4.07
1978	11.18	75.9	14.72	-0.94
1979	11.70	84.5	13.85	-5.91
1980	11.70	100.0	11.70	-15.52
1981	18.20	109.6	16.61	41.88
1982	21.06	120.0	17.54	5.60
1983	21.06	143.1	14.72	-16.08
1984	21.06	169.3	12.44	-15.49
1985	26.00	187.1	13.89	11.66
1986	28.86	213.2	13.53	-2.59
1987	28.86	267.2	10.80	-20.18

From Malawi Government (1978, 1985, 1987a).

^aCalculated from the statutory minimum wages for the City of Blantyre.

^bLow-income retail price index for the City of Blantyre, for all consumer items.

Table 7 : Monthly Average Earnings in Malawi, 1984-88
(in kwacha)

Sector	1984	1985	1986	1987	1988
Agriculture, forestry & fishing	23.83	26.00	26.42	29.08	30.50
Mining & quarrying	70.67	47.17	44.25	42.92	43.75
Manufacturing	72.42	69.75	79.00	125.75	138.25
Electricity & water	99.25	99.50	114.42	116.50	135.17
Building & construction	52.00	56.08	58.08	64.58	73.08
Wholesale & retail trade, hotels & restaurants	94.58	96.68	111.53	111.35	135.68
Transport, storage & communications	84.08	89.33	93.25	103.08	125.08
Financing, insurance & business	227.25	224.56	265.67	327.25	364.67
Community, social & personal services	94.58	104.33	109.92	117.58	124.67
All industries:	59.25	62.25	68.08	80.67	87.25
Government	74.00	78.50	83.08	89.42	95.42
Private sector	55.33	58.17	64.50	78.08	85.17

From Malawi Government (1990, 1991). Cited by Economist Intelligence Unit (1991), pp.14-15.

Of the objectives of the minimum wage legislation, only stabilization of input costs may have been achieved; it did not, however, fulfil the objective of protecting labourers from being underpaid. Sustainment of international competitiveness has also not been achieved.

One of the effects of the legislation is that it fails fully to compensate labour at all levels of skill. As a result, regional migration continues to be a problem, even since the start of the structural adjustment programmes. Available evidence shows conclusively that even after those programmes were in place, obtaining a contract in a South African mine was still attractive for both skilled and unskilled workers in Malawi (Ngalande Banda, 1989a).

1.4 Prices

During the high growth period of the 1970s, the average annual inflation rate was about 9%. As Malawi's is an open economy, it has been subject to external shocks passed on through prices. The situation of single-digit inflation thus changed drastically with intensification of the war in Mozambique and inflationary pressures, particularly in the United Kingdom. The war in Mozambique raised transport costs, which were passed on to the consumer, resulting in problematic inflation. It is not clear what level the rate of inflation achieved, but it has been acknowledged officially that the rate was as high as 33% by the beginning of 1989, and the World Bank (1990a) reported an inflation rate of 33.9% for 1988.

While consumer prices were freer, owing to the strong business lobby behind them, producer prices, particularly for smallholders, were suffering the same downward trends as did real wages in the 1970s. Since the smallholders had no formal channel for lobbying for higher prices, their response was to move out of this unproductive activity. Another response, particularly in the 1980s, was to lease their land. In this way, they avoided having to deal with the ADMARC, since they acquired the status of an estate, which allowed them to grow burley tobacco and sell it directly on the auction floor.

2. The External Sector

2.1 Balance of payments

Like many other developing countries, Malawi has registered deficits in its balance of payments in the current account throughout the post-independence period (Kydd & Hewitt, 1986a,b). Up to the middle of the 1970s, these negative balances were usually adequately offset by long-term capital inflows (Kydd & Hewitt, 1986a,b), but the deficits have been growing over the years. The first sign of a weakening in the external sector came at the outset of the 1978-80 crisis, when the balance

of payments current account deficit exploded from 7.1% of the gross domestic product in 1977 to 17.8% in 1978 and to 24.8% in 1979 (Kandoole, 1989). The worsening in the balance of payments at that time was explained by a failure to ship out most of the available exports (Economist Intelligence Unit, 1991).

In the mid-1980s, the deficit improved slightly and came down to less than 10% of gross domestic product, but it has since climbed back up to more than 10% (Table 8). The improvement in the deficit is attributable to two factors: 'successful' implementation of the structural adjustment programmes and the restriction on imports in the 1980s. The latter was implemented by foreign exchange allocation and the requirement that importers deposit 25% of the value of imports with the Reserve Bank at the time they placed their orders. The import compression turned the trade balance from a deficit situation at the start of the 1980s to a surplus position during and towards the end of the 1980s. Thus, in both 1987 and 1988, the trade balance registered surpluses, even though by that time imports had begun to increase again.

A further factor that contributed to the improvement in the trade balance is the increased export earnings from tobacco in the 1980s. Following the introduction of the structural adjustment programmes and at the insistence of the World Bank, the Government relaxed the restriction on the growing of burley tobacco to include smallholders (Scarborough, 1990; Economist Intelligence Unit, 1991). The result was increased production and hence export volumes of tobacco. Furthermore, the export price of tobacco was very favourable (Patchett & Harnett, 1990).

The subsequent worsening of the current account of the balance of payments was followed by the institution of an import liberalization programme in 1989. Total imports increased substantially as importers, treating the programme with scepticism, stockpiled major inputs and spare parts (Malawi Government, 1991). This situation is expected to improve as a result of some bold steps that were taken by the Government in the 1991 financial year.

A further cause for optimism is the window of negotiation that seems to be opening up between the Frelimo government of Mozambique and the Renamo faction with which it has fought a civil war for more than 15 years (Economist Intelligence Unit, 1991). Should a settlement be reached, transport costs will most probably lead to a further improvement in the balance of payments.

Table 8 : Balance of Payments, Malawi, 1983-88
(in million US\$)

	1983	1984	1985	1986	1987	1988
Merchandise exports, fob ^a	246.2	311.8	245.5	248.4	278.5	297.0
Merchandise exports, fob ^a	-216.2	-162.0	-176.7	-154.1	-177.6	-253.0
Trade balance	30.0	149.8	68.8	94.3	100.9	43.9
Exports of services and interest, profits and dividends	37.1	38.0	37.7	27.8	43.7	37.8
Imports of services and interest, profits and dividends	-249.8	-277.5	-270.5	-258.0	-232.8	-230.3
Net private transfers	8.3	11.5	11.1	13.1	13.8	15.1
Net official transfers	29.5	24.4	24.5	29.2	30.1	80.4
Current account balance	-144.9	-53.8	-128.4	-93.5	-44.3	-53.1
Direct investment	2.6	0.0	0.5	0.0	0.1	0.0
Portfolio investment	0.4	1.0	0.4	1.3	4.2	0.8
Other long-term capital	34.0	48.7	-2.0	33.5	65.6	123.9
Capital account balance	35.1	45.3	-3.7	48.6	76.5	131.4
Errors and omissions	11.7	12.0	106.5	44.4	13.2	-18.0
Counterpart items	3.2	1.2	-18.3	-20.3	-16.8	-2.6
Exceptional financing	60.1	24.4	7.5	3.3	22.8	47.4
Changes in reserves ^b	34.7	-29.1	36.4	17.6	-51.4	-105.0

From International Monetary Fund International Financial Statistics. Cited by Economist Intelligence Unit (1991), p.30.

^a Freight on board (fob);

^b represents an increase.

The decline of capital inflows in the 1980s also contributed to the overall deficit. This has been complemented by the contraction of some private receipts, particularly from remittances. Termination of the contract with the Witwatersrand Native Labour Association resulted in a drop in receipts from this source, from 57.2 million kwachas in 1988 to 12.7 million in 1989 and, finally, 0.2 million in 1990. Receipts from other nongovernmental organizations have also been falling owing partly to a decrease in the financing of routine operations with regard to Mozambican refugees (Malawi Government, 1991).

In the 1980s, balance of payments deficits were financed from three sources: a series of facilities from the International Monetary Fund in the form of stand-by arrangements and extended fund facilities (see Kydd & Hewitt, 1986a,b; Malawi Government, 1987b); World Bank structural adjustment loans, of which there have been three since 1980; and rescheduling of official and commercial debts, as described below.

2.2 The external debt

Malawi, like other African countries, required extensive resources for infrastructural and other capital projects after gaining independence. Much was raised by borrowing, which, in the 1960s and 1970s, was mostly concessional. Most of these debts are either maturing now or will do so by the turn of the century. With the onset of the problems of the 1980s, Malawi has had to rely even more heavily on borrowing, this time increasingly on commercial terms.

By the standards of the International Monetary Fund, Malawi is not a debt-distressed country; however, there is increasing concern that this situation may not last for long. Throughout the 1970s, when the real growth of the economy was significant, Malawi's debt remained small. By 1987, however, the total debt stood at US\$ 1,363 million which is nearly four times what it was in 1978 (Kaluwa *et al.*, 1991). This acceleration in the accumulated external debt was brought about partly to finance the structural adjustment programmes.

Another indication that Malawi faced problems in the 1980s is the number of debt reschedulings that have been negotiated with the London and Paris Clubs—three in all: one in 1982–83, another in 1987 and a third in 1988. By 1987, Malawi's debt: export ratio was about 490%. This was lower than the average for 25 sub-Saharan countries but nonetheless higher than the average for the countries of the Southern Africa Development Coordination Conference (333.7%).

Debt service as a percentage of exports was only 8.7% in 1978, but by 1987 it was nearly half of exports (about 49%) and represented nearly 11% of the gross national product. The World Bank (1987) has estimated that over the period 1988–92 the country's additional external financing requirements will amount to US\$ 1403 million. This is apparently higher than the total accumulated external debt in 1987. Almost 30% of the identified financing sources will be associated with structural adjustment lending (Kaluwa *et al.*, 1991).

2.3 The exchange rate

Immediately after its independence from the United Kingdom, Malawi adopted its own currency, the Malawi pound, which was pegged to the British pound sterling. In 1971, a new, decimalized currency known as the kwacha was introduced, which was initially pegged at 2 kwachas to the pound sterling. On 18 November 1973, following the floating of the pound sterling, Malawi switched to a basket pegging regime.

The first basket pegging, from 1973 to 1975, was to a weighted average of the pound sterling and the US dollar, to prevent depreciation of the kwacha and to reduce the wide fluctuations that occurred as the kwacha floated along with the pound. When the International Monetary Fund shifted the valuation of the special drawing rights from gold and the US dollar to a basket of currencies in 1974, Malawi adopted a peg to those rights which lasted up to January 1984. The purpose of that pegging was still to avoid wide fluctuations of the kwacha exchange rate. Since 1984, the kwacha has been pegged to a basket of the currencies of Malawi's seven major trading partners: the US dollar, the pound sterling, the German mark, the South African rand, the French franc, the Japanese yen and the Dutch guilder.

In the 1980s, devaluations of the kwacha were accepted as realistic measures for restoring Malawi's export competitiveness and influencing the flow of imports into the country. Another overriding objective of the devaluations was to comply with the requirements of the structural adjustment programmes. In April 1985, for example, the kwacha was devalued by 15% "in what was believed to reflect in part the terms of a three year extended loan facility from the IMF agreed at the end of 1983" (Economist Intelligence Unit, 1991). Other devaluations have followed, in response to the growing problems of balance of payments (Economist Intelligence Unit, 1991). It was also thought that devaluations might encourage diversification away from traditional exports and towards non-traditional exports. All indications are, however, that such diversification has not occurred and that the country still relies on its three traditional exports (tobacco, tea and sugar) for more than 90% of her export earnings (Kaluwa *et al.*, 1991).

3. Recent Macroeconomic Policies

The major thrust of macroeconomic policies since the 1980s has been directed at restructuring the economy. The policies that are now in place can best be characterized as driven by structural adjustment programmes. They cover three broad areas: agriculture, industry and the external sector. Policy changes in agriculture began in 1982, when the handling of produce by the ADMARC came under reform. The new policies, which are intended to make the smallholder subsector a more vibrant economy, involve liberalizing the marketing of smallholder produce (Kydd & Hewitt, 1986a,b; Scarborough, 1990), thereby allowing the ADMARC to face competition from private traders. This policy is intended to capitalize on the strong positive responsiveness of the smallholders to price changes (Dean, 1966; Ngalande Banda, 1989a).

With the liberalization of marketing, the role of the ADMARC as a distributor of fertilizer to smallholders has had to be phased out (Scarborough, 1990). Without the monopsony it had in the past, the ADMARC cannot make repayments on fertilizer that was disbursed on credit terms. This role has now been assigned to farmers' clubs. Smallholders are also gradually being weaned from their reliance on subsidized fertilizer through what is known as the Fertilizer Subsidy Removal Programme. This policy is being met with mixed results in different parts of the country, particularly in those with acute land shortages (Kandoole, 1988; Scarborough, 1990). As the farming of smallholdings is also constrained by the area of land held, the estate subsector is being forced indirectly to increase land utilization (estimated to be less than 20%) by raising land rents (Kydd & Hewitt, 1986a,b). Thus, any land that the estate cannot use may be parcelled out into small pieces and sold for smallholder resettlements.

A further move in the agriculture sector is relaxation of restrictions on the type of export crops that can be grown by smallholders. Until the mid-1980s, smallholders were not allowed to grow burley tobacco independently, and the World Bank proposed the new policy in order to spread the benefits of this lucrative crop to smallholders (Patchett & Harnett, 1990; Scarborough, 1990). The Smallholder Tea Authority helps those who choose to grow that crop.

In the area of industrial policy, Malawi is aggressively pursuing one of the most market-orientated regimes in the sub-Saharan region (Kaluwa *et al.*, 1991). It is gradually relaxing most import restrictions (Malawi Government, 1991) and also some export restrictions. In addition, the Government has developed an investment code intended to encourage entrepreneurs who have the capacity to invest in areas in which export goods can be generated. Incentives are provided for indigenous entrepreneurs. Since the major constraint facing small entrepreneurs is cash flow, a number of agencies have been set up, such as the Small Enterprise Development Organization of Malawi, the Development of Malawian Traders Trust and the Malawi Union of Savings and Cooperatives, all aimed at assisting indigenous entrepreneurs to break into various types of industries (Scarborough, 1990).

In the external sector, foreign exchange has been liberalized. Firms no longer have to apply for foreign exchange through the Reserve Bank (Malawi Government, 1991), and this role has been passed to the commercial banks (Kaluwa *et al.*, 1991). In addition, external routes are being diversified to include the northern corridor, which will carry road, rail and lake transport. The growing and manufacturing of export commodities is being encouraged. The exchange rate is being managed in such a way as to maintain stability and retain Malawi's competitiveness (Scarborough, 1990; Kaluwa *et al.*, 1991; Malawi Government, 1991).

Recent macroeconomic policies are thus geared to making Malawi more market orientated and competitive, both internally and externally. These policies are extensions of the market-orientated policies of the International Monetary Fund and the World Bank, implemented by means of the three structural adjustment programmes and one enhanced structural adjustment facility that the country has received.

4. The Health Sector

4.1 Population, nutrition and health status

4.1.1 Population

By the year 2015, assuming constant fertility, it is estimated that the population will have doubled, resulting in a land deficit of around 13% (World Bank, 1987). At the current rate of 3.8%, it will be difficult for the economy to experience any positive real growth.

Most of the population is concentrated in the rural areas (about 88% in 1990, down from 91.5% in 1977). The population density is about 74 people per square kilometre, which is one of the highest in the world, even by African standards. With about one-fifth of the population below the age of five, roughly one-half (46%) below the age of 15 and another 3-5% over the age of 65, Malawi has a dependency ratio of 101 to 100 active members of the population.

By most standards, the crude birth rate of 54 per 1,000 population and the crude death rate of 23 per 1,000 are on the high side. The infant mortality rate is around 149 per 1,000 live births, which is again one of the highest in the region.

4.1.2 Nutrition

Malawi's main staple food is maize. The diet is therefore rich in carbohydrates, but is complemented by protein mostly derived from fish. Malawi achieved food self-sufficiency in about 1973. As is well known, however, food self-sufficiency is of two types: national and household. Malawi has undoubtedly achieved the former but not the latter. National food self-sufficiency was achieved when the country stopped importing maize and established its own grain silos, but several thousands of households experience deficits for nearly half of each year.

The Ministry of Health (1987) reported that five months after the maize harvest had been brought in, 30% of households reported having exhausted their food supplies, and eight months after harvesting, anywhere up to 60% reported running out of supplies. This situation has several causes. First, as maize is a cash crop, it is sold not only at the time of harvest but throughout the year. Second, at least up to the mid-1980s, maize was bought cheaply by the ADMARC, so that a great

deal had to be sold in order that adequate cash could be obtained for household outlays. Finally, soil degradation and population density have combined to lower maize harvests in recent years

The maize deficits result in part in inadequate nutrition, particularly for children. Another major cause of malnutrition, however, is lack of knowledge about food preparation, particularly for infants and children. The nutritional content of maize flour (the major ingredient of the diet) is very low, and many mothers cannot afford additional ingredients because of low cash incomes. Even when other ingredients are available, children are not fed frequently; thus, as soon as they start taking solid foods, they are fed at the same frequency as older members of the household. A contributory reason is that women are too busy with agricultural work to find time to feed their children at the recommended frequency.

Clinical records and surveys such as the National Sample Survey of Agriculture revealed that 25–60% of children under the age of five are below the recommended weight for their age, depending on time of year and geographical location. The Survey further reported that 65% of those who survive beyond their fifth birthday are stunted, but 20% of children who are underweight for their age are underweight for their height and are therefore 'wasted' or thin. The two causes of this condition are disease and lack of food at the time of measurement (Ministry of Health, 1987).

Little has been done to determine the extent of maternal malnutrition. UNICEF reported that 15–25% of pregnant women were anaemic (Ministry of Health, 1987). Poor maternal nutrition is obviously closely tied to low birth weight, which is in turn strongly associated with high infant mortality. Poor nutrition also results in high maternal mortality.

4.1.3 Health status

In Malawi there is one physician for 52,893 people and one nurse for 2978—a low figure in view of the large number of enrolled nurses in the country; there is one hospital bed per 7127 people. In 1984, 60% of births were attended by trained personnel (including at least 5,000 birth attendants, who do not undergo lengthy formal training but are specifically trained for certain tasks), and 70% of women received antenatal care from such personnel. The proportion of children between the ages of 1 and 2 who were fully immunized was 55% (Ministry of Health, 1987).

These statistics are only broad indicators, since there is no formal requirement in Malawi to report births and deaths. Even facility-based statistics on in-patients are limited, as they are poorly maintained. Despite these qualifications, certain inferences can be made.

Children under five, who make up 20% of the population, account for 57% of all deaths in Malawi. Of the deaths that occur in this age group, about one-quarter occur during the first month of life, another fourth between the second month and the first birthday and the remaining half between the first and the fourth year of life. Malnutrition accounts for some of the high mortality during the first year of life, when many changes occur in a child's development. The incidence of deaths is highest in the rural areas and among the urban poor. Rural infant mortality is twice that in urban areas, and since 90% of the population is rural about 95% of infant deaths occur in rural areas (Ministry of Health, 1987).

Data on in-patients indicates that the leading cause of death in Malawi among children under five is measles, which accounts for about 16% of deaths (Table 9). Following closely after measles is pneumonia, which accounts for 13% of reported deaths; then come nutritional deficiency (11.2%) and malaria (10.1%). Together, these four leading causes account for just over one-half of reported hospital deaths in this age group.

It is notable that at least 60% of these causes of death can be prevented or treated through primary health care. As nutritional deficiency may be an underlying cause or at least a contributing factor in the 10 major causes of death, it should be possible to reverse the trend in childhood mortality.

Table 9 : The Ten Leading Causes of Death among Children aged 0-4 years, Malawi, 1983 (based on reported hospital deaths)

Disease	Total number of deaths reported	Percentage of all deaths	Cumulative percentage
Measles	975	16.2	16.2
Pneumonia	786	13.0	29.2
Nutritional deficiency	673	11.2	40.4
Malaria	611	10.1	50.5
Anaemia	549	9.1	59.6
Diarrhoeal diseases	504	8.4	68.0
Tetanus	256	4.2	72.2
Disease of the nervous system	96	1.6	73.8
Accidents and injuries	89	1.5	75.3
Tuberculosis	28	0.5	75.8
Other diseases	1,461	24.2	100.0
Total	6,028	100.0	100.0

From Ministry of Health (1987).

The main reason for most hospital visits as out-patients by children under five is malaria, which accounts for 25–35% of visits. The next most frequent causes are respiratory infections and abdominal and gastrointestinal complaints. These three causes together account for 50–65% of outpatient visits by under-fives. The leading causes of morbidity in Malawi are reflected in these frequent causes of out-patient visits. Although schistosomiasis and leprosy do not appear on the list of the 10 leading causes of morbidity, they are significant public health problems in Malawi. Schistosomiasis accounts for only 2% of total morbidity among people of all ages and for 1.5% of mortality among children aged 4 or less. The problem is, however, widely spread, even in areas that are not irrigated, and surveys in different parts of Malawi have indicated that the carrier rate could be as high as 50% (Ministry of Health, 1987).

4.2 The health system

4.2.1 Organization of the health sector

The health sector is organized primarily around the activities of the Ministry of Health, which has the main responsibility for the development of policies, planning strategies and programmes for health care in Malawi. The Private Hospital Association of Malawi, the other major health care provider, is made up mainly of health institutions run by churches and other private voluntary agencies. The Ministry of Local Government also participates in health care provision, as do the Army, the police, industries and estates, each with specific target groups.

Primary health care is provided at five levels of service: the community level, health centres and rural hospitals, district hospitals, central hospitals and special hospitals (Table 10). These levels correspond closely to the services provided by the Ministry of Health, although there is some overlap with services provided by the Private Hospital Association. The five levels are organized so that district hospitals can act as referral centres for the health centres, as well as serving the local population in the area in which they are located. Central hospitals are regional referral hospitals and differ from district hospitals in that they offer specialist referral care for the region. Finally, special hospitals are institutions that offer specific services, including mental health care and in-patient care for leprosy and tuberculosis.

The emphasis in this hierarchy is the referral role of each level. Thus, patients first contact a health centre and are then referred up the ladder as each level fails to provide adequate care. In this way, each level should provide the care it is best equipped to provide; however, this has not happened in practice, and the by-passing that has resulted has created overcrowding at the highest referral levels.

Table 10 : Health Facilities in Malawi, 1986

Health Unit	Total No. of units	Total No. of beds
General hospitals ^a	48	6,981
Leprosy & psychiatric hospitals	6	459
Primary health care centres	38	1,459
Dispensaries/maternity units	164	1,962
Maternity units	96	351
Dispensaries	310	303
Health posts	67	8
Total	729	11,523

From Ministry of Health (1987).

^aIncludes central and district hospitals; total includes units managed by the Ministry of Health, the Private Hospital Association of Malawi, local government and others.

The Private Hospital Association has close links with the Ministry of Health through salary subsidies; however, the link does not extend to management, and the Association is managed separately and is largely autonomous. Another link is through the procurement of drugs, since hospitals within the Private Hospital Association are allowed to buy drugs from the Central Medical Stores, and the Government currently subsidizes the operations of the Central Stores.

There is also a small private sub-sector of providers, but by the mid 1980s only 35 private doctors were practising. Recent government policy has been to encourage private practice, in order to attract local doctors who are currently practising outside the country. In addition, there is an unknown number of traditional healers who have no formal links with the Ministry of Health but are a vital component of the health system (Ministry of Health, 1987).

4.3 Health financing

At the general level, the public sector is the single most important source of finance for health. Close behind is the Private Hospital Association, which is a major source of direct private payments. While voluntary bodies do not contribute much in financing, they generate and reinvest their funds as direct private payments for health. The three major sources of financing are the public sector, direct private payments and foreign aid; the private sector is a distant fourth source (Table 11).

Table 11 : Financing Health in Malawi, by source, 1980-81

Source	Amount	
	Thousand kwachas	%
Public Sector:		
Central Government:		
Ministry of Health	14,424	39.42
Other Ministries	1,111	3.04
Local Government	2,132	5.83
Other Statutory Bodies	264	0.72
Total Public Sector	17,931	49.00
Private Sector:		
Local Voluntary Bodies	728	1.99
Insurance	1,200	3.25
Industry	533	1.46
Total Private Sector	2,461	6.73
Private Hospital Association of Malawi		
Direct private payments for health services	11,668	31.89
Foreign Aid		
Official	2,935	8.02
Private	1,598	4.37
Total	4,533	12.39
GRAND TOTAL:	33,593^a	100.00

Adapted from Ministry of Health (1983), p.22; original table edited for clarity.

This total differs from that presented in the original document, 36,646.6 kwachas, which may be a printing or summing error.

4.3.1 Ministry of Health institutions

Ministry of Health services and institutions are basically free and depend on government funding. Every financial year, the Ministry of Health submits budget estimates which are approved by the National Assembly. Until about three years ago, the approved estimates of expenditure were simply indicative, but now strict adherence to the line items is required. Hospital budgets are largely set on the basis of historical trends and any future changes to be made. No account is taken of the population to be served.

Available data reveal that the bulk of the money voted by the Ministry of Health is spent on health institutions (Table 12). Since most personnel training is carried out either by the Private Hospital Association or through overseas scholarships, only about 3% of the total expenditure by the Ministry goes to training institutions. A further breakdown of the allocations for health institutions shows that a little less than one-half is spent on the two central hospitals and one general

hospital (Table 13). Great emphasis is therefore placed on hospital-based care: more than 85% of the Ministry of Health budget is spent on hospitals and another 3–5% on training institutions. Administration takes up the largest share of the remainder, the rest going to programmes such as child spacing and maternal and child health, representing mainly preventive care (Table 12).

Table 12 : Ministry of Health Programme Allocations, Malawi, 1987–90
(in million kwacha)

Programme	1987-88	1988-89	1989-90
Administration and general	7.98	8.89	11.56
Health institutions	31.69	39.88	57.35
Training institutions	1.08	1.52	1.94
Total	40.75	50.30	70.85

From Malawi Government, Appropriations Accounts, 1988, and Estimates of Expenditure on Revenue Account, 1989–90.

While all three tertiary hospitals have paying departments, in which a charge is made for the services they deliver, only 2–3% of total expenditure is generated by those departments (Ngalande-Banda, 1989b). Hospitals in Malawi therefore rely largely on the Ministry of Health budget.

Table 13 : Percentage Share of Ministry of Health Expenditure by Type of Hospital, Malawi, 1987–90.

Institution	1987-88	1988-89	1989-90
Kamuyzu Central Hospital	16.16	17.85	17.18
Queen Elizabeth Central Hospital	24.33	22.49	21.59
Zomba General Hospital	6.72	7.35	7.55
District Hospitals ^a	39.54	42.68	40.00
Other Institutions	13.25	9.63	13.68

Calculated from Appropriations Accounts and Budget Document No.1 for Financial Year 1989–90 (Ministry of Health).

^aIncludes health centres and rural hospitals.

4.3.2 Financing of private hospitals (Private Hospital Association of Malawi)

Hospitals within the Private Hospital Association have four sources of funds, in comparison to the two sources of the hospitals of the Ministry of Health: they obtain subsidies from the Government and from the churches to which they belong, they charge fees, and they receive donations from overseas. These sources contribute to varying degrees each year and, with the exception of government subsidies and patients' fees, can be very unpredictable.

The Government generally provides more than one-third of the funds for all types of units taken together, mostly in the form of local staff salaries. Another one-third of the funds is generated from fees, and overseas funds are a distant third source of funds. The fourth source accounts for less than 10% and comprises mainly local donations. Institutions within the Private Hospital Association differ in the extent to which they rely on these four sources (Ngalande-Banda, 1989a; Tilak, 1989; Table 14).

Table 14 : Percentages provided by different sources of funding for private health units within the Private Hospital Association of Malawi

Type of Unit	Government	Fees	Overseas	Others
Hospitals	37.6	38.3	18.8	5.3
Primary health care centres	41.4	44.1	7.2	7.4
Health Centres	42.6	44.9	7.9	4.6
Health sub-centres	41.3	54.7	0.7	3.4
Special units	7.7	-	67.4	24.9
Others	52.5	24.3	17.1	6.1
Average	38.7	37.6	17.4	6.3

Cited in Ministry of Health (1983), p.26.

A fundamental difference in the running of Ministry of Health institutions and of those within the Private Hospital Association is that all of the former are accountable to Ministry of Health headquarters, to which all revenues generated must be sent, whereas revenues generated in hospitals in the Private Hospital Association are often retained by the institution for the provision of its services. They therefore have an incentive to collect fees.

4.4 Health sector policies

Drawing up policies in the health sector is the prerogative of the Ministry of Health, and the current policies are contained in the National Health Plan, which covers the decade 1986-95. Although this plan is the third, it does not differ from the two previous ones, in that it is largely a list of wishes, with few operational guidelines. The major reason that no clear statement of policy is contained in the current plan may be that it concedes that health is a sensitive area, in that it is closely associated with cultural feelings about birth and death (Ministry of Health, 1987).

4.4.1 Access to health care

The Ministry of Health has been at the forefront in ensuring an even regional distribution of facilities that provide health care and thus uniform quality of care across the country. It was for this reason that private practice was discouraged for a long time.

Government efforts to ensure access to health care have, however, been beset by problems of communication infrastructure and the predominance of female staff in the health sector: Women tend to be available in areas closest to their husbands' places of work, which are usually in urban areas. Funding problems have been another contributing factor. In the current National Health Plan, the Government has disclosed that the development of additional health posts and primary health centres has been set aside.

The National Sample Survey of Agriculture for the cropping season 1980-81 indicated that 62% of the population of rural Malawi were within 2-8 km of a clinic for children under five, and just under 55% were near a medical dispensary. The Survey also showed that about 37% of the population was further than 8 km from a medical dispensary (Table 15).

To encourage use of facilities, health care has been provided free at the point of consumption. Even in facilities where there are paying departments (see Table 16), no effort is made to determine a consumer's ability to pay, and those who can afford to pay for health care are at liberty to demand free service. The National Health Plan gives no indication of plans to change this policy now or in the future.

Table 15 : Access to Health Facilities in Rural Malawi: percentage of households by distance from facilities.

Agricultural development division	Medical dispensary			Under-fives clinic		
	< 2 km	2-8 km	> 8 km	< 2 km	2-8 km	> 8 km
Karonga	0.8	56.5	42.7	30.4	59.6	10.0
Mzuzu	5.4	48.3	46.3	18.0	57.5	24.4
Kasungu	7.5	43.3	49.2	15.8	65.8	18.5
Salima	16.1	48.7	35.2	30.5	50.3	19.2
Lilongwe	6.4	58.9	34.7	14.1	70.3	15.6
Liwonde	8.6	48.7	42.7	12.7	58.0	29.3
Blantyre	8.7	63.6	27.7	19.3	66.1	14.6
Ngabu	12.5	60.9	26.6	32.5	48.6	18.9
Malawi	8.3	54.6	37.1	18.2	62.3	19.5

From National Sample Survey of Agriculture (1980-81)

4.4.2 Family Planning

The Government has long shied away from any direct involvement in family matters. Currently, it has a token programme which encourages child spacing among families who so choose. It is hoped that this programme will affect the population growth rate, but its success can be judged only when the number of families participating is known. Indications are that the contraceptive component of the programme is being used widely. Although contraceptives are dispensed to those who wish to use them, the programme differs from other family planning schemes in that abortions are not offered.

Table 16 : Fees charged per patient in In- and Out-Patient Fee-paying Departments in Public Hospitals in Malawi, 1988

Service	Kwachas
Out-patient consultation	9.00
In-patients (per day)	12.50
In-patients in private ward (per day)	25.00
Maternity ward (per day)	10.00
Surgery	55.00
X-ray	11.00
Laboratory	3.50
Subsequent visit	3.50
Dental clinic	11.00
Liver function test	14.00
Full blood count	14.00
Medical examination for driving licence	5.50
Deposit	20-30.00

*From Records of the Ministry of Health,
Government of Malawi, cited by Tilak (1989).*

4.4.3 Drug policy

Until the current health plan came into force, drugs were distributed to hospitals from the Central Medical Stores at subsidized prices. Prior to April 1984, the price of drugs was the cost-insurance freight (cif) value plus 3% to cover operating costs; since then, the pricing rule has been the cif value plus 12.5% (World Bank, 1987). The Central Medical Stores distribution centre has been responsible for the handling of all drugs, including those that are donated, and for the preparation of simple drugs.

The structural adjustment programme policies recommended doing away with all subsidies, so that since April 1984 the Central Medical Stores have been self-financing, through a fund established for that purpose. In view of the budgetary restraints, the effect of this policy will be to increase the cost of drugs to hospitals and further limit the availability of certain essential drugs that are already in short supply.

As indicated by the revision of the pricing rule, this effect was already evident in 1984.

4.4.4 Policies relating to the Private Hospital Association

The interface between the Private Hospital Association and the Ministry of Health does not mean that the Association is controlled by the Ministry. Apart from payment of staff salaries, the Association can manage its institutions without interference from the Government. This situation is about to change, however, so that the two major providers can cross-refer patients and share management techniques; the latter is a useful step, since the institutions of the Private Hospital Association appear to be better managed than those run by the Ministry.

The Association continues to have access to the services of the Central Medical Stores. If new units are planned, the Association is required to seek approval from the Ministry of Health. In a complementary way, the Ministry would not build a new unit near an existing institute of the Private Hospital Association.

4.4.5 Private practice

There is a small but expanding private sector, which is made up of retired practitioners, doctors who have trained privately and traditional healers. The Government has encouraged this sector by registering them and even sub-contracting expertise in areas of need.

5. Implications of Macroeconomic Developments on the Health Sector

Health, a social issue, is a passive sector and therefore does not feature prominently in macroeconomic policy-making. Health policy has undergone some changes during the 26 years since independence, but the alterations have been indirect, responding to general economic policies. Health conditions are, however, important for the future of any economy. In this section, we trace some of the implications of the macroeconomic developments, previously discussed.

5.1 Effects on nutrition and health

In Malawi, the health sector is closely related to the agricultural sector: the health and nutritional status of the majority of Malawians depends on agricultural policies. We have already discussed several developments in the agricultural sector that have a direct impact on the nutrition and health of the population.

Widespread price liberalization affects the health sector in a number of ways. First, it raises the prices of agricultural commodities, as has already occurred in most urban areas of the country (Scarborough, 1990). For farmers with surplus output, such increases are good news; but for most of the people who have to purchase food during part of the year (60% of households from the month of September; National Sample Survey of Agriculture, 1980-81), they mean more deficits. In the face of restraints on wages and salaries, high food prices result in a decline in real income for most workers. The resulting loss of purchasing power affects the nutritional status of households, and particularly that of children, mothers and the elderly.

Second, price liberalization turns food crops into good cash crops. Far more people are thus induced to sell part of their output, thereby increasing the number of months of deficit. When this effect is combined with the first, nutrition suffers and with it the general health of

the country. When deficits are experienced in a household, it is the children who suffer most since the frequency of meals is reduced.

Price liberalization can bring about these effects for at least two reasons. The first reason is that competition both among private buyers and between private buyers and the ADMARC will increase prices. This will affect mainly the cost of maize, the staple crop of the country. Scarborough (1990) argued that private traders are attracted to maize because of its high turnover and its record of profitability, which was established at the start of liberalization in 1987. The second reason is that price liberalization, with its attendant high price effects, tends to favour the hybrid maize which is grown principally for sale, as most households do not like its taste and have no proper technique for storing it. As stated above, sale of food crops mitigates against the nutritional status of the population.

The removal of the role of the ADMARC as a distributor of fertilizer is another development in smallholder agriculture and is perhaps a consequence of liberalization. Removal of the requirement that smallholders sell only to the ADMARC has meant that the latter has no control over the incomes of these farmers, and fertilizer debts cannot be settled at the point of sale. Farmers' clubs have now taken over the role of providing fertilizer on credit terms, while the ADMARC distributes on a cash basis. Farmers' clubs are, however, becoming unpopular because of their aggressive policy of credit recovery and their blanket default policy when a member fails to repay. Stories abound that they will confiscate anything of value from farmers who are unable to repay on time. The effect of these unpopular practices will be that less fertilizer is purchased and applied, which will have further consequences on smallholder output. As argued above, this will not necessarily result in reduced national food self-sufficiency, but it will definitely reduce household self-sufficiency.

Another important policy change is introduction of a fertilizer subsidy removal programme, which is also associated with the declining role of the ADMARC in the smallholder sector. This programme was introduced to fulfil one of the conditions of the third structural adjustment loan, the objective of which was to reduce the balance of payments and public deficits (Kydd, 1988; Scarborough, 1990). Few of the studies that have been done on this topic address the effects of the policy on deficits, and most have been concerned with its effects on the efficiency and diversification of smallholder production, export promotion and food self-sufficiency (Kandoole, 1988; Nathan Associates, 1987, cited by Scarborough, 1990). The consequent increase in the price of fertilizer will eventually lead to a reduction in fertilizer application, particularly by farmers with the smallest holdings, whose households are those with the lowest incomes and who report deficits the earliest. Another

consequence of this policy is that large farmers will have a further advantage over small farmers (Scarborough, 1990). If land policies result in the freeing of sufficient land to ease the shortage, there may be some relief; but, since any easing of the land problem requires that the land revert back to smallholders, it is unlikely that the situation will be relieved.

Relaxation of the restriction on export crops will probably mean that the utilization of a large area of land will be shifted to export crops at the expense of food crops. The consequent increase in the number of households that rely on purchased food can only lead to further food price increases, which will affect particularly those households with regular deficits, in which the nutritional status is already poor.

5.2 Effects on health service delivery

Health service delivery has suffered in the past for two major reasons: the rate of population growth and the financing of health care (Ministry of Health, 1983; Ngalande Banda, 1989b). As discussed above, the Government has chosen to deal with the population issue indirectly, through child spacing programmes (Roe & Johnson, 1989). This policy is unlikely to slow the rate of increase substantially over the next two decades, and a doubling of the population is projected by the year 2015 (Ministry of Health, 1987). The problems of delivering health services will therefore more than double.

Financing must also be faced head-on if health service delivery is not to suffer further. Structural adjustment places emphasis on reducing expenditure in order to contain budget deficits. With her large population and shortage of manpower, the country cannot afford health care delivery on the scale required. Two solutions are available: either to broaden the range of services that are chargeable at Ministry of Health facilities or to concentrate on preventive care (Ngalande Banda, 1989b). The question of fees-for-service might be put to public debate in a campaign to convince the public that health should be paid for. Free care was important during the first few years of independence when the people had to be introduced to modern medicine, but that stage has now passed. The other argument for giving free care is that incomes are low. Although this is still the case, private hospitals are able to recover up to one-third of their running costs from fee collection (Ngalande Banda, 1989b; Tilak, 1989), and Roe and Johnson (1989) report an even higher figure (58%). Furthermore, people are in the habit of paying for treatment by traditional healers.

There is the general perception that services provided by the Government are in the interests of the public, which is not necessarily so for those provided privately. The Government itself appears to be

responsible for this perception, since one of its clearly articulated objectives is to provide free care (Ministry of Health, 1987). Private care is often perceived as being of higher quality than public care, perhaps because users feel that they have some control over what they are getting. A sharp distinction is made between traditional healing and modern medicine. Traditional healing takes a "holistic" approach to an illness: patients are treated not only for symptoms but also for any related problems, which they may not have described but which are the responsibility of the healer to identify. Modern medicine does not often provide this kind of 'escape', which may be what users are prepared to pay for.

Another important development is the removal of subsidies on drugs at the level of the Central Medical Stores. The Stores have been supplying drugs to hospitals at a lower cost than that which would be required to replace those drugs. The proposal to establish a revolving drug fund that can be used in order to replenish drugs (Ministry of Health, 1987) will affect the facilities of both the Ministry of Health and the Private Hospital Association, which will have to spend more on drugs. The current share of expenditure on drugs is 30-45%, and this is likely to increase. Health service delivery may therefore suffer.

A further problem is the failure for health posts to be established and adequately staffed (Ministry of Health, 1987). According to the National Health Plan, the staffing problem results largely from an overrepresentation in the health system of female staff, who tend to reside where their husbands work. Although the Plan does not stress the unavailability of drugs, this is certainly a factor in the demise of health posts. These problems have resulted in overcrowding at district and tertiary hospitals, and this trend is unlikely to change. Overcrowded health facilities greatly undermine the ability of health personnel to deliver health services.

A positive development is that the lifting of restrictions on the availability of foreign exchange may enable health service providers to import adequate supplies of drugs, machinery and equipment to help them improve health care delivery.

5.3 Implications for policy

Future policies can avoid past mistakes in several ways. The emphasis of past health programmes has been on curative rather than preventive care. In an economy in which there is a high rate of population growth, such a policy will always give results that lag behind their target. Future health programmes should therefore emphasize the role of preventive care; it is only in this way that policies can have a decisive impact.

A means must be found of encouraging those who can pay to do so. This move will invariably require some changes in the quality of care offered within the paying departments of tertiary hospitals and also some managerial changes. The hospitals may have to be given limited control over the funds they raise.

Agricultural policies are crucial to the health of the population, so future policies should be formulated with the health sector in mind. The links between the two sectors—directly through nutrition and indirectly through incomes—must be clearly understood before a policy change is undertaken.

Future policies should also take full advantage of the role that private hospitals can play. The Government is currently assisting the private hospitals, but in the area of management the Government has much to learn from them, and in future an active relationship should be developed. The Government in turn has more experience in fund-raising activities, so it might concentrate on this aspect while the private hospitals bring in the managerial skills.

The link between family planning programmes and the availability of health facilities is another area for future policy. While there is increasing acceptance of the child spacing programme, this policy is passive rather than active. The Government will have to formulate active population control programmes that directly influence the rate of population growth.

Finally, future policies, particularly in the foreign sector, should deliberately favour the health sector. Health personnel might be offered tax relief, in order to attract them back into the country, and advantages in procuring equipment.

Concluding remarks

While the economy has made some progress, the social sectors still face problems. Some stem from implementation of the economic programmes; others have arisen from failure to allocate adequate funds to the health sector, particularly for recurrent expenditures. Improvements in the health sector have often been confused with continuing civil works. The health sector has performed very poorly in the area of staff retention, to the point that certain plans have had to be abandoned. The health sector has therefore not enjoyed the benefits of the expansion that occurred during the first 15 years of independence, and some of the recent attempts to redress the balance appear to be too little and too late.

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