

**DRAFT**

**Economic Reforms and Rural Livelihoods in Malawi**

by

Kunal Sen and Archanjel Chinkunda

**LADDER Working Paper No.20**

July 2002

## **ABOUT LADDER**

LADDER is a research project funded by the Policy Research Programme of the UK Department for International Development (DFID) that seeks to identify alternative routes by which the rural poor can climb out of poverty. LADDER is working with nearly 40 villages and 1,200 households in Uganda, Tanzania, Malawi and Kenya to discover the blocking and enabling agencies in the institutional environment facing rural people that hinder or help their quest for better standards of living for themselves and their families.

This working paper represents work-in-progress and the reader is advised that it has not been subjected to academic quality control, nor edited for errors of fact or interpretation. The paper forms part of a mosaic of research findings that will contribute towards an overall picture of rural livelihoods and micro-macro links to poverty policies in the case-study countries. The findings and views expressed here are solely the responsibility of the authors and are not attributable to DFID.

All available Working Papers and Village Reports can be downloaded from the project website: <http://www.uea.ac.uk/dev/odg/ladder/>, which also details other information about the project. For any further enquiries, please email [j.mims@uea.ac.uk](mailto:j.mims@uea.ac.uk).

# Economic Reforms and Rural Livelihoods in Malawi

by

Kunal Sen and Archanjel Chinkunda\*

## Summary

*Prior to the 1980s, there has been a strong bias against smallholder agriculture and towards estate agriculture in Malawi's development strategy. The economic reforms enacted in the 1980s and 1990s attempted to redress this bias by removing most restrictions of pricing, output choice and marketing for smallholder farmers. This paper examines whether the reforms have had the desired effect of providing a supportive environment for smallholder farmers to follow livelihood strategies that would enable them to move out of poverty. The paper finds evidence of a positive supply side impact of reforms on smallholder agriculture, with a significant increase in food crops production in the period 1994-2000, particularly in sweet potatoes, cassava and maize. Coupled with rising real prices of most food crops during this period, this has meant that rural incomes of most smallholder farmers has seen a sustained increase in the post-reform period. However, significant weaknesses remain in the economic environment related to agricultural marketing, cost and provision of inputs, particularly fertilisers, and agricultural credit. This is most evident in the ongoing food crisis in the country, where weather-related shocks to maize production have been exacerbated by weaknesses in marketing and food distribution systems. The paper argues that a comprehensive poverty reduction programme in Malawi will need to emphasise a diversified set of livelihood strategies for rural households that encompass engagement in maize production, engagement in tobacco production and greater involvement in nonfarm economic activities.*

## Introduction

Since independence in 1964 to the late 1970s, Malawi was one of the strongest economic performers in Sub-Saharan Africa. During this period, economic growth was largely driven by an export-oriented agricultural sector, as Malawi exploited its comparative advantage in agriculture, particularly in cash crops such as tobacco and tea (Sahn and Arulpragasam, 1994). At the same time, the economic development strategy was based on the promotion of large-scale commercial agriculture by the state in the estate sector. Much of the resources that were needed to finance the expansion of the estate sector were extracted from the smallholder agriculture sector via implicit taxation of food crops (Kydd and Christiansen, 1982). Thus, peasant households, the bulk of the population, did not share in the economic gains experienced by the Malawian economy in the 1960s and 1970s.

The fragility of the development strategy was exposed when the economy was buffeted by external shocks in the late 1970s. Following the second oil shock, the external terms of trade deteriorated sharply, and by 1980 it was less than 0.56 per cent of its 1970 level (Sahn and Arulpragasam *op cit.*). Along with this was the influx of refugees from war-torn Mozambique

---

\* School of Development Studies and Overseas Development Group, University of East Anglia, Norwich NR4 7TJ, UK; and Ministry of Finance and Economic Planning, Lilongwe, Malawi. Email address: [K.Sen@uea.ac.uk](mailto:K.Sen@uea.ac.uk) and [achinkunda@hotmail.com](mailto:achinkunda@hotmail.com)

and the cutting off of Malawi's transport corridor. Finally, the drought of 1980/81 severely impacted on agricultural production.

In response to the deteriorating macroeconomic situation, the Government of Malawi began an adjustment program late in 1979, with support from the IMF. Structural adjustment programmes continued through the 1980s and 1990s, supported by successive IMF stand-by operations and World Bank structural and sector adjustment loans. More recent developments along these lines have been the adoption of the Poverty Reduction and Growth Facilities (PRGF), sponsored by the IMF, by the Government of Malawi.

The main focus of the economic reform programme in the 1990s was to redress the policy bias against the smallholder agriculture sector that was evident in the previous three decades. Thus, the agriculture sector adjustment loan approved in 1990 included agreements to legalise the production of burley tobacco on a limited scale by smallholder farmers and to discourage the transfer of the land from the latter to the estate sector. More such policy reforms were adopted later in the 1990s including the decontrol of the prices of many crops grown by smallholder agriculturists in 1992-93, and the liberalization of the import and domestic distribution of fertilizers and the production and marketing of hybrid maize seeds in 1993-94 (fertilizer subsidies were phased out much earlier beginning in 1985-86). A more detailed account of the policy reforms undertaken in Malawi during this period is provided in the Appendix.

This paper examines the effect of the economic reforms on the rural households in Malawi. Specifically, the paper attempts to assess the extent to which the reforms helped or hindered livelihood strategies that provide small holder farmer households a route out of poverty. The remainder of the paper is in five sections. The next section provides an overview of the Malawian economy from 1982 to 2000. Section 3 uses the 1997/98 Integrated Household Survey to delineate the defining characteristics of poor and non-poor households with a view to understanding the relationship between rural poverty and livelihood diversification. Section 4 examines the behaviour of the prices of major agricultural commodities in Malawi in recent years. Section 5 discusses some key policy constraints to livelihood diversification and poverty reduction. Section 6 concludes.

### ***The Evolution of the Malawian Economy, 1982-2000***

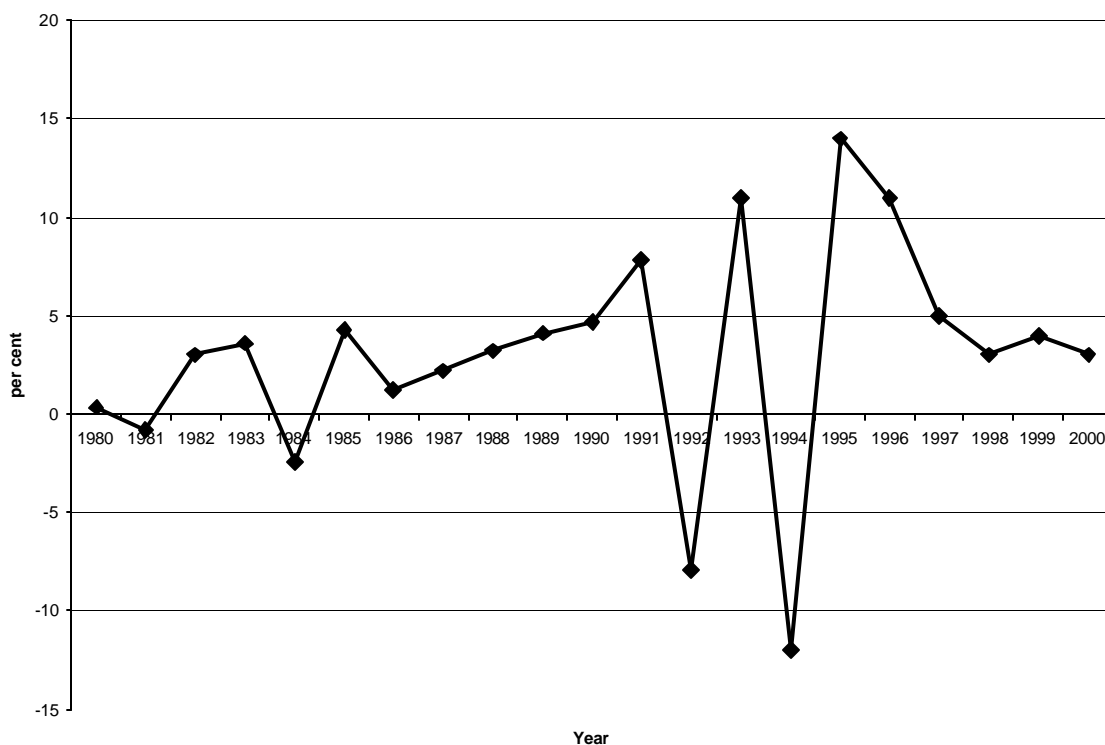
#### ***Real GDP Growth***

From independence in 1964, growth in output of the economy has continued to be dominated by rain-fed agriculture, especially the smallholder agricultural sector. As a result, the economy has been highly susceptible to the effects of weather. The vulnerability of the economy to poor weather has been evident in drought years when more Malawians have been driven into absolute poverty (GOM, 1995).

Between 1964 and 1979, the economy registered an average annual growth rate of about 6 percent, well above the population growth rate of 2.9 percent. However, due to rising energy prices, disrupted external trade routes and influx of refugees from the wars in neighbouring Mozambique, drought and the declining terms of trade, the economy slowed down in the 1980s averaging only 3 percent per annum. Most of this growth emanated from the estate agriculture, government services and manufacturing sector. In the 1990s, economic growth slowed down because of fluctuating output growth in the smallholder agricultural sector due

to effects of weather. As a result, the average growth rate between 1990 and 1994 was only 0.6 percent (GOM, 1995).

Figure 1. Real GDP Growth Rates



The long-term (1975 – 1995) historical annual average rate of growth has been 2.4 percent. The average annual rate of growth has doubled to 5 percent over the most recent period (1995 – 2000), but amounted to only 3.6 percent in 1999 and 1.7 in 2000 (GOM, 2001). However, the growth rate is below the annual rate of GDP growth of 6 percent required to reduce the absolute numbers of Malawians living in poverty.

### *Sectoral Distribution of GDP*

Growth of output in the economy has continued to be dominated by agriculture and especially the smallholder sector. Agriculture continues to contribute over 35 per cent to GDP, with its share in GDP increasing in 1996-2000. The economy has also recently witnessed substantial growth in distribution activities. The manufacturing sector, which has been particularly singled out by the government in its efforts to diversify the economy, has not grown at all, only registering a growth of 0.3 percent between 1995 and 2001 (Economic Report, Government of Malawi, 2001). The smallholder agriculture has grown substantially particularly in the past five years. There has also been an increase in financial and professional services, in line with the liberalization of the financial sector that has resulted in the establishment of an increased number of financial institutions (Chulu, 2002).

Table 1. Sectoral Share of Gross Domestic Product

	1980-85	1986-90	1991-95	1996-2000
Agriculture	37.4	35.5	34.0	37.9
Smallscale	29.6	27.0	24.1	29.5
Largescale	7.9	8.6	9.9	8.4
Manufacturing	12.4	12.7	13.4	13.0
Electricity and Water	2.0	2.2	2.7	1.6
Construction	4.6	4.2	4.2	2.5
Distribution	13.2	12.3	11.9	20.1
Transport and Communication	6.2	5.8	5.6	4.5
Financial and Professional Services	6.5	6.4	6.7	7.9
Ownership of Dwellings	4.3	4.3	4.5	2.3
Private Social & Community Services	4.2	4.4	4.5	2.5
Producers of Government Services	11.6	14.7	14.8	10.3

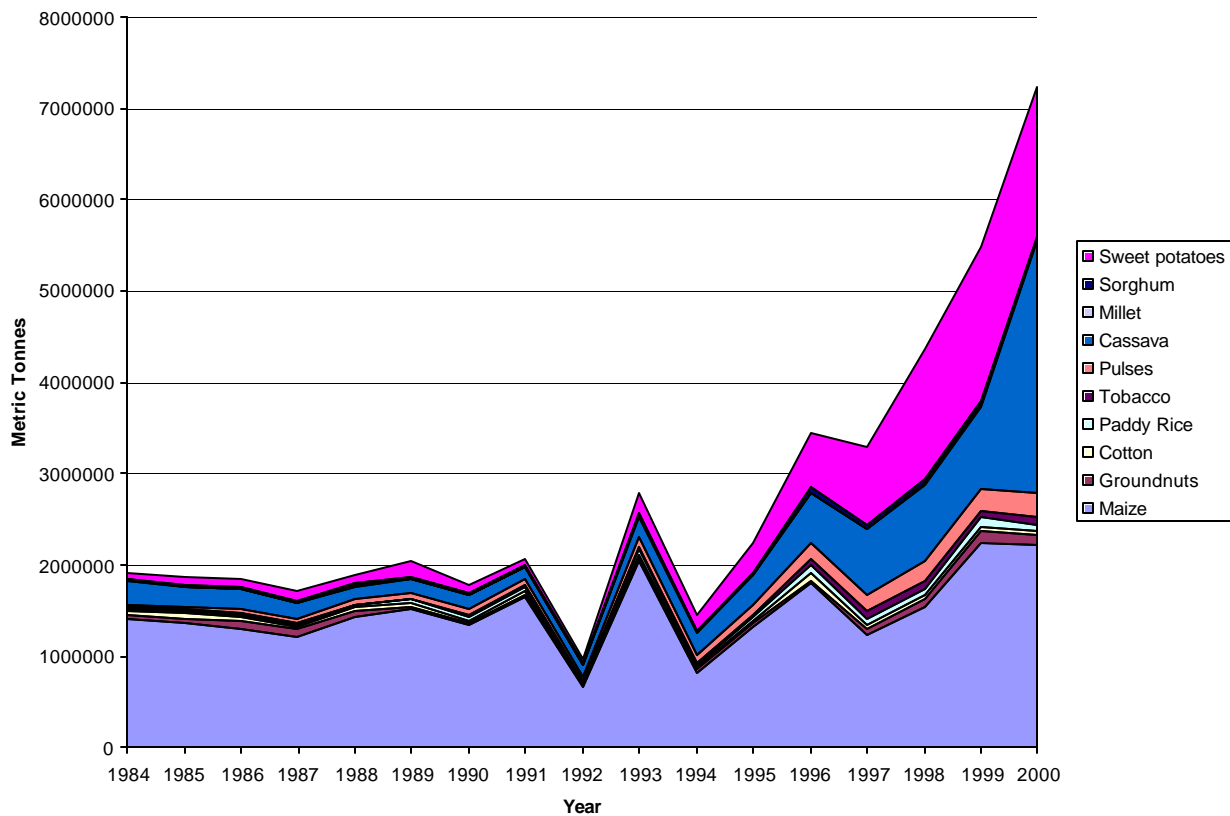
Source: *Economic Reports*, Government of Malawi.

### *The Smallholder Agriculture Sector*

There has been a significant increase in smallholder agriculture production in the period 1994-2000. Total agricultural production in 2000 was five times total production in 1994. The surge in smallholder production since 1994 occurred after a decade of stagnation in production in the smallholder sector since 1984 (Figure 2). This seems to suggest that economic reforms have had the desired effect of bringing forth a significant supply response from the smallholder sector<sup>1</sup>. Most impressive has been the increase in production of maize, sweet potatoes and cassava since 1994, all crops grown in large amounts by the vast majority of smallholder farmers who own little land<sup>2</sup>. Maize remains the main food crop, followed by sweet potatoes, cassava, pulses, paddy rice, groundnuts, sorghum and millet.

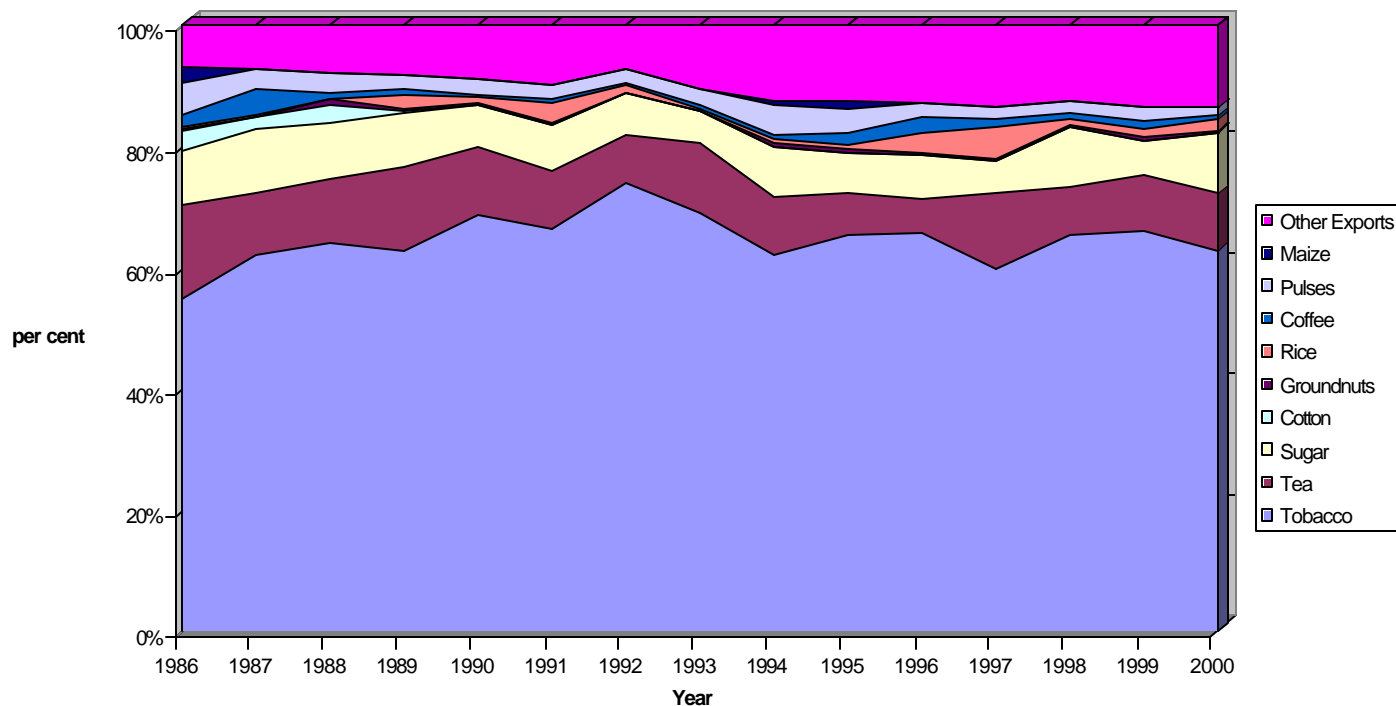
The principal domestic export crops have been dominated by tobacco followed by tea, sugar, coffee, and cotton. Groundnut, which has been on the list of principal export crops in Malawi in the 19980s, has ceased to be on the list from the 1990s. Maize has also been exported in good years such as 1994 and 1995. However, the yields of main cash crops grown by smallholder farmers have not increased significantly over the years. For example, the average yield of fire-cured tobacco, which was 389 Kilograms per hectare between 1970 and 1980, declined to 337 Kilograms per hectare between 1981 and 1994. The corresponding average yields of sun-air cured tobacco were 364 Kilograms and 287 Kilograms per hectare in 1981 and 1984 respectively (UNDP, 2001). The removal of restrictions on the cultivation of burley tobacco by smallholders led to a marked increase in production by the smallholder subsector. However, total production of burley tobacco declined due to a reduction on estates caused by higher input costs and rising insecurity in the rural areas.

Figure 2. Smallholder Agricultural Production, 1984-2000



Source: *Economic Reports*, Government of Malawi, and World Bank (1995).

Figure 3. Composition of Exports, 1986-2000



Source: *Economic Reports*, Government of Malawi .

### *Composition of Exports*

The average of share of total trade to GDP in general and exports to GDP in particular has not changed significantly over the years. For example, exports have averaged between 20 to 25 percent of GDP while imports have ranged between 25 and 33 percent of GDP since the 1960s (Chulu 2002).

Exports do not show significant changes in composition over the period 1986-2000, with tobacco accounting for more than 50 per cent of total exports over the entire period (Figure 3). Thus, tobacco still remains the major foreign exchange earner despite efforts of diversifying into non-traditional exports.

### *Inflation Rate*

From 1980 and 1990, the inflation rate, as indicated by the Consumer Price Index (CPI) remained stable with an average of 16.6 percentage. The annual inflation rate has, however, fluctuated between 1990 and 2000. For instance the rate of inflation rose from 11.9 percent in 1990 to 34.7 percent in 1994 and then on to 83.4 percent in 1995. The rise in the inflation rate has been mainly due to fiscal slippages and external shocks.

However, prudent fiscal policies introduced in 1995 reduced inflation to 37.6 percent in 1996 before dropping again to 9.2 percent in 1997. However, by the end of 1997, fiscal prudence slackened as the budget deficit widened and money supply growth increased. Consequently, the inflation rate also increased. The Malawi Kwacha depreciated in August 1998 leading to



cost-push inflationary pressure that resulted in annual inflation rates of 29.8 percent and 44.7 percent in 1998 and 1999 respectively. In the recent years, annual inflation rates have averaged 30 percent.

### *Real Exchange Rate*

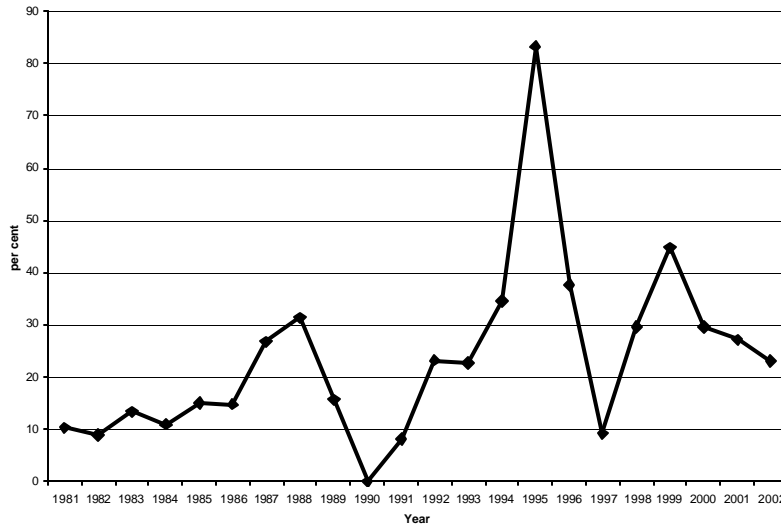
Prior to 1994, the Malawi Kwacha was fixed to a basket of other currencies of Malawi's major trading partners. This arrangement was found to be inappropriate in the context of the economic liberalization programme and the heavy import dependency of the economy. The Malawi Kwacha was persistently under pressure and undermined the economy's competitiveness (UNDP, 2001).

The overall objective of the exchange rate policy has been to maintain external competitiveness through a market determined exchange rate. Therefore, the exchange rate system was liberalized in 1994 to promote the country's competitiveness in international trade (GOM, 2002). The Malawi Kwacha was floated in February 1994 and consequently, the real effective exchange rate depreciated by 41.7 percent through the first half of 1995. However, due to the prudent fiscal and monetary policies put in place in 1994, the nominal exchange rate vis-à-vis the United States dollar stabilized at MK15.3 per United States dollar between 1995 and 1997.

The Malawi Kwacha depreciated again by 15 percent in July 1997. The fiscal slippage in 1997/98, a slowdown in donor inflows and a decline in tobacco export earnings owing to a drop in export prices, led to a further depreciation of the Malawi Kwacha of about 60 percent in August 1998. The period between 1998 and 2000 has witnessed further depreciation of the Malawi Kwacha resulting directly from low foreign exchange earnings from the export sector reaching an average of 80 Malawi Kwacha per 1 United States Dollar in January, 2001. However, after January 2001, there has been a marked appreciation of the Malawi Kwacha against major trading partner currencies with the rate going as high as 63 Malawi Kwacha per 1 United States dollar in August 2001. Reflecting changes in the nominal exchange rate and the domestic price level, the real exchange rate shows a period of relative stability in the 1980s followed by a period of considerable volatility in the 1990s, especially after the move to market-determined exchange rates in 1994 (Figure 5).

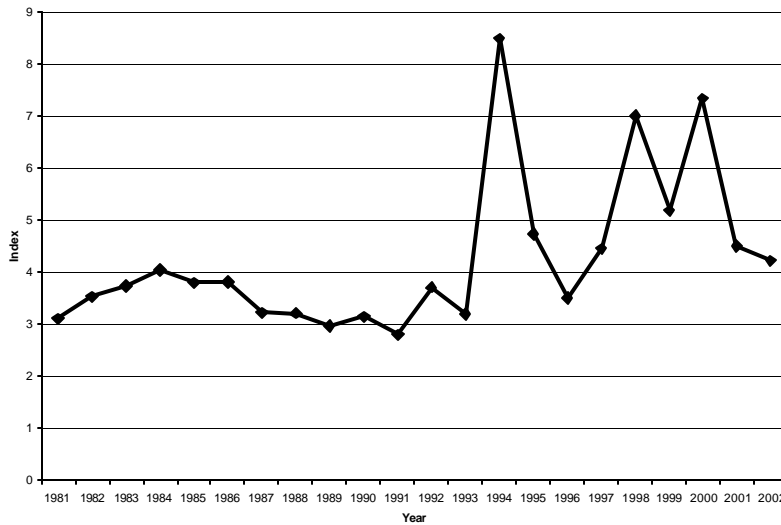
To conclude this section, while Malawi's macroeconomic performance in the 1990s has not been outstanding, there have been improvements in the growth rate of the economy, and in inflation outcomes towards the second half of the decade. There has been, however, little structural change in the economy in the past two decades, with respect to the composition of output and exports. Perhaps the most noteworthy feature in the post-reform period has been the remarkable increase in smallholder agricultural production, especially in essential food crops such as maize, sweet potatoes and cassava.

Figure 4. Inflation Rate, 1981-2002



Source: *Monthly Economic Reviews*, Reserve Bank of Malawi.

Figure 5. Real Exchange Rate (RER), 1981-2002<sup>a</sup>



Note: a.  $RER = \text{Nominal exchange rate} * \text{US producer price index} / \text{Malawi CPI}$ .

Source: *Global Financial Data*.

### ***Poverty and Rural Livelihoods in Malawi***

According to the 1997/1998 Malawi Integrated Household Survey (HIS), 66.5 per cent of the rural population is below the poverty line. Of the poor, 49.2 per cent reside in the Southern region, 40.2 per cent in the Central region and 10.6 per cent in the Northern region. Table 2 shows characteristics relating to land holding for poor and non-poor households. Clearly, rural poverty in Malawi is a smallholder agriculture phenomenon, with landless households comprising only 17.5 per cent of poor households. Among households with cropland, the bottom three quartiles of the land distribution (that is, land holdings below 0.249 ha per

household) contain the majority of the rural poor (85.7 %). It is interesting to note that the third quartile of land distribution (between a mean of 0.148 ha and a mean of 0.249 ha) contain the largest proportions of *both* poor and non-poor households (31.2 % and 32.4 % respectively), indicating that land ownership per se is not a sufficient condition for determining whether a household is likely to be in poverty.

Table 2. Landholding and Rural Poverty

	Poor	Non-Poor	All
Have cropland (%)	88.0	82.5	85.5
Households (hh) with cropland, Mean hectare (ha) per hh	0.906	1.104	0.992
Mean ha per capita	0.185	0.283	0.223
Percent of households in category with per capita cropland within national per capita landholding quartile			
Smallest quartile (mean: 0.076 ha)	29.8	15.2	23.4
2 <sup>nd</sup> quartile (mean: 0.148 ha)	24.7	16.5	21.1
3 <sup>rd</sup> quartile (mean: 0.249 ha)	31.2	32.4	31.7
Largest quartile (mean: 0.604 ha)	14.3	36.0	23.8

Source: Profile of Poverty in Malawi, 1998.

Table 3 describes the salient agricultural activities for poor and non-poor households. Around 70 per cent of both poor and non-poor households cultivate maize. Within maize cultivation, a larger proportion of non-poor households grows hybrid maize than poor households. Moreover, there is a large productivity differential (of around 20%) between poor and non-poor households for both hybrid and local maize. With respect to the cultivation of other food crops, there does not seem to be a significant difference between poor and non-poor households, though productivity differentials between these two groups of households persist. With respect to cash crops, households engaged in tobacco cultivation are less likely to be poor. There is a small proportion of households (whether poor or non-poor) cultivating other cash crops. With respect to livestock, non-poor households are more likely to own a higher number of cattle than poor households. However, there is little difference between poor and non-poor households with respect to the ownership of other types of livestock. It can be argued that while the diversity of income sources within agriculture (particularly, greater engagement with hybrid maize and tobacco cultivation) is one way of determining whether a household is likely to be in poverty or not, perhaps the more crucial distinguishing factor between poor and non-poor households is the large productivity differential that exists for the same agricultural activity.

Table 3. Agricultural Activities and Rural Poverty

Type of Activity	Poor	Non-Poor	All
<b>Food Crop Production</b>			
All food crops –Per cent who cultivate	77.	74.9	76.1
All food crops –Median household sale income	467	632	544
Maize (all)- Percent who cultivate	72.4	71.4	71.9
Maize (all) –Mean per capita production in kg	66.9	128.2	91.1
Hybrid Maize –Per cent who cultivate	30.3	37.9	33.8
Hybrid Maize –Median yield (kg/ha)	740	890	830
Hybrid Maize –Median hh sale income	491	728	612
Local Maize- Per cent who cultivate	49.1	44.2	46.9
Local Maize –Median yield (kg/ha)	490	620	490
Local Maize –Median hh sale income	235	377	281
Cassava-Per cent who cultivate	8.0	9.9	8.9
Cassava – Median yield (kg/ha)	930	1110	990
Cassava – Median hh sale income	313	451	402
Groundnut – Per cent who cultivate	28.0	27.7	27.9
Groundnut – Median yield (kg/ha)	590	670	620
Groundnut – Median hh sale income	250	260	250
Rice-Per cent who cultivate	5.1	5.8	5.4
Rice – Median yield (kg/ha)	1330	1380	1330
Rice – Median hh sale income	1309	1938	1568
Beans-Per cent who cultivate	8.8	9.9	9.3
Beans – Median yield (kg/ha)	120	180	130
Beans – Median hh sale income	85	150	103
<b>Cash Crop Production</b>			
Tobacco –Per cent who cultivate	16.6	21.6	18.9
Tobacco –Median household sale income	2125	2463	2279
Cotton- Percent who cultivate	3.6	3.0	3.3
Cotton –Median hh sale income	751	886	821
Soyabean – Per cent who cultivate	4.5	4.6	4.5
Soyabean –Median hh sale income	150	218	185
<b>Livestock Holdings</b>			
Households which receive livestock income	26.1	26.8	26.4
Mean annual household income from livestock	177.01	311.98	238.09
Cattle – Per cent of hh owning	3.9	7.9	5.7
Cattle – Average herd size	5.5	6.7	6.2
Goats – Per cent of hh owning	24.1	25.5	24.8
Goats – Average herd size	4.0	4.4	4.2
Sheep – Per cent of hh owning	1.1	1.7	1.4
Sheep – Average herd size	4.7	4.7	4.7
Pigs – Per cent of hh owning	6.3	7.5	6.9
Pigs – Average herd size	3.4	3.8	3.6
Poultry – Per cent of hh owning	47.2	51.8	49.3
Poultry – Average flock size	7.1	9.7	8.3

Source: Profile of Poverty in Malawi, 1998.

Table 4. Sources of Income (as a percentage of total income, per capita per day) for Poor and Non-Poor Rural Households

<b>Income Type</b>	<b>Poor</b>	<b>Non-Poor</b>	<b>All</b>
Net food crop sales	-0.5	-0.7	-0.6
Net cash crop sales	7.9	6.6	7.5
Net livestock and product sales	2.1	1.7	1.8
Net non-farm business sales	1.3	2.6	2.1
Employment income	13.0	17.3	15.8
In-kind income	1.6	1.7	1.7
Interest income	0.0	0.4	0.3
Rental income	0.6	0.8	0.7
Other income	3.6	4.6	4.2
Incoming income transfers	6.5	6.0	6.2
Value home production consumed	63.7	59.1	60.7
<b>Total per capita daily income</b>	<b>4.62</b>	<b>13.11</b>	<b>7.97</b>

Source: Profile of Poverty in Malawi, 1998.

Table 4 makes clear that with respect to income diversification, the significant feature that distinguishes non-poor households from poor households is the share of income obtained from wage employment, with this share for non-poor households being 17.3 per cent as compared to 13 per cent for poor households. The share of income from non-farm business sales is also higher (2.6 %) for non-poor households as compared to poor households (1.3 %). On the other hand, there is little difference between poor and non-poor households with respect to the share of income derived from the sales of food and cash crops, and livestock and products. Incoming income transfers are higher for poor households than non-poor households, suggesting that migrants' remittances have not played an important part in allowing rural households to move out of poverty. Thus, the probability of being poor is lower for households involved in wage employment and in nonfarm business, as compared to households involved in food crops and cash crops production (however, households involved in tobacco cultivation are less likely to be poor, see NEC, 2001).

The main finding from this section is that diversification of incomes to sources *outside* agriculture is more strongly correlated with lower poverty at the household level than diversification *within* agriculture<sup>3</sup>. Thus, the key implication here is that it is not rural income diversification per se that has mattered for rural poverty reduction in Malawi, but the diversification of income sources away from agriculture to wage and entrepreneurial income received from nonfarm activities.

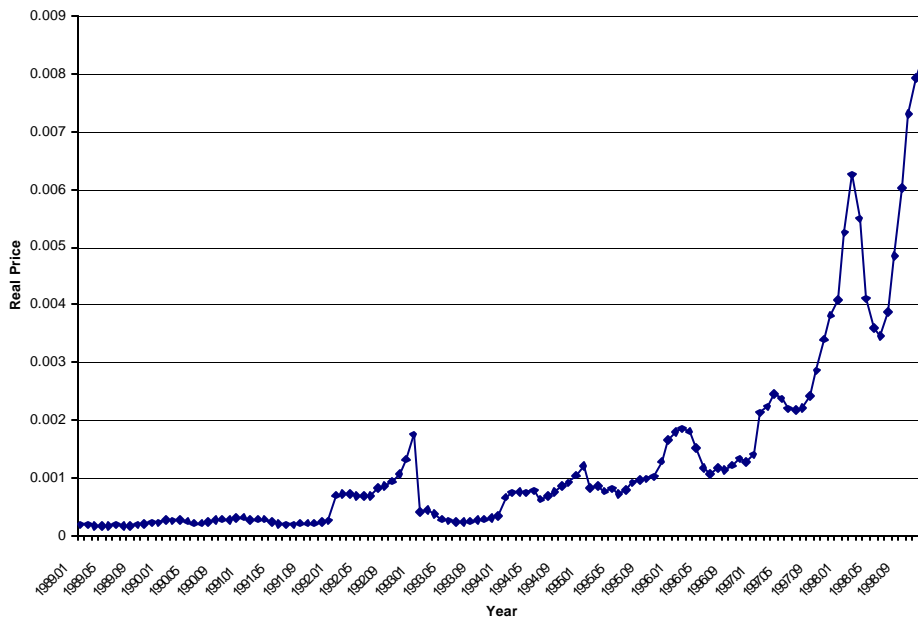
### ***The Behaviour of Agricultural Prices***

In the early 1980s, real prices of most agricultural commodities declined sharply in Malawi (Sarris and Arulpragasam, 1994). The real price of maize fell from 8.94 tambala/kg (in 1980 prices) to 4.62 tambala/kg in 1987. Similar declines were observed in the prices of rice and groundnuts. However, as Figures 6 to 8 indicate, for many commodities, this decline was reversed in the 1990s, with real prices showing an upward trend. Particularly noteworthy was the dramatic increase in the real price of maize, the staple food crop in the country, since 1994 (Figure 6). Real prices in 1998 were 28 times their 1989 level. Upward movements in real prices, though not of the same magnitude as maize, were also observed in the case of cassava, rice and beans (Figures 8 to 10). Only groundnut prices do not show a discernible

positive trend (Figure 7). In case of tobacco, real auction prices do not show any trend, and is dominated by a spike in real prices in 1994-1996 (Figure 11).

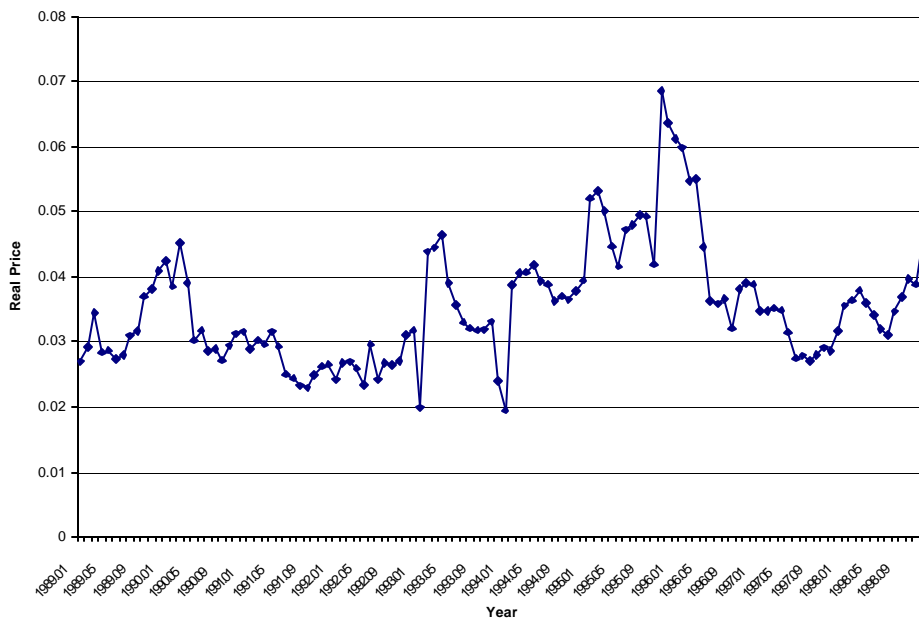
Coupled with increases in production levels in the 1990s, the increase in real agricultural prices imply that for most smallholder farmers (and especially those who were surplus producers of maize), this decade was characterized by rising incomes. Thus, one aspect of the economic reforms, which was to increase real producer prices for food and export crops, and in general, the terms of trade for smallholder agriculture, appear to have been successful, particularly with regard to food crops.

Figure 6. Real Maize Prices, Monthly



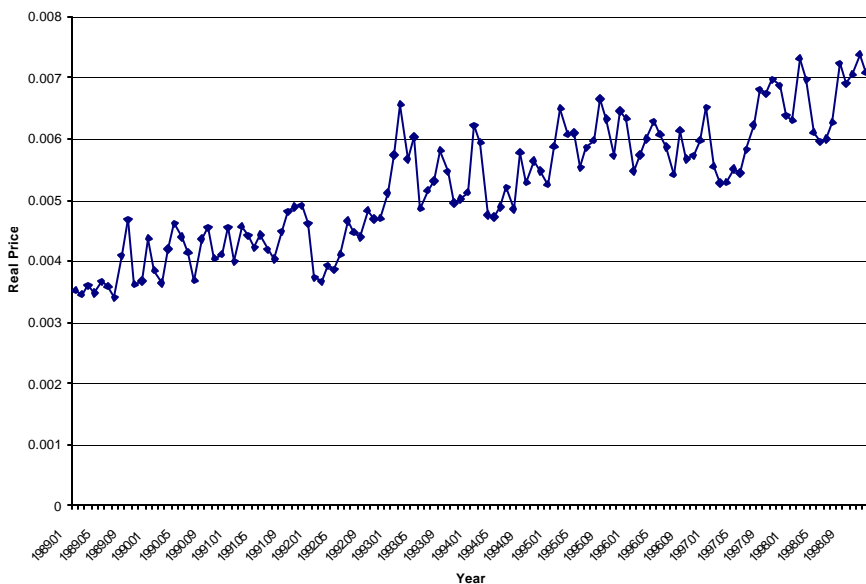
Note: Nominal maize prices are averaged over 17 ADDs, and deflated by the CPI.  
Source: Ministry of Agriculture.

Figure 7. Real Groundnut Prices, Monthly



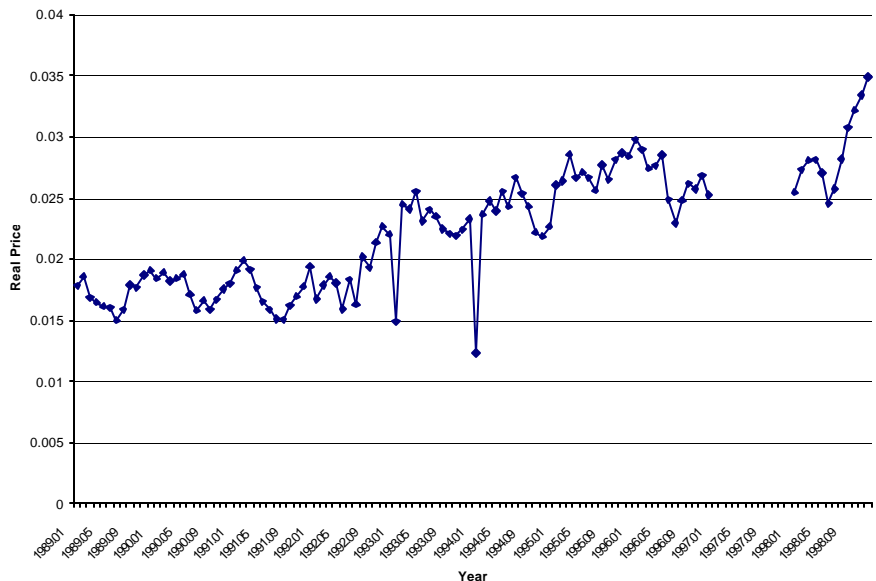
Note: Nominal groundnut prices are averaged over 17 ADDs, and deflated by the CPI.  
Source: Ministry of Agriculture.

Figure 8. Real Cassava Prices, Monthly



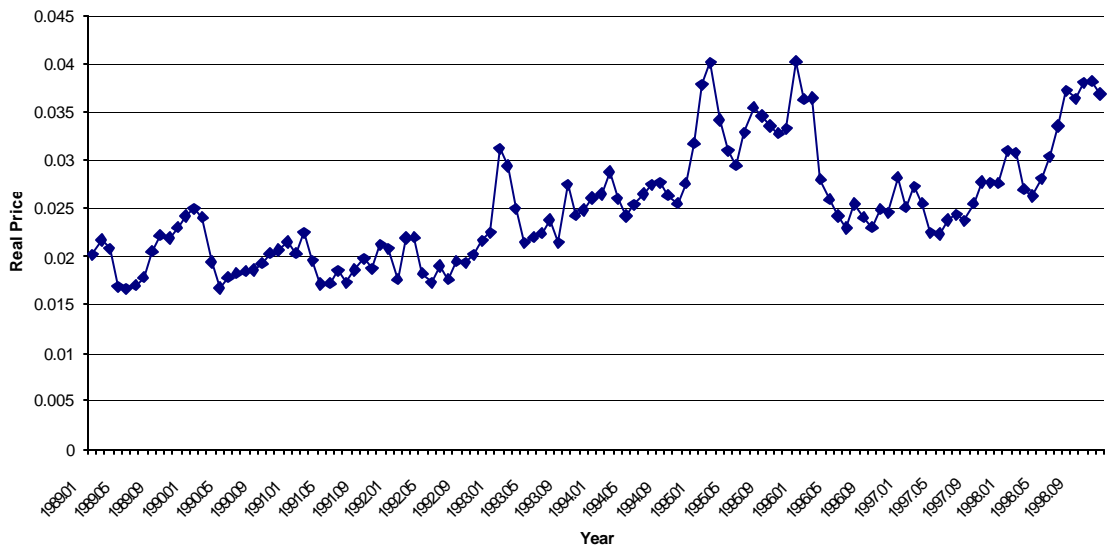
Note: Nominal cassava prices are averaged over 17 ADDs, and deflated by the CPI.  
Source: Ministry of Agriculture.

Figure 9. Real Rice Prices, Monthly



Note: a) Nominal rice prices are averaged over 17 ADDs, and deflated by the CPI.  
b) Data for 1997 are problematic and are excluded.  
Source: Ministry of Agriculture.

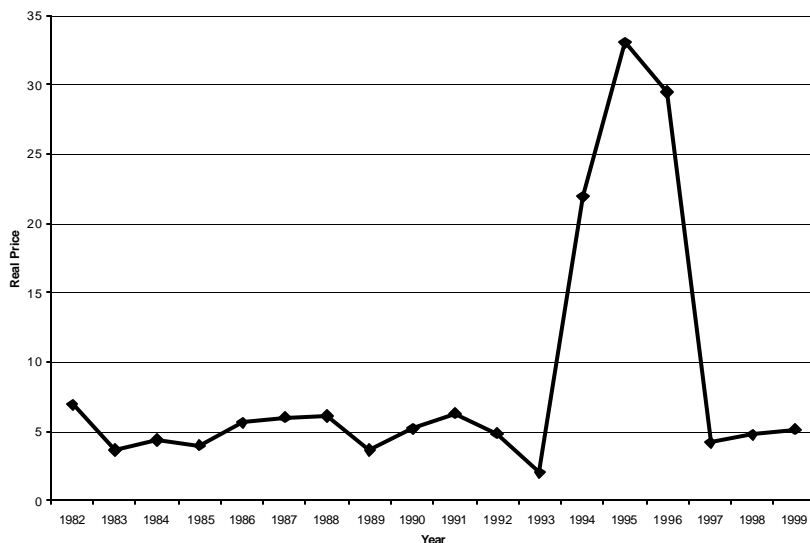
Figure 10. Real Beans Prices, Monthly



Note: Nominal beans prices are averaged over 17 ADDs, and deflated by the CPI.  
Source: Ministry of Agriculture.



Figure 11. Real Burley Tobacco Auction Prices, Annual



Note: Nominal burley tobacco prices deflated by the CPI.

Source: Ministry of Agriculture.

### *Constraints to Accumulation and Diversification in the Rural Economy*

To what extent have economic reforms provided an enabling environment for accumulation and diversification for rural households? Have there been new impediments to poverty reduction in the rural economy as a consequence of the reforms? In this section, we provide an assessment of the possible impact that the reforms may have had on the livelihoods of rural households. We discuss five sets of reforms pertaining to the rural economy: i) deregulation of marketing; ii) deregulation of prices and output; iii) deregulation of inputs; iv) removal of fertilizer subsidies; and v) agricultural credit market liberalization.

#### *Marketing reforms*

Marketing of smallholder agriculture was deregulated in 1987 by an Act of Parliament. The new Agriculture Act of 1987 essentially eliminated ADMARC's quasi-monopsony power in smallholder agriculture marketing in the domestic market, and private traders were to be licensed annually to operate in specific markets (Chirwa, 1998). The licensing procedure was in turn left to each agriculture development division (ADD), minimising the possibility of bureaucratic delay in the licensing process. Further liberalisation followed in 1996 with the removal of licensing procedures.

The evidence from the LADDER surveys indicates that the marketing reforms and in particular, ADMARC's withdrawal from remote markets have not been seen in a positive light by many farmers. On the positive side, many farmers, especially those who are located near the ADDs of Blantyre, Lilongwe and Machinga, now receive higher prices in real terms than in the period where ADMARC had a near-monopsony in crop purchases. This is due to the entry of private traders, the majority of whom are concentrated in these three ADDS (83 per cent, according to Chirwa, 1998), which account for only 41 per cent of designated markets. On the negative side, private traders have shown little interest in entering markets in

remote regions of the North, where roads are of poor quality and maize demand/supply is not very high. Furthermore, there are still signs of significant seasonal and spatial variation in the prices of food crops other than maize, where ADMARC does not operate a price band (Chirwa *op cit.*). The segmentation of markets is seen more clearly in the Northern region rather than the Southern or Central region (World Bank, 1995). Thus, food market integration at the national level is still not complete in Malawi, in part due to inadequate rural infrastructure and in part due to the thin-ness of the market in terms of limited entry of private traders, and low volume of transactions<sup>4</sup>.

### *Price and production decontrol*

As with marketing, price decontrol occurred in 1996, for most crops, except maize. In the case of maize, in the interest of food security, the fixed pan-territorial pan-seasonal pricing system was replaced with a price band, with ADMARC intervening if the price reached the upper or lower bands. One important aspect of the reform process was to increase real producer prices of food crops and cash crops for smallholder farmers. After a decade of stagnation or possible decline in the 1980s, there is evidence to suggest that real producer prices have increased in the 1990s, as prices gradually become more market-determined. Given stable production levels for the same period, this would imply a rise in real incomes for the majority of food-surplus farmers. The increase in incomes is most evident in the case of maize farmers. However, it is not clear whether the rise in the real price of maize will necessarily benefit smallholder farmers with land holdings with less than 1 hectare. These farmers are food insecure and purchase maize for about four months of the year prior to the harvest (World Bank 1995). For such farmers, maize price increases will not be detrimental to their welfare if their wages for casual off-farm employment increase in proportion to the increase in the price of food. Overall, one can argue that the net benefit of the increase in real price of maize for the smallholder agriculture sector is unclear.

With respect to the decontrol of production, particularly relating to the permission given to smallholder farmers by the Government of Malawi to grow burley tobacco in 1990-91, there is unequivocal evidence that it benefited smallholder farmers who were able to engage in the production of the lucrative cash crop. Tobacco production in 2000 was 85 thousand metric tonnes as compared to 35 thousand metric tonnes in 1995. Burley tobacco cultivation by smallholder farmers still remains restricted by means of a production quota, and the government implements this quota to protect the price in the market for tobacco, where Malawi is a price setter. For those farmers who were able to grow burley tobacco, the relaxation of the restriction on tobacco production has led to an increase in their incomes, both directly and indirectly via investment in additional fertilizer and hybrid maize seed (Orr, 2000). However, burley tobacco cultivation has been mostly undertaken by male-headed households and by households with a mean landholding size of 1.6 hectares. Burley tobacco cultivation may not be profitable for farmers with landholding of less than 0.5 hectares (IFAD 1993). Given the significant number of female headed households who are below the poverty line (NEC 2001) and that about a quarter of smallholder farmers have landholdings less than 0.5 hectare (according to the Government of Malawi 1987/88 Annual Survey of Agriculture), the potential of burley tobacco cultivation being the route out of poverty does not seem likely at least for these set of households. There is a possibility, nevertheless, that graduated increases in the burley tobacco production quota in the face of a more elastic world demand for tobacco<sup>5</sup> may allow rural households that have landholdings greater than 0.5 hectares to increase incomes and possibly move out of poverty.

### *Input market reforms*

While ADMARC remains the major provider of fertilizers and hybrid maize seed to the smallholder farmers, reforms in input markets have allowed the entry of private agents in the importation and distribution of such inputs. However, there has been slow progress in the involvement of the private sector in input markets, in contrast to their more active involvement in product markets. With the withdrawal of ADMARC from many remote regions of the country, and given the reluctance of private agents to supply inputs to these markets in face of high costs of transportation and lack of effective demand, it is arguable whether the deregulation of entry of the private sector in input markets would bring tangible benefits to the majority of smallholder farmers in these regions.

### *Removal of Fertiliser Subsidies*

Fertiliser subsidies were targeted fairly early on in Malawi's reform process, as a part of the implementation of the second structural adjustment loan (SAL II) that the Malawian government received from the IMF in 1984. SAL II committed the government to a phased removal of the fertilizer subsidy by 1989/90. However, in the early 1990s, fertilizer subsidies were brought back via the Supplementary Input Projects (Harrigan, 2001). More recently, fertiliser has been distributed at a subsidized rate via the Starter Pack Scheme.

There is considerable disagreement on the implications of the complete removal of the fertiliser subsidy for poor smallholder farmers. In a situation where most smallholders farmers grow local maize and not hybrid maize and where much of the fertilizer usage is in maize cultivation, higher fertilizer prices will lead to extremely high nutrient price to maize price ratios that may discourage the use of fertilizers in maize cultivation (Lele, 1990)<sup>6</sup>. Furthermore, high transport costs for Malawi, a land-locked country, also contribute to high fertilizer prices (relative to other countries in the region). However, fertilizer usage increased significantly in the late 1980s and early 1990s, a period of rising real fertilizer prices as fertilizer subsidies were being removed (Sahn and Arulpragasam op cit., World Bank 1995). The fact that fertilizer uptake *increased* with higher prices would suggest that quantity rationing, rather than price rationing, was the reason for low fertilizer usage in the 1970s and the early 1980s. Much of the increase in fertilizer usage in the late 1980s could be explained by the efforts on the part of the government to make fertilizers available to smallholder farmers via the official marketing agency ADMARC<sup>7</sup>.

With the 1997 devaluation of the Kwacha and the further scaling back of fertiliser subsidies, prices of fertilisers became exorbitant for many farmers, and by the late 1990s, may have led to a switch from the quantity rationed regime of the late 1980s and early 1990s to a price rationed regime. Aware of the deleterious effect of the removal of fertiliser subsidies on fertiliser usage among resource-constrained smallholder farmers, the Government of Malawi introduced a Starter Pack scheme distributing free seeds and fertilisers to all smallholder farmers in 1998-1999. This was scaled back in 1999-2000 and 2000-2001, and the decline in maize production in those years has led many observers to believe that the scaling back of the Starter Pack scheme and the fall in maize output were causally related. The Starter Pack scheme has now been expanded and renamed the Expanded Targeted Inputs programme, where around 2.5-3 million households would be provided a free pack containing 1 kg of legume seeds, 2 kg of maize seed and 10 kg of fertiliser in the 2002-2003 growing season.

There is a strong economic argument for provided *targeted* subsidies in agricultural inputs to the poorer of the smallholder farmers, given the high costs of these inputs in the current context and the dependence of hybrid maize yields on proper fertiliser usage. However, there remains considerable uncertainty on the precise effect of the Starter Pack scheme on maize production, as the years that the scheme was implemented were also years in which Malawi observed good rainfall (Devereux 2002). Furthermore, strong arguments against the *universal* provision of input subsidies remain, to do with environmental degradation and the leakage of subsidised fertilisers to the estate sector, and the implications of large-scale subsidies on the fiscal balance, in a context where public investment in rural infrastructure and agriculture extension services are notoriously underfunded.

It is also the case that the response of maize to fertilizer usage is extremely low. As the World Bank (1995) notes, if fertilizer subsidies were completely removed, the value to cost ratio<sup>8</sup> would be very low-0.9 for local maize and 1.3 for hybrid maize respectively – when ratios of 2-3 are generally thought to be required for farmers to invest in fertilizers (International Fertiliser Development Corporation 1989). The inefficiency in fertilizer use is because smallholders apply fertilizers late in the planting season and in sub-optimal quantities. This in turn can be explained by the lack of credit facilities that make land-deficit smallholders seek work as casual labourers at a time when they should be cultivating their fields. We turn to the issue of agricultural credit next.

#### *Agricultural credit market reform*

According the World Bank (1995), less than 35 per cent of smallholder farmers have access to formal credit sources. Most farmers rely heavily on informal credit markets as they are timely and easier to access, even though loans from informal credit sources cost more. However, informal financial markets lack the breadth and depth of formal markets and provide little or no term finance. In 1988, the rural sector, the Smallholder Agricultural Credit Administration (SACA) was established by the government to provide credit to smallholder farmers. There has been a significant deterioration in loan repayment rates in the 1990s, and SACA has been affected by the loan recovery problem for smallholder agriculture. Recently, SACA was privatised and absorbed by Malawi Rural Finance Company (MRFC).

While it is not clear how more effective the rural credit delivery system will be in Malawi under MRFC as compared to SACA, there is little doubt that the lack of access to formal agricultural credit for many smallholder farmers has been a significant constraint to livelihood diversification in rural Malawi. This has happened in two ways. Firstly, with little or no access to formal credit sources, many smallholder farmers have not been able to find the funds necessary to invest in fertilisers and/or hybrid maize seeds. Secondly, the lack of available credit that many smallholder farmers have had to work as casual (*Ganyu*) labour during peak periods of agricultural activities for either cash or food (Alwang and Siegel, 1999). The cash obtained from wage employment was then used to purchase fertiliser and seed often late in the planting season. Thus, the substitution of labour used on other farms from one's own farm has led to low yields on own farms as crucial farming activities were delayed or were not conducted (Alwang and Siegel, 1999). This has been a clear case of agricultural credit market failures having significant negative effects on agricultural productivity, and thus, on household welfare<sup>9</sup>.

## *Conclusion*

Prior to the 1980s, there has been a strong bias against smallholder agriculture and towards estate agriculture in Malawi's development strategy. The economic reforms enacted in the 1980s and 1990s attempted to redress this bias by removing most restrictions of pricing, output choice and marketing for smallholder farmers. This paper examines whether the reforms have had the desired effect of providing a supportive environment for smallholder farmers to follow livelihood strategies that would enable them to move out of poverty. The paper finds evidence of a positive supply side impact of reforms on smallholder agriculture, with a significant increase in food crops production in the period 1994-2000, particularly in sweet potatoes, cassava and maize. Coupled with rising real prices of most food crops during this period, this has meant that rural incomes of most smallholder farmers has seen a sustained increase in the post-reform period. Thus, one initial objective of the reform process – to move the rural-urban terms of trade in favour of smallholder agriculture – seems to have succeeded. However, there are important limitations in following a primarily maize-driven agricultural strategy (or at least, one that emphasises growth in the production and prices of food crops as opposed to export crops or nonfarm economic activities) as a means of reducing poverty in the rural sector. Firstly, many smallholder farmers are land-deficient, and are thus, net buyers of food, and rising maize prices will lead to increased food insecurity for these farmers (as evident by the ongoing food crisis in the country). Secondly, agricultural marketing arrangements seem to have weakened considerably in the wake of ADMARC's withdrawal in the remote regions of the country, and therefore, marketing opportunities may not exist for many maize-surplus farmers in these regions. Thirdly, the micro-level evidence from the 1997/98 Integrated Household Survey indicates that households face lower poverty when they diversify away from agriculture, or when they engage in burley tobacco production.

Thus, two alternate livelihood strategies present themselves. The first is an increasing engagement of rural households in the nonfarm economy, such as increasing employment in micro and small enterprises. However, there are also important questions on the viability of a strategy that primarily emphasizes the growth of non-farm micro-enterprises if there is no corresponding increase in demand emanating from a fast-growing agricultural sector<sup>10</sup>. A second strategy is the gradual increase of the burley tobacco production quota for smallholder farmers. Such a strategy remains constrained both by the negative effect that such an increase in the quota will have on world tobacco prices and the difficulty of access that smallholder farmers who own relatively little land experience in credit markets. Thus, a comprehensive poverty reduction programme in Malawi will need to emphasise all *three* livelihood strategies for rural households: engagement in food crop (primarily maize) production, engagement in tobacco production and greater involvement in nonfarm economic activities.

## Footnotes

- 1 In the year 2001/2002, Malawi has experienced a severe food crisis, resulting in several hundred hunger-related deaths. The primary causal factor behind the food crisis were the abnormal rains - localised flooding and waterlogging of fields - during February and March 2001, which reduced national maize production by 32 per cent, from a high of 2.5 million MT in 1999/2000 to 1.7 million MT in 2000/2001 (Devereux 2002). However, the decision of the National Food Reserve Agency (NFRA) in April-May 2002 to sell most of the maize in the Strategic Grain Reserve also contributed to the crisis, as it left the NFRA with almost no food stocks to release to the market with the onset of the 'hungry season'. Other possible causes of the crisis remain controversial: OXFAM also attributes the crisis to market liberalisation policies linked to the reduced marketing and price stabilisation roles of ADMARC, and the reduced subsidisation of agricultural inputs (OXFAM 2002). We discuss these issues later in the paper.
- 2 The increase in maize production may be due to the increased popularity of the more hybrid maize relative to the less productive local maize among smallholder farmers in the 1990s, especially semi-flint hybrids like MH17 and MH18 which can be processed and stored on the farm like local maize (Smale, 1995).
- 3 This is also confirmed from the regression results using the IHS presented in NEC (2001). Regressing daily per capita expenditures on a wide range of variables relating to demographics, education, agricultural activities, etc. the study finds that the coefficient on the number of household members who receive wage income is 0.148 while those on per capita livestock and number of crops cultivated that are not maize or tobacco are 0.036 and 0.024 respectively for Southern rural households (similar results are obtained for Northern and Central rural households).
- 4 Christiansen and Stackhouse (1989) point to other problems such as the accuracy of scales used by traders and that export produce of beans and maize by private traders may not meet quality standards. These problems also come up in the LADDER field surveys.
- 5 With greater public awareness of the negative health effects of smoking.
- 6 In a detailed study of Malawi's potential comparative advantage in agriculture, Keyser (1997) finds that "the large increase in fertiliser prices has made it increasingly difficult for farmers to produce at the more profitable improved and potential levels of output" (p. 71) and in the case of maize, households are better off consuming the entire production at home rather than selling the crop for cash.
- 7 Sahn and Arulpragasam argue that part of the increasing offtake of fertilizers can be explained by the leakage to the estate sector, given that the price of fertilizer available from ADMARC was below the import parity price.
- 8 This is defined to be the incremental output per kilogram of nutrient divided by the value of incremental cost per kilogram of nutrient.
- 9 Place and Otsuka (2001) argue that another reason for the low agricultural productivity in Malawi is the nature of the land tenure arrangements. They find that farmers operating

land with weak tenure security under matrimonial-matrilocal arrangements were adopting tobacco farming after long lags, cultivating tobacco in smaller proportions, and investing less in tree planting as compared to farmers acquiring land through patrilineal means.

- <sup>10</sup> In fact, the Malawi National Gemini MSE Baseline Survey 2000 notes a *decline* in total employment generated by micro and small enterprises in the rural sector from 932 thousand in 1992 to 774 thousand in 2000.

## References

- Alwang, J. and P.B. Siegel, 1999, 'Labor Shortages on Small Landholding in Malawi: Implications for Policy Reforms', *World Development*, Vol. 27, No. 8, pp. 1461-1475.
- Chirwa, E., 1998, 'Fostering Private Food Marketing and and Food Policies after Liberalization – the Case of Malawi', in P. Seppala (ed.), *Liberalized and Neglected? Food Marketing Policies in Eastern Africa*, Helsinki: WIDER.
- Christiansen, R. and L.A. Stackhouse, 1999, 'The Privatization of Agricultural Trading in Malawi', *World Development*, Vol. 17, No. 5, pp. 729-740.
- Chulu, 2002, *Capital and Credit Markets in Malawi: An overview for an Institutional Development Intervention*, European Union Food Security Unit.
- Devereux, S., 2002, *State of Disaster: Causes, Consequences and Policy Lessons from Malawi*, Action Aid Report.
- Government of Malawi, 1995, *Policy Framework for Poverty Alleviation*, National Economic Council.
- Government of Malawi, 2000, *Malawi National Gemini MSE Baseline Survey*, Lilongwe.
- Government of Malawi, 2000, *Vision 2020*, National Economic Council.
- Government of Malawi, 2001, *Malawi-European Community Country Support Strategy Paper*.
- Government of Malawi, 2002, *Malawi Poverty Reduction Strategy Paper*, Ministry of Finance and Economic Planning.
- Keyser, J., 1997, *Malawi: Agricultural Comparative Advantage*, Washington D.C.: The World Bank.
- Kydd, J. and R. Christiansen, 1982, 'Structural Change in Malawi since Independence: Consequences of a Development Strategy based on Large-scale Agriculture', *World Development*, Vol. 10, No. 5, pp. 355-375.
- Lele, U., 1990, 'Structural Adjustment, Agricultural Development and the Poor: Some Lessons from the Malawian Experience', *World Development*, Vol. 18, No. 9, pp. 1207-1219.
- NEC, 1998, *Profile of Poverty in Malawi*, Lilongwe: Government of Malawi.
- NEC, 2001, *The Determinants of Poverty in Malawi*, Lilongwe: Government of Malawi.
- Orr, A., 2000, "'Green Gold'? Burley Tobacco, Smallholder Agriculture and Poverty Alleviation in Malawi', *World Development*, Vol. 28, No. 2, pp. 347-363.
- Place, F. and K. Otsuka, 2001, 'Tenure, Agricultural Investment and Productivity in the Customary Tenure Sector of Malawi', *Economic Development and Cultural Change*.



Orr, A. and B. Mwale, 2001, 'Adapting to Adjustment: Smallholder Livelihood Strategies in Southern Malawi', *World Development*, Vol. 29, No. 8, pp.1325-1343.

OXFAM, 2002, *Crisis in Southern Africa*, OXFAM Briefing Paper No. 23.

Sahn, D. and J. Arupragasam, 1994, 'Adjustment without Structural Change: The Case of Malawi', in D. Sahn (ed.), *Adjusting to policy failure in African economies*, Ithaca: Cornell University Press.

Smale, M., 1995, 'Maize is Life': Malawi's Delayed Green Revolution', *World Development*, Vol. 23, No. 5, pp. 819-831.

World Bank, 1995, *Malawi: Agricultural Sector Memorandum: Strategy Options in the 1990s*, Washington D.C.

World Bank, 2000, *Country Assistance Strategy Progress Report*, November.

## **Appendix: Policy Reforms in Malawi**

### *Agricultural sector reforms*

The reforms that have been implemented in the agricultural sector include the removal of restrictions on smallholder production of tobacco and other high value cash crops by amending the Special Crops Act in 1995, Removal of subsidies on fertilizers was initiated in 1984. There was reduction in the role of the state marketing board, Agricultural Development and Marketing Corporation (ADMARC) in favour of private competition in the marketing of food crops, and the removal of restrictions on private trading in fertilizer, seeds and burley tobacco. The agriculture financing system was revamped by the introduction of the Malawi Rural Finance Company (MRFC) on a sound financial basis in place of the Smallholder Agriculture Credit Authority (SACA) that went bankrupt. The liberalization of the exchange rate helped to remove the implicit tax of agricultural exports and a new Land Policy has now been formulated.

### *Financial sector reforms*

The Reserve Bank of Malawi (RBM) and Banking Acts were reviewed in the fiscal year 1998/99 to allow among other things, easy entry of new banking institutions into the financial sector and to give the Reserve Bank of Malawi greater autonomy in the formulation of monetary policy. The review of the Acts strengthened the Reserve Bank of Malawi's role in supervising the banking industry. A treasury bill market was successfully launched to avoid inflationary borrowing from the Reserve Bank of Malawi. A Stock Exchange Market was established in 1996. The Exchange rate was floated in 1994 and Malawi attained current account convertibility in 1995.

### *Fiscal and Monetary Policy reforms*

Implementation of stabilization policies reduced fiscal deficits (before grants) from 28 percent of GDP in 1994/95 to 8 percent of GDP in 1996/97, before deficits increased again to 12 percent in 1997/98. Reforms in the tariff and surtax policies have reduced average weighted statutory tariffs from 19 percent in 1994 to around 14 percent recently. The introduction of cash budget system in 1995 was aimed at enhancing fiscal discipline and in reducing fiscal deficits, inflation and interest rates. A Medium Term Expenditure Framework (MTEF) was introduced in 1995, a budgeting tool aimed at linking policy planning to the recurrent budget and prioritization of expenditures. In the expenditures side, the share of the social sectors especially health and education has been increased. A surtax system introduced in the 1970s has been extended from manufacturing to wholesale and retail trade effective from July 2002. The semiautonomous Malawi Revenue Authority was established in February 2000 in order to improve revenue collection by the government. Bank lending and deposit rates were liberalized. Efforts through the Paris Club negotiations of 1982, 1983, and 1988 for debt reduction resulted in cancellations and rescheduling of certain debt payments. The Government of Malawi joined the HIPC Debt Relief Initiative of the World Bank in 2000 in order to reduce the debt burden and free resources for socioeconomic development. Through the enactment of the Privatisation Act in 1995, the Government of Malawi has privatized some of the public enterprises.

### *Trade and External Sector reforms*

Due to the advent of worldwide free trade arrangements and the need to promote economic and political ties with major trading partners, the Government of Malawi started to review her foreign trade policies so that it strategically position itself within the region and the global economy. Through the Industrial and Trade Policy Adjustment Programme in 1988, trade and industry sector reforms started. Four related policies were developed through the reform programme and these were: Integrated Trade and Industrial Policy, Competition Policy, Cooperatives Policy and the Micro, Small and Medium Scale Enterprises Policy. The reforms eliminated quantitative restrictions and rationalized trade taxes. Malawi's tariff bands were reduced to four and the foreign exchange market was liberalized to foster efficiency in foreign exchange allocation. Surtax was removed on locally produced goods in 1992 to protect local producers. Export Processing Zones were introduced, while the processing of export duty drawback was improved to increase incentives for exporters. There is now a fledging export oriented manufacturing sector in garments and cutflowers. Malawi has signed and is now a beneficiary of a number of bilateral and multilateral trade agreements namely; SADC Trade Protocol, COMESA, the Malawi-Zimbabwe Bilateral Trade Agreement, the Cotonou Agreement between the EU and the ACP countries, the US-African Growth and Opportunity Act (AGOA) initiative for concessional exports to the US market and membership of the World Trade Organisation (WTO).