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Diversification in Tanzania**

**by**

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## 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 Livelihood Diversification in Tanzania**

by

Kunal Sen\*

### **Summary**

*This paper examines the impact of the economic reform programme initiated in Tanzania since 1986 on rural livelihoods. The macro-level data suggests that there has been little diversification in the Tanzanian economy since the mid-1980s both with respect to composition of output and exports. Analysing the behaviour of producer prices, the terms of trade and the producers' share of export value, the paper finds that the impact of economic reforms on the agricultural sector has been uneven, with favourable movements in the terms of trade for export crops offset by unfavourable movements in the terms of trade for food crops. Trends in the producer's share of export/retail prices in the post-reform suggest an improvement in the returns to farmers growing cashew nuts and food crops such as maize, rice and sorghum, though there seems to be no such improvement in export crops such as coffee, cotton, tea and tobacco. The paper argues that this apparent stagnancy in the Tanzanian rural economy in spite of almost a decade and a half of liberal economic policies can be linked to slippages in macroeconomic policy in the early 1990s and to the lack of an enabling environment for rural households to pursue dynamic strategies of income diversification. Key issues relating to the latter are 'government failures' in the provision of rural infrastructure, agricultural extension services, the local taxation regime, and the setting up of an institutional structure for private sector involvement in agricultural marketing, and a pronounced 'market failure' in agricultural credit.*

### **Introduction**

From the late 1960s to the mid 1980s, for about two decades, Tanzania followed a brand of socialism which was probably unique to the African continent in the uncommonly direct and comprehensive nature of government control of the economy (Sarris and Van den Brink, 1994). Faced a severe economic crisis and near-complete collapse of the formal economic structure, in 1986 the government implemented a three-year programme of economic reforms supported by an IMF structural adjustment facility. This initially hesitant and piecemeal attempt at reforming the economy was persevered with, as the government rapidly withdrew from almost all spheres of economic activity over the next few years. By the end of the 1990s, Tanzania had relatively unregulated markets. Thus, as was the case with economic interventionism, Tanzania now has had a long and uninterrupted experience with economic reforms for about one and a half decades.

The decline in rural poverty in post-reform Tanzania has been painstakingly slow - the estimate of rural poverty from 2000/2001 Household Budget Survey is 19.56 per cent as compared to an estimate of 23.13 per cent from the 1991/1992 Household Budget Survey (using comparable poverty lines constructed from minimum quantities based on calorific requirements, see National Bureau of Statistics, 2001). This equates to a fall of 0.36 per cent

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in rural poverty per year. Linked with the slow progress in reducing rural poverty in Tanzania has been the evidence from the LADDER surveys of very limited diversification in rural livelihoods. This paper asks the question: why has there been such little progress in poverty reduction and in livelihood diversification in rural Tanzania, in spite of almost fifteen years of liberal economic policies. It addresses this question by first examining changes in the overall structure of the economy, and in variables such as the inflation rate and the exchange rate that link macroeconomic policies to microeconomic outcomes at the level of the individual farmer. It then analyses the behaviour of producer prices for small-holder agriculture, the rural-urban terms of trade and the returns to farming to assess whether economic reforms have had a positive effect on farmers' livelihoods. Finally, the paper attempts to identify key constraints in the rural economy that may be considered to be constraints on rural livelihood diversification.

The rest of the paper is in five sections. Section 2 provides a brief overview of the reform process. Section 3 traces the evolution of the macro-economy since the early 1980s, with reference to the growth and composition of output, agricultural production, exports, the inflation rate and the exchange rate. Section 4 examines the behaviour of real producer prices, the terms of trade and the share of producers in export sales value in the post-reform period. Section 5 discusses some constraints to rural livelihood diversification. Section 6 concludes.

### *An Overview of the Reform Process*

Since the Arusha Declaration in 1967 till the beginning of the reform process in 1986, Tanzania has followed a development strategy based on the principles of socialism and self-reliance involving state intervention in almost all areas of economic activity. In the rural economy, beginning in 1973, the Tanzanian government set up a system of crop-specific parastatal authorities who were responsible for the collection of crops from villages, transport, storage, further processing and final sale either to domestic consumers or export markets<sup>1</sup>. Along with this centralised procurement system, the government implemented a single pan-territorial producer price for each crop, to be determined annually by the Economic Committee of the Cabinet. In the period since 1967, many large private businesses were nationalised, including bank, insurance companies, plantations, estates, importers/exporters and food processors. The major milling companies were nationalised and merged to form the National Milling Corporation. Finally, to facilitate cooperative agricultural production and the delivery of social services, the villagization campaign was launched in 1973, and within four years, millions of farmers were relocated.

The parastatal agricultural marketing system was highly inefficient and the steeply rising cost of operation had to be supported by both a substantial transfer of resources from small-holder agriculture (by a continuous decline in the producer share of crop value from 66.4 per cent in 1970 to 41.6 per cent in 1980, see Ellis, 1983) and by very substantial borrowing from the commercial banking system, leading to growing fiscal deficits and the emergence of inflation. In the 1970s, the persistent deterioration in the real returns to agricultural production (due to the declining producer share of sales value and a steady fall in terms of trade for the rural economy) led to stagnation in marketed output, and a long-term decline in export crops production in particular (Ellis, 1988). The bias against export crops inherent in the parastatal marketing system and in the pan-territorial pricing policy was compounded by a real overvaluation of the Tanzanian shilling since the late 1970s.

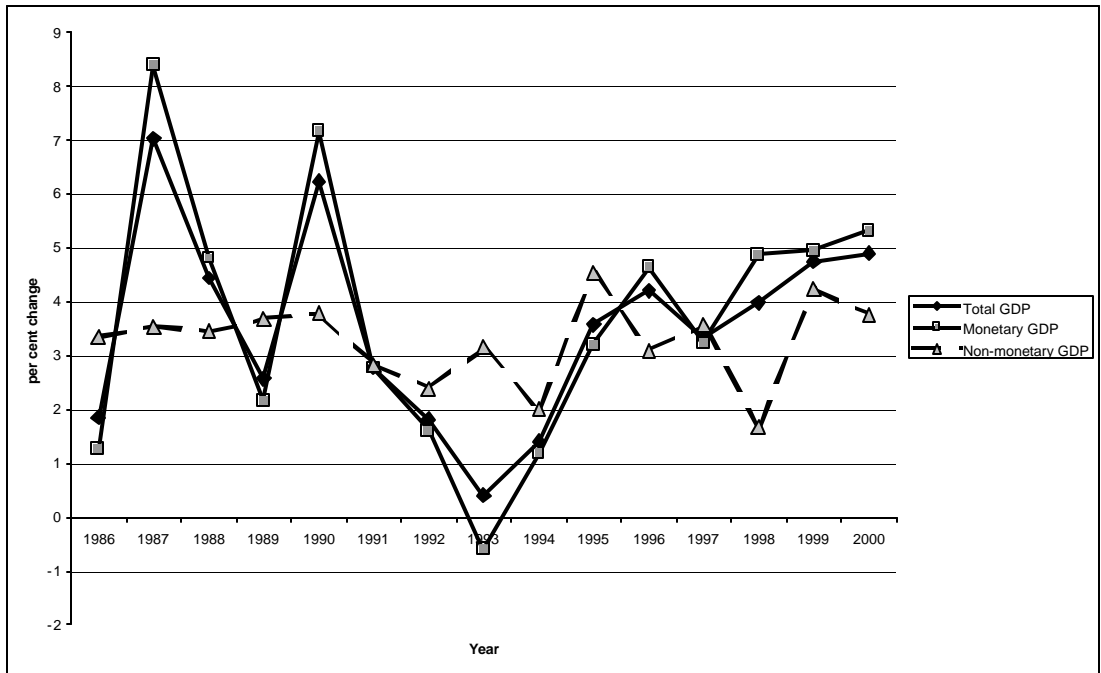
By the mid-1980s, it was apparent that the centralised marketing and pricing regime in the agricultural sector was unsustainable (see Bigsten *et al.*, 2000, and Sarris and Van den Brink, 1994, for further details on the economic crisis facing the Tanzania state in the 1980s), and the government initiated a series of deregulation measures, with the adoption of the three year Economic Recovery Program in 1986, supported by the IMF and the World Bank, and other international donors. Domestic food markets were liberalised first, and between 1986-1989, private trade in food crops was deregulated, starting with minor crops and eventually including maize and rice. Controls on the movement of food crops were also abolished in 1987. By 1989, the pan-territorial pricing policy was effectively abandoned, and the National Milling Corporation was re-organised to work along the lines of a Strategic Grains Reserve to cover emergency food needs. There was a major devaluation in 1984, followed by another major devaluation in 1986. Liberalisation of the marketing of agricultural inputs was initiated in 1992, and subsidies on fertilisers were gradually reduced over the first few years of the 1990s, reaching zero in 1994. With respect to export crops, export taxes were gradually lifted, beginning with coffee and cotton in 1981. In 1993, private traders were allowed to buy, process and export coffee, cotton, tobacco and cashewnut, and private traders were legally operating in the coffee and cotton sectors in 1994-1995, and in the tobacco sector the following year. Finally, crop authorities were restructured as crop boards, responsible for regulation, research and information services.

### ***The evolution of the macro-economy in the post-reform period***

#### *Growth and Structural Change*

Tanzania's growth performance in the post-reform period has been disappointing, with an average annual growth rate of Gross Domestic Product (GDP) of 3.5 per cent. With an average annual population growth rate of 3 per cent, Tanzania's per capita income growth for this period has been a dismal 0.5 per cent per year. There also seems to be no significant difference between the average growth rates of monetary and non-monetary GDP over the period 1986-2000, though the growth rate of monetary GDP shows greater volatility than that of non-monetary GDP over this period (Figure 1).

**Figure 1:** Annual Growth Rates of Gross Domestic Product (GDP), Monetary GDP and Non-monetary GDP



Source: Bureau of Statistics, Government of Tanzania.

With low economic growth being a contributing factor, the structure of the economy has remained remarkably stagnant in the post-1986 period (Table 1). There is no evidence of a greater monetisation of the economy, following economic reforms, with the share of the monetised sector in total output remaining constant at around 73 per cent for the period 1986-2000. In this period, the share of the monetised agricultural sector in total GDP has stayed at around 19 per cent. Another indication of economic stagnation in the post-reform period is evident from the roughly constant shares of output originating from construction and trade, restaurant and hotels at around 4 and 16 per cent respectively.

**Table 1:** Composition of Gross Domestic Product (per cent), 1985-1999

	1985-89	1990-95	1996-99
<b>A: Monetary</b>			
Agriculture	27.4	27.2	27.7
Crops	18.7	18.8	19.4
Livestock	4.7	4.6	4.4
Forestry and hunting	1.3	1.3	1.3
Fishing	2.5	2.5	2.6
Mining and quarrying	0.9	1.1	1.8
Manufacturing	9.0	8.3	8.2
Electricity and water supply	1.4	1.6	1.7
Electricity	1.1	1.4	1.5
Water	0.3	0.2	0.2
Construction	3.3	4.0	3.3
Trade, restaurants and hotels	16.6	15.9	15.9
Transport, and communication	4.9	5.0	5.2
Financial and business services	5.4	5.8	5.8
Finance and insurance	3.5	3.8	3.8
Real estate	1.6	1.7	1.7
Business services	0.3	0.3	0.3
Public administration and other services	7.9	8.8	7.9
Public administration	5.3	5.9	4.8
Education	1.0	1.1	1.1
Health	0.6	0.6	0.6
Other services	1.1	1.2	1.3
Less financial Services Indirectly Measured	-4.0	-4.7	-4.9
<b>Total Monetary GDP</b>	<b>72.6</b>	<b>72.9</b>	<b>72.6</b>
<b>B: Non-Monetary</b>			
Agriculture	21.9	21.8	21.9
Crops	17.3	17.3	17.6
Livestock	2.3	2.2	2.1
Forestry and Hunting	2.0	2.0	1.9
Fishing	0.3	0.3	0.3
Construction	1.0	0.9	0.9
Owner – Occupied Dwellings	4.5	4.4	4.5
<b>Total Non-Monetary GDP</b>	<b>27.4</b>	<b>27.1</b>	<b>27.4</b>

Source: Bureau of Statistics, Government of Tanzania.

### *Agricultural Production*

Within agriculture, there seems to be a difference in outcomes with respect to food crops and export crops production in the post-1986 period. There is no evidence of an increase in the production of the major food crops – pulses, wheat, paddy and maize – in this period. Maize still accounts for the bulk of food crops grown by farmers in Tanzania, with a share of 68 per cent in total food crops production over the period 1986-1999.

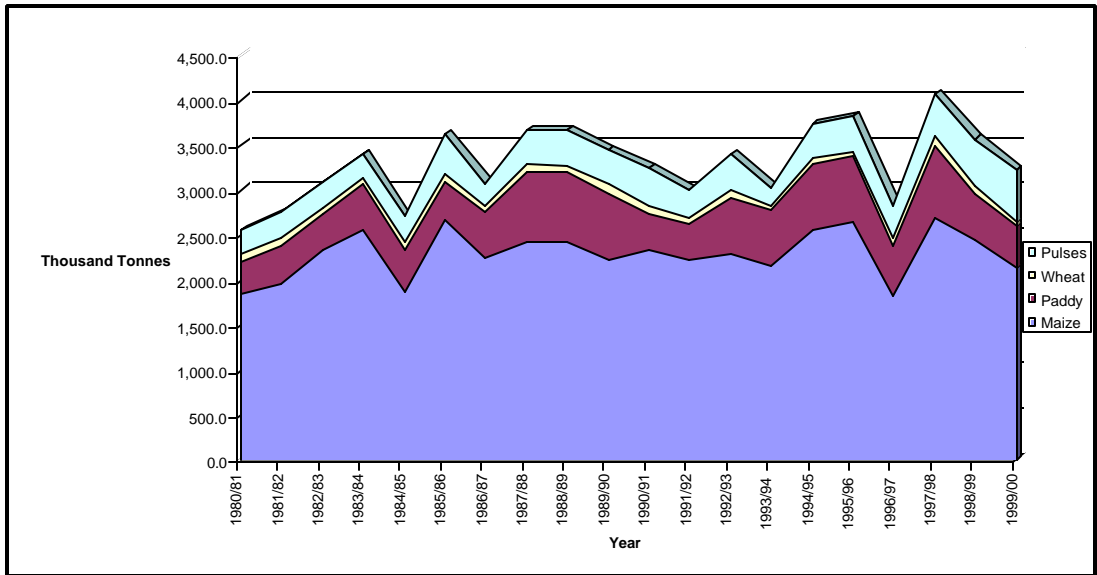
In contrast, there is clear evidence of an increase in export crops production since 1986, with total output from the export crops sector increasing by 50 per cent in the period 1986-1999. The increase in export crops production seems to be driven primarily by an increase in the production of cashewnuts, from 29.9 thousand tonnes in 1990/91 to 121.3 thousand tonnes in 1999/2000. There also was an increase in the production of tobacco from 11.8 thousand tonnes in 1990/91 to 24 thousand tonnes in 1999/2000. On the other hand, sisal, which was an important export crop at the beginning of the 1980s, witnessed a fall in its share in total export crop output from 29 per cent in 1980/81 to 7 per cent in 1999/2000. It is interesting to note that while there has been an increase in total export crop production from 1986, production levels at the end of the 1990s were not very different from what they were at the beginning of the 1980s.

### *Exports*

The shift to cashewnuts production in the export crops sector evident since the mid-1980s is mirrored in the changing composition of Tanzania's exports, where the share of cashewnuts in total exports has increased from 4.3 per cent in 1981-85 to 15.6 per cent in 1996-99 (Table 2). Cashewnuts is rapidly catching up on coffee as Tanzania's most important export. There has also been an increase in the share of 'non-traditional commodities' in total exports from 32.2 per cent in 1981-85 to 42.7 per cent in 1999-2000. 'Other exports', a set of commodities left undefined in Tanzania's trade statistics, has increased its share in non-traditional exports from 28.6 per cent in 1981-85 to 54.1 per cent in 1996-99.

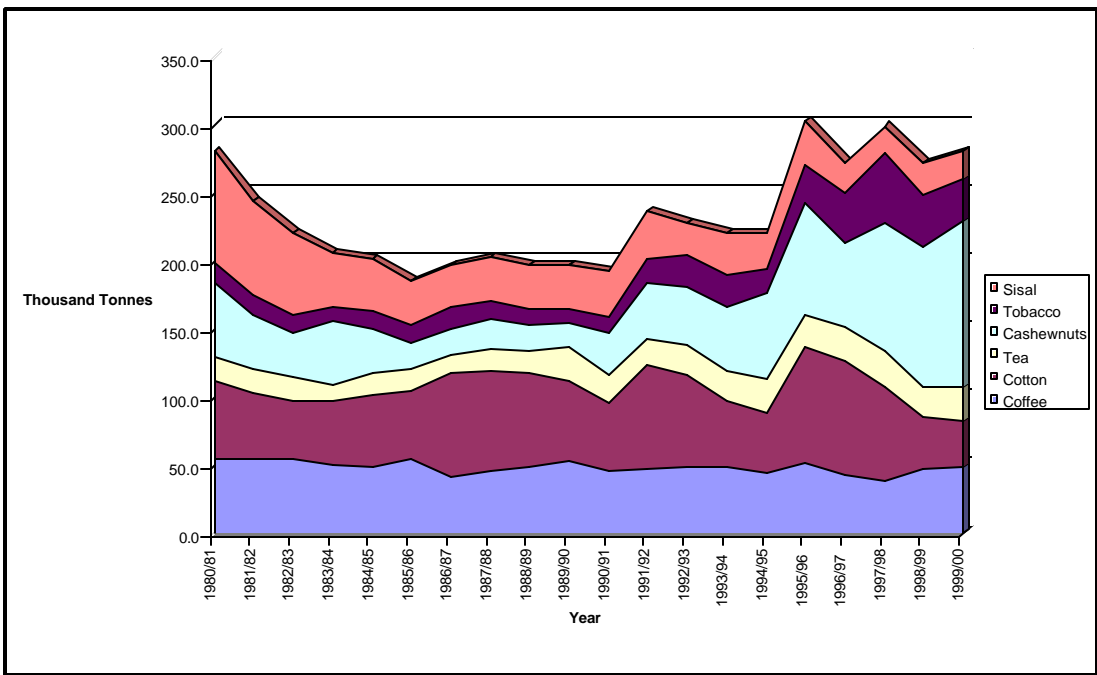


**Figure 2: Food Crops Production**



Source: Bureau of Statistics, Government of Tanzania.

**Figure 3: Export Crops Production**



Source: Bureau of Statistics, Government of Tanzania.

**Table 2:** Composition of Exports (per cent), 1981-1999

	1981-85	1986-90	1991-95	1996-99
Traditional Commodities	67.8	60.0	58.6	57.3
Coffee	36.7	32.0	20.3	16.7
Cotton	13.5	15.5	19.6	11.8
Sisal	4.1	1.3	0.7	1.1
Tea	5.4	4.6	6.3	4.3
Tobacco	3.7	3.4	4.7	7.8
Cashewnuts	4.3	3.1	7.0	15.6
Nontraditional Commodities	32.2	40.0	41.4	42.7
Petroleum	3.1	2.6	1.9	0.8
Minerals	9.3	4.6	10.0	8.1
Manufacturing	10.6	19.1	15.7	10.7
Other Exports	9.2	13.6	13.9	23.1

Source: Bureau of Statistics, Government of Tanzania.

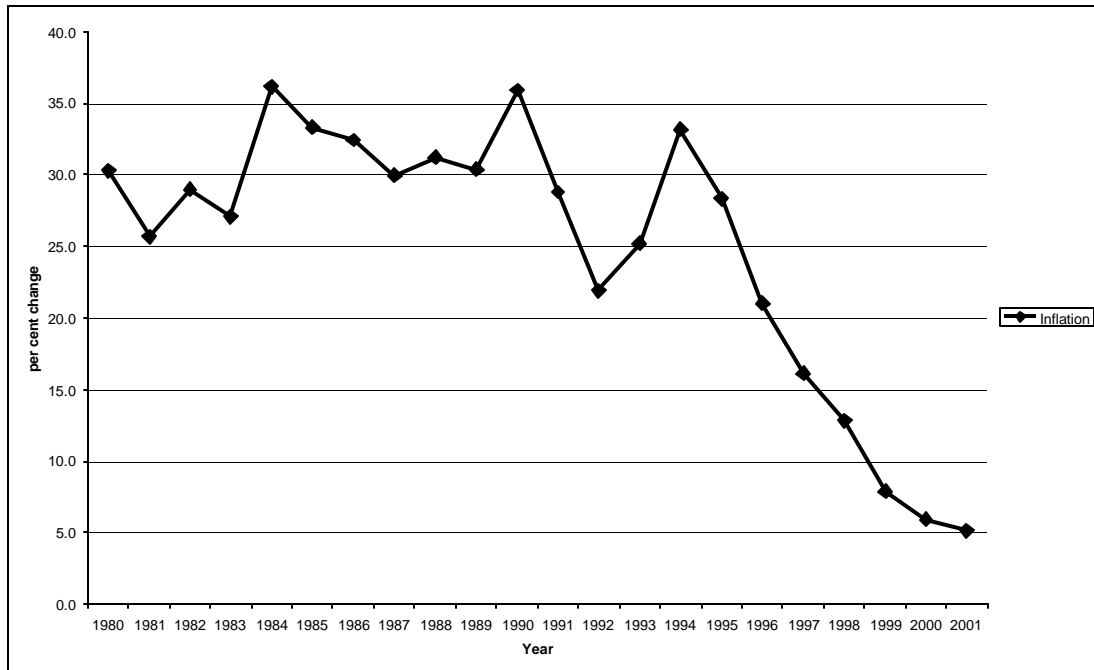
### *Inflation and Exchange Rates*

Perhaps the most impressive outcome in Tanzania in the post-reform period from a macroeconomic perspective has been the steady decline in the inflation rate since 1994, with the inflation rate in 2001 being 5.1 per cent (as compared to an average of around 30 per cent in 1980-1993, see Figure 4). Low inflation leads to a lower degree of variability in relative prices, and offers a more stable environment for households to engage in high return but more risky activities in the rural economy.

The decline in the inflation rate is not, however, reflected in a real depreciation of the real exchange rate, at least in the period 1993-1998 (Figure 5). On the contrary, during this period, the Tanzanian shilling appreciated significantly in real terms, nullifying to a great extent the positive effect on the tradable sector of the real depreciation of the exchange rate that occurred during the period 1985-1993. The Tanzanian shilling has been depreciating in nominal terms continuously since 1986. However, it is clear that the nominal depreciation that occurred in the mid-1990s was not sufficient to counteract the pressure on the real exchange rate to appreciate that originated from the inflation rate in Tanzania being higher than that observed in its trading partners.

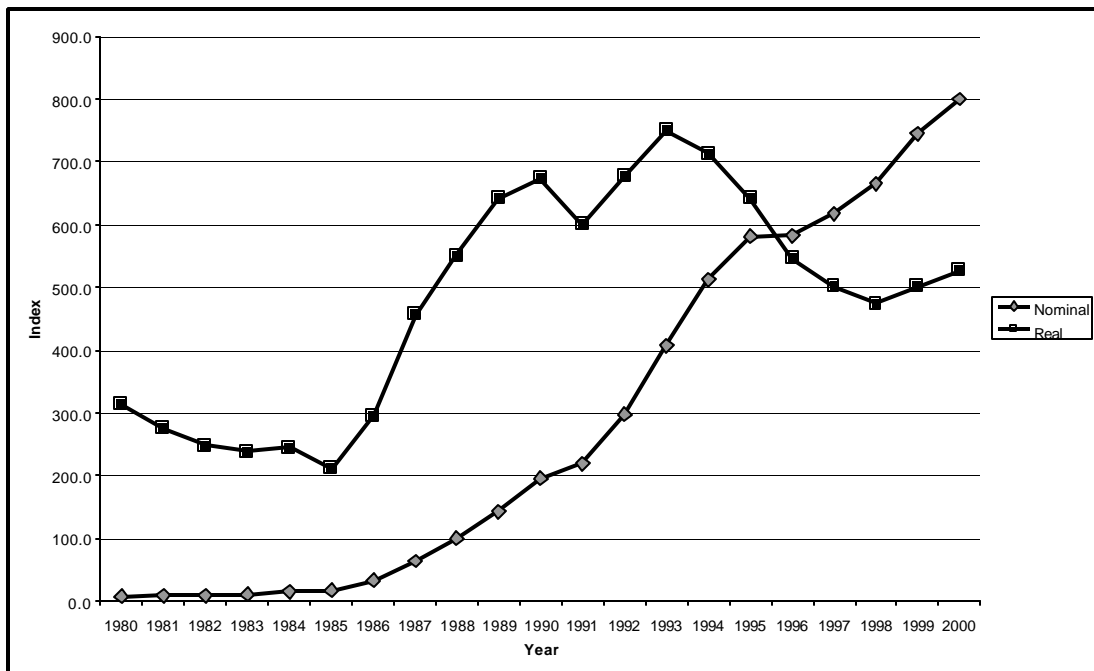
The sustained real exchange rate appreciation witnessed in Tanzania in the mid-1990s could be considered a significant setback to the reform process as it occurred at a time when the deregulation measures initiated in the agricultural sector were beginning to have a positive impact on returns to export crop production in terms of an increasing producer's share in the export price (discussed below). The unfavourable movements in the real exchange rate significantly impaired the profitability of farming in the export crops sector and is no doubt an important contributing factor behind the muted response of the agricultural sector to the economic reforms.

**Figure 4: The Inflation Rate**



Source: Bureau of Statistics, Government of Tanzania.

**Figure 5: The Nominal and Real Exchange Rate**



Source: Bureau of Statistics, Government of Tanzania.

## ***Prices, Terms of Trade and the Returns to Farming***

### *Producer Prices and the Terms of Trade*

Figures 6 and 7 plots the real producer prices of food crops and export crops respectively. With respect to food crops prices, there was an initial improvement in the prices of all major food crops after the deregulation measures of the late 1980s and early 1990s. However, from 1992/93 onwards, all food crops witnessed sharp declines in real producer prices. These price declines persisted for the remainder of the 1990s for wheat and paddy. In the case of maize, sorghum and cassava, real producer prices began to stabilise from 1995/96 onwards. In the case of export crops, there is no clear long-run trend for most crops with the exception of cashewnuts. In the case of the latter, there was a sustained improvement in real prices over the 1980s and 1990s. Coffee and tobacco exhibit significant volatility in real prices, driven primarily by developments in world markets.

The effect of economic reforms on the rural economy is further examined through the analysis of the inter-sectoral (rural-urban) terms of trade. Two alternate definitions of the rural-urban terms of trade are commonly used in the literature. The first is the comparison of how producer prices moved relative to the general level of prices facing smallholder farmers (the price or net barter terms of trade). The second is a comparison of how producer cash incomes moved relative to the general price level (the income terms of trade). We plot the price and income terms of trade for food crops and export crops in Figures 8 and 9 respectively. Both the price and income terms of trade have improved significantly for export crops in the 1990s, after a period of little or no change in the 1980s. The increase in the price and income terms of trade for export crops in the post-reform period contrasts sharply with a persistent decline in these two variables in the pre-reform period. As Ellis (1982) has shown, the price and income terms of trade for export crops fell by 42.6 and 42.5 per cent respectively in the period 1970-1980. Thus, the evidence from the terms of trade analysis suggests that the deregulation of agricultural pricing and marketing reforms may have led to a reversal of the long-standing bias against export agriculture in the Tanzanian economy that was evident under a policy regime of pan-territorial pricing and highly centralised state procurement systems in the pre-reform period (Ellis, 1983).

However, there has been no similar increase in the price and income terms for food crops in the 1990s. In fact, there may have been a slight decline in the income terms of trade for food crops in this period (see Figure 9). The terms of trade for food crops has not seen a similar decline in the pre-reform period as has been observed for export crops (a fall of 20.9 per cent in the price terms of trade in the period 1970-1980 for the staple crops - maize, paddy and wheat - according to Ellis, 1982). It can be argued then that economic reforms have not led to any significant reversal of the slow but steady long-term rate of decline that has been observed in the case of food crops for Tanzanian agriculture since the 1970s. Clearly, the differential impact of economic reforms on the terms of trade for export crops as compared to food crops has significant implications on the effect that these reforms may have had on rural poverty. As the LADDER surveys document, food crops provide a greater source of income than export crops for smallholder farmers that constitute the rural poor in Tanzania. It would seem that the relatively slow progress in rural poverty reduction in the 1990s (noted in Section 1) could be linked in great part to the relative stagnancy in the real purchasing power of smallholder farmers growing food crops.

**Table 3.** Returns to Farming; Producers' share in Export Prices for Export Crops, and in Retail Prices for Food Crops (per cent)

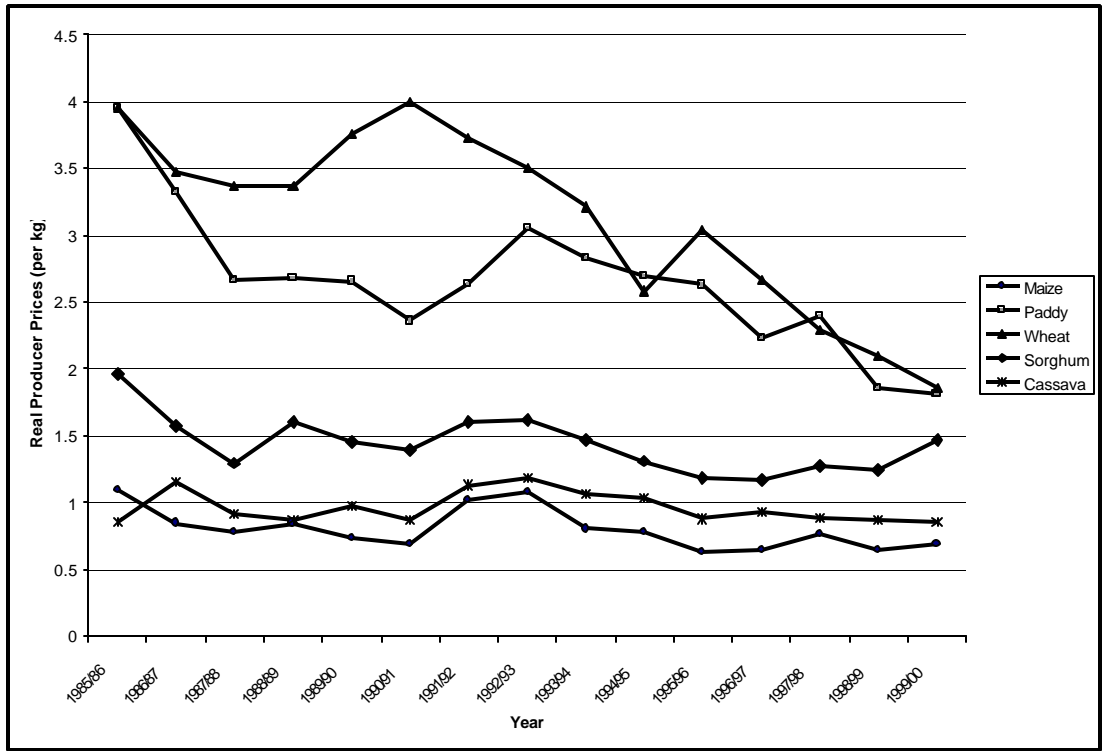
Export Crops	1987-89	1990-1993	1994-1999
Cashewnut	28.2	52.4	64.7
Coffee (Robusta)	40.7	51.0	45.7
Tea	32.0	51.2	34.5
Tobacco (Flue cured)	57.6	29.4	56.5
Cotton	62.2	35.0	21.8
Food Crops	1986-1989	1990-1993	1994-1999
Maize	56.6	66.8	87.9
Rice	28.6	35.0	38.4
Sorghum	23.4	50.0	99.4

Source: Tanzania, Agriculture: Performance and Strategies for Sustainable Growth, Ministry of Agriculture, 2000.

The effect of economic reforms on small-holder agriculture in Tanzania is further investigated by examining the patterns and trends in producers' share in the sales value of major export and food crops for the post-reform period (Table 3). In the case of export crops, the farmers' share in the export prices of many these crops show no change over the post-reform period or as in the case of cotton, register a sharp decline. On the other hand, cashewnut farmers' share in export prices have shown a significant increase since 1986. For food crops, the ratio of producer prices to retail prices have increased significantly in all three crops for which data is available. Thus, contrary to the evidence from the terms of trade analysis, the finding here seems to be that the deregulation of procurement and pricing may have led to higher returns for small-holder farmers growing food crops.

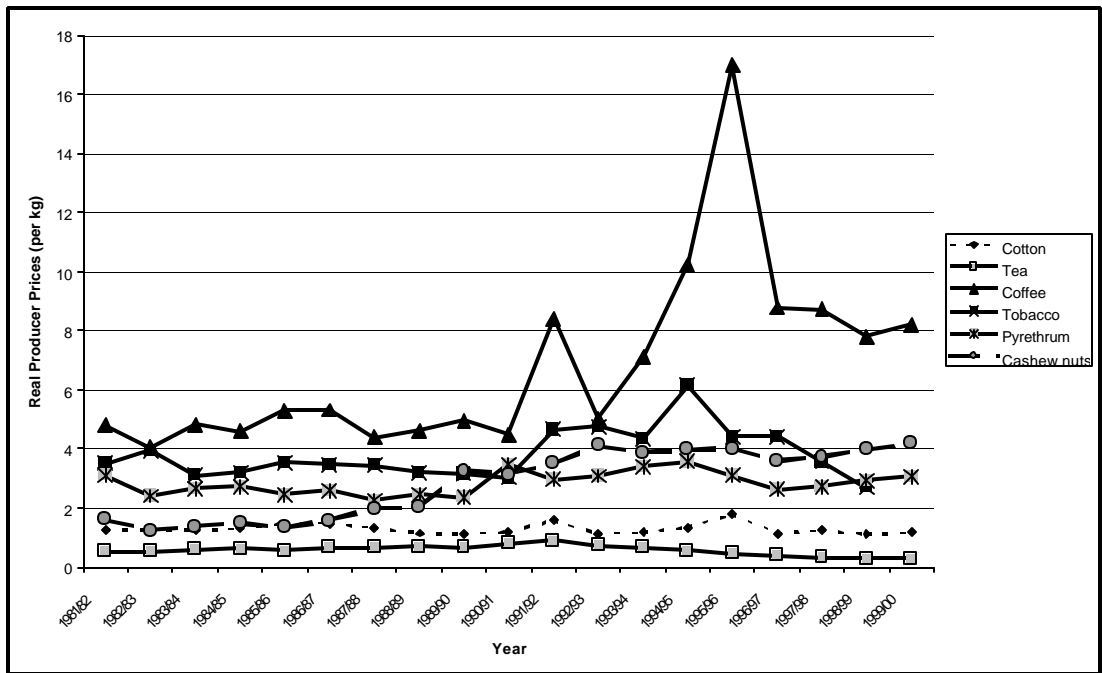
Overall, the evidence from this section suggests a stagnancy of the economy at the macro-level, both in terms of growth and diversification in the fifteen years or so of the post-reform period. Perhaps the most notable feature of the post-reform period has been the rapid decline in the inflation rate, though its beneficial impact on the farming sector has been nullified to some extent by the sustained real appreciation of the Tanzanian shilling in the mid-1990s. Furthermore, the impact of economic reforms on the agricultural sector seems to be uneven, with favourable movements in the terms of trade for export crops offset by unfavourable movements in the terms of trade for food crops. Evidence from trends in the producer's share of export/retail prices in the post-reform seem to suggest an improvement in the returns to farmers growing cashewnuts and food crops such as maize, rice and sorghum, though there seems to be no such improvement in producers' share in export crops such as coffee, cotton, tea and tobacco. The next section examines why economic reforms seem to have led to such a weak impact on export crops and food crops, with respect to prices and returns to farming.

**Figure 6:** Real Producer Prices, Food Crops



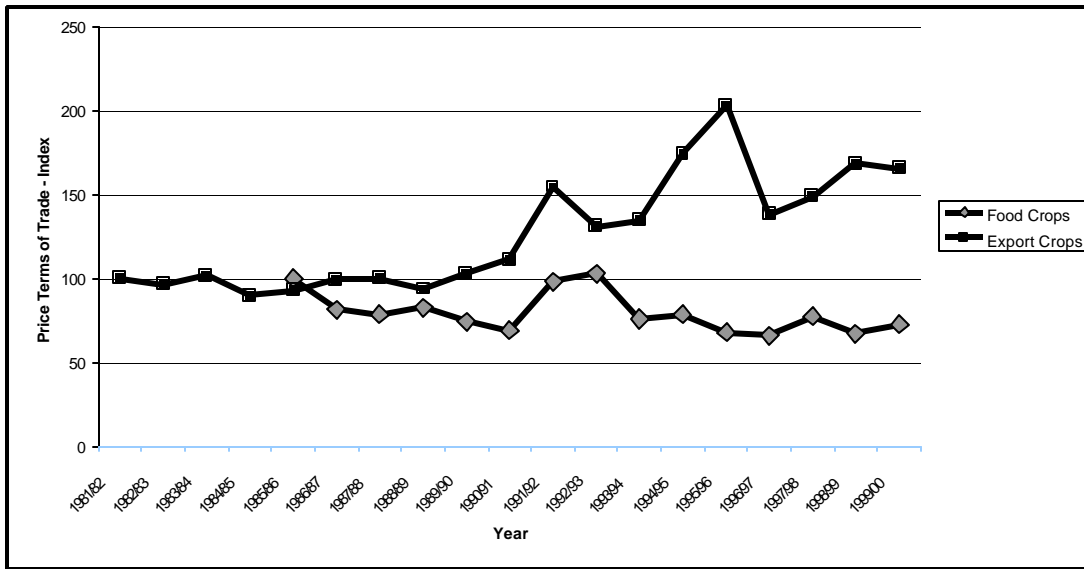
Source: Tanzania, Ministry of Agriculture, various years.

**Figure 7:** Real Producer Prices, Export Crops



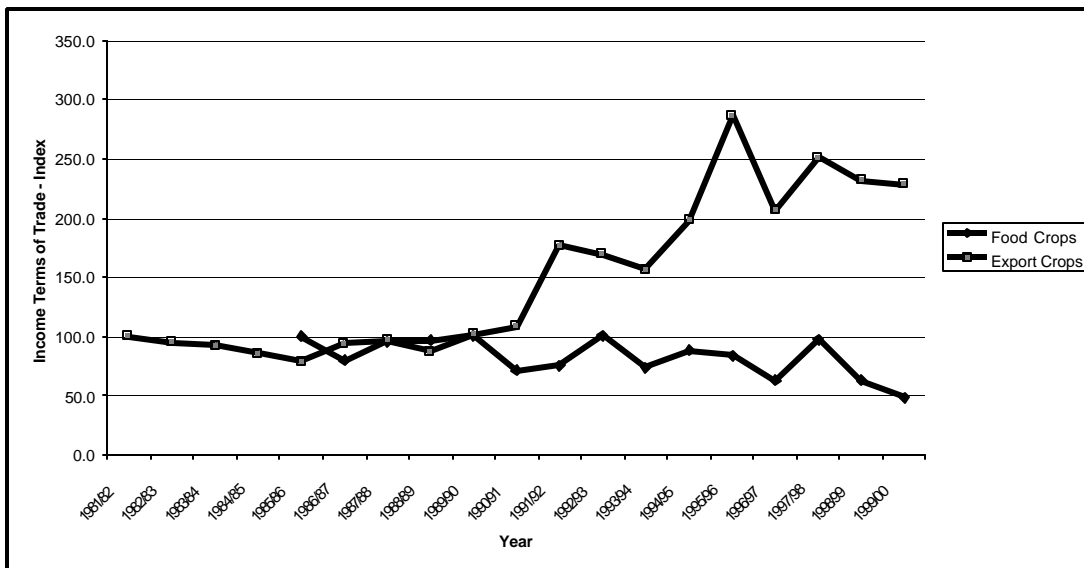
Source: Tanzania, Ministry of Agriculture, various years.

**Figure 8:** Price Terms of Trade, Food Crop and Export Crops



Note: Food Crops: Maize, Rice and Wheat; Export Crops: Cashewnut, Coffee, Cotton, Tea, and Tobacco. Price Deflator: Non-food National Consumer Price Index. Source: author's calculations; from *Ministry of Agriculture* data.

**Figure 9:** Income Terms of Trade, Food Crop and Export Crops



Note: Food Crops: Maize, Rice and Wheat; Export Crops: Cashewnut, Coffee, Cotton, Tea, and Tobacco. Price Deflator: Non-food National Consumer Price Index. Source: author's calculations; from *Ministry of Agriculture* data.

***Constraints to Rural Livelihood Diversification***

Evidence from the household living standards surveys indicate that many of the rural poor are households who own little land, and grow predominantly maize. On the other hand, households who earn income from wages, from livestock, and from cash-crops are less likely to be poor (World Bank, 2000). This suggests that livelihood diversification is strongly

correlated with declining poverty at the household level. The LADDER village surveys seem to suggest that livelihood diversification has taken place at a very slow rate in rural Tanzania over the past ten years, particularly into nonfarm economic activities.

There are many factors that may explain the lack of income diversification at the household level. In this section, we examine some of the factors that have received the most attention in the literature. These are: a) agricultural marketing; b) rural infrastructure and agricultural extension services; c) agricultural credit; and d) macroeconomic policy.

### *Agricultural Marketing*

In spite of a hostile policy environment that actively discouraged the involvement of the private sector in the marketing of crops, private traders had always participated in the purchase and sale of food crops in Tanzania. With private sector involvement in marketing increasing steadily in intensity and scope in the late 1970s and throughout the 1980s, sales in parallel markets accounted for 80-90 per cent of marketed food crops (Coulter and Golub, 1992). Thus, with the liberalisation of the grain market in the mid-1980s, there was an immediate positive response from the private sector to the new deregulated environment, with food supply to urban areas such as Dar es Salaam increasing considerably (Amani, Van den Brink and Maro, 1992). This improvement in food supply persisted in the years following the liberalisation of marketing, accompanied by declining consumer prices, and at the same time, with growing competition among traders, increases in the producer prices of foodcrops.

However, more recent evidence on the efficiency of foodcrops marketing in Tanzania suggests that competition at the farm-gate is still imperfect. Many farmers, particularly those living in the more remote villages, often had no more than two buyers to choose from for their maize produce (Kahkonen and Leathers, 1997). There is also evidence of large seasonal fluctuations in food prices, indicating that farmers, traders and consumers were not investing in storage (Seppala, 1998). In the case of maize, changes in the prices of the crops in more remote areas remain quite uncorrelated with price changes in the more accessible areas, reflecting the lack of marketing opportunities in the remote areas (World Bank, 2000).

The relatively high degree of inefficiency in the maize market is particularly worrying, given the importance of maize cultivation in the livelihoods of poor rural households. There are several possible reasons for the apparent inefficiency of marketing. Perhaps the most important of these is the ambivalence of the government, particularly at the local level, to private traders about their role in agricultural marketing, with the latter often subject to harassment by the local authorities (Amani *et al.*, 1992). This has resulted in a high degree of uncertainty in the minds of traders about their future, and may have led to under-investment in storage capacities (30-40 per cent of maize produced in Tanzania is lost due to poor or non-existent storage every year (Kahkonen and Leathers, 1997)).

Another reason for the lack of a sufficient degree of competition among private traders is the lack of contract enforcement mechanisms in Tanzania due in part to a weak legal environment. Traders prefer not to extend credit or supply inputs to farmers as farmers often sell their crop to the trader's competitors (World Bank, 2000). Thus, many buyers and sellers prefer transacting in the spot market, with reliance on cash transactions. This increases transaction costs by increasing the size of the transaction. Cash constraints also limit the entry of new traders.



The private sector involvement in export crop marketing has more recent than that in food crop marketing, with the deregulation of export crop marketing in the early 1990s. In fact, there are still a large number of institutional barriers to entry - specifically, rules about permits and licences that are required - that have impeded the development of a more competitive market structure in export crop marketing. Common with food crop marketing, the lack of contract enforcement mechanisms have resulted in a dominance of spot transactions over contractual ones in export crop marketing, leading to an increase in transactions costs (Kahkonen and Leathers, 1997).

### *Rural Infrastructure*

Tanzania has an inadequate rural road network, in great part due to systematic under-investment by the Tanzanian government in trunk and regional roads in the 1980s and 1990s<sup>2</sup>. A poor road network increases the cost of transportation and communication, and can contribute to lack of a response of the private sector in the marketing of crops, particularly in the more remote areas. It can be argued that Tanzania's poor road network may have contributed to the relatively little opportunities that are available for farmers in the sale of purchase of food crops and export crops and the purchase of agricultural inputs in regions such as the Southern Highlands.

### *Agricultural Extension Services*

Under the Local Government Reform Programme, all agricultural extension services have been decentralised to the District level. Under the Regional and Local Government Act of 1997, the District Council are now responsible for the provision of extension services to farmers as well as services such as education, health, roads and water. The LADDER surveys indicate that agricultural extension services are not available to the majority of farmers in the survey villages. The Strategy Document on Agriculture published by the Ministry of Agriculture describes the problem as follows:

The constraints to providing an effective extension service remain the same now as ever: weak extension-research-farmer linkages, lack of participatory skills amongst extension staff, and inadequate numbers of staff to operate the extension as intended. In principle, decentralisation should bring greater responsiveness and accountability on the part of the extension services to the needs of their clients, the small farmers. However, there is little evidence to show that the way in which extension services are delivered has changed in any substantial way. Women and youth still receive little or no attention in extension programmes... (and) the usual problem of limited funds is exacerbated by the negative impact upon staff morale of the change in structure and uncertainty about the future (Ministry of Agriculture, 2000, p. 143).

It is arguable to what extent the decentralisation programme can help deliver extension services to smallholder farmers if the funds available for the provision of these services are limited at the local level, or are diverted to meet the salary costs of local government officials.

### *Local Taxation*

A similar problem with the decentralisation programme is evident with respect to local government taxation. With decentralisation, there has been increasing mismatch between the functions devolved to local government authorities and the resources available to fulfil them. As a result, local governments have introduced a range of taxes and levies at the village level, which have greatly increased transactions costs both for farmers and traders. A sensitivity analysis conducted by the Ministry of Agriculture shows that marketing taxes have a major bearing on farmers' profits. The elimination of all output taxes on cashew, for example, would increase farmers' profits in the range of 19-30 per cent (Ministry of Agriculture, 2000). There is little doubt that the increased taxation at the village level has been a major constraint on the commercialisation of smallholder agriculture, and on attempts to reduce rural poverty via income diversification.

### *Agricultural Credit*

Financial sector reforms that resulted in the closure of rural branches of the public sector banks and the withdrawal of directed credit programmes may have led to a significant decrease in the access to credit for smallholder farmers in the rural areas of Tanzania. The lack of access to rural credit has also constrained the entry of new traders in export crop marketing (Kahkonen and Leathers, 1997). Furthermore, the demise of the cooperative unions with the deregulation of export crop marketing meant that the links between inputs, finance and output exchange were broken, and the cooperative system was not replaced by private sector run system of financing for inputs (Winter-Nelson and Temu, 2002). Prior to liberalisation, the cooperative unions operated what in effect was an 'one stop shop' by providing finance for input purchase, and with inputs being distributed to producers and the costs subtracted from the value of output (which the producers were contracted to see the cooperatives). In such a system, screening and monitoring costs were low, along with the low possibility of default on the part of the producer. In the liberalised environment, with multiple outlets for a farmer to sell his or her crop, screening, monitoring and enforcement costs have grown too high to allow widespread provision of crop finance (*Ibid.*)

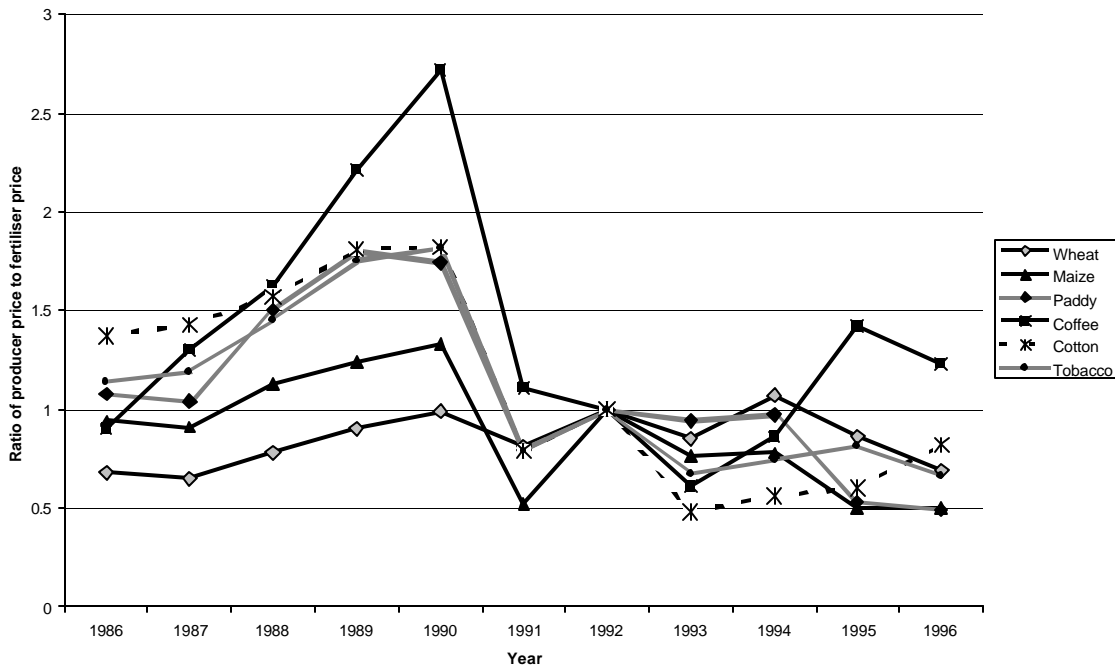
### *Increases in the price of fertilisers*

Until 1988/89, fertiliser was sold at pre-announced pan-territorial prices, with the government subsidising the price of fertilisers to farmers (the subsidy rate being approximately 50 per cent). Distribution was through the cooperative unions (which accounted for 75 per cent of total supply), the Tanzania Farmers' Association, and some state agencies. The government started phasing out the subsidy of fertilisers over a five-year period, eliminating all subsidies by 1994/1995.

It has been argued that the increases in the price of fertilisers may have led to a fall in the returns to farming, and may have particularly hurt the poorer farmers. However, there is little evidence to support this argument. Firstly, as is clear from Figure 10, there is no fall of any large magnitude in the relative price of output price to fertiliser price for most major food crops and export crops since the mid-nineties. Secondly, statistical analysis of the response of maize output (the most fertiliser-intensive of all the major food crops) to the fertiliser price increase suggests that the predicted fall in maize output has been minimal - less than 5 per cent (World Bank, 2000). The apparent fall in fertiliser usage in the post-reform period could

be attributed to the non-availability of credit for input purchase in the agricultural sector (see previous discussion).

**Figure 10:** Ratio of Producer Prices to the Price of Fertilisers

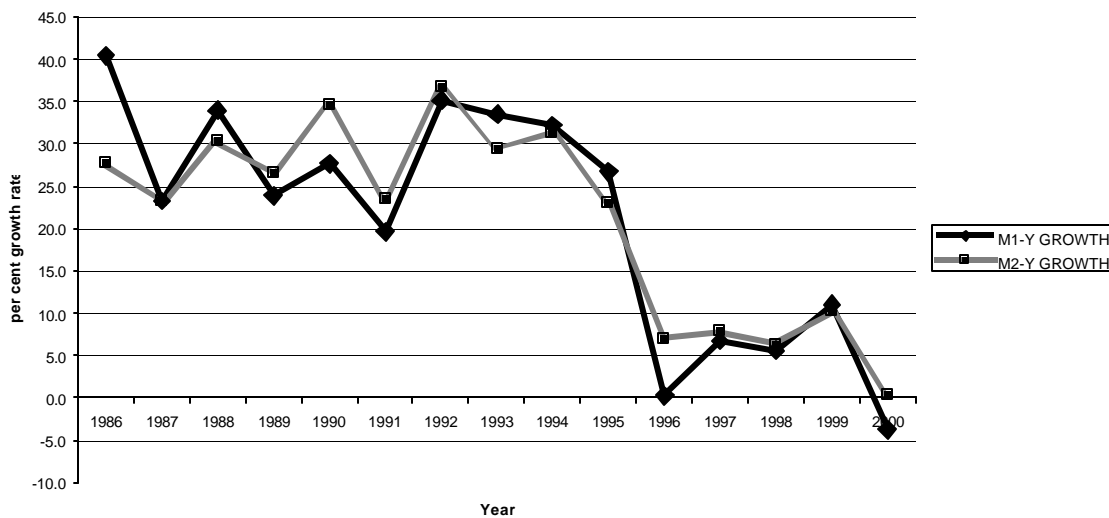


Source: *Tanzania, Agriculture: Performance and Strategies for Sustainable Growth*, Ministry of Agriculture, 2000.

### *Slippages in Macroeconomic Policy*

Perhaps the factor that has most inhibited the expansion of the export agricultural sector in the post-reform period has been the sharp and sustained appreciation of the real exchange rate in 1993-1998. This in turn could be related to slippages in macroeconomic policy, as the inflation rate in Tanzania has been consistently above that of Tanzania's trading partners during this period. As we have noted earlier, the real exchange rate appreciation occurred in spite of a sustained depreciation of the nominal exchange rate. The high rates of inflation in Tanzania could be attributed to an overhang of liquidity with money supply growth being far higher than output growth in the early 1990s (Figure 11). The growth in money supply was fuelled by an increase in foreign exchange reserves linked to greater aid inflows<sup>3</sup> and an increase in foreign exchange earning from tourism and mining during this period (World Bank, 2001). Thus, the Bank of Tanzania failed to sterilise the growth in foreign exchange reserves, and counteract its inflationary effect on the economy.

Figure 11: Excess Money Growth



Note: M1 is narrow money (currency plus demand deposits), while M2 also includes saving and time deposits; Y is GDP at factor cost in constant prices.

Overall, this section highlights the lack of an enabling environment for rural livelihood diversification that exists in Tanzania currently. In the 1990s, there have been significant weaknesses in the availability of agricultural credit, and in the provision of rural infrastructure and agricultural extension services. Along with this, has been the introduction of a local taxation regime that has acted as a disincentive to commercialisation and income diversification of smallholder farmers. The agricultural marketing system also shows large inefficiencies, linked to a highly restrictive environment for private traders. All these have constrained the ability of farmers to pursue dynamic strategies for rural income diversification that could enable them to move out of poverty.

### *Conclusion*

This paper examines the impact of economic reforms on smallholder agriculture in Tanzania. Specifically, it attempts to address why there has been an apparent slow progress in poverty reduction and in livelihood diversification in rural Tanzania, in spite of a decade and a half of liberal economic policies. The paper finds that the structure of the economy has remained remarkably stagnant in the post-1986 period with no evidence of a greater monetization of the economy in this period. With respect to the agricultural sector, there has been a significant increase in cash crops production, particularly in cashew nuts, but the response of food crops production to the reforms has been negligible. Analysing the behaviour of producer prices, the terms of trade and the producers' share of export value, the paper finds that the impact of economic reforms on the agricultural sector has been uneven, with favourable movements in the terms of trade for export crops offset by unfavourable movements in the terms of trade for food crops. Trends in the producer's share of export/retail prices in the post-reform suggest an improvement in the returns to farmers growing cashew nuts and food crops such as maize, rice and sorghum, though there seems to be no such improvement in export crops such as coffee, cotton, tea and tobacco.

Examining the possible causal factors for the seemingly weak positive impact of the economic reforms on smallholder agriculture, the paper finds evidence of inefficiencies in the

marketing arrangements of food and export crops at the village level, in spite of an impressive surge in private sector activity in agricultural marketing in the immediate post-reform period. The weakness of the marketing system can be attributed to 'government failure' with respect to the provision of rural infrastructure, and in the setting up of a supportive environment for private sector involvement in marketing. A second factor behind the lack of an enabling environment for poor farmers to enhance their incomes has been the nature of the fiscal decentralisation programme, which seems to have led to a decline in agricultural extension services and to the increase in taxation at the local level. There is also evidence of a significant 'market failure' in agricultural credit with the withdrawal of directed credit programmes to the rural areas, and in the demise of the cooperative unions, and limited entry of the private sector into rural credit markets. Finally, the real appreciation of the exchange rate in the 1990s brought about by lax macroeconomic policies during this period has also been an important factor behind the muted positive impact of economic reforms on smallholder agriculture.

## Footnotes

- <sup>1</sup> If the crop in question was a 'scheduled' crop, farmers were restricted by law to sell their marketed surplus to the parastatal authorities.
- <sup>2</sup> According to a recent estimate, less than 40 per cent of the trunk roads are paved, and of these, 20 per cent are in very poor condition (Ministry of Agriculture, 2000).
- <sup>3</sup> As a share of GDP, net official development assistance has averaged over 10 per cent in the late 1990s.

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