

Final Report ESCOR Project R7594:

Investment and Real Wages in African Manufacturing Firms: Creating jobs for poor people.

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Researchers

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Collaborators

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Background and Objectives

The objective of the research has been to advance understanding of two aspects of labour markets in sub-Saharan Africa (SSA) and the link to rates of firm investment. The first labour market issue is the limited growth of formal sector jobs, the second is the link from jobs to real wages. Both of these labour market issues are related to firms' investment decisions.

Labour Market Outcomes and Poverty in SSA

Labour market outcomes in sub-Saharan Africa are very diverse. They range from some of the highest recorded rates of unemployment in the world in South Africa and Ethiopia to some of the lowest in Ghana and Uganda, see Serneels (2002). Where measured unemployment is low the problem is twofold. First, the jobs that are available do not pay well. Second, the number of higher paying jobs is not growing, indeed it maybe falling. One of the major objectives of the research has been to establish how different are wages across the sectors and size range of firms in Tanzania and Ghana.

In the research proposal three possible routes were outlined as to how a low rate of job growth could impact on poverty. The first was that the pay for given levels of education could be falling. Such an effect would be felt most directly by young people entering the labour market for the first time. Second it was possible that those with low levels of education are increasingly rationed out of the higher wage job market. Third, the expansion of self-employment activities, if it consists of low income opportunities, implies poverty in employment.

There are two other effects of low rates of high wage job creation rates which are important for policy in sub-Saharan Africa. First, policies to retrench the public sector are hard to implement as it is perceived that there are no job opportunities in the private sector. Second, incentives to acquire training and education are potentially reduced as the value of these attributes is lowered with limited job growth. The impact of these effects on poverty are indirect.

Investment in manufacturing firms in SSA

Manufacturing firms in sub-Saharan Africa have very low rates of investment. It was noted in the research proposal that there are several possible explanations for this outcome which include:

- [1] Uncertainty has created a high cost environment. Collier and Gunning (1999a,b) in their assessment of the factors that have influenced the low growth record in Africa attach importance to risk. There is also a widespread view that foreign investment is deterred by the perceived high risk environment which characterises many African countries.
- [2] Financing cost prevent firms investing. Existing comparative data has shed light on this possible explanation. Bigsten et al (1999) show that in this simple form the explanation appears to be simply wrong. Firms with substantial own resources do not use them for investment in their own firms.
- [3] Investment is low because of limited growth. Low investment and growth rates are both the consequences of policy failures at the macro level.
- [4] The problem is not low investment it is the low saving rates.

Linking Jobs and Investment

There is a direct link from these issues of low investment to the creation of higher paying wage jobs. More higher paying jobs essentially requires more investment. So the overall research question posed was:

How can policy influence wage growth with the objective of impacting most directly on poverty alleviation?

Research Output

There are four categories of output from the project. The first are working papers some of which have been published on the web, some submitted to journals and some are at the mimeo stage; the second is a series of reports which have been made either made available to the firms or issued on the CSAE web site (or both); the third is the use of data by PhD students at the center, two of whom are from Africa; the fourth is the data itself which has been made available to researchers on the CSAE web site.

I outline each of these research outputs in turn:

Working papers and mimeos

Måns Söderbom and Francis Teal. "Are African manufacturing firms really inefficient? Evidence from firm-level panel data", WPS/2001.14

This working paper has been substantially revised and in its present form is available as:

Måns Söderbom and Francis Teal. "Size and Efficiency in African Manufacturing Firms: Evidence from Firm-Level Panel Data" WPS/2002-07

We have been fortunate to involve in the research Mr Anthony Wambugu who is a Kenyan PhD student at the University of Gothenburg. His participation in the project has enabled us to extend the comparison beyond Ghana and Tanzania as originally envisaged to include some comparative work on Kenya. The wage aspects of the research question are addressed in the following working papers including Mr Wambugu's work:

Måns Söderbom, Francis Teal and Anthony Wambugu. "Does firm size really affect earnings?", WPS/2002-08

Måns Söderbom, Francis Teal, Anthony Wambugu and Godius Kaharaya "Changes in the Return to Education: Evidence from Kenyan and Tanzanian Manufacturing Labour Markets", CSAE mimeo, November 2002.

Reports

The following three reports give a detailed account of work on the surveys. They have been made available to those working on the data in Tanzania and Ghana and are available on the CSAE web site.

Alan Harding, Godius Kahyarara and Neil Rankin. Firm Growth, Productivity and Earnings in Tanzanian Manufacturing 1992-1999. REPORT/2002-03

Alan Harding, Måns Söderbom and Francis Teal. The Tanzanian Manufacturing Enterprise Survey 2002. REPORT/2002-04

Neil Rankin, Måns Söderbom and Francis Teal. The Ghanaian Manufacturing Enterprise Survey 2000. REPORT/2002-05

The CSAE web site data contains data from both the Ghana and Tanzania surveys.

Ghana Data

The files available on the web contain comprehensive panel data set on a sample of firms within the Ghanaian manufacturing sector. This data was collected in five rounds over the period 1992 to 1998. The first three rounds were annual surveys, referred to here as Waves I – III, as part of the Regional Program on Enterprise Development (RPED) organised by the World Bank. The fourth and fifth rounds of the data each cover two year periods. The data was collected by a team from the Centre for the Study of African Economies (CSAE), University of Oxford, the University of Ghana, Legon and the Ghana Statistical Office.

The original sample of 200 firms, which were first surveyed in 1992, was drawn on a random basis from firms contained in the 1987 Census of Manufacturing Activities. The firms panel was broadly representative of the size distribution of firms across the major sectors of Ghana's manufacturing industry. These sectors include food processing, textiles and garments, wood

products and furniture, metal products and machinery.

Tanzania Data

This is a comprehensive panel data set on a sample of firms within the Tanzanian manufacturing sector. This data was collected over the period 1993 to 1995 in a series of three annual surveys, referred to here as Waves I – III, as part of the Regional Program on Enterprise Development (RPED) organised by the World Bank and funded by bilateral donor governments. The data was collected by a team from the Helsinki School of Economics, in collaboration with the Tanzanian Confederation of Industries and the University of Dar es Salaam.

A fourth wave of the Tanzania Manufacturing Enterprise Survey (TMES) was conducted in late 1999, involving a team of researchers from CSAE and the Economic and Social Research Foundation (ESRF) in Dar es Salaam. This succeeded in revisiting 89 of the remaining RPED firms (see below) and interviewing an additional 103 replacement firms. Firm-level production and accounts data was obtained for 1996, 1997 and 1998, thus giving a maximum number of six observations per firm over the four waves of the survey. This dataset is directly comparable to and can be linked with Waves 1-3 of the RPED available above.

These data sets have been made available for use in research. We have that the use of the data and its source be acknowledged. We have also asked that the financing for the surveys from the Department for International Development be acknowledged.

In addition to the actual raw data files on the web site also contains information on publications, dataset documentation, derived data and programs, questionnaires.

DPhil Students working on the data

There are five students working on the data. It has been part of the policy of the CSAE to give access of the data to students as part of its wider training role. Two of these students are from Africa, one is English, one from India and one from Belgium. I summarise their work on the data.

Alan Harding

“Evaluating models of industrial evolution in a developing country”.

Mr Harding’s research has focused on the investment data from the Tanzania survey. This has been used to assess the factors that affect investment and the links from this to firm exit and entry.

Gaurav Ganguly

“Trade and investment: Macro and micro-economic perspectives”.

Mr Ganguly has been using the investment data from the Ghana survey and comparing the implications of micro investment model with what emerges from macro data.

Godius Kaharaya

“The determinants of earnings in Tanzania’s manufacturing sector”.

Mr Kaharaya has been using the labour market data from the Tanzanian survey to investigate alternative explanations for the finding that firm size is strongly related to the earnings of

workers in the firms.

Pieter Serneels

“Unemployment and wages in urban African labour markets”.

Mr Serneels has just submitted his DPhil, only part of which draws on data from this project. There are four substantive elements to the thesis. The first is a very detailed description of unemployment in the Ethiopian urban labour market. This is shown to be concentrated among the young and relatively well educated. The analysis draws on a panel household survey on Ethiopia. The other three chapters model aspects of both the Ethiopian and Ghanaian youth labour markets. The two additional chapters on Ethiopia address the issue of duration dependence of the unemployed and investigate the existence of an added worker effect as part of intra household responses to unemployment. The Ghanaian labour market chapter, using data from this project, asks if wages really do affect productivity.

Neil Rankin

“Exports and Growth in African Economies”

Mr Rankin began looking at data on South African exports using both macro and micro data. He is now using the Ghana and Tanzanian data in combination with others to establish the factors that have limited the growth of manufactured exports

Research Findings

Måns Söderbom and Francis Teal. “Size and efficiency in African manufacturing firms: Evidence from firm-level panel data” WPS/2002-07

Three dimensions of the performance of firms in Ghana’s manufacturing sector are investigated in this paper: their technology and the importance of technical and allocative efficiency. We show that the diversity of factor choices is not due to a non-homothetic technology. Observable skills are not quantitatively important as determinants of productivity. Technical inefficiency is not lower in firms with foreign ownership or older firms and its dispersion across firms is similar to that found in other economies. Large firms face far higher relative labour costs than small firms. If these factor price differentials could be levelled out, substantial gains through improvements in allocative efficiency would be possible.

Måns Söderbom, Francis Teal and Anthony Wambugu. “Does firm size really affect earnings?”, WPS/2002-08

In this paper we investigate the implications of labour and capital market imperfections for the relationship between firm size and earnings. To establish that such a question is of interest we need to show that the firm size-wage effect cannot be explained by either the observed or unobserved skills of the workforce or the characteristics of the workplace. To do that we require data where controls are possible for observable time-varying firm and worker characteristics, as well as the unobservable characteristics of both the firm and its workers. Our data is a sample of workers matched with firms over time so such controls are possible. Changes in wages are shown to respond to changes both to profits per employee and the size of the firm. It is argued that these empirical results clearly reject the hypothesis that the firm-size relationship can be explained by the skills of the workers. They can be shown to be consistent with some forms of non-competitive theories of bargaining and efficiency wages.

Måns Söderbom, Francis Teal, Anthony Wambugu and Godius Kaharaya “Changes in the Return to Education: Evidence from Kenyan and Tanzanian Manufacturing Labour Markets”, CSAE mimeo, November 2002.

The returns to education remain a central concern for development policy. In developed countries there is evidence that the returns on education have been rising. Evidence for changes over this period for developing countries is limited. In this paper we use data from Kenya and Tanzania to examine how returns to education for workers in manufacturing have changed from 1980 to the late 1990s. For both countries comparing 1980 with the 1990s there has been a fall in the Mincerian returns for those with secondary education and above. For both countries there was no change for these workers over the 1990s. We show that for the 1990s the evidence is for a strongly convex pattern of returns implying that the returns are greatest for those with higher levels, contrary to what is consistently asserted in the literature. We also provide a detailed breakdown for the 1990s to show that this pattern continues to hold if we control for occupation and firm size. While these factors do reduce the returns to education, suggesting that some of the gain to education operates through occupation and size effects, these reductions are small. The most important education class of worker is for those with junior secondary completed and for these the Mincerian returns on education in the 1990s were 9 percent and 13 percent in Kenya and Tanzania respectively, which compares with 25 percent and 17 percent in 1980.

Policy Issues

The Research context and general policy issues

In the original proposal three research questions were identified and under each a set of hypotheses presented. In this section we will review how the work on which we have reported throws light on these hypotheses.

Research Question 1:

Are wages continuing to fall in the manufacturing sector of Ghana and Tanzania?

Hypothesis 1A:

The more rapid expansion of educated labour relative to the demand for it is reducing the return to education of those entering the workforce.

Hypothesis 1B:

Limited investment is reducing the demand and price of skilled labour.

Hypothesis 1C:

There are declines in the quality of skilled labour which limits its usefulness to the firm.

We need to make clear that a full account of the answers to these questions is still the subject of ongoing research so the implications reported here need to be treated as preliminary. The answer to our overall research question - are wages continuing to fall in the manufacturing sector of Ghana and Tanzania? - appears to be no for Ghana and yes for Tanzania. However one of the major findings of the research is that wages and firm size are strongly related. Large firms - defined as those with more than 100 employees - pay over twice that for small firms defined as those with less than 100 employees. This difference is not due to differences in education or work experience, it is a pure size effect as the paper by Måns Söderbom, Francis Teal and

Anthony Wambugu . “Does firm size really affect earnings?”, WPS/2002-08 shows. In fact it appears that the fall in real wages in Tanzania reflects the fall in the average size of firm in the 1990s. If we control for that so in effect asking what would wages have done if firm size had not fallen then underlying real wages may well have risen.

Over the period of the 1990s there is no evidence from the surveys that the return to education has been falling. There is evidence that over the longer term, that is comparing the 1980s with the 1990s, that there have been substantial falls in the return to education at the secondary level. What does appear to be the case for the 1990s, although at present this result is not clear-cut for both countries, is that the convexity of the earnings function is increasing. What this means is that the returns to education are rising at higher levels of education and (possibly) falling at lower levels. This is a very important finding from the research as it implies that substantial returns to education are only available for those achieving secondary education and beyond.

The implication is clear. Investing in education is becoming increasingly costly as a means of allowing individuals to exit from poverty.

Research Question 2:

Why do low wages not generate profitable investment opportunities?

Hypothesis 2A:

Wages are not low relative to the productivity at which firms operate.

Hypothesis 2B:

Within manufacturing the constraint is the price and quality of skilled labour.

Hypothesis 2C:

Wages are high in relatively large firms and productivity differentials do not compensate for the rise in wages.

There is a fundamental puzzle about the behaviour of firms in Africa’s manufacturing sector that needs to be addressed. Why, if wages are low in sub-Saharan Africa, does this not generate profitable investment opportunities. We have shown in the research on which we have already reported that wages in small firms are low, in some cases extremely low. It is also clear from the surveys that investment rates are low and there is no evidence that these investment rates have been rising in the 1990s, see Rankin, Söderbom and Teal (2002) for the Ghanaian data and Harding, Söderbom and Teal (2002) for the Tanzanian data. In this respect Ghana and Tanzania are typical of other African countries for which we have comparable information, see Söderbom (2001) for information on Kenya and Söderbom and Teal (2002) for work on Nigeria.

The key to linking wages with profitable investment is the efficiency with which firms operate. The research reported on in Måns Söderbom and Francis Teal. “Size and Efficiency in African Manufacturing Firms: Evidence from Firm-Level Panel Data” WPS/2002-07 is central to this issue. It is shown there that there is no evidence for increasing returns to scale so that in terms of underlying cost there is no reason to think large firms have lower costs. It is argued in the paper that larger firms face higher labour costs and lower capital costs than smaller firms. The result is that they use much more capital intensive technologies. Such firms are not competitive on the international market so that their opportunities for exporting are very limited. This, it is argued, is the key to understanding why low wages do not lead to higher rates of investment. Firms are not oriented towards the export market.

A third research question was posed in the original proposal

Research Question 3:

Can shifts in the demand for labour of differing skills and by gender be identified?

This is an issue on which work has begun but on which we cannot yet report.

Areas of policy choice

The key findings of the research are that there are important differences in both the price of labour and the price of capital to firms. These findings imply that the choices firms make both about the amount of labour and its type have direct impacts on the labour market and thus on the poverty objectives set by DFID. Is the problem for manufactured exports that wages are too high due to the high natural resources available in African economies such as Ghana, which is essentially the argument advanced by Wood (1994), Wood and Berge (1997), Wood and Mayer (1998)? The evidence from this research suggests the problem is more complex than simply relatively high wages. The evidence suggests that only large firms can enter the export market and it is for these firms that wages are relatively high. The failure to develop a successful trade in labour intensive manufactures is due to failures in the labour market.

Dissemination

There are a range of methods by which have been used to disseminate the results of this research. The CSAE has as part of its program of work in this area undertaken regular workshops in the countries in which it conducts surveys. A report on the most recent one conducted in Tanzania is given below. The second is by means of conferences. One that was devoted entirely to this issue was funded by UNIDO. It was held in Oxford in September 2001 and details of the programme and speakers are given below. Some of the papers from this conference are due to appear in a special issue of the Journal of African Economies next year. At the conference both academics and policy makers are invited.

Our work on Africa's manufacturing sector is also disseminated through our contacts operating as part of the Industry Surveys in Africa (ISA) group and our collaboration with the World Bank who are currently planning a series of surveys some of which will build on our work in Tanzania and Kenya.



Centre for the Study of African Economies
Department of Economics,
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CSAE and UNIDO International Forum

New Industrial Realities and Firm Behaviour in Africa
 20-22 September 2001 at St Edmund Hall, Oxford

Thursday 20 September

4.00-5.30 Registration
 ii) Reforming the UN
Chair: TBA

5.30 – 7.30

Speakers:

5.30 – 6.15 Dr. Carlos A. Magariños,
 Director General of UNIDO: ‘International
 Development Cooperation and the
 UN/UNIDO Reform for Effective Poverty
 Eradication’

6.15 - 6.45 Professor Sanjaya Lall, ‘African
 industrial performance and capabilities: the
 new UNIDIO scoreboard’

6.45 – 7.00 Sir Marrack Goulding, KCMG,
 Warden St Antony’s College, ‘Reforming
 the UN: successes and challenges’

7.00 – 7.15 Prof. John Toye, Oxford
 University: ‘The UN and the African private
 sector’

7.15-7.30 Questions/ Discussion

Friday 21 September

Session I. Policy issues for African manufacturing

9.00 – 13.00 i) How can African firms become
 successful exporters?
Chair: K. Yumkella (UNIDO)

Discussant: I. Farooque (UNIDO)

ii) How can firm performance be
 improved? Capital markets and
 institutions

Chair: - I. Elbadawi (World Bank)

- Soderbom/Teal overview

- J. Thoburn, textiles in South Africa;

- I. Elbadawi, T. Mengistae, A. Zeufack,
 ‘The International Competitiveness of
 Manufacturing Firms in Africa: How Far
 Does Geography Matter?’

- S. Dercon, Credit constraints in four
 African countries

- P. Kimuyu, ‘Informality, ethnicity and
 productivity: evidence from small
 manufacturers in Kenya’

Discussant: Alan Gelb World Bank

- R. Reinikka, 'Shifting Tax Burdens Through Exemptions and Evasion: An Empirical Investigation'

Session II. Firm Surveys: Lessons and Opportunities

14.00-16.00 Chair
Policy Uses of Surveys and Policy Issues

Alan Gelb World Bank
Ibrahim Elbadawi
Vijaya Ramachandran (RPED)
T. Mengistae (FACS)

Discussants

H.E. Newai Gebreab, Chief Economic Advisor, Office of the Prime Minister, Ethiopia (TBC)

UNIDO
V. Gregor (UNIDO)

World Bank Group
Demba Ba, Sector manager AFTPS

Researchers
Jan Gunning, Free University of Amsterdam
Charles Soludo, University of Nigeria, Nsukka.

Session III. Contracts, Investment and Efficiency

16.30 – 18.30 Chair: J.W. Gunning (Amsterdam)
i) Contracts and competitiveness

- Semboja, Competiveness in Tanzania
- Siggel/Ssemogerere, Uganda's policy reforms, industry competitiveness and regional integration
- J-P. Azam, theft
- J. Nkurunziza, credit in Kenya

Lead Discussant: J. Lima (UNIDO)
Chair: J. P. Azam (Toulouse)
ii) Investment, growth and efficiency

- S. Mani, 'Government, Innovation and Technology Policy: An Analysis of the South African Experience since 1994'
- A. Harding, efficiency and firm entry/exit
- M. Soderbom, investment & irreversibility
- A. Darku Ugandan investment
- S.Gelb Investment in South Africa
- P. Kimuyu, 'Micro-level institutions and enterprise productivity: insights from Kenya's small business sector'

Lead Discussant: T. Ng (UNIDO)

Saturday 22 September

Session IV. Skills, Wages, Competitiveness and Exports of Manufactures

Coffee 30 minutes in the middle.

9.00 – 13.00 i) Exporting
Chair: J. Estrup (UNIDO)

- N. Rankin, exports in South Africa
- B. Gauthier, exports and efficiency
- M. Fafchamps, Exports from Morocco

Lead Discussant: H. Forstner (UNIDO)

ii) Wages and their Determinants
Chair: TBC

Lead Discussant: : T. Mengistae
 (World Bank)

iii) The labour market
Chair: A. Bigsten (Gothenborg)

- A. Wambugu, 'Real Wages and Returns to Education in Kenyan Manufacturing'
 - J-P Azam, rent sharing in Cote d'Ivoire
 - Soderbom/Teal Firm size and human capital as determinants of earnings

- A. Barr, ethnicity
 - P. Serneels, The productivity of young people
 - te Veld Foreign ownership and wages

In this session papers will not be presented. The lead discussant will introduce the main themes from all the papers (15 minutes). The remaining time will be available for discussion

13.00 – 14.00 LUNCH

Session V. Institutions, Policy and Future Research Directions

14.00-15.30 Chair: TBC

- P. Collier 'Institutions, and policy'
 - J. Vinanchiarachi / K. Yumkella, 'Leading issues and Africa's path to industrialization: The role of support systems and instruments'

REPORT ON WORKSHOP ON BOOK LAUNCHING FOR THE TANZANIAN
MANUFACTURING SECTOR AND FIRM GROWTH AND PRODUCTIVITY IN 1990s

**ESRF CONFERENCE HALL,
Dar-es-Salaam, Tanzania
5TH APRIL 2002**

1. Opening Remarks (Prof. S. Wangwe)

In his opening remarks, Prof. Wangwe, the Executive Director of ESRF, welcomed participants to ESRF and to the Workshop. He said a Workshop on the manufacturing industry in Tanzania was timely because the sector has been almost forgotten. He said the Workshop will have two parts: the first session will be on book launching for the Tanzanian manufacturing sector, while the second session will be firm growth and productivity in the 1990s.

2. Prof. A. Szirmai

Prof. Szirmai's presentation reflected on lessons learnt from the industrial development in Tanzania. It looked at Tanzania's industrial development against the backdrop of orthodoxy which emphasises large scale industries, import substitution and the key role of government in the economy. It was argued that although there might be theoretical arguments in favour of orthodoxy, many of these standpoints have now been discredited.

Several observations were made with respect to industrial development in Tanzania. There was a decline in productivity from 1973 onwards, but initial gains have not totally been lost

Change in incentive structures

High-tech activity in so-called traditional industries

There is danger of lock-in if the focus is on labour intensive technologies

The role of education in industrial development: human capital comes before economic take-off, but education alone is not enough if not complemented by investment.

Reflections/Lessons Learnt

State-led industrialization has failed because there is a limit to government capabilities

There is need to improve governance (political and macro-economic stability will create a good environment for industrial development).

The incentive structure should be improved: there should be optimal use of all talents

There has been a serious neglect of the agriculture sector, which could play a big role in agro-based industries

There has been a fast moving liberalization of foreign trade, but more could be done to attract FDI.

Monitoring systems should be put in place

The manufacturing sector is one of the main engines of economic development.

Manufacturing is a learning process, and Tanzania is well placed to learn from the past and from other countries.

Recent Developments in the Industrial Sector: 1995-2002 (Prof. Wangwe/Mr. Rweyemamu)

During the period 1995-2002 the industrial sector comprised mainly of food processing, beverages and tobacco industries, accounting for 70% of Tanzania's industrial production. The Chemical industry accounted for 12%, while textile, clothing, leather and footwear accounted for 4%.

During the period, the industrial sector remained strongly oriented towards the domestic market. Manufactured exports consisted largely of semi-processed agricultural products (61% of the manufacturing export basket), as well as textiles, clothing, leather and footwear (29%).

Foreign Direct Investment (FDI) has increased from \$150.86 million in 1995 to \$192.80 million in 2000.

The industrial development policy in Tanzania is enshrined in Sustainable Industrial Development Policy (SIDP) 1996-2000.

Several constraints to industrial development were pointed out:

Infrastructure: poor roads, inefficient and inadequate communication network, unreliable and costly power and water supplies, etc.

Limited access to investment finance

Poor market potential

Weak institutional and business support framework

Human resource constraints: poor quality of labour force manifested by inadequate technical and managerial skills

Inadequate legal, regulatory and judiciary system

Challenges Ahead

The government's agenda should be to enhance its role of facilitation, regulation, service provision and coordination.

The agenda for the private sector should be (i) providing business services in the fields of information and training, (ii) assisting enterprises in increasing competitiveness, (iii) promoting linkages at regional and international levels, and (iv) undertaking business and export promotion through organizing national, regional and international trade fairs.

The agenda for enterprises and firms should be to build internal capacities to compete in terms of productivity, quality and innovativeness.

General Discussion

(a) On Policy Issues

There has been a very significant policy shift from BIS to SIDP. Although there is no explicit SIDP implementation strategy, an integrated industrial programme has been put in place.

The formulation of a trade policy is underway.

Tanzania is good at policy formulation and analysis, but rather weak in policy implementation

Government role as a regulator and facilitator is very important

Activity inside the Ministry of Trade and Industries has not reached the manufacturing firms.

(b) Constraints in the manufacturing industry

Lack of enabling environment: so many taxes, bad governance, etc.

Financial Institutions: long term financing is not attractive in Tanzania.

Lack of efficient infrastructure: power cuts, bad roads, shortage of water, etc.

Inefficient/insufficient human capital: lack of technical and managerial skills.

Lack of competitiveness and export drive

Levels of investment are low, and inter-firm linkages are weak.

Private sector institutions (e.g. CTI, TCCIA) are not very helpful to industrialists.

Dr. F. Teal

Dr. Teal made a number of observations with respect to manufacturing industry in Tanzania:

For small entrepreneurs, there are three critical factors which influence the survival or non-survival of small firms: taxes, the cost of electricity and production cost increases due to the falling value of the Tanzanian shilling.

Tanzania has a lot of managerial skills; the problem is how to use them efficiently and effectively to produce competitively.

Domestic markets will not make a significant difference to the economy. Tanzania needs to target export markets.

Manufacturing Growth in the 1990s

Surveys Undertaken

The main data source is a panel of approximately 200 Tanzanian manufacturing firms covered by the RPED surveys (for the 1992-95 period) and a follow up survey conducted by CSAE and ESRF researchers in 1999/2000.

The Wave 4 survey collected data for the period 1996-98 for all surviving RPED firms plus a further 106 replacement firms. This gives a total sample size of 189 firms interviewed in late 1999.

The surveys cover four main manufacturing sectors, which are the largest in terms of their contributions to manufacturing value added (MVA) and employment in Tanzania.

Sector Overview

Tanzania has a relatively small and non-diversified industrial sector which has undergone significant liberalization and regulatory reform since 1986.

One of the main objectives of these reforms was to open Tanzania up to both regional and international competition.

There has also been a substantial degree of industrial restructuring since 1992, which is the period covered by our dataset.

Two features of this restructuring process have been (a) differential growth rates of firms by sector and size of establishment, (b) significant levels of both entry and exist across the firm size distribution.

Firm growth rates and firm turnover (entry and exist) are the two main topics of this presentation.

Growth Overview

Evidence from our surveys shows that on average firms in our sample contracted during the period 1992-98, in terms of real output, real value added and total employment.

This average performance hides the fact that some firms and indeed some sectors (e.g. beverages) have expanded during this period.

Large firms (50+ employees) seem to have performed differently from smaller enterprises. Many large firms contracted sharply in the early 1990's but have subsequently started to recover.

Smaller firms (<50 employees) do not seem to have contracted as sharply in the early 1990's, maintaining their employment levels, despite a downturn in their levels of value added – which implies lower levels of MVA/employee or lower productivity.

Growth Comparison

How does evidence from our survey compare with official data on the performance of the manufacturing sector as a whole?

The main source of official data is the Quarterly Survey of Industrial Production (QSIP) undertaken by Takwimu. This is potentially a very important instrument for measuring (on a regular basis) what is going on in the Tanzanian industrial sector and deserves to receive the full support of both the private sector and donors.

At the moment, QSIP only covers about 300 large manufacturing firms across all subsectors of manufacturing, hence it misses out on what is happening to the smaller enterprises which dominate some sectors e.g. garments, furniture and metal fabrication.

We would thus *expect* the result of the QSIP to *differ* from our own survey results, due to the different sample coverage.

Firm Turnover (Entry and Exit)

One of the distinguishing features of the Tanzanian manufacturing sector during the 1990's were high rates of firm exit (across all sectors and firm size categories).

In modern industrial sectors e.g. UK, USA we expect to see high turnover rates among small and micro-enterprises (<30 employees). Firms enter an industry, try to compete and the less efficient or less lucky ones exit again.

The important question to ask is whether this is a good or bad thing? This is a question that is hotly debated amongst both economists and policy makers (as well as by the firms themselves).

To the extent that exiting firms are replaced by new, more efficient producers making better quality products at lower prices, high levels of firm turnover may be good for consumers, if not for producers and their employees.

This is known as the process of "creative destruction" by which poorly performing firms or firms which produce products for which there is no longer a demand (e.g. typewriters) are driven from the market.

For most manufacturing firms (the producers), increasing levels of competition and subsequent firm turnover may have advantages if this is taking place in the markets for their raw materials or other intermediate inputs.

It is obviously not as advantageous if your firm is the one facing this competition and the threat of exit. The question is how to respond? This can be a subject for discussion.

Conclusions

Based upon the evidence from the sample of firms in our survey, we can draw the following conclusions:

The early 1990's saw significant restructuring and downsizing of firms in nearly all of the subsectors covered.

This was at least partly in response to the policy reforms and liberalization of the Tanzanian domestic market for manufactured products from 1985 onwards.

The second half of the 1990's saw continued decline in some sectors e.g. textiles but some signs of recovery in other sectors e.g. food and beverages.

Evidence (not reported here) seems to indicate that the more efficient firms are the firms that have survived and are now starting to expand. This supports the idea that this restructuring is a process of "creative destruction" which will eventually leave Tanzanian producers in a stronger position to compete both domestically and internationally.

Given the small size of the Tanzanian domestic market for manufactured goods, a reorientation of Tanzanian manufacturing towards production for export markets offers the best hope for longer term growth and employment creation.

Tanzania is just at the beginning of such a process, which many other countries have already undertaken. The main challenge is the design of appropriate policies which will dynamise this process of change.

Issues for Firms and Implications for the Government Policy

This was a 'dialogue' session between some firm owners (who had been informants during the survey) and the research team. Several themes emerged during this session.

(a) Equipment

Prices for equipment are so high that small firms cannot afford them.

Donors should target grassroot levels when giving assistance in form of equipment for small scale industries.

Taxes

There are too many taxes, and this is a big problem for small firms. The government is aware of this problem and ways and means are being considered to solve, or at least minimize the problem.

One way of reducing taxes is to reduce government expenditure.

Capital

Access to capital is very difficult for small firms. Funds earmarked by the Government for small scale industries are sometimes not dished transparently.

Access to capital should be based on known, transparent competitive criteria, it should not depend on the discretion of the officer holding the funds.

A good business plan is essential in order to get access to capital.

The high cost of capital can be reduced by subsidizing loan interest rates for those who want to export their goods.

Business skills

Many small firm owners lack business skills and they don't have easy access to training facilities to improve their skills.

Business premises

Business premises are a problem to many small producers, who are constantly harassed by law enforcers.

One way out this problem is for Local Authorities/NGOs to work with communities to provide modern business premises.

General

How does a firm owner benefit from research results?

There are indirect benefits: research can inform policy makers of the major problems facing manufacturing firms.

Closing (Prof. Wangwe)

Prof. Wangwe thanked participants for their attendance and contributions. He emphasized that research contributes to policy formulation, which has benefit for overall economic development of the country. One way for stakeholders in the economy to make sure they benefit from research is to create fora that will follow up issues highlighted by research findings.

He thanked the informants in the research under discussion and told them that continuous dialogue between researchers and their informants is important. He also challenged researchers to find ways of giving something back to people who provide them with data.

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HIGHLIGHTS

Research question: how can job creation impact on poverty?

In the last decade there have been sweeping changes in the attitude of policy makers towards manufacturing in Africa.

- Policy rhetoric now focuses on the need for firms to compete and the role of industrial policy is seen to be to promote the effectiveness of firms in such competition.
- Such a policy stands in stark contrast to the long history in Africa of protection of its manufacturing sector by means of tariffs and non-tariff barriers to imports so that domestic industry did not need to compete internationally.

There has also over the last decade been a change in the rhetoric of policy makers and aid administrators to seeing poverty reduction as the core of their policy agenda.

These two shifts clearly raise a question:

- what is the relationship of the new industrial policy to policies of poverty reduction?

There is essentially only one way that industrial policy can impact on poverty and that is through the creation of higher wage jobs.

- This process depends on rapid growth in the economy.
- The poverty reduction aspects of industrial policy operate through workers getting access to more better paying jobs.
- Without such access poverty reduction on anything but a very modest scale is simply impossible.
- The widespread view that investing in education is a key policy to reducing poverty is in fact drawing on the knowledge that those with higher levels of education get better paying jobs.

How can policy towards the manufacturing sector promote growth?

- It is shown there that there is no evidence for increasing returns to scale so that in terms of underlying cost there is no reasons to think large firms have lower costs.
- Larger firms face higher labour costs and lower capital costs than smaller firms.
- The result is that they use much more capital intensive technologies.
- Such firms are not competitive on the international market so that their opportunities for exporting are very limited.
- The key to understanding why low wages do not lead to higher rates of investment is that firms are not oriented towards the export market.

The key to success in an area where Africa has a potential cost advantage – labour intensive garments – is to enable large firms to use a more labour intensive technology than is the case at present.