

MARKET DRIVEN REFORMS AND THE STRUCTURAL CHARACTERISTICS OF EMPLOYMENT IN NIGERIA: AN ECONOMETRIC ANALYSIS (1986-2003)

FERIDUN, Mete*
ISOLA, Wakeel A.

Abstract:

This article aims at investigating the econometric relationship between market driven reforms and the structural characteristics of employment after the implementation of market reforms in the context of deregulation of interest rates and exchange rate in Nigeria in the late 1980s. Following the theoretical framework, three time series models are built on quarterly time data spanning the period 1986 to 2003 to estimate the relative effects of the market reform variables on the employment structure in agriculture, industry and services. Analysis has revealed that the interest rate and exchange rate are positively related to the share of agriculture in employment. However, of the two only exchange rate is statistically significant. Also, the movement of labour force from agriculture does not swell employment in the service sector as predicted by deindustrialisation. Rather, labour finds employment in the Nigerian informal sectors. Lastly, we found that the link between the share of industry in employment and market reform are important determinants of the structure of employment and that the structure of employment in industry is not positively influenced by market reforms. There is continual decline of the sector as labour draws to the informal sector. However, services and agriculture sectors benefit marginally in terms of gains in employment. A number of policy implications emerge from the study.

JEL

Palabras claves

* Mete Feridun: Faculty of Economics and Business Administration Cyprus International University Nicosia, Cyprus. Email: mete.feridun@lycos.com. Wakeel Atanda Isola, Department of Economics University of Lagos Lagos, Nigeria. E-mail: isolawak@yahoo.com

1. Introduction

Throughout most of the post-independence era, Nigeria pursued an industrialization strategy based on import substitution. With the windfall from the crude oil sales during the commodity boom of the 1970s, successive governments, both at the Federal and state levels, dabbled into economic activities besides their basic social responsibilities. During this period, private sector investment in manufacturing increased taking advantage of various incentives such as the Pioneer Status, Approved Users Scheme and Indigenisation Decree provided by the federal government¹. By the late 1970s, a clear picture of the structure of the manufacturing sector had emerged. As stated in the Industrial Policy of Nigeria (FRN, 1988: 1), the sector was characterized by high geographical concentration, high production costs, low value-added, serious capacity under-utilization; high import content of industrial output and low level of foreign investment in manufacturing. However, by the early 1980's, as the country's foreign exchange earnings declined significantly arising from the oil glut, the high import dependence of the manufacturing sector became a serious liability on the economy. The problem was even aggravated by the poor performance of the public enterprises as reflected in low returns on investment. In fact, many industrial projects, in which huge amounts had been expended, remain largely uncompleted. Consequently, it became clear that a restructuring of the manufacturing sector was required. To cope with the problems of this sector and the economy in general, Nigeria embarked on a Structural Adjustment Programme (SAP) in July 1986, which was a market driven reform. Today, the problems confronting the manufacturing sector still linger. Furthermore, the situation has even degenerated to such a deplorable level that most of the manufacturing companies have been converted to warehouses for refilling and packaging of finished imported goods, reflecting the virtual collapse of the manufacturing sector in Nigeria. It is against this backdrop, therefore, that this article aims at examining the Market Reform and De-industrialization in Nigeria. The rest of the

¹ For a detailed discussion of the incentives provided by the Nigerian federal government see Ekundare, 1972: 40 – 48; Adejugbe, 1980: 225 – 242 and Egwaikhide, 1997

paper is organized as follows. Next section reviews the literature while Section III presents a synopsis of the structural characteristics of gainful employment in Nigeria. Section V presents the results of the empirical analysis and the last section points out the conclusions and the policy implications that emerge from the study and

2. Review of the Literature

The concept of deindustrialisation has been subjected to profound discussion in literature. Rowthorn and Ramamy (1997) have analyzed the pace of deindustrialisation in United State, Japan and 15 countries of the European Union. While deindustrialisation started in the US with the share of manufacturing employment falling from a peak of 28 percent in 1965 to only 16 percent in 1994, in Japan, by contrast, the process started later and has been less dramatic, with manufacturing employment peaking at 27 percent of total employment in 1973 (eight years after the peak in the United States) and then slipping back to about 23 percent in 1994. In the 15 countries of the European Union, the share of manufacturing employment stood at a comparatively high level of more than 30 percent in 1970 but then fell steeply to only 20 percent by 1994. The authors equally argued that on the other side of the coin, the share of employment accounted for by services in the advanced economies has increased fairly uniformly, with all advanced economies witnessing growth in service employment since 1960. The United States has led the way here too, with about 56 percent of the workforce employed in services in 1960 and about 73 percent in 1994, a higher share of employment in services than in any other advanced economy. The rise in employment in services has been accompanied by a decline in employment in manufacturing in all advanced economies. It must be noted at this point that de-industrialization in the advanced countries appears to be a normal feature of structural transformation in the process of economic development.

Mickiewicz and Zalewska (2002) have equally presented an over view of deindustrialization and lessons from the structural outcomes of Post-Communist Transition. They found that post-communist countries, while being only middle-income countries, have also

experienced de-industrialization. However, the recent trend towards de-industrialization in most African countries, Nigeria inclusive, has been attributed to implementation of the various market driven reform programmes. Critics of the programme point to an anti-industrial bias in the policy package (Adejogbe, 1995: 488-496, Stein, 1992: 83-95). The policy package included: trade liberalisation; depreciation of currency; reduction in government expenditure; removal of government subsidies; and increase in interest rate. Such policies, they argued, not only cause industrial production to stagnate or decline in the short run, but also erode an important part of the industrial base for future growth. In other words, the market reform has been responsible for de-industrialization in Africa. One piece of evidence cited is that about half of the countries in Sub-Saharan Africa had declines in industrial output in the first part of the 1980, while the rest of the region had output growth of less than 2 percent (Stewart, Francis, Lall and Wangwe, 1992). The role of industrialization in economic development of developing countries, on the other hand, has been studied extensively by David Coleman (1978) who argued that the industrialization of a basically agricultural, primary export-oriented economy was seen by policy makers and planners in developed countries as a means of breaking loose from the chains of dependency forged during the colonial epoch thereby matching the newly acquired independence with economic independence.

The World Bank Report (1994) admits that because of the paucity of data, it might be difficult to conclude whether market reform has contributed to de-industrialization in Africa. However, with the available data at her disposal from national accounts and from survey of manufacturing firms, the bank has gone further to fault the hypothesis that market reforms have led to de-industrialization in Africa. The Bank has argued, that the picture of Ghana, the country with the most extensive adjustment, is not one of stagnation, and de-industrialization, instead, it shows much activity, particularly among smaller enterprises, not included in official statistics. According to its survey, aggregate employment and output have been increasing about 2 percent a year for a sample of manufacture firms in four sectors representing about 80 percent of manufacturing employment – food processing, metal working, woodworking and textile and

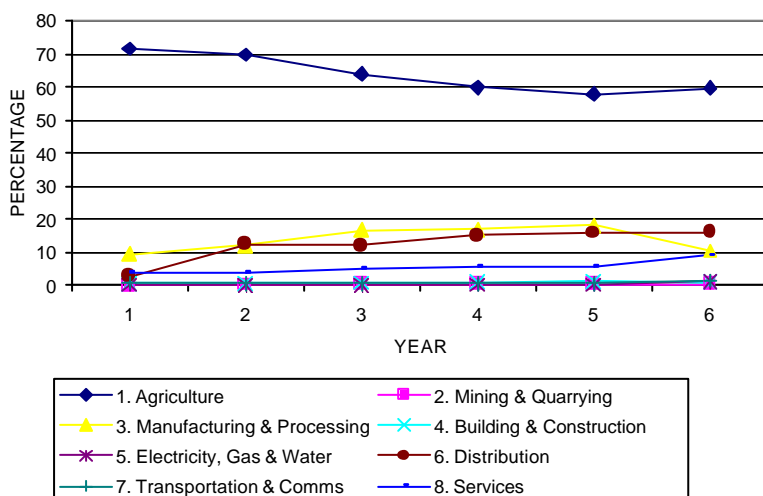
garment manufacturing. While one cannot doubt the authenticity of the data, it must be admitted that Food processing, Metal working, Wood working and Textile and Garment manufacturing being mostly informal sector activities not normally covered by official statistics remain the temporary abode for retrenched workers from the formal sector. However, because of the poor or low level of production including traditional technologies within the informal sector mostly cottage and small-scale enterprises their efficiency (productivities) remain very low in comparison with the modern sector establishment. The recent emergence of the multinational enterprises like PZ, and Unilever Plc in the detergent industry has confirmed the superiority of the large firm over the small and the indigenous firm. Jallian, Tribe, and Weiss, (2000: 320) survey on the state of industry in Sub-Saharan Africa confirmed that in all the contribution of manufacturing to GDP remained very low and in most cases less than 10%. Plant capacity utilization hovered around 25 to 30 per cent. The authors, therefore, focused on the challenge for economic policy to find ways of reversing the trend. The relevant question to ask at this point is to what extent has the Market Reform been responsible for the deplorable conditions of manufacturing sectors in Nigeria. The answer to the question will be the focus of the exposition in the subsequent sections.

3. Structural Characteristics of Gainful Employment in Nigeria

A panoramic discussion of the structure of employment in the three sectors – agriculture, services and industry in Nigeria is necessary to gain an insight into de-industrialization in the country. Figure 1 displays structural distribution of total gainful employment, i.e. those in the labour force, in Nigeria for the period 1960-2003). In 1960 about 70 per cent of the labour was engaged in agriculture. Since then, the proportion of the workforce in gainful occupation in the agricultural sector has declined gradually, reaching about 58.2 per cent in 1986. The relative neglect of the agriculture sector since 1970s partly explains the drop in the relative contribution of the sector to total employment. However, agriculture has marginally risen from a level of 58.20 per cent in 1986 to 59.8 percent in 1995. Although, the performance of the sector seems to be sluggish as

employment figure stood as 60 per cent in the 2003. The service sector, although very low has been rising since 1960s to date that is, from about 17.9 per cent in 1960 to about 22.2 per cent in 1996. The sector has improved marginally post structural adjustment period. The share of employment in the sector has increased from about 23.4 percent in 1986 to 30.0 percent in the year 2003. In spite of the dominant role of oil sector in the Nigerian economy, it has never accounted for more than 0.5 per cent of aggregate gainful employment. This reflects the capital-intensity of the sub-sector. The manufacturing sector was a distant third in employment generation, being 9.6 percent in 1960. It was the manufacturing sector that gained most in the provision of employment during the 1970s and before the introduction of SAP in 1986. Thus the manufacturing sectors contribution rose from 12.2 per cent in 1970 to 17 and 18.2 per cent in 1980 and 1985 respectively and declined markedly thereafter, being only 10.5 per cent in 1996. However, since the year 2000, the figure has remained constant at 10.5 per cent up to 2003.

INDUSTRIAL DISTRIBUTION OF NIGERIA'S TOTAL GAINFUL
EMPLOYMENT 1960 - 1996 (PERCENTAGES)



Obviously, the industrial sector has lagged relative to other sectors of the economy, reflecting a symptom of de-industrialization. The market driven reform under the structural adjustment has put a lot of pressure on the industrial sector- (deregulation of the financial sector and opening up of the economy) leading to retrenchment of workers. From the various surveys conducted by Manufacturers Association of Nigeria (MAN) during the period under review, a general trend of decline in industrial employment is noticeable. For instance, between 1987 and 1989, employment in the manufacturing sector dropped by 6% at the end of 1987 from 1986 level. A further marginal drop of 0.5 per cent was recorded in 1988. By 1989 the situation deteriorated with manufacturing employment registering a drop of 5 per cent. Ever since, employment in the sector has been lagging as more and more enterprises closed down and new industries are not springing up to close the void created. In 1996 alone, about 115 member – companies of the Manufacturing Association of Nigeria shut down operation (MAN, July – December, 1996). Similarly, over 130 member companies of the Association shut down operations between 1997 and 1999 due largely to lack of working capital and dumping in the economy. (MAN 1999 – July – December). The sectoral classification of this figure indicated that textiles sub-sector recorded the highest casualties of 43 companies followed by Ford sub-sector with 21 companies. Motor Vehicle sub-sector recorded the least figure of two companies. Similarly, in a survey conducted by NISER (2000) it has been observed that average retrenchment of firms by sub-sector was put at 550.8 in 1999. The sectoral distribution of this figure depicted that Electrical and Electronics recorded the highest figure of about 422 while Chemical and Pharmaceutical accounted for lowest. Furthermore the on-going survey of the existing small and medium scale enterprises in Lagos and Ogun State for instance, undertaken by Unilag Consult on behalf of the Central Bank of Nigeria (CBN) tends to point towards similar trend. Given the above scenario, one might be inclined to agree with Mkandawire (1988: 5 - 31) that the macroeconomic reform programmes in African countries, Nigeria inclusive, have engendered de-industrialization. The empirical investigation of this assertion is demonstrated in the subsequent sections.

4. Theoretical Framework

According to Corden and Neary, (1982: 823 – 848), de-industrialization connotes a situation whereby the manufacturing sector is lagging as a result of a boom in another sector, usually an extractive one, like energy. In this section we shall discuss the Rowthorn-Well Model as the theoretical underpinning of the present study. Based on Rowthorn and Wells' work (1987) we define labour productivities in agriculture, industry and services as exogenous variables

$$y_a = y_0 e^{\alpha k}, \quad y_i = y_0 e^{\beta k}, \quad y_s = y_0 e^{\gamma k} \quad \dots\dots\dots(1)$$

where subscripts a , i and s relate to agriculture, industry and services respectively. The level of productivity at the beginning of the development path is denoted by y_0 (>0). Parameter k (>0) refers to accumulated human and physical capital, and the α (>0) parameters to the differences in productivities among sectors.

Aggregate employment is given by:

$$L = fN, \quad \dots\dots\dots(2)$$

where, N represents population and f is the employment rate interpreted as a percentage of the total population (not of the working age population). This means that $0 < f < 1$.

Output in agriculture is proportional to the size of the population. This simplification reflects the fact that the income elasticity for food is low. Therefore, agricultural output and employment are correspondingly given by:

$$Z_a = \alpha N \quad \dots\dots\dots (3a)$$

$$L_a = Z_a / y_a \quad \dots\dots\dots (3b)$$

where, α is a coefficient of demand. Therefore: $0 < \alpha < y_0 / f$. Employment and output in services are determined by a second demand condition, which implies that the real output of services (Z_s , equivalent to real demand) is a constant fraction of total output, that

is $Z_s = cZ$. This puts a restriction on the corresponding demand coefficient: $0 < c < 1$. More formally, employment and output in services can be expressed correspondingly as:

$$L_s = c(L_a y_a + L y_i - L_a y_i) \\ Y_s + c y_i - c y_s \dots\dots\dots(4a)$$

$$Z_a = L_s y_s \dots\dots\dots(4b)$$

Finally, employment and output in industry will be determined according to the equations:

$$L_i = L - L_a - L_s \dots\dots\dots(5a)$$

$$Z_i = L_i y_i \dots\dots\dots(5b)$$

It follows directly from the model specification that aggregate output Z is

$$Z(f, \gamma_a, \gamma_i, \gamma_s, \gamma, c, k) = Z_a + Z_s + Z_i = Y_o(\gamma N + L_s (e^{\gamma k}_s - e^{\gamma k}_i) + (L - L_a) e^{\gamma k}_i) \dots\dots\dots(6)$$

Without loss of generality, we can make several assumptions, which significantly simplify the calculations. First, we can standardise y_0 as equal to 1. Moreover, we can normalise labour productivity equations by putting $\gamma_s = 1$. Thus equation 1 transforms to

$$y_a = e^{\gamma k}_a, \quad y_i = \gamma e^{\gamma k}_i, \quad y_s = e^k \dots\dots\dots(7)$$

$$Z(f, \gamma_a, \gamma_i, \gamma_s, \gamma, c, k) = Z_a + Z_s + Z_i = \gamma N + L_s (e^k - e^{\gamma k}_i) + (L - L_a) e^{\gamma k}_i \dots\dots\dots(8)$$

Thus, the employment structure in agriculture, industry and services determine if there is de-industrialization or not. Essentially, when employment in industry is lagging relative to other sectors, obviously, there is de-industrialization. This study is therefore anchored on this theoretical framework. De-industrialization has equally been explained in terms of the link between the exchange rate and traded goods sectors performance. This is premised on the hypothesis that there is an inverse linkage between a country's exchange rate and its industrial performance, which treats exchange

rate movements as exogenous. When a country's currency rises (falls) in value, or the exchange rate rise (falls), domestic prices of imported goods fall and foreign prices of domestic exports rise. As a result, domestic consumers switch from local, import-competing goods to foreign suppliers, and foreigners switch from imports to their own import-competing sector. The appreciating currency country loses production for export and its import-competing sector shrinks, so the traded goods sector contracts. At the same time, the traded goods sector abroad will expand; the demand for its import-competing sector rises, as well as for its exports. Some influential proponents of the deindustrialisation hypothesis include, Branson (1986) Branson and Love (1988) Cline (1986) Krugman and Baldwin (1967), Krugman and Baldwin (1987), Tatom (1994) among other scholars.

5. Empirical Analysis

This section analyzes the empirical relationship between market driven reforms and the structural characteristics of employment after the implementation of market reforms in Nigeria in the late 1980s. Deregulation of interest and exchange rate are instruments of market reforms and are included in our analysis. Also, we expect that the initial level of human and physical capital accumulation affect the structure of employment. Growth rate of per capita GDP is used as a proxy variable for initial level of human and capital development. In addition, two additional control factors that are consistent with the literature are used. These are Variation in current economic activity and Foreign Trade Intensity. The control variable for current level of economic activity is annual rate of change in investment (real capital formation). This is labeled 'investment'. 'Trade' denotes the share of foreign trade in GDP. Following the theoretical framework, three simple time series models were designed to estimate the relative effects of the market reform variables, as identified, on the employment structure in agriculture, industry and services. Quarterly time series data on the relevant variables were used to estimate the Ordinary Least Squares models spanning the period 1986 to 2003. As seen in table A1, interest rate and exchange rate are positively related to the share of agriculture in employment. However, of the two only

exchange rate is statistically significant. Also, we note that the share of agriculture is strongly influenced by growth rate of per capita GDP (although it does not conform with a priori expectation). Current level of economic activity as represented by investment is not significant. However, share of foreign trade in GDP negatively influences share of agriculture in employment and it is also statistically significant. This shows that agriculture's share in foreign trade is declining over the years. The overall result as shown by F-statistic is significant. The R squared is 55.4 %.

Table A1. Determinants of Post Structural Adjustment Share of Agriculture

Variables	Coefficients	Standardized coefficient	t	Probability
(constant)	58.965		375.754	.000
GDP Growth Rate	.0110	.374	3.874	.000
Investment	.00509	.190	1.829	.072
Trade/GDP	-.0219	-.455	-4.803	.000
Interest Rate	.00196	.0108	1.261	.0212
Exchange Rate	.00405	.213	2.169	.034

R squared: 0.554, F- statistic :15.430

R squared adjusted : 0.519, Significance level :.000

Table A2 shows the results of determinant of post –adjustment share of services in employment. We should expect the results relating to services to match those described above for agriculture. This is because misdirected deindustrialisation leads to a higher share of agriculture in employment. Thus, we should expect that the results related to services should mirror those presented in table A1, but with opposite signs. But this is not the case. The signs of variables of table A2 is exactly the same with table A2. Thus, movement of labour force from agriculture does not swell employment in the

service sector as predicted by deindustrialisation. Rather, labour finds employment in the Nigerian informal sectors. However, exchange rate is significant at 0.05 level while other variables remain insignificant at 0.05 level. The overall result is significant as shown by high value of f-statistic. The R squared adjusted is 30.5%.

Table A2. Determinants of Post Structural Adjustment Share of Services

Variables	Coefficients	Standardized coefficient	t	Probability
(constant)	24.471		12.225	.000
GDP Growth Rate	.0263	.008	.073	.942
Investment	.00840	.030	.283	.813
Trade/GDP	-.0436	-.086	.073	.942
Interest Rate	.00226	.12	.115	.909
Exchange Rate	.107	.576	4.506	.000

R squared: 0.354 , F- statistic: 6.881

R squared adjusted: 0.305 , Significance level:.000

Turning our attention to industry, we have previously demonstrated that what matters is the direction of deindustrialisation, not the absolute changes in industry .The results for determinant of the industry in post structural adjustment is presented in table A3. The result is weaker than for the other two sectors. The result shows that the link between the share of industry in employment and market reform are important determinant of the structure of employment. All the variables show opposite signs relative to that of the other two sectors. Per capita growth rate of GDP, Trade/GDP and exchange rate are significant with negative signs. Thus, structure of employment in industry is not positively influenced by market reforms. There is continual decline of the sector as labour draws to the informal sector. However, services and agriculture sectors benefit marginally in terms of gains in employment as shown by results presented in tables A1 and A2.

Table A3. Determinants of Post Structural Adjustment Share of the Industry

Variables	Coefficients	Standardized coefficient	t	Probability
(constant)	12.879		25.354	.000
GDP Growth Rate	-.318	-.287	-3.451	.001
Investment	-.00690	-.069	-.766	.446
Trade/GDP	-.0922	-.511	-6.254	.000
Interest Rate	-.00845	-.125	-1.683	.097
Exchange Rate	-.0222	-.337	-3.672	.001

R squared: 0.668

F- statistic: 24.988

R squared adjusted: 0.642 Significance level:000

6. Conclusion

Analysis has revealed that the interest rate and exchange rate are positively related to the share of agriculture in employment. However, of the two only exchange rate is statistically significant. Also, the movement of labour force from agriculture does not swell employment in the service sector as predicted by deindustrialisation. Rather, labour finds employment in the Nigerian informal sectors. Lastly, we found that the link between the share of industry in employment and market reform are important determinants of the structure of employment and that the structure of employment in industry is not positively influenced by market reforms. There is continual decline of the sector as labour draws to the informal sector. However, services and agriculture sectors benefit marginally in terms of gains in employment. Central to industrialization is the issue of agriculture. There is a strong inter-sectoral linkage between agriculture and industrialization as the latter provides the raw materials for manufacturing and industrial activities. In Nigeria industrial take-off has not been preceded by any remarkable development in agriculture. This distortion of industrialization process in Nigeria imposes the burden of importing basic materials for industries. Several policy implications emerge from the study. As a prescriptive measure to industrial development, we can suggest the

formulation of relevant policy and planning measures by the governments, building up of technological institutions and the training of industrial and technological manpower; and the appropriate choice of technology for industrial development. In addition, strong political commitment is required to set strategies and targets of industrialization as well as to determine how motivational resources should be structured and managed at the level of implementation.

References

Adejogbe, M. O. A. (1980) "Nigeria's Industrial Policies and Performance in the Military Era: 1966-1979" In Proceedings of Annual Conference of the Nigerian Economic Society pp. 223-242

Adejogbe, M. O. A. (1995) "Macroeconomics Policies and Industrial sector" In: Macroeconomic Policy Issues in an Open Developing Economy: The Case of Nigeria, A. Iwayemi ed. NCEMA) Ibadan

Branson, W. (1986) "The Limits of Monetary Coordination as Exchange Rate Policy," *Brookings Papers on Economic Activity*. 1, pp. 175 – 194.

Branson, W. and James, L. (1988) "U.S. Manufacturing and The Real Exchange Rate," in Richard Marston, ed., Misalignment of Exchange Rate: Effects on Trade and Industry. Chicago: University of Chicago Press, pp. 241-270.

Cline, W. R. (1986) "Pressure for Import Protection and U.S. Policy," in United States Trade and Competitiveness, Hearings before the Subcommittee on Banking, Finance and Urban Affairs, U.S. House of Representatives, Ninety-Ninth Congress, Serial No. 99-46, pp. 454-469.

Coleman, D. & Nixon, F. (1978). *Economics of Changes in Less Developed Countries*. Oxford: Philip Allan.

Collier, P. (1987) "Macroeconomic Effects and Dutch Oil on Poverty in Nigeria" AIDS Bulletin 1.

Egwaikhide, F. O. (1997): 183-203) "Import Substitution Industrialisation in Nigeria: A Selective Review" Nigerian Journal of Economic and Social Studies, Vol. 39 No. 2.

Federal Republic of Nigeria (FGN, 1986), Structural Adjustment Programme for Nigeria, July 1986 – June 1988.

Federal Republic of Nigeria (1988:1) Industrial of Nigeria Abuja, Federal Ministry of Industries.

Hossein Jallian, Michael Tribe and John Weiss, (2000: 320) Industrial Development and Policy in Africa: Issues of De-Industrialisation and Development Strategy Edward Elgar Publishing. U.K.

Kaldor, N (1966) Causes of the Slow Rate of Economic Growth of the United Kingdom, Cambridge: Cambridge University Press.

Krugman, P. R. (1994) "Competitiveness: A Dangerous Obsession," Foreign Affairs, pp. 8-44

Krugman, P. and Richard E. (1987) "The Persistence of the U.S. Trade Deficit," Brookings Papers on Economic Activity pp. 1-43

MAN, Half-Yearly Economic Review: Various Issues (1987-1999).

Max Cordon and Peter Meary (1982) "Booming Sector and De-industrialisation in a small open Economy" The Economic Journal December.

Mickiewicz and Zalewska (2002) "Deindustrialisation: Lessons from Structural Outcomes of Post-Communist Transition" William Davidson Working Papers, No. 463.

NISER (2000) Survey of Business Conditions Experience and Expectations in the Manufacturing Sector.

Rowthorn and Wells (1987). “De-industrialization and Foreign Trade”, Cambridge: Cambridge University Press.

Rowthorn, and Ramamy (1997). “De-industrialization – Its Causes and Implications” International Monetary Fund Working Paper.

Stein, H. (1992). “De-industrialization, Adjustment, the World Bank and the IMF in Africa! World Development .

Stewart , Frances, Lall and Wanguze, (1992) Alternative Development Strategies in Sub-Saharan African London: Macmillan.

Tatom, J (1994) Currency Appreciation and “Deindustrialization”: A European Perspective, Working Paper, Federal Reserve Bank of St. Louis.

Tybout, J. (1998). “Manufacturing Firms in Developing Countries: How well do they do, and why? World Bank Policy Research Paper” No. 1965.

Van Den Belt, C. A. (1978) De-industrialization in Netherlands “In Blackaby, F. (ed) De-industrialization (NISER, Economic Policy Paper 2) London Heinmann.

World Bank (1984), Adjustment in Africa: Reforms, Results and Road Ahead World Bank Oxford University Press.