Exporting Manufactures from Ghana

Is Adjustment Enough?

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Foreword

By virtue of the tiny size of their domestic markets, the countries of Africa can only develop by trading with the rest of the world. And by virtue of the weakness of the world markets for most of their traditional commodity exports, the imperative Africa confronts is to join the countries of Asia and Latin America which have made such economic progress by expanding their manufactured and other non-traditional exports. At present, however, Africa is a negligible exporter of manufactures. To reverse this situation, it is essential to understand the obstacles that stand in the way. This book is a valuable, if chastening, contribution to such an understanding.

Basing themselves on a substantial survey of manufacturing enterprises, the authors point out that even after more than a decade of adjustment policies, only a limited revival of industrial exports has occurred – 'back to the level of the late 1970s, but no higher' – despite large continuing reported under-utilisation of industrial capacity. They firmly reject the view that greater expansion is held back by external forces, pointing instead to domestic constraints: still only partial deregulation, still substantial uncertainty about the direction and sustainability of policy, still a reluctance to invest and modernise. In microcosm, the story they have to tell is the story of the weak responses of African economies to the policy reforms of the last decade or more. There are so many obstacles to improvement, some very deep-seated. They cannot all be tackled simultaneously, and some reveal entrepreneurial weaknesses beyond the reach of the state, but responses will remain weak until the constraints begin to give way over a broad front. One of the strengths of this report is that it pinpoints the obstacles with depth and precision, laying down the foundation of knowledge necessary for corrective responses.

This volume is the latest output of a programme of collaborative research funded by Britain's Overseas Development Administration, undertaken by members of the Department of Economics of the University of Ghana, and administered by ODI. The first two products of this programme were published in 1992 and may be ordered from ODI:

Small Enterprises and Adjustment: The Impact of Ghana's Economic Recovery Programme by Nii K. Sowa, A. Baah-Nuakoh, K.A. Tutu and B. Osei

Diversifying Exports: The Supply Response of Non-Traditional Exports to Ghana's Economic Recovery Programme by C.D. Jebuni, Abena Oduro, Yaw Asante and G.K. Tsikata

The present study is a follow-up to the second of the above titles.

My own association with the University of Ghana's Economics Department goes back to 1961, when I joined it as the most junior of Assistant Lecturers.

It has therefore been a source of particular pleasure to be associated with this programme of research and in this way to be able to renew my links. A third phase of work is planned.

Tony Killick
Overseas Development Institute April 1996

Acknowledgements

This study was conducted by a team of researchers from the Department of Economics, University of Ghana: Professor Amoah Baah-Nuakoh (Coordinator), Dr Charles Jebuni, Ms Abena Oduro and Dr Yaw Asante.

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We also wish to thank individuals, institutions and firms which responded to our questionnaires. Of particular note is the contribution of our departmental colleague Barfour Osei who was a member of the project from the initial phase up to the completion of the survey, but had to end his participation for further studies abroad.

1
Introduction

Background

Structural adjustment programmes in developing countries have emphasised export-led growth. This is in recognition of the positive role of exports in growth and development. Even though the literature is uncertain about the direction of causation, it seems that countries which have succeeded in increasing exports have also experienced faster growth (Kavoussi, 1984; Roubini and Sala-i-Martin, 1991).

The structural adjustment programme in Ghana adopted export-led growth as its main strategy, and particular efforts were made to increase non-traditional exports. In response to this, exports which had declined

Table 1: Trends in exports, 1980–93

	Manufacturing exports, $m	*Total exports $m*	*NTEs $m*	*Total exports as % of GDP*
1980	225.99	1,132.90	11.4	8.5
1981	338.27	978.87	338.0	4.8
1982	231.21	792.91	136.7	3.3
1983	154.36	1,157.80	163.8	5.6
1984	59.15	535.55	32.0	7.5
1985	88.25	610.07	71.5	9.6
1986	134.09	859.67	23.8	16.0
1987	135.33	780.62	28.0	21.2
1988	247.34	826.31	42.4	20.7
1989	na	1,018.50	34.7	20.6
1990	160.25[a]	898.80	62.3	15.4
1991	250.29[a]	997.70	62.6	15.7
1992	221.86[a]	986.30	68.4	16.1
1993	na	1,050.90	71.7	19.7

Sources: Central Bureau of Statistics, *External Trade Statistics*; Statistical Services, *Quarterly Digest of Statistics* (various years); Ministry of Trade files and Export Promotion Council.

Notes: [a] Provisional. NTEs – non-traditional exports. na – not available.

as a share of GDP to around 3% in 1982 increased sharply to 9.6% in 1985 (Table 1). By 1986 the export:GDP ratio increased to 16%, and then to an average of 20.8% between 1987 and 1989. However, in 1990 the ratio declined to 15%, though there was a recovery in 1993. The export volume index, taking 1984 as the base year, increased to 210 in 1990, an annual growth rate of 12%. Exports in dollar terms also increased substantially over the same period but by less than the increase in volume.

This expansion was also accompanied by shifts in the composition of exports. The share of cocoa, traditionally the leading export of Ghana, peaked at 70% of the export total in 1984. Since then it has declined as minerals and timber exports increased at a faster rate. By 1992, as a result of substantial foreign investment, gold had become Ghana's leading export. Non-traditional exports also responded favourably, in dollar terms increasing from $23.8 million in 1986 to $28 million in 1987 and by 51.5% to $42.4 million in 1988; by 1990 they had reached $62.3 million and rose to $71.7 million in 1993. The response of non-traditional exports seems to have flattened since 1990, remaining at between 5 and 6% of total exports since that year.

Initially most non-traditional exports consisted of unprocessed agricultural products such as fresh tuna fish, pineapples, yams, kola nuts, bananas, etc. In 1986 this category accounted for 75% of all non-traditional exports. However, as the reform programme progressed, processed and semi-processed products such as sawn wood and furniture, aluminium products, natural rubber sheets and processed vegetables increased in importance, overtaking agricultural products with a share of 53% in 1990 and 60% in 1993.

In spite of the tripling of the value of non-traditional exports there has been no substantial change in the structure of Ghanaian exports. Exports are still basically dominated by minerals, cocoa and timber, which together account for over 85% of merchandise exports. Thus there has been no significant change in the vulnerability of export earnings to external world market conditions affecting primary products. To reduce this vulnerability as well as to increase export earnings, diversifying into manufactured exports has been seen as the solution.

The manufacturing sector in Ghana is largely import-substituting. Domestic manufacturers have been pressing for increased protection in the form of higher import tariffs and the re-imposition of quotas and bans. It is open to question whether this type of assistance to local industry is the appropriate one to address the problems the sector is facing. The debate has generally ignored the role of manufactured exports. The manufactured exports sector is still a fledgling one. While

manufactured exports have grown since 1986, the values are still small (Table 1).[1] The sector will quickly contract if incentives are not maintained and a favourable macroeconomic environment is not in place. Measures adopted to address the problems of the manufacturing sector should therefore be critically examined since they have direct implications for exports in general. If, as indicated in the report by Jebuni *et al.* (1992), protection for domestic industry adversely affects exports, such a strategy of increasing protectionism could be counter-productive. It is also important to identify the source of the difficulties when assigning policy instruments to solve particular problems. The objectives of an expanding manufacturing and export base should not be considered as being mutually exclusive. They can both be achieved if a carefully thought out policy framework is put together. The problem with policies in Ghana in the past is that, despite the twin objectives of increasing manufacturing production and manufactured exports, policies have been put in place to achieve the former at the expense of the latter.

To examine in more detail the relationship between the set of incentives under the export-led strategy and non-traditional exports, a study was undertaken by the Department of Economics at the University of Ghana into the response of non-traditional exports to the set of incentives under Ghana's structural adjustment programme (Jebuni *et al.*, 1992). This produced a number of interesting results. The SAP policies created an incentive system conducive to the expansion of non-traditional exports as compared with what had prevailed previously. In terms of relative prices, the Economic Recovery Programme/structural adjustment programme policies, in particular the exchange rate depreciations, improved export prices relative to those of domestic goods. The improved operating environment has increased the efficiency and competitiveness of firms as compared with the situation in the early 1980s.

Both exporters and non-exporters are aware of certain components of the incentive system and perceive them as creating an atmosphere favourable to exporting. This is despite the weaknesses which remain, for example the bureaucratic processes which exporters have to undergo before final shipment can be made.

Short-run price elasticities of supply are low, though they are higher for non-traditional exports than for all exports. A number of constraints hindering the responsiveness of exporters have been identified. It will be

1. See Appendix Table A1 for a list of some of Ghana's important manufactured exports.

seen from the literature, however, that these are problems common to the early phase of diversification.

As demonstrated by Jebuni *et al.* (1992) and the experience of other countries, the transformation from low value added exports to high value added exports requires a number of other constraints such as marketing, technology, credit and the institutional environment to be addressed. Economists have usually assumed that comparative advantage in production was enough to generate exports. The East Asian experience and that of other less industrialised countries which have achieved this transformation suggest that issues of marketing and technology may be crucial (Helleiner, 1992). Wade (1990) also indicates that the role of government in managing the market may be important in this transformation.

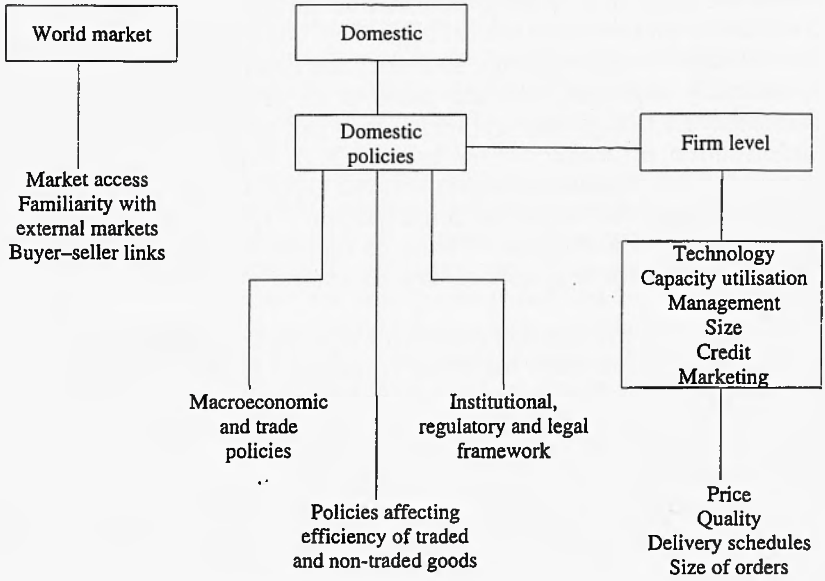
The evidence shows a need for further research at the micro-level into the manufacturing sector to examine in greater detail the determinants of, and constraints facing, manufactured exports. The study by Jebuni *et al.* (1992) demonstrated this in the case of non-traditional exports in Ghana, where it was found that there is still room for improvement in performance, as indicated by the small share of exports in the total sales of most of the exporting firms and the excess capacity in some of these industries. The present study aims to pursue this line of enquiry further.

Determinants of Manufactured Exports: Theoretical Considerations

The conceptual framework adopted in this report is that in any developing country constraints on the development of manufactured exports may arise from external world market conditions or from the domestic economic environment, particularly at the firm level. In broad terms therefore there are two sources of constraints: those due to world conditions affecting market access which may be external both to the country and the firm and those due to domestic economic and production conditions.

As depicted in Figure 1, there are several ways in which world market conditions may constrain manufactured exports from developing countries. Traditionally, the strongest argument used by developing countries to explain the poor performance of non-traditional exports has been to attribute it to the constraint relating to market access. It has generally been argued that the escalation of industrial country tariffs according to the degree of processing as well as non-tariff barriers create

Figure 1: Constraints to exports – conceptual framework



difficulties for manufactured exports from developing countries, and the argument has been used to gain some concessions for such exports, although the argument is weakened by the failure to fulfil export quotas, especially in textiles and garments.

Long-term contractual relationships between buyers and sellers can also affect market access. These links can act as a barrier to entry as suppliers tend to prefer long-term relationships. At the same time, they can be beneficial since they promote export development (Egan and Mody, 1992).

The worldwide search by firms in industrialised countries for low-cost manufacturing locations and sources may work in favour of exports from other countries. According to Biggs *et al.* (1994) developments in the clothing industry for example, stem from the pressure to control costs, the increasing wage rates in some traditional garment-producing countries and import quotas which have capped the exports of traditional suppliers. Inability to exploit such opportunities to export may well be due to domestic producers' unfamiliarity with the retail and financial environment of external markets. Even though market access has been

identified as a demand-side variable, it also has supply-side aspects. Some firms may have the export potential but are unable to tap it because the costs of obtaining information on existing markets and the techniques of market entry are too high. This will be a particular problem for small firms – and especially so if they are producing items which are not normally exported, because there is no critical base of domestic information on foreign markets which they can utilise. Thus, where costs of information on market entry are too high exporting is unlikely to occur. Is the development of manufactured exports in Ghana constrained by these external market access considerations? Have firms made efforts to access markets and failed? Do firms receive export orders they are unable to fulfil? These questions are addressed in Chapters 4 and 5 of this report.

If the power of the external constraint is indeed weakening because of world developments, then the main constraints to export development may be domestic. Two broad sets of domestic constraints can affect manufactured exports: those arising from domestic economic policies and those due to firm-level production conditions.

Domestic policy considerations include macroeconomic and trade policies which influence the incentives for exporting or producing purely for the domestic market. In Chapter 3 we examine the impact of macroeconomic and trade policies on manufactured exports. Given a favourable macroeconomic environment, microeconomic considerations with regard to the efficiency of production and the price competitiveness of traded and non-traded intermediate inputs also affect exporting. The regularity of supply, and the quality and price of these inputs affect the price and quality competitiveness of manufacturing enterprises. Chapter 5 discusses these relationships. In addition, the institutional and regulatory framework in which firms operate can facilitate or hinder their operations. To what extent do these regulations impinge on exporting? What are the costs to exporters of these regulations and to what extent do firms perceive established institutions as useful? These considerations are addressed in Chapter 2.

At the firm level, finance, the age of the technology, the level of capacity utilisation as well as the size of the enterprise may affect the three Rs of exporting: right price, right quality and right delivery schedules. Most entrepreneurs covered in the Jebuni *et al.* (1992) study and other studies on the manufacturing sector (Sowa *et al.*, 1992; Baah-Nuakoh, 1983, 1994; Baah-Nuakoh and Steel, 1993; Steel and Webster, 1991; Asante, 1994) have identified finance as their major problem. The question, however, is whether finance is indeed as acute a problem as the entrepreneurs perceive it to be, and more specifically whether the

problem is one of the cost of credit or of its availability. This may vary, of course, according to the size of the firm. In addition, there may be a problem in terms of the maturity composition of the credit. While credit for working capital in the short term may be available, it is doubtful that loans of longer-term maturity which are essential for investment will be generally available from the existing financial institutions. There may be adequate provision for short-term working capital, but most firms may need credit to re-tool their factories, etc.

The technology constraint is a very broad issue covering the age of the machinery, which has direct implications for the costs of production and the quality of the product as well as product type or design. Marketing and credit constraints also impinge on this variable. If market information is inadequate, the entrepreneur will not know about product quality and design. Lack of credit will create a difficulty in revamping the production process to reduce the costs of old machinery as well as to be able to meet the requirements of product design and quality.

For import-constrained economies, non-availability of imports can affect production and hence exports (Khan and Knight, 1988). Under a liberalised regime, however, where the availability of foreign exchange is not a constraint, the proportion of imported intermediate inputs in total raw material inputs could influence exports. Given the price of foreign exchange, firms using a larger proportion of domestic raw materials may be expected to be more competitive than those largely dependent on imported inputs. This cost element would need to be assessed by empirical analysis, since it also depends on the prices of domestically produced intermediate inputs.

Increased capacity utilisation which improves efficiency and reduces costs can increase the volume of manufactured exports in the short run, and will also affect the quality and international competitiveness of the product. On the other hand, where the domestic market is a constraint, diversifying into manufactured exports may provide a way out of the capacity utilisation problem. Thus a link can be established between manufactured exports and capacity utilisation.

Size may also be an important determinant of exporting. The probability of being an exporter increases with size and larger firms are likely to have a greater export orientation than small firms. The size of the firm will also be a determinant of the type and severity of the constraint. While for some of the constraints large firm size becomes an advantage, the magnitude and severity of other constraints increase with size. The data were therefore disaggregated according to four size groups, measured by the number of employees: micro, small, medium and large. All these considerations will be addressed in Chapter 5.

Objectives and Methodology of the Study

This study is aimed at continuing the line of enquiry into non-traditional exports as studied by Jebuni *et al.* (1992), but with an emphasis on manufactured exports. It will examine the determinants of and the constraints on expanding manufactured exports in Ghana and the relationship, if any, that exists between manufactured exports and capacity utilisation.

The factors that have been identified as important determinants and constraints on manufactured exports include size and age of the firm, capacity utilisation, technology, access to finance and external market conditions. Several hypotheses will be tested on the relationship between some of these variables and manufactured exports. We also hypothesise that the type and magnitude of the constraint will vary by sector. The liberalisation undertaken during the structural adjustment programme, in particular the rapid and sustained exchange rate depreciations, will tend to affect the sectors differently, favouring tradables over non-tradables. The intention of the study is to arrive at a set of policy proposals for the manufacturing sector in the 1990s.

Not all the issues may be subject to quantitative analysis. And even when some are subjected to quantitative analysis they may only be applicable in a time series context. To examine the determinants of manufactured exports two types of technique were used. The first was to employ secondary time series data for econometric analysis. The second used primary data generated from a survey of 150 manufacturing firms conducted in 1993 which provided both quantitative and qualitative information.

Outline of the Study

The study is organised as follows. Chapter 2 discusses the policies and institutional framework for manufacturing in general and manufactured exports in particular. Chapter 3 analyses trends and the impact of policy on manufactured exports. Chapter 4 discusses the firm-level survey, the sample of firms and their characteristics. Chapter 5 discusses the constraints on and determinants of manufactured exports based on the perceptions of the entrepreneurs surveyed. Chapter 6 sums up the findings and outlines some policy recommendations.

2
Policies and Institutional Framework

Introduction

A strong institutional framework together with an effective export promotion programme constitute a necessary push factor to encourage import-substituting firms to become export-oriented. They are also necessary to enable exporting firms to maintain or increase market shares. Keesing and Lal (1991: 190) in a survey of manufactured exports from developing countries which focused on marketing issues, concluded that 'the central requirements for accelerating the expansion of manufactured exports, along with suitable policies, are first, to give an initial boost to – and thereafter accelerate – the learning process . . . and secondly to make available an affordable high quality service to help firms in areas where they are weak'. Thus any export promotion programme must address the needs of firms, both exporting and non-exporting. This chapter discusses the policies and strategies that have been instituted in Ghana to promote and increase manufactured exports and the institutional environment for promoting them.

The Export Promotion Package

Even before independence all governments recognised the need to develop, diversify and promote the export base of the Ghanaian economy. Indeed, the Seven-Year Development Plan for the period 1963/4–69/70 had as its central task to increase the value of exports by the processing of raw materials and the development of manufactured goods. The balance-of-payments problems of the late 1960s brought to the fore the need to explore export markets for non-traditional exports (NTEs) including manufactures. It was not until then that any specific policy measures were introduced to promote the manufacturing sub-sector. Efforts at export diversification resulted in the setting up of the Ghana Export Company (GEC) in 1968 and the Ghana Export Promotion Council (GEPC) in 1969. The GEC was to undertake the physical exportation of non-traditional products, while the GEPC was assigned a promotional and developmental role. It was empowered to perform the

following duties: to advise the government and exporters, to market and promote Ghana's exports, and to provide insurance facilities and information to exporters concerning markets.

In order to expand output and diversify the commodity structure of exports the 1969/70 budget introduced an incentive package to deal with what had been up to then a disappointing performance by NTEs. It consisted of four main components:

- A scheme under which manufacturing firms were to receive an income tax rebate corresponding to the percentage of total output exported: a 50% rebate if 25% of total output was exported, 33.3% if 15–25% was exported and 10% if 5–15% was exported.
- An export bonus scheme under which producers would receive a bonus equivalent to 10% of the value of the increase in their export earnings compared with the previous year.
- The automatic renewal of import licences for raw materials of importance to manufacturing firms.
- The waiving of local taxes (i.e. sales and excise taxes) on exports. Exporters were also eligible for a refund of the local duties paid on raw materials used in the manufacture of exports.

Manufactured exports were given no preferences, apart from the income tax rebate scheme and the automatic renewal of import licences. All other export incentives, for example the bonus, applied equally to all categories of non-traditional exporters and some traditional exports. Other measures implemented were the provision of bonded warehouses for the storage of raw materials intended for the production of export goods. Import duties and taxes are paid when the raw materials leave the warehouse. In an attempt to reduce the impact of import licensing procedures on export activities, the Bank of Ghana introduced a scheme in August 1975 which provided special import licences for certain raw materials to manufacturers with firm export orders.

By 1982, in spite of the laudable objectives underlying these measures, the country had achieved little by way of diversification and increased value added, mainly because the export promotion package failed to incorporate all the components necessary to ensure a consistently positive response (Jebuni *et al.*, 1992). With the inception of the Economic Recovery Programme (ERP) in 1983, there was therefore the need for incentives which would shift the commodity structure of trade in favour of the manufacturing sector. Many of the components of the incentive package already in place were maintained. The export bonus scheme was abolished, however, with the introduction of bonuses and surcharges in

April 1983. A scheme whereby exporters could retain 20% of their export earnings had already been introduced in 1981; the retention was increased in 1987 to 35% for non-traditional exporters. As it originally operated the scheme was quite restrictive, since the earnings could be retained only for specific purposes, i.e. the purchase of machinery and spare parts. The scheme has become more liberalised. Currently there is a 100% retention for non-traditional exports.

Since 1988 the export promotion programme has been made more attractive. The income tax rebate was increased to 75% in 1991. Under the customs duty drawback scheme exporters can now reclaim all the import duties paid, whereas previously they could claim only 95%. Exemption from duties on packaging materials has also been granted; in order to benefit from this an exporter needs to register with the GEPC and get a letter of exemption from the National Revenue Secretariat.

One of the most important measures used under the ERP was the nominal devaluation of the cedi. The real exchange rate appreciated during the period 1970–82. This did not augur well for export activities. A multiple exchange rate system was introduced in April 1983; a system of bonuses and surcharges increased the effective rate. Traditional exports and imports of crude oil, essential raw materials, basic foodstuffs and capital goods were subject to an exchange rate of 23.75 cedis to the US dollar, while NTEs (including manufactures) and other imports had a rate of ¢25.975 to US$1. A unified system was adopted six months later, at the rate of ¢30 to US$1. Three nominal devaluations took place in 1984 bringing the rate to ¢50 to US$1. The currency was again devalued three times in 1985, and again in January 1986, to ¢90 to US$1. Since 1982, the real exchange rate has depreciated sharply, improving the competitiveness of exporting activities. Table 2 shows the movements of nominal and real exchange rates between 1970 and 1993.

In September 1986 a dual system was introduced, the objectives being to allow the exchange rate to be determined by the forces of demand and supply, promoting trade liberalisation and diverting foreign exchange held outside the banks to the banking system. The rate at Window I was the prevailing rate set in January of that year for all official transactions and cocoa earnings and governed by the purchase of essential raw materials and crude oil. The rate at Window II was determined by weekly foreign exchange auctions held by the Bank of Ghana. The exchange rate was unified in February 1987. In 1988 foreign exchange bureaux were introduced in a bid to further liberalise the exchange rate regime, and in 1991 an inter-bank market in foreign exchange was instituted. The exchange rate is currently determined on a daily basis.

The export promotion programme, unlike those in most other

Table 2: Nominal and real exchange rates* (¢ per $)

	Nominal	*Real*
1970	1.02	4.2304
1971	1.03	4.0586
1972	1.33	4.9414
1973	1.17	4.2050
1974	1.15	4.1388
1975	1.15	3.6329
1976	1.15	2.3451
1977	1.15	1.1500
1978	1.76	1.0958
1979	2.75	1.2478
1980	2.75	0.9487
1981	2.75	0.4782
1982	2.75	0.3988
1983	8.83	0.5819
1984	35.99	1.7400
1985	54.37	2.3700
1986	89.20	3.0313
1987	162.37	4.0505
1988	202.35	3.9974
1989	270.00	4.4699
1990	326.33	4.0766
1991	367.78	3.9005
1992	437.09	4.2369
1993	648.98	5.1300

Sources: Statistical Services, *Quarterly Digest of Statistics* (for nominal exchange rate) and authors' calculation (for real exchange rate).

Note: * An increase implies depreciation.

countries, does not have a subsidised credit component. The entire programme has been insufficiently publicised and most firms, whether exporting or not, are unaware of most of its components. This is not a problem peculiar to Ghana, however; Seringhaus and Rosson (1991) found in other countries that about half the potential beneficiaries of incentives were unaware of their existence. There is no central agency involved in administering the programme. A related problem is the time involved in obtaining the incentive benefits.

Other Policy Measures

Attempts to encourage investment have been undertaken through legislation on investment incentives. The first was the Pioneer Industries and Companies Act of 1959. This was followed by the Capital Investment Act of 1963 (Act 172) which sought to encourage foreign investment. Unlike the 1963 Act, the 1973 Investment Decree (NRCD 141) and the Investment Policy Decree (NRCD 329) of 1975 aimed to encourage both local and foreign investors. The 1981 Investment Code (Act 437) sought to centralise investment promotion functions in the Capital Investment Board and to consolidate all investment legislation. The 1985 Investment Code (PNDCL 116) established the Ghana Investment Centre as the central investment promotion agency.

All these investment measures have attempted to provide a favourable environment by offering incentives to boost private sector initiatives through official channels. The need to constantly review the investment code reflects the lack of appropriate response. The incentives included tax holidays, accelerated depreciation allowances, exemption from import duties on machinery and equipment, investment allowances and arrangements for profit repatriation. A number of discriminating restrictions remain, however. Foreign firms, for example, are required to make a large minimum capital investment of US$300,000 to engage in retail and wholesale trade. Wholly foreign-owned firms are approved if they are net earners of foreign exchange, but they have restricted access to domestic capital.

The Ghana Investment Centre became more of a regulatory agency than one responsible for promotion. The complexity of the code resulted in a highly discretionary process of approval. Despite the intended one-stop role of the GIC, approvals in fact had to be obtained from numerous individual ministries, which could take a long time. The code was therefore revised to decrease the GIC's regulatory and approval power and the Ghana Investment Centre Act (Act 478) was passed in August 1994 to convert the Centre from a regulatory to a promotional institution. Among others the functions of the Centre include:

- the initiation of, support for and participation in investment promotional activities
- the collection, collation and dissemination of investment information
- the identification and promotion of specific projects
- maintaining liaison between investors and government agencies and institutional lenders

- the provision of investor support services (Ghana Investment Promotion Centre, 1994)

In April 1988, Ghana ratified the convention establishing the Multilateral Investment Guarantee Agency (MIGA) of the World Bank, which aims to encourage equity investment and other forms of direct foreign investment (DFI) in developing countries, by reducing non-commercial risk. This is done through investment guarantee operations and the provision of advice and technical assistance to the governments of developing countries on investment policies and programmes.

Tax rates remain high in Ghana. A number of initiatives have been taken by the government in recent years to reduce the tax burden on companies and investors in order to leave more resources for reinvestment. In the 1988 budget, the corporate tax payable by the manufacturing, agricultural and export sectors was reduced from 55% to 45%. Three years later it was lowered further to 35%, for all sectors except mining, which has its own special tax regime, and except for income from non-traditional exports where the rate is 8% and for hotels where it is 25%. The 1991 budget also introduced a reduction in the withholding tax on dividends from 30% to 15%, with minor exceptions designed to discourage speculation; exemption from capital gains tax for income from publicly traded shares, mergers, amalgamations and acquisitions, and the reorganisation of companies. The withholding tax on dividends was reduced further to 10% in 1994. Capital gains arising out of the disposal of securities of companies listed on the Stock Exchange are also exempt from tax for the first five years of the Stock Exchange's existence.

Existing Regulations

An important question that we want to address is whether or not, following the structural adjustment, regulatory policies and the institutional environment continue to constrain the growth of manufactured exports.

a. Labour Regulations

The Ministry of Mobilisation and Social Welfare through its Labour Department implements the legislation regarding the general conditions

under which labour is employed in Ghana. The functions of the Department are described in the Labour Decree of 1967 (NLCD 157) with respect to contracts and agreements, termination of agreements, provisions relating to severance pay, and minimum wage regulations. There are already eight labour laws which apply *de jure* to both the formal and informal sector, although in practice they are not enforced. For example, the Minimum Wage Law (L.I. 1495) of 1990 expects no worker to be paid below the stipulated rate. Firms have to go to Labour Office Public Employment Centres to hire workers; notices and consultations are needed to initiate redundancies. These regulations add to the firms' costs and restrict their operational flexibility and will be felt more by medium and large-scale firms than by micro and small enterprises.

b. Legal Environment

The legal environment which carried over from the early 1960s was complex and unclear. Registration procedures were extremely cumbersome. Some of these include the Foreign Exchange Control Act (1961), the Industrial Relations Act (1965), the Labour Decree (1967), the Manufacturing Industries Act (1971) and the Investment Code (1985). Some of these laws have recently been amended or repealed. For example, foreign exchange controls have been liberalised. The Manufacturing Industries Act has been abolished, thus removing a bottleneck in the investment process. The Price Control laws, which prevented manufacturers from pricing their goods according to the dictates of the market, has been repealed. There has been an amendment of the Investment Code, 1985 (PNDCL 116) which among other things seeks to promote joint ventures between foreign and local industries, and the enactment of a Legislative Instrument on Immigration Quotas which grants automatic immigration quotas for investors.

c. Export Procedures

Many of the export procedures have been simplified in recent years, partly because of the attention that has been drawn to them. However, cumbersome procedures remain which add to the cost of exporting activities.

All commercial exporters registered as businesses with the Registrar

General's Department are required to register with the Export Promotion Council (GEPC). The cost of doing this is ¢25,000 for the first year and ¢20,000 per annum thereafter. Few exporters consider that they receive any useful services in return, though some do appreciate the assistance given by the GEPC. They are also required to subscribe to the Ghana Chamber of Commerce and the Ghana Shippers Council, from which they perceive no return. In addition, most exporters also pay fees varying from ¢10,000 to ¢50,000 to industry-specific professional organisations.

The Forest Products Inspection Bureau also exacts a ¢30,000 annual fee. In addition, exporters are required to travel to Takoradi with their products and pay 1% of their f.o.b. value in order to obtain certification from the Bureau that no rare species are being exported. It is difficult to justify this requirement, given the limited amount of wood contained in furniture and other wood products.

Another unnecessary authorisation that must be obtained for each item is certification by the Museum and Monuments Board that no national treasures are being exported in the form of handicrafts. The cost of this certification is ¢500 per item, which can be very expensive for relatively low value items.

In addition to these industry-specific approvals, each shipment must have an Income Tax Certificate showing that all taxes have been paid. While useful in helping to enforce the collection of income taxes, this has nothing to do with exports and must be considered a barrier to trade. The exporter must also complete Exchange Control Form A2, which must be returned to a bank with a commercial invoice and all the export approvals and permits described above. Banks charge about 1% of the f.o.b. value of the shipment for processing these forms. Since all the information on the form is also contained on the Customs Declaration Form, there appears to be considerable replication and unnecessary expense involved. The cost of processing this form is one element of the remaining costs associated with exchange controls.

Once the goods are taken to the port, the exporter is required to present a Customs Export Declaration Form and have it processed by the Customs, Excise and Preventive Service (CEPS) and the Ministry of Trade office. It is customary at this point to give tips in order to expedite the process.

d. Duty Drawbacks

The scheme operates on a case-by-case basis and requires firms to submit

applications based on detailed, auditable evidence that duty was actually paid, inputs were actually used, and exports actually took place. The system is complicated because of the paperwork and the signatures required. Moreover, applications take several months to process, so that the value of the drawback is eroded by inflation, financial charges, and administrative costs.

The results of Stryker's work indicate that the implicit export tax rates resulting from these institutional barriers are within the range of 4.5%–19.3% of the f.o.b. value of export sales (Stryker, 1994). These implicit taxes can be critical to whether or not an industry survives. Domestic resource cost calculations suggest that most of the products being exported are profitable after adjustment is made for the cost of institutional constraints. A combination of taxation on imported inputs and the cost of various institutional constraints results in a substantial disincentive to produce for export. Effective rates of protection for exporters arising from these range from –9% to –35%.

Institutions and Programmes Assisting the Export Sector

The Ghana Export Promotion Council and the Export Finance Company are the two institutions with the primary mandate of dealing with exporters and potential exporters. Other institutions which also deal with exporters are the central bank and the commercial banks, and other financial intermediaries.

a. The Ghana Export Promotion Council

As noted earlier, this was established as an autonomous public body in 1969 and given the responsibility of promoting, assisting and developing exports in Ghana. Since 1983 it has been concerned solely with the non-traditional export sector.

The approach currently adopted by the Council is to concentrate its resources on selected firms in selected industries. This type of approach to providing assistance to exporters has been found to be successful in countries such as India (Keesing and Lal, 1991). The experience of the assisted firms can be diffused to other firms through imitation and business interaction. The advantage of this approach is that it does not stretch the resources of the Council too widely and it can be used as a means of assessing the effectiveness of the Council. The firms are chosen

on the basis of what the Council perceives to be their commitment to exporting and their potential as exporters.

Since 1988 the GEPC has pursued its activities within the framework of two development plans; the first a three-year plan for the period 1988–90, the second for the period 1991–5. The objectives of the current plan are: (i) the diversification of the export base; (ii) increasing the ratio of NTE to traditional exports from 8% to 15% by the end of the plan period; (iii) the diversification of producers and a doubling of the current 1,000 registered exporting producers. The Council aims to achieve its objectives through development of the firms' production base and programmes to improve product quality. It has increased the number of sectors to which it is providing support to include firms in the textiles and garments sector which were not part of the first development plan.

The Council's activities involve improving the supply base of the firms it is assisting through the provision of foreign technical expertise. It also provides them with market information. To improve their access to market information the Council takes representatives of selected enterprises on study tours to major foreign markets to observe how products are packaged, marketed and handled. It also links producers with purchasers in various ways. For instance, it provides sponsorship to firms to exhibit at trade fairs within and outside the West African ECOWAS market. The Council is usually approached by foreign buyers looking for suppliers in Ghana. It has a Contact Promotion Programme in which market surveys are undertaken to identify potential markets and buyers. Domestic producers of a product with export potential are identified and given assistance to develop the product to meet buyers' standards. Once this is done the domestic producers are linked with potential buyers. The Council also keeps up to date with developments in product quality and design and passes on the information to Ghanaian producers. For those firms included in the scheme which have problems with market access and information the Council performs a crucial function.

However, the experience of the Council is that, critical as its marketing functions are, the need to improve and strengthen the production base of the domestic producers is even more so. There have been several instances where buyers have been linked with Ghanaian producers, but a firm export order has not been concluded because of the domestic producers' inability to satisfy the quantity requirements of the buyer. As the survey will show, this is a major reason why firms have not been able to undertake export orders.

The GEPC also organises an export school to educate the exporting community in export management and administration. Training is also

to be provided through study tours, foreign attachments, marketing missions, workshops, seminars, and certificate and degree courses both at home and abroad.

Although it registers exporters, the GEPC is not one of the institutions which exporters have to deal with when exporting. It is not involved in the administration of any part of the export promotion package. Thus any assessment of the Council's activities needs to take into account the framework within which it is operating. It is not, however, devoid of means of influencing the policy environment within which exporters operate. It has acted as a forum through which the problems of exporters can be expressed. For example, the evolution of the foreign exchange retention scheme resulted from this Council role.

The ability of the Council to perform its functions is hampered by several factors. The first is the financing of its programmes. During the period of the first development plan the actual financing fell short of what had been budgeted. As already noted, the GEPC makes use of foreign technical personnel. However, the duration of their stay has normally not been long enough for firms to obtain the full benefit of their expertise. The inability of the firms themselves to obtain adequate financing to pursue their projects has also adversely affected the Council's activities.

b. Financial Institutions

Exporters previously required approval from the central bank to export. Since January 1991 this function has been delegated to the commercial banks. However, most banks located beyond Kumasi, i.e. some 264 km from Accra, do not have the necessary A2 forms which need to be completed before exporting can be undertaken.

Because financial institutions are conservative, risk-averse, and prefer to lend mainly on a short-term basis at high interest rates, credits to exporters have fallen below expectations. Credits by commercial banks to the export trade have decreased substantially, reaching only 4.4% of total bank credit in 1990, after achieving 5.1% in 1987 (Stryker, 1994). Also, banks are discouraged from making loans by the alternative of investing in high-yielding, risk-free government financial securities.

In order to remedy the problem of exporters' access to trade finance, the Export Finance Company was created to provide them with loans. In 1992 it began to provide venture capital as well as managerial and technical assistance to potentially viable enterprises.

The opening of the Ghana Stock Exchange in November 1990, coupled with the on-going banking sector reforms, offers new opportunities for raising finance for the industrial sector. But finance is expensive. Interest costs in 1994 were about 30%, producing an economic environment unconducive to long-term investment.

Government intervention in the industrial sector in 1992 earmarked an amount of ¢2 billion for providing support to deserving industries, but by the end of the year the amount had not been disbursed. This assistance was increased to ¢10 billion in 1994.

c. Other Export-specific Programmes

Two programmes established to enhance the supply capabilities of exporters by way of providing them with incentive schemes were implemented in 1993, namely the USAID-sponsored Trade and Investment Programme (TIP), and Private Enterprise and Export Development (PEED).

The TIP is a 5-year US$80m programme which started in 1993 and is expected to end in 1997. It is aimed at helping to remove the various constraints to export expansion in order to achieve accelerated export growth. The focus is on: (i) the enabling environment; (ii) the low capacity of firms to export; (iii) the inadequate financial services for exporters.

One major weakness identified in the export promotional efforts has been the lack of effective monitoring of policies to ensure their efficient and timely implementation. For this reason, the TIP is putting in place a mechanism called the Trade and Investment Management Unit, with a board, the Trade and Investment Oversight Committee (TIOC), comprising all the ministries and other organisations whose activities relate to export development.

The PEED is a $51m credit facility sponsored by the World Bank. It is intended to address the financial problems of non-traditional exports and is designed to provide finance in foreign exchange or in cedis for Ghanaian non-traditional exporters. The project offers two schemes for financing exports: (i) the Export Re-Finance Scheme which will refinance short-term credit from banks; and (ii) the Export Credit Guarantee Scheme. The Bank of Ghana will guarantee up to 65% of loans made to non-traditional exporters from payments made in respect of loans granted under the re-finance scheme.

d. Other Institutions

Other major public and private institutions involved in industrial development in terms of their mandate, objectives and problems, and whose activities influence the manufacturing sector include: the Ministry of Trade and Industries; the Ministry of Environment, Science and Technology; the National Board for Small-Scale Industries; the Ghana Regional Appropriate Technology Industrial Service; the Ghana Standards Board; the Ghana Investment Centre; the Council for Scientific and Industrial Research; the National Development Planning Commission; the State Enterprises Commission; the Divestiture Secretariat; the Association of Ghana Industries; the Ghana Chamber of Commerce; and the Private Enterprise Foundation (PEF).

Some of these institutions were set up during the ERP period, while others which were already in existence were strengthened to be more effective in their roles. To attract foreign capital and facilitate investment, the government has instituted a review of the functions and operations of the Ghana Investment Centre (GIC) to ensure that it becomes a 'one-stop' operation.

Conclusion

Several institutions and programmes are in place to encourage exporting in Ghana. However, the response to these programmes has been hampered by some procedural constraints. Firms do incur significant costs in complying with these procedural requirements and these act as barriers to exporting activities. Empirical work indicates that implicit export taxation resulting from institutional barriers is considerable. For firms to be able to compete internationally, it is critical that institutional constraints should be reduced to a minimum. There may also be a case for simplifying and reducing the number of procedures involved. Some way must also be found to improve duty-free access by exporters to imported inputs.

The following chapter will examine the performance of manufactured exports and attempt to assess the impact of various trade and macroeconomic policies on performance.

3
Performance of Manufactured Exports Since 1960

Introduction

It has been suggested in the literature that the import-substituting period can be important in providing the basis for firms to move into exporting. Empirical evidence, though, is inconclusive. Hong Kong developed its exports without a significant import-substituting (IS) phase. On the other hand, Korea, Singapore and Taiwan went through a short IS phase, whilst the Latin American countries went through initially longer IS phases (Seringhaus and Rosson, 1991). According to Keesing and Lal (1991: 182) 'The usual starting point for manufactured exports is a local policy environment that has only recently become favourable for exports of the product, and a local manufacturer who is already well established in the domestic market and has low costs by world standards'. Experience from producing for the internal market will contribute to cost reductions as capacity utilisation increases and as firms overcome the initial costs associated with the early years of any new establishment.

Most of these studies, however, do not address the issue of ownership, i.e. state versus private firms. It is likely that private sector experiences at the IS stage could be translated into exporting once the system of incentives becomes favourable. It is not clear that the same level of experience by the state will generate the same type of response. This dichotomy between state and private may be important in explaining the lack of response under certain circumstances.

Even if a firm is established during the period of a liberalised trade regime with an incentive system which encourages exporting it is possible that it will not move immediately into exporting, as again it concentrates on the domestic market during the time when its costs are still high. It is also possible that it may take time to establish external marketing links, whereas the domestic market will be more easily identified.

This chapter discusses the extent to which Ghana's domestic economic policies and the industrialisation strategy – state-led import-substitution industrialisation (ISI) – have affected the development of manufactured exports. This is done by examining the performance of manufactured exports between 1960 and 1992 and relating it to various indicators of

Table 3: Output and exports in the manufacturing sector

	Manufacturing exports $m	*Total exports* $m	*Manufacturing GDP, constant 1977 prices* ¢m	*Share of manufacturing GDP/GDP curr.* %	*Manuf. exports/ manuf. GDP* %	*Ratio of manuf. exp.: exports*
1960						6.08
1961						7.31
1962	32.15	314.65	279.9	7.16	31.99	10.22
1963	29.93	205.29	344.35	8.45	22.52	9.81
1964	36.73	318.87	355.75	8.65	24.37	11.52
1965	43.44	314.65	374.21	8.19	25.68	13.80
1966	37.37	261.69	421.13	9.36	18.68	14.28
1967	52.83	275.40	471.9	11.35	26.92	19.18
1968	60.75	330.69	580.83	13.11	27.80	18.37
1969	89.07	383.14	646.06	13.15	34.56	23.25
1970	82.40	451.18	679	11.40	32.63	18.26
1971	75.12	338.84	637	11.00	28.13	22.17
1972	99.71	413.08	579	10.87	43.35	24.14
1973	136.87	596.07	715	11.69	39.13	22.96
1974	149.14	723.39	675	10.75	34.18	20.62
1975	166.36	798.35	736	13.93	26.00	20.84
1976	221.50	810.96	704	13.14	29.70	27.31
1977	247.65	1,002.00	724	10.78	23.66	24.71
1978	195.79	886.25	701	8.64	19.00	22.09
1979	190.59	976.00	583	8.67	21.41	19.53
1980	225.99	1,132.90	575	7.81	18.57	19.95
1981	338.27	948.87	464	5.98	21.44	35.65
1982	231.21	792.91	369	3.61	20.40	29.16
1983	154.36	1,157.80	350	3.86	19.19	13.33
1984	59.15	535.55	385	6.40	12.30	11.05
1985	88.25	610.07	460.1	11.53	12.13	14.47
1986	134.09	859.67	510.5	11.15	20.98	15.60
1987	135.33	780.62	561.6	9.88	29.81	17.34
1988	247.34	826.31	590	9.56	49.78	29.93
1989	na	1,018.50	593.5	10.01	na	na
1990	160.25*	898.80	628.4	9.23	27.89	17.87
1991	250.29*	997.70	635	8.74	40.90	25.09
1992	221.86*	986.30	652.3	8.69	37.08	22.49
1993	na	1,050.90	666.7	9.10	na	na

Sources: Central Bureau of Statistics, *External Trade Statistics*; Statistical Services, *Quarterly Digest of Statistics* (various years); and Ministry of Trade files.

Notes: * provisional, na – not available.

domestic policy as well as an indicator of the extent of industrialisation.

Performance of Manufactured Exports

In examining the performance of manufactured exports four indicators are used: first, the ratio of exports to manufacturing GDP (a measure of export orientation); second, the growth of manufacturing exports relative to the growth of the manufacturing sector; third, the share of manufactured exports in total exports; and fourth, the extent of the diversification of manufactured exports away from cocoa and wood products (the traditional manufactured exports). The period 1960–92 for which data are available is sub-divided on the basis of the type of trade regime which was in place. The delineation of the period into regime types makes use of the classification which was developed in the NBER studies (Bhagwati, 1978; Krueger, 1978) and utilised by Leith (1974) and Jebuni, Oduro and Tutu (1994) in their studies on the trade regime and economic development in Ghana.

Ghana has a small manufacturing base compared with the group of low-income developing countries to which it belongs. The average for these countries, excluding China, in 1992 was 16%, compared with 9% for Ghana (World Bank, 1994). Manufacturing has never contributed more than 15% of total output since 1960. In 1982 the manufacturing sector's share of the gross domestic product fell as low as 3.6% (Table 3).

The Pre-ERP Period

The ISI policies of the 1960s were instrumental in expanding the manufacturing base. Ghana became independent at a time when industrialisation was viewed as a key factor in modernisation and development. The stated objectives of industrialisation were to exploit natural domestic resources, form a base for developing other economic sectors, satisfy the basic needs of the population, create jobs, assimilate and promote technological progress and modernise society.

Industrial strategy and policy over this period were characterised by (a) emphasis on import substitution through high levels of effective protection, (b) reliance on administrative controls rather than market mechanisms to determine incentives and resource allocation, and (c) reliance on large-scale public sector investment as the leading edge in industrial development.

A policy environment of high protection evolved through tariffs and quantitative restrictions. By the late 1960s, effective protection exceeded 100% for nearly half of Ghana's manufacturing industries (World Bank, 1985). The period 1962–6 was characterised by increasing use of trade controls as a means of protecting domestic industry as well as for balance-of-payments purposes. A large number of firms were established during this period in line with the government policy of industrialisation as put forward in the Seven-Year Development Plan for the period 1963/64–69/70. The import-substitution policies pursued 'resulted in an industrial structure which was inefficient in static terms and also failed to generate longer-run dynamic effects on the rest of the economy to compensate for the short-run inefficiency' (Killick, 1978: 195). In spite of these inefficiencies, manufacturing output, in constant 1975 cedis, experienced positive growth rates throughout the entire Plan period. Despite the small size of the manufacturing sector, the share of exports in its output (i.e. its export orientation) was fairly high; in 1962 it was approximately 32% (Table 3). However, this declined to 18.7% in 1966 because the growth of manufacturing exports lagged behind the growth of manufacturing output (Table 4). This could be due to the introduction of a regime of strict controls towards the end of 1961 and its consolidation in 1962, and the resulting anti-export bias. As a share of total exports, however, manufactured exports increased slightly during this period.

During the period 1967–71 there was a change in the trade regime. The nominal exchange rate was devalued in 1967 to bring about depreciation of the real rate, and the import controls system was partially liberalised with more imports allowed to enter the country. As noted in Chapter 2, an export promotion package was introduced in 1969 to encourage manufactured exports in particular. Real manufacturing GDP continued to grow until 1971 when it declined sharply (Table 3). The export orientation of the manufacturing sector increased during this period, averaging 29.3% compared with 21% during the previous period of trade controls (Table 3). It seems that the manufacturing capacity which had been created during the earlier period of intense import substitution made it possible to respond to the new incentive structure. Not only did export orientation increase during this period, but the share of manufactured exports in total exports also increased.

The liberalisation of the trade regime came to an abrupt end in early 1972. The ensuing ten-year period was characterised by a plethora of non-price trade measures to control the inflow of imports. Real manufacturing GDP declined from 1977 until 1983. The sector's contribution to GDP also declined continuously between 1975 and 1983

Table 4: Growth of output and exports (3-year moving averages)

	Manufacturing exports	*Manufacturing GDP*	*GDP*
1964	11.43	9.62	2.31
1965	6.76	7.14	1.19
1966	13.70	10.0	1.08
1967	12.95	16.30	1.10
1968	34.25	15.26	3.05
1969	14.59	12.19	5.83
1970	6.19	2.94	6.96
1971	4.31	–3.41	3.92
1972	21.18	1.89	1.80
1973	23.75	1.96	2.42
1974	17.28	7.97	–1.19
1975	18.71	–0.51	–3.24
1976	18.34	2.31	–5.00
1977	4.63	–1.61	2.38
1978	–4.65	–5.68	0.72
1979	23.27	–7.42	2.03
1980	5.38	–12.74	–1.89
1981	–9.00	–13.19	–1.48
1982	–38.56	–15.98	–4.99
1983	–32.15	–6.67	–1.23
1984	–32.15	8.25	3.00
1985	–6.72	13.42	6.23
1986	27.06	13.02	5.02
1987	44.48	8.47	5.22
1988	13.49	4.99	5.18
1989*	4.25	3.82	4.64
1990	0.48	2.48	4.57
1991	2.94	3.16	4.18
1992	na	1.99	4.12
1993	na	1.25	na

Sources: Calculated using information obtained from Central Bureau of Statistics, *External Trade Statistics* and Statistical Services, *External Trade Statistics and Quarterly Digest of Statistics*, various years; and Ministry of Trade Files.

Note: * The 1989 manufactured exports value was computed as an average of the 1988 and 1990 values. na – not available.

(Table 3). The haphazardness of the protective system (Leith, 1974) and the shortage of foreign exchange which plagued the economy as a direct

result of the disincentive effect of the protective structure on exports in general are important in explaining the shrinkage of the manufacturing base in the 1970s. The manufacturing sector is highly dependent on imported raw materials and inputs. Almost all machinery and equipment is imported. Imported raw materials constituted about 70% of the total value of raw materials used by the sector in the 1977–9 period. The decline in manufacturing GDP was accompanied by a fluctuating but declining trend in manufactured exports. This resulted in a continuous decline in the ratio of manufactured exports to total exports. It also caused an initial increase in the export orientation of the sector but from 1976 when the import compression intensified this export orientation declined. Whatever changes occurred during this period in terms of the shares of manufactured exports in total exports as well as the export orientation of the sector seemed to have resulted from the differences in the rates of decline in manufacturing GDP and manufacturing exports.

The ERP Period

The launching of the Economic Recovery Programme in April 1983 changed the macroeconomic and the incentive framework within which industry had to operate. There has been a substantial improvement in the trade regime with the reduction in the anti-export bias (Jebuni *et al.*, 1992). The exchange rate policies pursued since 1984 have ensured a substantial depreciation of the real exchange rate. The import control system has been completely liberalised and significant tariff cuts have been implemented. The cautious fiscal policies pursued between 1984 and 1989 ensured a decline in the fiscal deficit and thus contributed to dampening inflationary pressures.

The implementation of the ERP brought about a dramatic change in the performance of the manufacturing sector. After six years of continuous decline, real manufacturing GDP has experienced positive growth rates since 1984 (Table 4), though there has been a deceleration since 1988. The developments in manufactured exports, however, are unclear. The period since 1983 can be divided into two sub-periods: 1984–6 and 1987–92. The former may be perceived as one of transition from a regime of trade controls to a liberalised one.

Table 5: Composition of manufactured exports (%)

	Traditional manuf. exports	*Food products*	*Basic[a] manuf.*	*Misc.[b] manuf.*
1962	94.04	2.09	2.66	0.90
1963	92.41	1.91	4.28	0.43
1964	88.96	2.57	7.39	0.60
1965	89.98	2.45	6.30	0.10
1966	86.87	1.39	6.92	0.39
1967	84.37	2.32	5.33	0.13
1968	87.88	2.61	3.15	1.23
1969	72.34	2.49	20.04	0.00
1970	67.31	0.93	27.84	0.03
1971	46.70	0.81	49.33	0.08
1972	57.40	1.41	39.52	0.11
1973	51.72	1.47	42.07	0.23
1974	48.89	0.85	46.58	0.14
1975	58.58	0.90	37.26	0.03
1976	60.22	5.47	25.03	0.01
1977	62.81	1.51	21.66	0.86
1978	43.24	1.08	44.81	1.00
1979	50.98	1.51	40.64	0.65
1980	46.58	2.38	49.22	1.27
1981	46.26	3.21	42.55	1.28
1982	46.71	1.32	49.00	0.72
1983	11.61	1.08	69.97	0.43
1984	15.18	1.57	73.76	0.30
1985	35.21	3.35	55.45	3.10
1986	71.09	12.96	3.42	0.91
1987	59.41	5.61	23.47	2.32
1988*	29.63	2.92	63.57	1.14
1989*	34.64	1.49	60.80	1.44
1990*	37.77	0.46	59.95	0.97
1991*	75.54	5.25	7.35	10.43
1992	89.15	0.60	8.15	1.67

Sources: As for Table 4.

Notes: Food products do not include cocoa products. * Provisional data. Figures may not round up to 100% because minor other manufactures are not included. Traditional manufactured exports are defined here as cocoa products and sawn wood exports. [a] Basic manufactures include veneers, plywood, aluminium, non-ferrous metals, etc. [b] Miscellaneous manufactures include furniture and furniture parts and clothing.

Composition of Manufactured Exports

There has been some diversification of manufactured exports. Traditional manufactured exports (i.e. cocoa products and sawn timber) dominated manufactured exports in the 1960s (Table 5 and Appendix Table A1), accounting for 94% of the total in 1960. There has been a sharp drop in their share since 1969. It is clear that the possibility of expansion of manufactured exports exists by means of commodity diversification.

Nominal values of manufactured exports and their shares in total exports have recovered to levels achieved in the late 1970s but have not been able to exceed these levels significantly. This is despite the substantial improvements in price incentives. It may be inferred from this that appropriate trade and macroeconomic policies are necessary to bring about an improvement in the performance of the manufacturing sector but are not sufficient to ensure that this performance is sustained or even improved upon. The slowing down of the growth of real manufacturing GDP is suggestive of the importance of other factors in influencing the performance of the sector and even its ability to respond to the trade and exchange rate programmes in force. The dominance of a few product groups supports the argument that not only macro-policies but also sectoral policies will be necessary to increase manufactured exports through an increase not only in the values of existing product groups but also in the number of product groups exported.

Policy, Incentives and Manufactured Exports

A previous study (Jebuni *et al.*, 1992) indicated that, while a series of trade policy measures were introduced to encourage manufactured exports, the macroeconomic policy stance of the government counteracted these measures. Indeed, throughout most of Ghana's post-independence history from 1961 to 1983, trade policy instruments, in particular quantitative restrictions, became instruments of macroeconomic policy, namely they were used to compensate for inappropriate macroeconomic policies in the face of deteriorating balance-of-payments and fiscal situations. Thus trade policy became an endogenous macroeconomic policy. With the Economic Recovery Programme in 1983, this situation changed.

This section investigates the extent to which trade and macroeconomic policies during the period of structural adjustment have influenced the incentive structure and the supply response of manufactured exports.

The procedure in this attribution process, following Ndulu and Semboja (1992) and De Rosa (1990), is to estimate the responsiveness of manufactured exports to export incentives and then estimate the impact of trade and macroeconomic policies on these incentives; these two relations are then used to assess the relative impacts of trade and macroeconomic policies on manufactured export performance. The basis of the analysis is that firms respond to incentives and therefore changes in policies affect their responsiveness through their effects on incentives. Thus changes in trade and macroeconomic policies affect exporting indirectly through their effects on the incentive to export. Our summary indicator of the incentive to export is the real exchange rate. Below we estimate the responsiveness of manufactured exports to exporting incentives, and examine the impact of trade and exchange rate policies on these incentives. Then these two analyses are combined to determine the impact of the changes in trade and exchange rate policies on manufactured exports.

Responsiveness of Manufactured Exports to Incentives

The small country assumption is made here. This implies that export volumes are determined largely by domestic supply considerations. The decision to produce for the domestic or the foreign market is determined by the profitability of domestic vis-à-vis foreign sales, the summary indicator of the incentive for exporting being the real exchange rate. However, the ability to the respond or the extent of the response may be constrained by domestic industrial capacity. In this simple model, therefore, it is postulated that the supply of manufactured exports is influenced by the real exchange rate (RER) and the manufacturing base as measured by manufacturing GDP (GDP). A similar model has been used by Balassa (1990) and Ndulu and Semboja (1992). The real exchange rate (RER) is measured here as:

$$RER = (En/Pd)/(1/Pw)$$

where En is the nominal exchange rate, i.e. cedis per US$, Pd is the domestic consumer price index, and Pw is the US producer price index.

An increase in the index implies a depreciation of the currency. Manufacturing GDP is measured in purchasing power parity dollars. Given the currency misalignment that characterised a significant part of the period under study and the large exchange rate adjustments that

occurred after 1983 it was necessary to use the PPP exchange rate.

In estimating this relationship a distinction is made between the export orientation of the sector as measured by the ratio of sectoral exports to GDP (EXPO) and the responsiveness of the sector as measured by the level or quantity of exports (MEXP). Real manufacturing exports were obtained by deflating the nominal export values in PPP dollars by the export unit values of the industrialised countries. This price index was used for two reasons. First, it was not possible to obtain a price series for Ghana's manufactured exports for the entire period. Second, the export unit values of the industrialised countries would have a higher proportion of manufactured goods in the basket of goods from which the price index was obtained, compared with the Ghanaian export unit values which would be dominated by cocoa beans and minerals. Estimates are for the period 1962–90; this is because the wholesale price index used in the calculation of the PPP exchange rate is available only up to 1990.

The data used were tested for stationarity using the Dickey-Fuller (DF) and Augmented Dickey-Fuller tests (ADF). All variables were first difference stationary. The variables in the export orientation equation were not co-integrated. To avoid spurious correlation the analysis was done in first differences. All variables were converted to logarithms. Exchange rate data are presented in Appendix Table A2. The results are presented below:

$$\begin{aligned}\Delta\log EXPO = {} & 1.111145 \quad - 0.05178\ \Delta\log GDP \quad + 0.15213\ \Delta\log RER \\ & (1.249) \qquad (-0.326) \qquad\quad (1.8698)^{*} \\ & + 0.5708\ \Delta\log EXPO(-1) \qquad\qquad (1) \\ & (3.654)^{***} \\ R^2 = 0.5375 \quad & F = 9.3 \\ & (3,24)\end{aligned}$$

t-ratios are in parentheses, * significant at 10% level, *** significant at 1% level

The results show that export incentives (RER) exert a positive influence on the export orientation of the manufacturing sector. The coefficient is, however, significant only at the 10% level, and the elasticity is less than one. Changes in the manufacturing base exert a negative but insignificant influence on the export orientation of the manufacturing sector. One possible explanation of this result could be the strategy of state-led import substitution. The structure and organisation of the state

enterprises may have made them less flexible and less able to adjust to the changes in the incentive structure.

The export response equation was, however, co-integrated. The long-run relationship is reported below.

$$\begin{array}{lllll} \text{Log MEXP} = & -2.0600 & + 0.9540 \log \text{GDP} & + 0.2693 \log \text{RER} & (2) \\ & (-1.356)^{**} & (6.201)^{***} & (3.526)^{***} & \end{array}$$

$R^2 = .786 \quad F = 47.85 \quad D.W = 1.139$

t-ratios are in parentheses, ** significant at 5% level, *** significant at 1% level

The real exchange rate has a positive and significant long-run effect on exports of manufactures. However, the long-run elasticity is less than one, i.e. similar in magnitude to that obtained for the export orientation of the sector as a whole. In contrast to the previous result, the manufacturing base represented by manufacturing GDP has a positive influence on the volume of manufactured exports.

The results using the short-run dynamic error correction model are poorer in terms of the significance of the key variable of interest, the real exchange rate. In equation (3), the log difference of the real exchange rate has the correct sign but is not statistically significant at conventional levels.

$$\begin{array}{lllll} \Delta \log \text{MEXP} = & 0.002 & + 0.196\ \Delta \log \text{RER} & - 0.3491\ \Delta \log \text{RER}(-1) & \\ & (0.059) & (1.683) & (-2.241)^{**} & \\ & + 0.8174\ \Delta \log \text{GDP} & - 0.4008\ \Delta \log \text{MEXP}(-1) & & \\ & (2.926)^{**} & (2.464)^{**} & & \\ & - 0.7437\ \text{ECT}(-1) & & & (3) \\ & (-4.947)^{***} & & & \end{array}$$

$R^2 = 0.657 \quad F = 8.05 \quad D.W = 2.11$

t-ratios are in parentheses, ** significant at the 5% level, *** significant at the 1% level

The error correction term, ECT, however, has the correct sign and is statistically significant. It suggests that an overshooting in one direction in a period is adjusted downwards in the next period.

Determinants of the Real Exchange Rate

The real exchange rate (RER) usually consists of two components: the equilibrium real exchange rate (ERER), and short to medium-term variations around the equilibrium real exchange rate. There are therefore two sets of factors which affect the real exchange rate.

The real equilibrium exchange rate is usually postulated as a function of real variables (its fundamentals, (F)), thus

$$ERER = f(F_t) + {}^{U}{}_{t}.$$

Following Edwards (1989) the fundamentals affecting the equilibrium real exchange rate include the terms of trade (TOT), commercial policy, capital and aid flows and technology.

The real exchange rate varies around the equilibrium real exchange rate in the short run as a result of excess aggregate demand (x).

$$RER_t = ERER_t + bx_t + {}^{U}{}_{t}$$

Since ERER is not observable, the reduced form of these relations would specify the determinants of the real exchange rate as

$$RER_t = f(F_t) + bx_t + {}^{U}{}_{t}.$$

In empirical analysis the fundamentals included are usually the external terms of trade, a proxy for import restrictions, the effective tariff rate and external resource inflows (Ndulu and Semboja, 1992; Elbadawi, 1994). Elbadawi (1994) includes an openness variable instead of import restrictions and the effective tariff rate.

In a small open economy without exchange controls, an improvement in the terms of trade can typically be expected to lead to an appreciation due to increased aggregate demand. However, in a situation with exchange controls, terms-of-trade improvement could result in a liberalisation leading to a real exchange rate depreciation. The direction of the effect of the terms of trade on the real exchange rate is therefore ambiguous in our context.

The rate of import duty (TAR) is used as our indicator of explicit trade policy. Tariff liberalisation should lead to a real depreciation on the assumption that the substitution effect between tradables and non-tradables will dominate the real income effect of the tax cuts.

Foreign resource inflows (INFLOW) when used to import goods should have an insignificant effect on the price of non-tradables. However, when they are spent on domestic goods, the prices of non-tradables would be affected significantly leading to a real appreciation. Younger (1992) has argued that such real appreciation implying a Dutch disease problem must have occurred in Ghana as a result of the recent substantial external resource inflows.

Quantitative import restrictions are proxied by the black market premium (BPREM). Ndulu and Semboja (1992) used this to indicate the mixed effect of trade and macroeconomic policies. This variable could also represent implicit taxes on exporters. Increased import restrictions giving rise to an increased black market premium represent increased taxation of exports. This could discourage exports, leading to a deficit in the current account which requires a real depreciation to correct.

In addition to these fundamentals, macroeconomic effects on the variation of the real exchange rate about its equilibrium are usually captured by including an indicator of excess aggregate demand. Expansionary monetary and fiscal policies leading to inflationary pressure would create an incipient real depreciation. This macroeconomic variable (macro) is proxied by the difference between domestic credit growth and the growth of real gross domestic product.

The estimated relationship is therefore:

$$RER_t = f(ToT_t, TAR_t, INFLOW_t, BPREM_t, Macro_t)$$

where RER = real exchange rate, ToT = external terms of trade, TAR = effective tariff rate, INFLOW = external resource inflows, BPREM = black market premium, and Macro = macroeconomic policy variable.

Our interest is in the effect of trade and macroeconomic policies on the real exchange rate. However, to avoid problems arising from omitted variables, we estimate the full model. The above relation is estimated for the period 1962–90. Using appropriate tests, all variables in this relationship except Macro were found to be non-stationary. They were, however, first difference stationary. The test for co-integration using the Augmented Dickey-Fuller test (ADF) showed that they were not co-integrated.[2]

To avoid spurious results the model was estimated in log differences. A partial adjustment process was assumed. The results are reported in Table 6.

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2. Elbadawi using data for 1965 to 1990 finds a co-integrating relationship.

Table 6: Regression results (dependent variable Δ log RER)

Explanatory variables	*Equations* (1)	(2)
Constant	0.0120	0.0157
	(0.251)	(0.322)
Δ log ToT	0.4726**	0.5110**
	(1.967)	(2.067)
Δ log BPREM	–0.5285***	–0.4966***
	(–4.972)	(–4.335)
Δ log TAR	–0.1484	–0.0494
	(–0.597)	(–0.176)
Δ log Macro	0.0622	0.0417
	(0.634)	(0.407)
Δ log Inflow	–	0.0700
	–	(0.792)
Δ log RER (–1)	0.1609	0.1972
	(1.082)	(1.256)
R^2	0.63	0.65
F	7.3	6.08

t-ratios are in parentheses, ** significant at 5% level, *** significant at 1% level

Two results are reported, one incorporating foreign resource inflows and the other without it. The results in terms of the signs or levels of significance of the variables are unaffected by the inclusion or exclusion of this variable.

Overall the results are satisfactory by conventional R^2 and F statistics. Our real exchange rate is defined such that an increase implies a depreciation while a decrease implies an appreciation. Variation in the real exchange rate from the results has been dominated to a large extent by changes in the terms of trade and quantitative restrictions. BPREM has a negative and highly significant co-efficient. The influence of quantitative restrictions on competitiveness and incentives to export has been negative. On the other hand, for Ghana, since the terms of trade have been deteriorating on average, this has been associated with tightening import controls and thus possible appreciation of the real exchange rate. Changes in tariffs and macroeconomic policies have had a relatively insignificant effect on the incentive to export. It is possible that their influence had been dominated by the pervasive quantitative controls that prevailed in the economy prior to the structural adjustment programme in 1983. External resource inflows have a positive but

insignificant effect on the real exchange rate.

Impact of Trade and Macroeconomic Policies

Table 7: Macroeconomic and trade policy effects on the export supply response of manufactures

	Pure macroeconomic policy effects	*Pure trade policy effects*	*Mixed trade and macroeconomic effects (import restrictions)*
Impact coefficient[a]	0.01675	–0.03996*	–0.1423*
Policy change/shift[b]			
1962–66	–0.084	4.711	55.098
1967–71	–0.0204	–8.542	–9.371
1972–82	0.0113	3.467	31.451
1983–86	0.0445	–13.754	–30.411
1987–90	–0.228	–4.251	–14.560
Impact on exports[c]			
1962–66	–0.0014	–0.1882	–7.840
1967–71	–0.0003	0.3413	1.3335
1972–82	0.0002	–0.1385	–4.4755
1983–86	0.0007	0.5496	4.3275
1987–90	–0.0038	0.1699	2.0719

Notes: * Statistically significant at 5% level. [a] The impact co-efficient is measured as the product of the influence of the relevant policy on the real exchange rate and the supply responsiveness of the real exchange rate. [b] The policy shift is measured by the average change in the pure macroeconomic policy variable, tariffs and the black market premium respectively. [c] Impact measures the response of manufactured exports to macroeconomic policy shift, changes in the average import tariff rates and import restrictions as measured by the premium. It is the product of the impact co-efficient and the policy shift.

Table 7 presents an approximation of the relative impact of trade and macroeconomic policies on manufactured exports for the periods indicated. These periods were selected to coincide with various trade and payments regimes in Ghana. The impact of macroeconomic policies seems to have been dominated by trade policy and the interaction between that and the macroeconomic policy stance as reflected in

quantitative import restrictions. The effect of macroeconomic policies for all periods is virtually zero.

The results show that increasing tariffs have a negative effect on manufactured exports. During the periods of the controlled trade and payments regime, 1962–6 and 1972–82, trade policy had a negative effect on export response. During the liberal periods, the reduction in tariffs had a positive effect on manufactured exports.

Similarly quantitative import restrictions have a negative impact on the manufactured export response. On the other hand, during the adjustment period the combination of macroeconomic restraint and relaxation of quantitative restrictions has had a positive impact on manufactured exports. It should be noted, however, that the impact of policy drops by half between 1987 and 1990, largely because of the reduced level of policy change after the drastic changes between 1983 and 1986. There is a significant difference in the impact of both pure trade policy and quantitative restrictions on exports between the earlier part of the structural adjustment programme, 1983–6 and 1987–90. In the earlier period the impact of the reduction of tariffs and quantitative restrictions on manufactured exports is much higher than for the later period.

Conclusion

The discussion has shown that domestic trade and macroeconomic policies and the resulting distortions prior to structural adjustment have had a negative impact on manufactured exports. Ghanaian manufacturing firms do respond to export incentives, even though the degree of responsiveness is low. The combination of expansionary macroeconomic policies with a restrictive trade regime adversely affected export incentives and through that manufactured exports. Since the structural adjustment, our results show that the combination of macroeconomic and trade policies has had a positive impact on the incentive to export. The import-substitution experience does not seem to have accumulated the relevant learning effects conducive to exporting manufactured goods. This may in part be due to the dominance of the state in the manufacturing sector.

In terms of the conceptual framework used in this analysis, these results suggest that the constraints on manufactured exports do not lie with current trade and macroeconomic policies. In the next chapter we therefore investigate the extent to which other domestic policies, the institutional framework and firm-level conditions affect exporting.

4
The Sample and its Characteristics

Introduction

The objective of the survey was to investigate the constraints on manufactured exports. To meet that objective the survey was designed to cover the major areas identified by past research as such constraints. Experience gained from previous surveys in Ghana, in particular the World Bank's Regional Programme for Enterprise Development (RPED), revealed that firms in the manufacturing sector had been overinterviewed by previous researchers, the questionnaire for the present survey was therefore kept as short as possible (see Appendix B). The main survey conducted in August–September 1993 was preceded by a pilot survey in June of that year. The questionnaire covered the following: (a) general characteristics of the firm; (b) production and sales; (c) capacity utilisation; (d) exporting activities; (e) constraints. Interviews were conducted with 150 manufacturing firms in Accra/Tema, Kumasi, Cape Coast, and Takoradi. Ten industry groups covering the full size range of firms were surveyed.

Three sources of information on industrial firms were used in the choice of the sampling frame – the 1987 Industrial Census, the Directory of Industrial Establishments and the list of exporting firms published by the Ghana Export Promotion Council. It was not possible to choose the sample randomly; attempts were made to include as many firms manufacturing for export as possible. Of the original list of 150 firms visited, about 60 (i.e. 40%) of them could not be interviewed, because they had either moved or gone out of business. Some firms refused to grant interviews and some kept postponing the interviews until the interviewers gave up. In most instances firms which could not be reached or were not prepared to cooperate with interviewers were replaced by others as similar as possible in terms of sector and the number of employees.

The interviews were conducted by graduates in economics. The interviewers were trained for two days, and were supervised by the researchers who made checks to ensure that the interviews had actually taken place. It took about two hours to complete an interview.

Characteristics of the Sample

The data were classified for analysis under five headings, i.e. exporting status, export intensity, firm size, sector and the firm's age. Firms were subdivided on the basis of whether they were currently exporting, had exported in the past or had never exported any of their output. The sample comprises 59 firms which were either current exporters (40) or had been exporting their products in the past (19). Eight firms did not export their output directly, that is, their output was purchased by middlemen for export (these were not considered as exporting firms in the present sample).

Firms were classified on the basis of the degree of export intensity,[3] which is measured as the proportion of foreign sales to total sales. Three classifications were made. Firms with low export intensities had ratios of 25% or less. Firms with ratios of between 26% and 50% were categorised as having moderate export intensities and those with high export intensities had ratios of more than 50%. Eleven of the firms had low export intensities, whilst 14 had moderate export intensities and another 14 had high export intensities.

Four size categories were defined on the basis of number of workers. Firms with less than 5 workers were classified as micro firms. Those with between 5 and 29 workers were small firms. Moderate sized firms had between 30 and 99 workers and large firms had more than 100 workers. About 8% of the firms surveyed were in the microenterprise group, 25% were small enterprises, about 31% were medium and 36% in the large scale group (Table 8).

The sample was sub-divided into ten product categories, i.e. food processing, textiles, garments, leather and footwear, wood products and furniture, paper and printing, chemicals, rubber and plastics, metals and a miscellaneous group.The largest subsector is wood products (24%), followed by food processing (19.3%) and metals (16%) (Table 8). The final classification was the date of establishment of the firm. Firms established prior to 1986 were labelled 'old' and those established after 1986 were labelled 'new'. Most of the firms surveyed were established prior to 1986 (i.e. 84.6%) (Table 8). The largest firms are found in the wood and food subsectors, with 21 and 13 large firms operating in these sectors respectively.

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3. Approximately 94% of the exporting firms sold their output on both the domestic and foreign markets. Only 2 firms in the rubber industry and 1 firm in the furniture industry were geared entirely towards exports.

Table 8: The structure of the final sample – sector, size, export status and date of establishment

	Micro	*Small*	*Medium*	*Large*	*Total*	%
Food processing	3	6	7	13	29	(19.3)
Textiles	1	0	4	5	10	(6.7)
Garments	2	7	5	0	14	(9.3)
Leather and footwear	0	3	0	1	4	(2.7)
Wood products	0	11	4	21	36	(24.0)
Paper and printing	1	0	3	3	7	(4.7)
Chemicals	1	2	5	0	8	(5.3)
Rubber and plastics	2	2	1	2	7	(4.7)
Metals	1	4	12	7	24	(16.0)
Other	1	3	5	2	11	(7.3)
Old	6	33	40	47	126	(84.6)
New	6	5	5	7	23	(15.4)
Exporting firms in each size category	1	6	8	24	39	
Total	12	38	46	54	150	
%	(8.0)	(25.3)	(30.7)	(36.0)	(100.0)	

Source: Survey data.

Legal Status and Ownership Structure

The sample was dominated by limited liability firms (Table 9), and 15% were sole proprietors. In terms of ownership structure, 58% were private Ghanaian, about 7% private foreign, and about 22% private joint ventures between Ghanaians and foreigners. State-owned firms constituted about 11% of the sample.

Age

The average age of the firms in the sample increases with size (Table 10). There is no significant difference between the average age of firms in the sample on the basis of exporting status. The older subsectors are textiles, paper, metals and food.

Table 9: Legal status and ownership structure

	Number of firms	%
Legal status		
Single owners	23	15.3
Partnership	6	4.0
Family business	6	4.0
Limited liability	113	75.3
Others	2	1.3
Total	150	(100.0)
Ownership structure		
Private Ghanaian	87	58.0
Private foreign	10	6.7
Private Ghanaian/foreign	33	22.0
State/private – Ghanaian	2	1.3
State	10	6.7
State/private – foreign	5	3.3
Total	150	(100.0)

Source: Survey data.

Capital Intensity

Based on entrepreneurs' estimates of the replacement costs of their machinery and equipment at the time of the survey, the capital:labour ratio is higher for exporting firms, and higher for the medium and large firms (Table 10). There is not much difference between new and old firms. The most capital-intensive firms were in the chemicals and metal sectors.

Firm Performance

The firms were asked to indicate whether there had been any changes in their output during the previous 3–5 years. About 58% of them had experienced increases in output, 26% experienced declines, and for about 16% there was no change. Of the exporters 62% recorded an increase in output, compared with 55% of the non-exporting firms. There was no significant difference between the performance of firms on the basis of whether or not they were exporting (Table 11).

Table 10: Characteristics of sample (average values)

	% of raw materials imported (1)	*Age mach (yrs)* (2)	*Firm age (yrs)* (3)	*Employment (yrs)* (4)	*Apprentices (paid)* (5)	*Capital intensity (¢m)* (6)
Sector						
Food, beverages	67.6	16.8	19.8	204	20	2.8
Textiles	73.4	21.9	25.8	716	27	1.7
Garments	65.9	12.7	18.9	22	6	0.5
Leather	80.0	18.0	19.8	43	7	2.5
Wood	30.7	16.9	20.2	219	9	1.7
Paper	61.4	14.4	24.0	152	5	4.6
Chemical	66.3	20.1	19.0	34	–	8.7
Rubber	69.3	15.7	14.0	181	8	1.2
Metals	68.9	14.8	19.8	86	7	6.7
Others	77.7	20.9	18.5	67	14	3.9
Exporting status						
Non-exporting	68.3	16.7	19.3	112	11	2.5
Export	50.9	17.8	21.4	319	10	5.0
Export orientation						
Low	61.6	19.6	23.6	286	19	5.9
Moderate	61.0	20.1	23.6	307	5	4.2
High	15.9	15.7	18.3	330	8	2.6
Size						
Micro	35.7	11.0	13.1	3	2	2.1
Small	64.9	18.1	18.9	13	6	2.0
Medium	68.5	14.4	20.9	50	11	4.8
Large	58.2	18.7	21.6	434	15	3.2

Source: Survey data.

A large percentage of the entrepreneurs attributed the growth in output to increased domestic demand (31.1%), improved availability of foreign inputs, improved availability of finance, and better prices on the domestic market. The firms that experienced decreased output blamed lack of finance (33%), slowdown in domestic demand (21%), and increased prices of local inputs (12%).

Table 11: Firm performance – changes in output

Output changes in last 3–5 years	*All firms*	*Exporters*	*Non-exporters*
Increased	84	23	61
Decreased	38	10	28
No change	24	4	20
Total	146	37	109

Chi-square = 1.1732, degrees of freedom = 2

	Number of firms
Factors responsible for increased production	
Improved availability of local inputs	25
Improved availability of foreign inputs	17
Improved availability of finance	13
Better cedi value of exports (exchange rate)	5
Better prices on domestic market	14
Low prices of local inputs	8
Increased domestic demand	41
Increased foreign demand	9
Factors responsible for decreased production	
Reduced availability of local inputs	2
Reduced availability of foreign inputs	3
Lack of finance	30
Slowdown in domestic demand	19
Increased prices of local inputs	11
Increased cedi cost of foreign exchange	8
Greater competition from imports	8
Greater competition from other firms	6
Higher cost of labour	3
Broken down equipment	1

Source: Survey data.

Capacity Utilisation

Capacity utilisation was also derived from the survey data and used as another indicator of performance.

The measurement of capacity utilisation

The issue of the level of capacity utilisation in a manufacturing concern

depends on the measure of capacity utilisation one adopts. A number of measures of capacity utilisation have been used in the literature and each has its own problems.

Because of the problems of measurement, we derived three different measures of utilisation from the data obtained from the firm-level survey: UT1, the capacity utilisation rate which is the ratio of the level of actually produced output to the installed capacity; UT2, the perceived utilisation level, that is, the entrepreneur's own estimation of the utilisation level; and UT3, the 'adjusted' utilisation rate, that is, the ratio of the actual level of output produced to the maximum output which the firm is capable of producing, given the present environment and the age of the machinery. This last measure is different from UT1; while UT1 uses installed capacity as the denominator, UT3 uses a maximum capacity defined by the entrepreneurs themselves, and which in most instances would be lower than the installed capacity.

These utilisation measures are simple, and allow easy access to information, since most firms already compile the required data. Secondly, many firms in Ghana use very old machinery and technology, which are not capable of producing the installed capacity output. For some of these firms attempts to satisfy increased demand by fuller utilisation of plant may not be possible, and would result in increased breakdowns of equipment.

Capacity utilisation in 1992 by exporting status

Table 12 presents the findings on rates of capacity utilisation by exporting status using the three measures of utilisation.

There is not much difference between exporting and non-exporting firms with respect to utilisation levels for the first three measures of utilisation (UT1, UT2, UT3). Concentrating only on currently exporting firms, utilisation levels tend to be higher for the 'low' exporters.

Characteristics of Exporting Firms

Sectoral Distribution

The survey shows that Ghana's manufactured exports are largely based on the processing and transformation of local raw materials and resources. The sectoral distribution of both current and previous exporters reveals a predominance of processed wood and furniture firms (Table 13); about 52% of current exporting firms are in wood and

Table 12: Capacity utilisation in manufacturing by exporting status, 1992 (mean values)

	UT1	*UT2*	*UT3*
All firms	44.8	56.1	37.9
(Total number of firms)	128	150	150
Exporting status			
Domestic	44.7	55.6	59.0
Export	44.9	57.1	59.4
Export orientation			
Low	51.2	62.6	63.5
Moderate	43.4	56.2	64.6
High	41.9	53.9	54.8

Source: Survey data.

furniture products. This is followed by food and beverages (12%) and metals (12%). The predominance of wood products is understandable. These are well established firms which were exporting logs but were forced by legislation in the 1970s banning the export of certain types of

Table 13: Distribution of exporters by product category

	Number of firms		*Export orientation*	*Attrition rate*
	Current	*Previous*	%	%
Product category				
Food	5	2	24.13	14.28
Textiles	2	4	60.0	66.66
Garments	1	1	14.28	50.00
Wood products	21	2	62.16	8.69
Chemical	0	4	50.00	100.00
Metal	5	2	29.16	28.57
Paper products	1	3	57.1	75.0
Rubber and plastics	4	0	57.14	0.0
Leather	0	0	0.0	na
Other	1	1	22.2	50.0
Total number of firms	40	19		

na – not applicable
Source: Survey data.

logs into processing them for export. Moreover, in the early phase of the structural adjustment programme they were offered substantial financial assistance as part of the programme to rehabilitate the traditional exports sector. There are current exporters in all the product categories covered in the survey, with the exception of the leather and footwear industry. Using the Ghana Export Promotion Council's definition of non-traditional exporters, 67.5% of the current exporters were in the NTE sector. All previous exporting firms were also in this sector. The traditional manufactured exports in the sample consisted of sawn wood, where there were 13 firms.

The wood industry is also the most export-oriented, as measured by the probability of finding an exporting firm in the industry. This probability is measured by finding the proportion of firms in each product group which had some experience of exporting (Table 13). Next in descending order are textiles, paper products, and rubber and plastics. The attrition rate of exporters is measured here as the proportion of previous exporters in the sample of current and previous exporters in each product category. The industries in which the probability of survival as an exporter is lowest, as measured by the attrition rate, are the chemicals, paper products, textiles and garments sectors (Table 13).

Fifteen of the 19 ex-exporters had been involved in exporting for more than one year. The other firms had exported for one year only. The most frequent reason given for stopping exporting was that they no longer received export orders. This could reflect lack of either price or quality competitiveness. The next most frequent reason given was the cost of raw materials. This was the response given by firms which had begun exporting after 1984. In the case of one firm it had shut down altogether for a considerable period.

The questionnaire probed into the motivation and sources of orders for manufactured exports. According to the survey results, firms started exporting in response to a specific export order (i.e. either as a result of being approached by a buyer, or as a result of a bilateral trade pact or in response to a specific government order). This was given as the reason for beginning to export by 23 firms. Of the 19 ex-exporters 11 began exporting primarily for this reason, i.e. 57.9% of the sample in contrast to 32.5% of the current exporters. The next most frequent reason was to earn foreign exchange. For those firms established after 1980, this was to take advantage of the foreign exchange retention scheme. The depreciation of the exchange rate was the reason given by 12 of the current exporters. Ten of the current exporters and 4 of the ex-exporters explicitly cited the need to make use of excess capacity as a reason for moving into exporting. An additional 4 firms cited the limited demand

in the local market as a reason for looking abroad, indicating that the need to make use of excess capacity was an underlying motive.

Firm Size

Theoretical discussions indicate that there is a relationship between firm size and exporting; the arguments are based on the disadvantages of small size. According to the literature small firms are at a disadvantage in exporting because of: (a) limited resources – managerial, financial, R&D and marketing resources; (b) economies of scale in manufacturing and export marketing management; and (c) the perception of high risk in international activity (Bonaccorsi, 1992). For these reasons it is hypothesised that both the probability of exporting and export intensity are positively related to firm size.

Table 14: Firm size and export status

	Micro	*Small*	*Medium*	*Large*
Exporter	1	6	8	24
Non-exporter	11	32	38	29

Chi-square 15.9515, degrees of freedom = 3

The sample of exporters was dominated by medium and large-scale firms (Table 14). Large firms constituted 36% of the sample, while 61.5% of the exporting firms were large. The probability of exporting therefore increases with firm size. This is similar to the findings of firm-level studies in other countries. It is generally accepted that the number of employees is a reliable determinant of the probability of exporting (Bonaccorsi, 1992). The reason is that small firms avoid the risks involved in exporting, whilst larger firms adopt exporting as a strategy to increase sales. In the developing country context a positive relationship between firm size and exporting is also likely because small firms tend to be single proprietorships where the owner/managers perform many of the firms' functions and also tend to be less well qualified in terms of formal education and accounting and marketing skills than managers in the larger firms. A study of the determinants of export success in Brazil found that successful exporting firms (i.e. those which did not stop

exporting during the study period) tended to have quality control departments and the heads of these departments were better qualified than in the unsuccessful firms (Christensen *et al.*, 1987).

It has been hypothesised that export intensity is positively correlated with firm size. Firm-level studies in other countries have provided ambiguous evidence on this. Bonaccorsi (1992) quotes Gemunden as stating that firm size is an important determinant of export intensity up to a minimum size; beyond this limit there is a weak relationship between the two variables. The current survey did not find a significant relationship between firm size and export intensity. Table 15 shows that medium-sized firms are just as likely as large firms to have low export intensities, whilst they are more likely to have high export intensities. Although the probability of small firms having a high export intensity is slight, the probability of large firms having a moderate export intensity is greater than the probability of their having a high intensity ratio. It seems that Gemundsen's observations are relevant to manufacturing export firms in Ghana.

Table 15: Export intensity of exporting firms

By firm size (% distribution)**	*Low*	*Moderate*	*High*
Small	50	33.3	16.66
Medium	28.57	28.57	42.85
Large	27.27	40.90	31.81

Chi-square = 1.783, degrees of freedom = 4, ** rows add to 100%

By type of exporter (% distribution)**	*Low*	*Moderate*	*High*
Traditional	0	46.15	53.84
Non-traditional	47.82	26.08	26.08

Chi-square = 9.558, degrees of freedom = 2, ** rows add to 100%

Even though there is not clear-cut relationship between export intensity and firm size, there is a definite relationship between export intensity and whether or not the firm is in the non-traditional export sector (Table 15). Firms in the NTE sector were more likely to have low export intensity ratios than they were to have high export intensity ratios. None of the firms in the traditional export sector had low export intensities. It is likely that most firms in the traditional sector were set up

primarily to serve the external market. In contrast, most of the firms in the non-traditional sector may have been set up to serve the domestic market first, with exporting arising as a strategy of expansion or survival in subsequent years. Secondly, the institutional framework to support exporting in the traditional sector has existed for a considerable period of time. Firms benefit from the critical mass of information on exporting procedures and markets available in this sector; it does not exist in the non-traditional sector which is highly diffuse.

Import Intensity

The wood sector is the smallest user of imported inputs; this is understandable since the sector is based on a local resource. The proportion of imported inputs is smaller for micro-enterprises (35.7%)

Table 16: Import intensity

By exporter status (% distribution)

Import intensity %	*Exporter*	*Non-exporter*
0–9	35.89	21.90
10–24	17.94	9.52
25–49	12.82	6.66
50–74	10.25	14.28
75–99	5.12	29.52
100	17.94	18.09

Chi-square = 12.905, degrees of freedom = 5

By export orientation (% distribution)

Import intensity	*High*	*Moderate*	*Low*
0–9	46.15	23.07	36.36
10–24	46.15	7.69	0.0
25–49	16.66	23.07	9.09
50–74	0.0	23.07	9.09
75–99	0.0	7.69	9.09
100	0.0	15.38	36.36

Chi-square = 18.69, degrees of freedom = 10

and increases with size, although the proportion for large firms is smaller than for medium-sized firms. Exporting firms use smaller ratios of imported inputs compared with non-exporters (Table 16). The index of import intensity used here is the ratio of imported inputs to total raw materials. About 50% of the exporting firms had import ratios of less than 25% (Table 16).

This compares with 32% of non-exporting firms. The study by Jebuni *et al.* (1992) which included primary producers found that exporting firms had lower ratios of imported inputs to output. Focusing on exporting firms only, the present study finds that there is a distinct difference between the exporting firms which have a high export intensity on the one hand, and those which have medium to low export intensities, on the other. None of the firms with high export intensities have import ratios of more than 50%. The product category of the firms may be an important explanatory variable here. A significant proportion of these firms are in the wood industry whose most important raw material is available locally. This result reveals that Ghana has a comparative advantage in locally resource-based industries.

Technology

Most of the firms in the sample, both exporters and non-exporters (which had been established before 1986), had purchased a new machine in the previous five years, i.e. 54.1% of the exporting firms and 55.95% of the non-exporters.[4] There were also some firms in the sample which had never purchased any new machines since they had been established (Table 17a).

Despite the large number of recent purchases, the average age of machines in the exporting sector was 17 years, and 16 years in the non-exporting firms. For a majority of the exporting firms, the average age of the machines was almost the same as that of the firms. Only 5 exporting firms had replaced their entire original machinery; one of these was more than 30 years old, another was about 25 years old and the other 3 had been established in the 1970s. There is no significant difference between exporting and non-exporting firms in the average age of their machinery

4. Firms established after 1986 were not considered. This is because it is likely that the new firms would not necessarily have purchased all the equipment required for their operations at one go. Purchase of machinery during establishment of the firm may be phased over a period of two to three years.

Table 17a: Purchases of new equipment by firms established prior to 1986
(% of respondents in each category)

Date of last purchase of equipment	*Exporters*	*Non-exporters*	*All firms*
0–5 years ago	54.05	55.95	55.37
6–10 years ago	35.13	19.04	23.96
11–15 years ago	0.0	5.95	4.13
Over 15 years ago	5.4	3.57	4.13
Never	5.4	15.47	12.39

Chi-square = 7.316, degrees of freedom = 4, columns add up to 100%

Table 17b: Average age of machinery and export status of firm

	Average age of machines (years)			
	Over 30	20–29	10–19	0–9
Exporting firms	8	4	13	9
Non-exporting firms	12	26	32	34

Chi-square = 5.365, degrees of freedom = 3

(Table 17b). The evidence suggests that not much investment in equipment had occurred in the manufacturing sector until quite recently. It is also possible that the age of the machinery may be determined by the fact that most firms replace old machinery with second-hand machines. The age of the machinery suggests that Ghanaian firms are at a disadvantage vis-à-vis their foreign competitors because of outdated technology.

The age of the machinery has adversely affected capacity utilisation. Only 7 of the current exporting firms could have achieved their installed capacity if they had been obliged to do so. For 35% of them the maximum capacity that could be achieved, given the age of the machinery, was between 75% and 99% of the installed capacity. Adjusting for the age of the machinery, a third of the firms were operating at full capacity and 73.3% were operating at more than 50% of capacity. The majority of exporting firms in each export orientation category were operating at more than 50% of adjusted capacity. Given the relatively small size of Ghanaian firms compared with the average size of firms in most of its trading partners, the difficulty in achieving installed capacity because of the age of the machinery is an added handicap.

Exporting Behaviour

This section will examine the exporting behaviour of the sub-sample of exporting firms, in an attempt to determine the factors which may explain why some firms have been successful exporters whilst others have not.

Market Destinations

Empirical studies have found that the destination of a firm's exports may be important in determining its success as an exporter. Success in exporting may be measured by whether a firm which used to export is currently continuing to export. A firm-level study in Brazil found that successful exporting firms tended to concentrate on developed country destinations whilst ex-exporters had tended to export to developing countries (Christensen *et al.*, 1987). This finding was attributed to political or economic instability in the developing country markets which adversely affected trade with these countries.

A similar significant relationship was obtained for the present sub-sample of Ghanaian exporting firms (Table 18a). The ex-exporters concentrated their exports in the ECOWAS sub-region. Six ex-exporters which had not provided information on the destination of their last export order had sent their first exports to ECOWAS countries. One firm had sent to both developing and developed country destinations. None of the ex-exporters had developed country destinations as their sole markets. Amongst the current exporting firms in the sample, only 24% sent their exports to developing country destinations.

In the case of Ghana trading with neighbouring countries is fraught with uncertainty. One exporter mentioned that political instability in Togo was important in influencing the firm's exporting activities. However, it is possible that poor product quality and price competitiveness and not just the instability of the markets to which they export may explain why the ex-exporters stopped exporting.

Products of the wood and food industries were biased towards developed country destinations whilst exports of the other product categories were biased towards developing country destinations (Table 18b). Products from the chemicals, paper products and garments industries were sent only to developing country destinations (Table 18b). It is the natural resource-based items, i.e. the items in which Ghana has

Table 18: Direction of export trade

(a) Market destination for most recent exports

	Developing country	*Developed and developing*	*Developed country*
Current exporters	9	13	15
Ex-exporters	7	1	0

Chi-square = 11.7554, degrees of freedom = 2

(b) Direction of trade by product group for most recent exports

	Developing country	*Developed and developing*	*Developed country*
Textiles	3	2	1
Wood production	1	7	11
Paper	2	0	0
Food and beverage	1	2	3
Garments	2	0	0
Metal	4	2	0
Rubber and plastic	2	1	0
Other	1	0	0

Chi-square = 25.0607, degrees of freedom = 14

Source: Survey data.

a traditional comparative advantage, which are sent to the developed country destinations. None of the ex-exporters were in these product categories. Products in which the comparative advantage is low are sent to developing country destinations. A study by Oduro (1994) found such a relationship for non-traditional and traditional exports using data for 1987. Linder's hypothesis of representative demand may be used here to explain the link between commodities and market destinations. According to this hypothesis the similarity of incomes will ensure that there will be a demand in other developing countries for the quality and type of products produced in Ghana. It may therefore be easier to find a market in developing countries for items which will not be competitive in terms of quality in developed country markets. Some firms, however, are still exporting within the product group of the ex-exporters to developing country destinations. Price and quality competitiveness at the

firm level therefore have to be very high if a firm is to succeed in exporting an item in which the economy has no traditional competitive advantage.

Export Lag

When established, firms may not move immediately into exporting. They may need a period of learning to bring down their costs and establish marketing links. The time lag between establishment and exporting may be crucial in determining whether once a firm starts exporting it will be able to continue to do so. Table 19 shows the distribution of firms (both current and ex-exporters) by export lag, defined as the period between the year of establishment of the firm and the year it began exporting.

Most firms in the sample, whether currently exporting or not, showed an export lag, ranging from within six months after the firm had been set up to 35 years for a firm in the textiles industry and 40 years for a firm in the sawn wood industry. For those firms no longer exporting the longest lag was 29 years. In both categories of firms, about half began exporting within the first five years of establishment (Table 19a). There was no significant difference between the export lag of current and previous exporters. The evidence seems to suggest that the export lag is not an important determinant of whether a firm will be a successful exporter (successful exporter being defined here as a firm which is still exporting). An interesting picture emerges when firms are classified on the basis of whether they are exporters of traditional or non-traditional goods (Table 19b). Firms in the traditional sector are more likely to begin exporting within the first five years after establishment. This is not surprising, since, as explained earlier, exporting is facilitated by an established institutional framework and critical mass of information. The more interesting result emerges when comparison is made of the exporters of non-traditional goods which are current exporters and those which are not (Table 19c). The successful exporters tend not to begin exporting within the first five years after establishment. It may be that the unsuccessful exporters began exporting when they were still not cost-efficient. It has already been found that ex-exporters began exporting in response to an export order they had received, and not usually due to an initiative taken by the firm. This could imply that the firms were not quite ready to begin exporting when they did.

Table 19: The export lag (% distribution)

(a) Export status	*Exporters*	*Ex-exporters*	*All firms*
0–1 years	25.64	5.88	21.15
2–5 years	25.64	47.05	32.69
6–10 years	12.82	17.64	15.38
11–20 years	12.82	5.88	13.46
Over 20 years	12.82	23.52	15.38

Chi-square = 5.264, degrees of freedom = 4

(b) Export lag and type of exporter	*Current exporters*	
	Traditional	*Non-traditional*
0–1 years	23.07	31.81
2–5 years	61.53	9.09
6–10 years	0.00	22.72
11–20 years	7.69	18.18
Over 20 years	7.69	18.18

Chi-square = 12.3008, degrees of freedom = 4

(c) Export lag and non-traditional exporters

	Current exporter	*Previous exporter*
0–1 years	7	1
2–5 years	2	8
6–10 years	5	3
11–20 years	4	1
Over 20 years	4	4

Chi-square = 9.88, degrees of freedom = 4

Source: Survey data.

Regularity of Exporting

Most of the current exporting firms had been exporting regularly since they had begun exporting. Firms with low export intensity were just as likely to export regularly as were firms with high export intensities (Table 20). Large firms were more regular exporters than the small and

Table 20: Export performance – regularity

	Stable exporters	*Irregular exporters*
% distribution	71.7	28.2

By export intensity (number of firms)

	Low	*Moderate*	*High*
Stable exporters	9	8	9
Irregular exporters	3	4	3

Chi-square = 0.2776, degrees of freedom = 2

By size distribution (% distribution)

	Stable exporters	*Irregular exporters*
Small	57.1	42.8
Medium	42.85	57.14
Large	83.3	16.66

Chi-square = 9.2515, degrees of freedom = 2

By type of exporter (% distribution)

	Stable exporters	*Irregular exporters*
Traditional	83.33	16.66
Non-traditional	66.66	33.33

Chi-square = 1.861, degrees of freedom =1

Source: Survey data.

medium-sized firms. Although a larger proportion of non-traditional exporters were irregular exporters compared with the firms in the traditional export sector, this difference was not statistically significant. Four of the irregular exporters had not exported in some years since 1980 because the firm was shut down. In the case of three of the firms, lack of export orders was given as the reason why they had not exported in some years, whilst one firm cited lack of finance.

Ability to Meet Export Orders

The exporting firms reported having had opportunities for exporting which they had not been able to exploit. About 55% of them had received export orders that they could not meet. This was a particular problem for firms in the traditional export sector, where 76.9% of them had had this experience compared with only 44.4% of firms in the non-traditional sector. The ability to meet an export order was not linked significantly to the firm's size or degree of export intensity.

The single most frequent reason given to explain why firms could not meet an export order was the capacity constraint (Table 22). The export orders received by the firms were too large, given their capacity, and this

Table 21: Ability to meet export orders

% distribution of exporting firms

Unable to meet export order	*Non-traditional exporter*	*Traditional exporter*
Yes	76.92	44.44
No	23.07	55.55

Chi-square = 3.739, degrees of freedom = 1

% distribution by size of firm

Unable to meet export order	*Small*	*Medium*	*Large*
Yes	33.33	50.0	58.33
No	66.66	50.0	41.66

Chi-square = 1.231, degrees of freedom = 2

% distribution by firm's export intensity

Unable to meet export order	*Low*	*Moderate*	*High*
Yes	45.45	53.84	69.23
No	54.54	46.15	30.76

Chi-square = 1.444, degrees of freedom = 2

Source: Survey data.

Table 22: Reasons why firms could not satisfy some export orders

	Number of responses
Size of order too big for existing capacity	11
Competitiveness:	
Price quotation too low	10
Could not meet quality required	2
Lack of adequate raw materials	6
Access to finance	5
Inadequate time to meet delivery date	1
Changing forestry management policies	1

Source: Survey data.

probably meant that they could not meet the delivery date. For a large proportion of firms the age of the machinery has constrained its maximum capacity to below the rated capacity. Most of the firms were operating at above 50% of their adjusted (or possible) capacity. If their machine stock had been newer it might have been possible for more of the orders to be met. Competitiveness was also an important constraint. Firms considered the price quotations they received to be too low. Again this suggests a need for Ghanaian exporting firms to become more price competitive. This will probably be facilitated by the replacement of old machine stock and larger production runs to reduce unit costs. Credit did not appear to be a major constraint and of the 5 firms which cited it as an explanation, 4 of them were firms in the non-traditional export sector.

Conclusion

At this stage of the country's development Ghanaian manufactured exports are based on the processing and transformation of local raw materials. This underlines the importance of the efficiency and productivity of the traded and non-traded intermediate inputs sector. Exporters tend to use a higher proportion of local raw materials relative to non-exporters.

Exporting firms are largely medium and large-scale enterprises. Even though these firms are classified as large by Ghanaian standards, their capacities are limited. More than half the firms interviewed indicated that they had received orders they could not meet because of their limited

capacity. This indicates an unmet demand for Ghanaian manufactured products, arising from the small size of the established plant and equipment. For a large proportion of firms the age of the machinery had constrained its maximum capacity to below the rated capacity. Most of the firms were operating at above 50% of their adjusted (or possible) capacity. Thus, if their machine stock had been newer, it might have been possible for more of the orders to be met.

Firm size is significantly linked to regularity of exporting. Since there is a positive link between the probability of being an exporter and a firm's size, then if manufactured exports are to be encouraged large firms must be encouraged. This does not mean an active discouragement of small and micro firms, but it requires the establishment of a policy framework or plan to remove the variables which hinder the expansion of these firms into large and medium-sized ones.

Manufactured exports in which Ghana has a traditional comparative advantage tend to be directed to developed country markets, while the others go to developing country markets. This could explain the high levels of attrition among the non-traditional.

5
Entrepreneurs' Perceptions of Constraints on Exporting

Introduction

In Chapter 3 it was observed that prior to 1983 domestic macroeconomic and trade policies, together with the strategy of industrialisation, created disincentives to the development of manufactured exports and inhibited the accumulation of experience in import substitution necessary for the subsequent development of exports. Since 1983 the trade and macroeconomic framework has changed, creating incentives for exporting. However, manufactured exports recovered only to the levels of the 1970s and have not progressed further.

A large number of manufacturing firms have still not responded to the new and more favourable macroeconomic environment because of certain constraints. The survey found that, of the 150 firms surveyed, only 40 were currently exporting, that is, less than a third of the sample, and 67% of the firms surveyed had never exported. When asked why they had never exported, the most frequent reason given was the lack of price and quality competitiveness. Exporting was also not undertaken because of strategic decisions taken to focus on the local market. Other reasons were lack of finance and inadequate information about external markets. These responses confirm the conclusion drawn in Chapter 3 that macroeconomic policies are necessary but not sufficient to bring about positive export supply responses. It is clear that adjustments need to be made at the sectoral and firm levels.

This chapter examines the constraints on the response of manufactured exports from the point of view of the firm. As discussed in Chapter 1, the individual firm faces two sets of constraints – external and domestic. The external constraints comprise problems of market access, maintenance of market shares and expansion of markets. The second set of constraints pertain to the domestic economy and firm-level constraints which impinge directly on the capacity of firms to produce for export.. The relevant variables of interest are the availability of technology and the ability to obtain the required technology, the availability of skilled labour, access to and the cost of finance, the supply of adequate raw materials at competitive prices and the availability and price of utilities

(see Figure 1). The following section examines the issues from the point of view of the producers' perceptions of their constraints.

Overview of the Constraints

The survey approached the question of constraints by asking the entrepreneurs to rank what they perceived to be the three most serious problems which affected them if they wished to expand or move into exporting. Secondly, the entrepreneurs were asked to rank the severity of a set of listed constraints on a scale of 1 (not important) to 5 (major obstacle).

Issues relating to finance were perceived to be a constraint for almost all the firms. The high cost of capital and the availability of working capital were the most frequently cited financial constraints. The high interest cost of capital was identified as a constraint by 62 firms (Table 23). Of these only 11 ranked it as the most important constraint, while about 53% of the exporting firms and 45% of the non-exporters perceived it as a problem. The availability of working capital received the highest ranking for 27 firms. The problem of finance was inversely related to the size of the firm: 53.3% of the micro firms, compared with 45.5% of the small firms and 28.5% of the large firms, ranked issues of finance as the most important constraint. This finding confirms the results of earlier studies (see Steel and Webster, 1991; Baah-Nuakoh and Steel, 1994; Baah-Nuakoh, 1994).

The next most important category of constraints related to the availability and price of raw materials. Under this heading the most frequently cited problem was the price of foreign inputs: 49 of the firms considered this to be a problem of varying importance, whilst 27 considered it to be the most important constraint, as did 24% of the non-exporters and 8.8% of the exporters. None of the exporters identified the supply of foreign inputs as a constraint. The price and availability of local raw materials was a problem for exporters, in particular those with moderate and high export intensities. The relative importance of the local raw materials constraint compared with foreign inputs for the exporting firms is not surprising since they tend to depend more on local sources of raw materials than do the non-exporting firms which are more import-dependent.

The age of their machines was a constraint for 31 firms in the sample. For most of these the problem ranked second or third after other perceived constraints. Approximately 18% of the exporting firms

Table 23: Constraints affecting ability to export (number of respondents)

		Ranking			
		1st	*2nd*	*3rd*	*Total*
Finance					
Availability:	Working capital	27	11	18	58
	Investment capital	10	11	9	30
	High interest cost of capital	11	37	14	62
Raw materials					
Local:	Supply problems	7	8	4	19
	High price	9	7	11	27
Foreign:	Supply problems	1	3	1	5
	High price	27	9	17	49
Technology and equipment					
Old machines		9	15	7	31
Do not have right machines		1	0	0	1
Lack of spare parts		1	0	4	5
Poor product quality		2	0	1	3
External market information					
No export agent		11	6	2	19
Unaware of markets		7	6	11	24
Infrastructure					
Inadequate supply of:	Electricity	0	6	9	15
	Water	0	0	3	3
Labour					
High costs		0	3	4	7
Availability:	Skilled labour	0	0	2	2
	Qualified management	0	0	1	1
Inadequate domestic demand		4	1	7	12
Unpredictable government policies		2	0	0	2
Exchange rate instability		1	0	1	2
Not enough space for expansion		1	0	1	2
Bureaucratic procedures		1	1	0	2
Others		2	0	1	3
Total firms					134

Source: Survey data.

considered the age of their machines to be a problem, but only 2 of them identified this as the most important constraint. In general, issues of technology tended to rank second or third for most firms (Table 23).

Problems associated with obtaining relevant information about the external market were perceived by more firms to be a problem than were labour considerations or the state of the economic infrastructure. For 18 of the firms information about external markets was the most important problem. The majority of firms which perceived inadequate market information and contacts to be a constraint on exporting were non-exporting firms. Only 3 exporting firms perceived marketing issues as a major constraint. Considering that the majority of exporting firms in the sample exported regularly, this is not a surprising result. Firms which considered this to be a problem were in the chemical (57% of the firms) and leather (50% of the firms) industries.

None of the firms ranked labour issues or infrastructure as a major problem. They were only cited as a problem by medium-sized firms, and none of the exporting firms perceived them to be among the three most important problems.

For the exporting firms the single major constraint (it received first ranking) was the availability of credit for working capital, i.e. for 26.5% of the firms, whilst the single most important constraint for the non-exporters was the price of imported inputs, for 24% of the firms. From the entrepreneurs' point of view, therefore, domestic rather than external variables were more important constraints on production in general and exporting in particular.

Severity of the Constraints

As already noted, the severity of the constraints on expansion was obtained by asking the entrepreneurs to rank them on a scale of 1 to 5 (not important to important). For each constraint the score was then averaged to derive a rough index of severity. Table 24 provides information on the firms' perception of the severity of the individual constraints. The cost of credit was not only identified as a problem by a large number of firms, but was also perceived to be a severe one. The price of imported raw materials was a particularly severe constraint for non-exporters and firms which export less than 25% of their total output.

The severity of the lack of adequate marketing links decreased with the export orientation of the firm. For the 'low' exporters it ranked as a very severe problem. The non-exporters did not perceive it to be as

Table 24: Severity of constraints by exporting status

	Non-exporter	*Low*	*Moderate*	*High*
Finance				
Cannot get credit for raw materials or working capital	3.5	2.7	3.2	3.6
Cannot get credit for equipment	3.2	2.5	3.4	3.8
Interest rates are too high	4.2	3.7	4.4	3.3
Raw materials				
Inadequate or unreliable supply of local materials	1.8	1.7	1.5	2.1
High price of local raw materials	2.8	2.9	2.6	3.0
High price of imported raw materials	3.7	3.7	3.1	1.7
Inadequate or unreliable supply of imported materials and spares	1.9	1.8	1.6	1.3
Technology, equipment				
Old equipment and high replacement costs	2.9	2.3	3.5	2.1
Non-availability of spare parts	1.8	1.5	2.3	1.4
Market information				
Do not have export agent	2.9	3.6	1.8	1.3
Do not have information	2.8	4.1	2.6	2.1
Labour, management				
Lack of skilled workers	1.5	1.8	1.3	2.0
High labour costs	2.0	2.4	1.9	2.1
Unable to attract management with necessary skills	1.5	1.4	1.9	1.6
Infrastructure				
Interruption of electricity supply	2.6	2.6	2.6	2.0
Inadequate water supply	1.9	1.6	2.3	1.3
Inadequate domestic demand	2.3	2.8	2.0	1.6
Unpredictable policies	3.5	1.0	–	5.0

Source: Survey data.

severe a problem as the low exporters did. Thus for the latter it is quite possible that if this constraint were relieved they would be able to increase the quantities exported.

Inadequate domestic demand was not perceived to be a big problem facing the sample firms. While much has been said about lack of demand especially for goods such as textiles, only the leather and paper sectors

perceived the lack of domestic demand as a severe problem.

The Nature of the Constraints

External Constraints

Marketing strategies

The issue of marketing may be conceptualised as having three components. The first is market entry; this is particularly severe for the firm considering exporting for the first time. The second is surviving in the market; this involves keeping up with market developments and maintaining market shares once entry has been achieved. The third aspect is market expansion; this may involve maintaining or improving one's competitiveness as well as diversifying products and markets.

Links, formal or informal, between buyers and sellers are important for all these aspects. Studies have shown that long-term contractual relationships are beneficial because they can promote export development in terms of packaging, design, and quality of products arising from buyer specifications and information about market characteristics and delivery schedules (Egan and Mody, 1992; Keesing and Lal, 1991). From previous country studies 'one lesson that emerges ... is that as a rule, manufactured exports from developing countries are a "co-operation game" in which the buyers help the manufacturers learn all sorts of business skills required, and the two pool their skills and insights to obtain their overlapping goals' (Keesing and Lal, 1991: 186). Egan and Mody (1992) have shown that buyer–seller links may be important both in promoting and in reducing developing country exports to developed countries. A study of dealers in bicycles and footwear in the United States found that firms preferred long-term relationships and used long-term contracts. The use of such contracts tends to form a barrier to entry for new exporters; once a buyer has formed a satisfactory relationship with a seller, the buyer is less likely to look for another supplier except when there is a substantial cost increase or an expansion in demand. These links can thus act both as a barrier to market entry and as an important means by which exporters can remain competitive in the market.

Market entry

The means by which exporters in our sample obtained their first export order varied (Table 25). Being approached by a buyer was the single

Table 25: Channels of market information – means by which first export order was obtained (number of firms)

	Current	*Ex-exporters*	*Total*
Approached by foreign buyer	18	6	24
Trip abroad by owner/manager	8	5	13
Through a friend living abroad	8	2	10
Ghana Export Promotion Council	7	1	8
Exhibiting in domestic trade fair	5	3	8
Foreign embassy in Ghana	3	2	5
Exhibiting in foreign trade fair	2	2	4
Ghana embassy abroad	2	1	3
Advertising in foreign magazine	1	1	2
From a trade journal	1	0	1
Market research	1	0	1

Source: Survey data.

most frequent means by which a firm obtained its first export order. In East Asia and Latin America, buyers have been found to be important in initiating new exports (Keesing and Lal, 1991).

Exporting as a result of careful market research or in response to an advertisement for suppliers in a trade journal were the least likely ways by which information about potential export markets was obtained.

Concentrating on current exporters only, the means by which export orders were obtained differed according to the degree of export intensity (Table 26a). Although all type of exporters were approached by foreign buyers, the firms with low export intensities tended to make greater use of friends living abroad as a source of information on export markets. An analysis of the source of market information by size of firm found that foreign buyers were more likely to contact large firms directly than they were to contact the smaller firms. Buyers may contact the larger firms simply because they are easier to identify. The owner/managers of the larger firms also tended to make more trips abroad than is the case with the smaller firms. This suggests the need for greater market assistance for smaller firms so that they depend less on *ad hoc* means of obtaining market information, i.e. friends living abroad. This finding may explain why the severity of the market constraint was perceived to be much higher for small and micro firms in the entire sample compared with large and medium-sized firms.

The survey found that the sources of information for the firm when it

Table 26a: Means by which first export order was obtained
(number of current exporters only)

	Export intensity			
	Low	*Moderate*	*High*	*Total*
Approached by a buyer	4	5	7	18
Foreign business trip abroad	3	1	4	8
Through a friend living in the importing country	3	1	3	7
Ghana Export Promotion Council	2	2	2	7
Domestic trade fair	2	3	0	5
Foreign embassy in Ghana	0	0	2	3
Ghana embassy abroad	1	1	0	2
Exhibiting in trade fair abroad	0	1	0	2
Trade journal	0	1	0	1
Advertising in foreign magazine	0	1	0	1

Table 26b: Means by which most recent export order was obtained
(number of current exporters only)

	Export intensity			
	Low	*Moderate*	*High*	*Total*
Approached by a buyer	3	5	6	16
From an established buyer	2	2	8	12
Domestic trade fair	3	2	1	6
Through a friend living in the importing country	4	1	0	5
Business trip abroad	1	2	1	4
Foreign trade fair	1	0	0	1

Source: Survey data.

began exporting differed from the sources of information for its most recent export order. Over time buyer–seller links apparently become more important with fewer firms continuing to depend on *ad hoc* links (Table 26b). A greater proportion of firms in the sample depended on their buyers as a source of market information for their most recent export sale, compared with when they made their initial exports. Twelve firms explicitly mentioned using already established buyers (Table 26b). Fewer firms made trips abroad in order to make market contacts.

Market survival

The ability to maintain market share will depend, among other things, on the ability to remain competitive in the market. This can be done by keeping up with changing trends in taste and design and improvement in product quality.

Table 27a: Improvement in product quality (number of exporting firms)

	Export intensity			
	Low	*Moderate*	*High*	*Total**
Yes	8	7	5	23
No	3	6	8	17

* 3 firms are included which had not specified their export orientation.
Source: Survey data.

Table 27b: Factors determining product quality change

	Number of responses
Greater competition abroad	12
Request from the buyer	7
Changing trends in demand	6
Availability of required inputs	2
Quality regulations abroad	1

Source: Survey data.

More than half the exporters in the sample, i.e. 57.5%, had improved the quality of their export products in the previous three years. Of these, 47.5% had improved the quality of products sold on the domestic market. Exporters with low export intensity tended to improve the quality of their exports; 73% of them had done so, compared with less than half the firms with high export intensity. Firms in all the product groups had improved the quality of their exports. All the current exporters in textiles, garments and paper products had improved the quality of their exports in the previous three years. Product quality had been improved by 60% of firms in the metal industry, 50% of firms in the rubber and plastics industry, 43% of firms in the wood industry, 40% of firms in the food and beverages industry and one of the firms classified as miscellaneous. Most firms attributed the change in quality to the pressures of international competition (Table 27). In the case of two firms improved local conditions, i.e. the availability of required inputs, made it possible for product quality to be improved. Again buyer–seller links emerge as playing a role for Ghanaian firms. Information from buyers was important for 30% of the firms in their decision to improve product quality.

These links are also important in keeping exporters up to date with changes in product quality and design in the international markets (Table

Table 28: Means by which exporting firms keep up to date with changing trends in product quality and designs

	Number of responses
From the buyers	20
Domestic trade fairs	17
Foreign trade fairs	12
Publications	12
Business associates	8
Firm's quality control section	1

Source: Survey data.

28). Domestic trade fairs were the next most important source of this type of information. At trade fairs producers will be able to glean more information since domestic and foreign competitors will also be exhibiting. The probability of establishing links with possible buyers is enhanced for exhibiting firms. The fair can also be used as an opportunity to interact with the general public to find out their views about product quality.

Most of the current exporters in the sample did not have long-term contracts with their buyers. Of the exporters of non-traditional manufactures, 29.6% had long-term contracts compared with 69.2% of those in the traditional sector (Table 29). Having a formal long-term contract did not determine whether the firm exported regularly; 61.3% of firms which exported regularly did not have long-term contracts. None of the exporters without long-term contracts exported regularly because of external market demand constraints, i.e. lack of foreign orders. In

Table 29: Proportions of exporters with long-term contracts (%)

All exporting firms	42.5
Traditional exporters	69.23
Non-traditional exporters	29.62
Low export oriented firms	0.0
Moderate export oriented firms	69.23
High export oriented firms	53.84
Stable exporters	38.71
Irregular exporters	55.55

Source: Survey data.

contrast, for those firms which did have long-term contracts but were irregular exporters, it was domestic constraints (i.e. production problems and inadequate financing) which explained the failure to export in certain years. It may be that the firms did not have formal contracts with their buyers but had developed unwritten long-term relationships with them. However, it seems that having formal long-term contracts may limit the type of constraints facing the firm to those within its control, i.e problems internal to the firm. The proportion of output exported seemed to have a positive correlation with having a formal long-term contract. None of the firms which had low export intensities had long-term contracts, whilst the majority of firms with medium and high export intensities had such contracts. It is possible that there is a two-way causation, with long-term contracts increasing exports while at the same time export commitment can win firms long-term contracts.

The markets to which the firms sent their exports were found to be important in explaining the incidence of long-term contracts: 22.2% of firms exporting to developing country destinations only had them, compared with 53.3% of firms supplying only developed country markets. The 7 firms oriented to developing country destinations and without long-term contracts were exporting to ECOWAS countries, whilst the 2 firms with contracts were exporting to Asia. Five of the 11 exporters with low export intensities sent their products solely to developing country destinations. Thus part of the reason why firms with low export intensities may not have long-term contracts is that they may be dealing with buyers who do not have the tradition of long-term contracts. This unwillingness on the part of the buyers to undertake long-term contracts with their suppliers may be a result of the political and economic uncertainties in developing countries.

Market expansion

Firms may expand their exports through a diversification of markets and/or products. Only 8 of the current exporters in the sample had diversified their markets. Firms which tended to diversify their markets were those which initially sold to both developing and developed country markets. Only 1 of the 10 firms which had begun exporting by selling to ECOWAS markets had diversified into other market regions. Similarly only 1 of the 13 firms which had begun by initially concentrating on developed country markets had diversified into developing country markets. Product type and quality may explain why very little market diversification occurred. Firms in the wood industry, especially producers of sawn wood, tended to export to developed countries. Their potential developing country destinations may be limited

to those countries which have a domestic industry which makes use of this product. Inability to compete in terms of quality may explain why some firms are constrained to supplying only ECOWAS markets. It may be the superior quality of the products of firms selling to both developed and developing country destinations which allowed them this greater market diversity in the first place. In most instances market diversification was part of a strategy to take advantage of markets which were perceived to be profitable. The introduction of new products was another reason for the change in destination. One firm had lost markets because of poor product quality.

Table 30: Product diversification

	Export intensity (number of firms)			
	Low	*Moderate*	*High*	*Total*
Same range	9	11	8	28
Diversified	2	2	5	9

Reason for product diversification

	Number of responses
Request from the buyer	5
To increase sales to existing markets	4
To make use of excess capacity	4
In order to enter a new market	2

Source: Survey data.

Apart from market diversification as a means of expanding a firm's export values, other marketing strategies which can be used to expand or maintain markets are product diversification and improvement in product quality and design. Most of the firms in the sample were exporting the same range of items with which they had initially begun (Table 30). The 9 firms which had diversified their product range were in the wood industry, 5 of them producing furniture and other wood products and 3 producing sawn wood and veneers. The remaining firm was in the chemical industry. For 5 firms, buyers suggested the move into product diversification. The next most frequent responses were product diversification as a means of expanding export sales in existing markets and in order to make use of excess capacity. In only 2 cases was diversification used as a means to break into a new market. Buyer–seller links emerge as important for reducing the costs of market research in

order to remain competitive and improve the performance of the firm.

In the earlier study of non-traditional exports by Jebuni *et al.* (1992), which included primary sector enterprises, marketing was the third most important constraint facing exporters. Owner/managers complained that exporting was difficult because they did not have agents abroad and there were high costs involved in operating in foreign markets. In the current survey marketing was perceived as a constraint by only 9% of the exporting firms. The survey shows that for manufacturing firms one means of avoiding this constraint is to establish formal or informal links with buyers. The Jebuni *et al.* study found that the most frequent reason given for not exporting was the problem of establishing marketing contacts. In the present study, which concentrates solely on manufacturing enterprises, the marketing strategy tended to be a problem for the non-exporting firms, although it was not perceived to be a very severe constraint.

Domestic Constraints

Finance

The sample firms were asked to indicate what they considered the interest rate on working capital should be: 34.7% were of the opinion that it should range between 10 and 15%, 19.2% between 16 and 20%, 9.2% between 21 and 25%, and 6.4% thought that it should be above 25%. For 71% of the sample the interest rate on the last loan received ranged between 27% and 35%; 5 firms paid rates between 36% and 38%. Thus most firms in the sample considered the prevailing interest rate to be too high. Nevertheless, the interest cost was not perceived to be a major constraint taking precedence over all other issues by most of the firms in the survey.

Firms were asked to identify the three sources from which they would be most likely to obtain finance for working capital. Sixty-four of the firms said that they would approach the banks first. The next possible source of financing would be bank overdrafts (Table 31). This ranking of sources of finance was irrespective of the size of the firm and whether or not it was exporting. The sources unlikely to be utilised first were the moneylenders and friends.

There was a difference in the source of financing depending upon whether the finance was to be used for working capital or to purchase a piece of equipment, i.e. investment (Table 31). An even greater number of firms, i.e. 70, would approach banks for loans or for overdrafts (18

Table 31: Finance for working capital and additional investment

First ranking	*Working capital*		*Additional investment*	
	No. of firms	%	*No. of firms*	%
Bank loans	64	43.0	70	49.0
Overdrafts	21	14.1	18	12.6
Retained profits	20	13.4	14	9.8
Own savings	18	12.1	18	12.6
Suppliers credit	14	9.4	11	7.7
Advances	4	2.7	2	1.4
Loans from relations	3	2.0	4	2.8
Susu	2	1.3	0	0.0
PAMSCAD	1	0.7	1	0.7
External financial institutions	1	0.7	2	1.4
Leasing companies	1	0.7	0	0.0
Moneylenders	0	0.0	2	1.4
Number of firms	149		142	

Source: Survey data.

firms) first if they wanted to purchase a piece of equipment. Retained profits was third in importance as a first source of investment financing. This evidence seems to suggest that firms do not consider that they are likely to obtain the type of finance necessary for investment purposes outside of the banks. In fact only 19 of the firms, when asked, were of the opinion that finance for long-term investment was available. It may be that, even though firms would approach banks if they required such financing, they did not believe that their application would be successful.

Out of 98 firms (i.e. 65%) which had applied for bank loans in the previous three years, 52 had received all they wanted to borrow. Of those which had not been successful in obtaining the loan applied for, only 16 made an attempt to look elsewhere for financing. 7 had recourse to their suppliers for credit, 3 took loans from relations, 1 firm went to a moneylender and 1 firm issued equity.

The picture which seems to emerge is that most firms perceive the banks to be the first place to go to if there is a need for finance. However, the chances of obtaining it are not very high. Unfortunately not many of the firms make attempts to obtain financing elsewhere if they are not successful with the banks. It cannot be that they are unaware of the alternatives. It could be, however, that the terms of the financing from other sources are not attractive or appropriate for their needs. Secondly, the information could be interpreted to mean that the need for

financing is not acute. The current survey results, which find that only 46%, 33% and 17% of the firms in the sample ranked the cost of credit and the availability of working capital and of finance for the purchase of equipment as the most important constraints respectively, may support this conclusion.

Technology

The evidence suggests that over the previous 3 to 5 years more than half the firms interviewed had improved the quality of their products in terms of both labelling and packaging and the characteristics of the products, that is 58.1%. The improvement was slightly greater among non-exporters than exporters; this is because exporters must have improved the quality of their product earlier in order to get into exporting. The changes were much more in labelling and packaging (88.5% of firms who responded to the question) whereas only 56.7% had improved the characteristics of their products. These changes occurred because of pressure from new entrants into the market (32.9%), changes in the pattern of domestic demand (26.6%), competition from imports (24%), improved availability of inputs (11.4%) and pressures of exporting (5.1%).

In relation to the age of their machines, 73% of the firms interviewed were satisfied with the level of productivity of their workforce. The percentage was higher among non-exporters (75.3%) than among exporters (67.3%). The percentage drops significantly when comparison is made with international standards. Only 63% of all firms (57% of exporters and 66% of non-exporters) considered their productivity comparable to international standards. The reasons for the low productivity relative to international standards are summarised in Table 32.

As seen from the table, about 50% of all firms attribute the relatively

Table 32: Reasons for low productivity relative to international standards (%)

	Exporters	*Non-exporters*	*Total*
Technological factors:			
Inferior technology	20.0	28.6	25.5
Machine breakdown	30.0	22.9	25.5
Inadequate supervision	30.0	25.7	27.3
High labour turnover	10.0	8.6	9.0
Poor health of workers	5.0	8.6	7.3
Irregular supplies	5.0	2.8	3.6
Strikes	0.0	2.8	1.8

low productivity of their workforce to technological factors. Poor supervision is seen as the single most important factor, and the issues of the skills of workers and labour turnover are perceived as relatively unimportant. Thus to increase productivity for exporting technological changes will be required.

This point is further illustrated by the questions to non-exporting firms about the changes they would need to make in order to be able to export: only 25% of the firms saw no need for changes in either machinery, equipment or labour; 42% indicated that they would need additional machinery and equipment; an additional 13.7% that they would need new buildings and equipment only; and 12.6% stated that they would need to employ more labour. Other reasons given by 6.7% of the firms include the need for storage and preservation facilities and more raw materials. It is clear from these responses that the main changes required for currently non-exporting firms to move into exporting relate to technology requiring long-term investment in plant, machinery and equipment.

Firms' willingness to undertake this will depend on the availability of long-term finance and the motivation to go into exporting. This field survey shows that the requisite long-term finance may not always be available: 87.3% of the firms interviewed indicated that loans for long-term (over 10 years) investment were generally not available, and as many as 90.6% of non-exporters indicated that long-term finance was not generally available, as compared with 78.9% of exporters. Perceptions about the permanence of the current incentive system may also be relevant here. Data from other surveys indicate that firms have considerable doubts about the stability of the economy and the incentive system (Asante, 1994).

Infrastructural services

In addition to the conditions discussed above, successful diversification and export development require the development of an efficient non-tradables sector, in particular economic infrastructure. Infrastructural services are intermediate inputs in the production of final goods and services and the inadequate supply or rising costs of these services can adversely affect the productivity and competitiveness of industry in several ways.

Rising costs of services such as water and electricity in particular affect the operating costs of enterprises. Inadequate and irregular supplies disrupt production and lead to the breakdown of machinery, high maintenance costs and inability to meet delivery schedules. The response of private enterprises to such situations has been to attempt to provide

contingency facilities. These tend to increase both fixed and therefore unit costs of production. The provision of infrastructural services therefore affects the three Rs in exporting: right price, right quality and right timing.

The dominant infrastructural constraint for all firms related to the supply of electricity and water. About 68% of the firms interviewed had problems with electricity. The problem was less pronounced with respect to water; only 32.4% found water a problem with respect to production. Firms were asked to indicate whether the problems arose from supply problems, costs of the services or some other difficulty. For both water and electricity the main problem had to do with irregular supplies. 72% of the firms which thought electricity was a problem attributed it to irregular power supply or frequent power failures. In the case of water, 57% cited irregular supply as the problem. In an earlier survey electricity, telephones and water emerged as the dominant infrastructural constraints. On a scale of 1 to 5 in increasing order of severity, difficulties with electricity scored 2.63, followed by telephones (2.21) and water (1.49) (World Bank Regional Programme for Enterprise Development (RPED) Ghana Survey database). The present study also found that electricity supply problems received a higher ranking of severity than the availability of water.

Apart from difficulties with supply, the most frequently cited difficulty was the price of these services. About one-quarter of the firms interviewed thought the services were too expensive. For electricity 25% considered the tariff too high, while 29% of those who had difficulties with water attributed this to the high tariff. Prices of these services in the past contained considerable subsidy elements. With the structural adjustment programme, the state monopolies producing these services are required to become commercially viable. The easiest route that most of them have taken is to raise the tariff on these services without making significant efficiency gains. The result has been that prices of these services have risen at a faster rate than the average for all commodities.

Responses to such difficulties vary. In both Ghana and Nigeria the tendency is to provide costly standby thermal generators, and to dig wells or use reservoirs to store water. Such responses represent factor substitution. '. . . [B]y providing their own infrastructural services, firms are substituting internal capital in the form of equipment, machinery as well as labour in the form of maintenance personnel for the publicly provided infrastructure services which are not forthcoming' (Lee and Anas, 1991: 111). Our data do not allow us to compute the costs of such private sector provision of infrastructural services. Detailed studies for Nigeria, however, indicate that they can be substantial. Lee and Anas

(1991) found that in Nigeria the capital value of generators and support facilities such as transformers and switches was on average 25% of the total value of machinery and equipment for small firms with less than 50 employees and 10% for large firms. The private provision of water facilities was much lower, at 2% of the value of machinery and equipment.

Institutional framework

Nineteen of the firms in the sample with some experience of exporting had received some form of assistance at the time they began to export: 15 were current exporters, comprising 37.5% of the sample of current exporters, and 4 were ex-exporters (i.e. 21% of the sub-sample). There was a bias in the distribution of firms which had received assistance. Fifteen of the 19 were large firms. The probability of a large firm receiving assistance was 47%, compared with 23% for a medium-sized firm and 11% for a small firm. The reason why the large firms received assistance was probably because they were more aware that programmes were available to them. Secondly, since the large firms are more easily identified than the smaller firms, they are more likely to be approached by agencies offering assistance. The results of the survey do not seem to suggest that the receipt of assistance is critical to ensuring success in exporting. However, it may be crucial in encouraging firms which have the potential to export. Assistance may also be important in reducing the time lag between the establishment of the firm and its move into exporting (although this would also depend upon whether the appropriate macroeconomic policy framework was in place).

Table 33: Types of assistance (number of firms)

Financial	12
Technical	10
Management course	4
Information about buyer	4
Special import licence	1

Most of the assistance received was financial and technical (Table 33). Only 4 of the firms received assistance in the form of market information. It is possible that the marketing assistance provided was much more than the firms perceived at the time, since 8 of them had identified the Ghana Export Promotion Council as being the channel through which their first export order was obtained. The Council has also been active in

organising some of the domestic trade fairs at which 8 of the exporters had made their first export contact.

Apart from the low coverage in terms of assistance, there is the problem associated with taking advantage of the export promotion scheme. Of the 54 firms asked if they had utilised the customs duty drawback scheme, only 14 had done so. Of those who had not utilised the scheme, 16 had not done so because of the cumbersome procedures.

Why has Exporting not Offered an Escape from Low Capacity Utilisation?

Results from the survey show that capacity utilisation is still low in Ghanaian manufacturing. During the early years of the Economic Recovery Programme, firms increased their output by increasing capacity utilisation. Can firms increase their output further by utilising existing capacity by exporting? One is hypothesising here that exporting is an attractive alternative means of increasing capacity. Firms which have hitherto been concentrating on the domestic market could look beyond the smaller market in Ghana; those already engaged in exporting could expand their exports. It was found that only 10 firms stated explicitly that exporting was a strategy to utilise existing excess capacity.

Even if excess capacity exists, exporting is only one of several alternatives a firm has to increase capacity utilisation. It may increase output through product diversification or it may try to reduce production costs through better management and internal reorganisation so as to increase its share of the domestic market.

Entrepreneurs in the sample were asked whether they had considered exporting as a means of increasing capacity utilisation. About 75% of the 138 firms which responded to this question had considered this alternative. Various reasons were given (Table 34) for not judging exporting to be a means of increasing utilisation: 40% said that domestic demand was adequate and 27% were not interested in exporting, while 18.2% could not obtain foreign orders.

But the question remains: given that local firms cannot or do not want to export because local demand has not been satisfied, why are these firms stuck with low utilisation rates? Exporting may not be an option because the firms are not competitive. It seems that the unused capacity in existing firms, whether for the purposes of satisfying local demand or for exporting, is unusable capacity. For example, only 30% of the firms acknowledged that if they had to export they would be able to do so

Table 34: Reasons for not considering exporting as a means of increasing utilisation

	Frequency	%
Domestic demand adequate	9	40.9
Not interested in exporting	8	36.4
Bulkiness and life span	1	4.5
Can't get foreign market	4	18.2
	22	100.0

without having to create new capacity. Even if excess capacity exists, it is clear from the above that firms face other constraints which make the excess capacity unusable; namely the high cost of finance and the relative technological disadvantage of Ghanaian firms, which makes them price and quality uncompetitive. In order for them to be able to compete on the international market, they would need to upgrade their technology and this would require the creation of new capacity.

Conclusions

Finance and the cost and availability of inputs are perceived by the majority of firms as constraints. The price and availability of local raw materials are problems for the exporters, whilst the price of foreign inputs is a problem for the non-exporters. The domestic constraints of technology and finance may be linked, since, without access to the right type of financing, firms may not be able to purchase the requisite equipment which will enable them to improve product quality and become price competitive. The low quality of the technology with which firms have to operate is having an adverse impact on labour productivity. The exporting firms perceive themselves to be disadvantaged in this way.

The supply of non-traded goods, i.e. electricity and water, though not ranked by many firms amongst the first three perceived constraints in order of importance, is a problem facing firms. Inefficiencies in the supply of these inputs add to the costs of production and the lack of price competitiveness.

External variables do not appear to be as important as the domestic constraints of finance and the cost of raw materials and technology. For

the exporting firms, buyer–seller links appear to be quite important in assisting them in the area of market survival and expansion. The survey found that the strategy most frequently used by Ghanaian exporting firms is that of improved product quality; 23 firms had improved the quality of their products, whilst 9 firms had diversified their product range. Only 8 firms stated explicitly that they had diversified their markets. The smaller firms tend to be disadvantaged in terms of buyer–seller links.

The Ghana Export Promotion Council is playing an active role in linking buyers with potential domestic producers and could consider extending this type of assistance to the smaller firms. These firms also appear not to be benefiting from the existing financial and technical assistance schemes.

Despite the large number of firms operating with excess capacity, it seems that most of them are unable to utilise this capacity for exporting. This explains why domestic variables take precedence over external factors. For some firms it is possible that, even if export orders were received, they might not be able to fulfil them. Exporting does not appear to be a means whereby Ghanaian firms can reduce their reported excess capacity. This seems to be primarily because of the relative uncompetitiveness of these firms, which makes it impossible for them to choose exporting as an option.

6
Conclusions

In this study based on firm-level survey data we have examined the determinants of and constraints on expanding manufactured exports in Ghana. We have done so using two sources of evidence: macroeconomic data, including movements in manufacturing output and the real exchange rate, and microeconomic information obtained through a survey of 150 manufacturing firms. The survey set out to collect general information about manufacturing exporters, including production levels and capacity utilisation, as well as to gain insights into the main constraints to exporting perceived by the manufacturing industry. The story-line emerging from this analysis is that the development of manufactured exports in Ghana is constrained to a large extent by domestic policy and the institutional and regulatory framework, and also by problems internal to the firm.

Trade and Macroeconomic Policy

The earlier development of manufactured exports was constrained by trade and macroeconomic policy. Actions that affect the real exchange rate have been shown to be particularly important. The real exchange rate has been mainly affected by external factors and domestic policy: namely the terms of trade and quantitative restrictions. Hence the combination of a controlled regime with expansionary macroeconomic policies seems to have been disastrous for manufacturing exports during the periods 1962–6 and 1972–82. The real exchange rate appreciated by 91% between 1970 and 1982, which benefited the more import-dependent manufacturers, producing for the domestic market. However, since the start of the adjustment programme, the trade liberalisation (which has involved tax cuts and the removal of quantitative restrictions) and the devaluation and liberalisation of the exchange rate have tended to provide positive incentives for the development of manufactured exports. The foreign exchange retention scheme, for example, was an inducement to a number of firms to invest. These effects are much greater when they are combined with some level of macroeconomic restraint. Thus by 1992 both the nominal and real exchange rates had depreciated once more, the latter to its 1970 level.

However, the impact of the real exchange rate is statistically weak; moreover, adjustment has brought the share of manufacturing exports in total exports back to the level of the late 1970s, but no higher. Thus it seems that macroeconomic policies are a necessary, but not a sufficient, condition for the promotion of manufactured exports. This led us to explore, through a survey questionnaire, constraints on firms outside those in the trade and macroeconomic arenas, in particular other domestic policies, the institutional framework and firm-level conditions. The survey results have been analysed by dividing the sample into a number of categories in order to extract as much information as possible. Firms were not only distinguished by sector, but also by size, and by involvement in producing traditional or non-traditional products. Firms that produced a portion of their output for the export market were distinguished from those which had never done so, and from those which had exported in the past but produced only for the domestic market at the time of the survey. A distinction was also made between exporting firms that exported a large portion of their output (high intensity exporters), those whose exports were a relatively minor part of their business (low intensity exporters), and those whose exporting activity lay somewhere between these first two categories (medium intensity exporters).

External Barriers

The traditional arguments about the difficulties of access to advanced countries' markets arising from tariffs and non-tariff barriers are not borne out by the results of the study. We found that about 44% of exporters of traditional manufactures (wood and cocoa) and 77% of exporters of non-traditional exports had orders they could not fulfil. This tendency was higher among large firms (58%) than small and medium-sized ones, and among those with high export orientation (69%). The main reason given for the inability to meet the orders was that they were too big for the existing capacity. If there are external constraints, they seem to arise from inadequate information and marketing links, especially for low intensity and older exporters.

An interesting feature of the external export scenario is the lack of long-term contracts taken out. The majority of firms do not have long-term contracts, while it seems that the non-traditional sectors have been particularly unable or unwilling to tie themselves in to long-term arrangements. Those which have negotiated long-term contracts have

done so mainly with firms in developed countries, and are predominantly manufacturers producing traditional goods. If other industries are to develop formal long-term contracts, it seems that they will also need to bias their product destination towards developed countries. The fact that 7 of the 8 firms which had stopped exporting had never supplied developed countries suggests that long-term contracts may be important for market survival. However, markets in other developing countries tend to be too unstable for either party to contemplate committing themselves to a long-term arrangement. Unfortunately the presence so far of non-traditional exports in the developed countries' markets has been very limited.

Domestic Constraints

Beyond the absence of long-term contracts, the main problem areas for manufacturing exporters appear to be domestic, not external. There are clear constraints cited by manufacturers at the policy level and also at the firm level. At the policy level, both the institutional and regulatory framework and the predictability of policies have been mentioned as problem areas. Firm level constraints include finance, raw material costs, old technology and the provision of public utilities, especially electricity.

While firms have benefited from institutions set up to assist export development there is still a considerable cost arising from institutional rigidities, long procedures, and a less than favourable regulatory framework. Despite the deregulation that has taken place as a part of adjustment, there remain costly labour laws and a simplified legal environment which is still both complex and confusing. Moreover, export procedures involve a plethora of fees and charges which comprise not only direct monetary costs but also time and effort. Empirical evidence indicates that the implicit export tax rates resulting from institutional barriers are within the range of 4.5 to 19.3% of the f.o.b. value of export sales (Stryker, 1994). These implicit taxes can be critical to whether or not an industry survives. Domestic resource cost calculations suggest that most of the products being exported are profitable even after adjustment is made for the cost of institutional constraints. A combination of taxation on imported inputs, plus the various institutional constraints, results in a substantial disincentive to produce for export. Even where there are tax incentives for exporting, the cost of collecting rebates can be prohibitive. For example, only one-quarter of exporters reported having used the customs duty drawback scheme, and 40% of those who had not blamed

its cumbersome procedures.

In the policy area, the problem of unpredictable policies was singled out by a number of firms as a constraint on production for domestic and foreign markets alike. Unpredictable policies were named as the number one constraint by more firms than named labour and management, domestic raw material costs or interest rates. It was of particular concern for older and larger manufacturers. Moreover, the severity of the problem was at the higher end of the scale: all size categories of firms gave the severity of unpredictable policies at least a moderate value.

At the firm level a number of critical constraints emerge. A substantial number of firms had at some time been unable to meet export orders because the orders were too large for current capacity. This could arise because of the relatively small size of even the 'large' Ghanaian firms within a competitive world environment. Firm sizes which were considered too large during the import-substitution phase seem to be too small to make the transition to an export-oriented phase.

One key question raised is why investment in new plant and equipment has not taken place in response to insufficient capacity to meet export orders. It is possible that orders rejected for reasons of capacity size were considered to be unusual and that investment in new plant and/or equipment would not be justified by the occasional large order. On the other hand, once a larger order was met, it is also possible that more orders of this size would follow. Moreover, 70% of non-exporting firms felt that new investment would be necessary if they were to export. Therefore it is important to investigate the constraints facing firms in attempting to increase their output capacity.

An important constraint, the problem of finance, has been emphasised in all studies of the manufacturing sector. The present study reaffirms the important role of finance, i.e. the availability of both working capital and capital to update technology, as well as the cost of finance. Most firms in the sample (87%) were of the opinion that long-term finance was not easily available. This was a particular difficulty for smaller firms: more than half of the micro size and almost half of small firms considered finance to be a major constraint. Among firms that highlighted finance as a constraint, the level of bank interest rates was considered to be particularly harmful. Yet the banks remained the preferred first source of financing for most firms requiring working capital or investment finance, despite the fact that most of the financial packages offered by them were inappropriate in terms of cost and maturity. Traditionally, commercial banks are not sources of long-term capital. What this suggests is that appropriate financial packages outside the banking system are also quite limited. The Business Assistance Fund, which is

already in existence, should have assistance to current or potential exporters in the form of financing for re-tooling their factories as one of its functions.

Although finance is the constraint mentioned by the most firms, it is still one that appears to affect a minority. Barely a third of firms ranked issues of finance as the most important. Moreover, while firms mentioned capacity constraints as adversely affecting their ability to export, most appeared to be operating considerably below capacity. When entrepreneurs were given the opportunity to estimate their own capacity, the utilisation rate for exporting and non-exporting manufacturers remained below 60%. (It is interesting to note that more than half of the firms with high export orientation had received orders that they could not meet, while the same group also operates the lowest utilisation rate.) The utilisation rate calculated using installed capacity stood at 45%. It can only be that usable capacity is less than estimated, in the sense that firms would not be able to increase production significantly at the right quality and price with their existing technology.

An explanation almost as popular as output limits for failures to satisfy some export orders was the inability to supply at the price quoted, i.e. lack of competitiveness. The exchange rate is one variable that will have had an influence in the past. The real appreciation of the exchange rate in the 1960s and 1970s undermined the price competitiveness of exports. However, other barriers to competitiveness, internal to the firm, were revealed in the survey.

The most significant constraint, after finance, was raw material costs. Imported raw material costs were pinpointed as the number one constraint by more firms than any other single sub-category. With the devaluation of the cedi in nominal and real terms, the cost of imported raw materials will have risen significantly. For firms producing for the domestic market, 24% considered imported raw material costs to be the most important constraint of all. Exporters tend to be less import-dependent, while high intensity exporters rely less on imports for their inputs than medium and low intensity exporters. For this reason, local raw materials seem to present exporters with more supply problems than do imports; but the nature of the problem is different, being reliability as well as price. However, constraints caused by the supply and price of local raw materials tend to affect exporters more severely, especially those with medium and high export intensity. Inadequate supplies of raw materials was cited by 17% of exporters as the reason for the failure to satisfy some export orders, which was the third most common explanation given.

Technological obsolescence is another critical constraint. Over 25% of

the firms blamed inferior technology, relative to world standards, for the comparatively low productivity of their workers, as well as the poor quality of their products. As well as the technology being outdated (the average age of machine for exporting firms was 17 years), almost one-third of exporting firms blamed the breakdown of the machines for poor productivity. Most firms, especially the Ghanaian-owned ones, lack the capabilities and managerial skills to upgrade manufacturing to international standards.

There is also a lack of institutions which can help enterprises to upgrade their technological capabilities. In the light of this, buyer–seller links become important in assisting firms to renew their technology and keep up with changing product trends. Nearly a third of exporting firms indicated that information from buyers was important in keeping up-to-date on changing trends in product quality and design. In addition to providing this information, efforts to link Ghanaian firms with wholesale and retail outlets abroad can provide information on changes in technology, as well as familiarising firms with the external wholesale and retail environment. Domestic and foreign trade fairs also appear to be important sources of information on trends in particular sectors, while the fourth most important source of first export orders among current exporters was the Ghana Export Promotion Council.

Policies to increase the efficiency and productivity of the traded and non-traded goods sectors are an important part of export promotion. This is probably a necessary condition for the development of manufactured exports because, in the early phases of the development, manufactured exports are likely to be based on domestic raw materials. Policies to increase their production could ensure the supply of these materials at competitive prices. At the same time, most firms complain about the prices of non-traded goods such as electricity and water. The unreliability of electricity supply appears to be a particular problem, and to a lesser extent its price. This may mean that the removal of subsidies without any gains in productivity or efficiency could adversely affect manufactured exports in terms of the supply price of these utilities to industry, while failing to tackle the real problem faced by exporters. Inefficiencies in these sectors which supply intermediate inputs to manufacturing constrain the price and quality competitiveness of the manufacturing sector. One implication of this is that sector-specific export promotion policies may not be successful unless they are combined with a drive towards an increase in efficiency and productivity economy-wide.

More generally, this study reveals the importance of firm size and of established exporting links in the success of Ghanaian exporting firms. The provision of assistance appears to have been biased towards larger

firms, with 79% of firms that reported receiving assistance being large. Large firms are also more likely to be approached directly by foreign buyers and to make more business trips abroad. Approaches from foreign buyers are not only the most common way for firms receiving their first export order, but new and established buyers were named by almost two-thirds of exporting firms as the source of their most recent export order. These figures probably reveal not only the advantage of size in marketing, but also the benefits of the manufacturing firm's age, with older firms tending to be larger. With finance perceived as a more severe constraint by micro and small size firms, obstacles may lie in the path of smaller firms attempting to expand, and therefore also impair their ability to gain export orders.

Part of the problem of firm size could arise from the fact that most exporters are producer-exporters. This results from the absence of export trading companies which could purchase from a number of small firms to bulk-up to meet large orders. Moreover, 15 non-exporting firms cited inadequate market information and contacts as their primary constraint on exporting, a gap that might be filled by specialised trading companies. The private sector should be encouraged to develop export buying organisations to get round the problem of the amount of information available to the Ghanaian about other firms abroad.

Finally, despite attempts in the structural adjustment programmes to encourage diversification away from traditional exports, this has met with only moderate success so far. Ghana has not gained a competitive advantage in non-traditional products; most non-traditional manufacturers continue to gear their output to the domestic market. From a low point in the late 1980s, non-traditional exports recovered slightly in the early 1990s, but remained at only 7% of total exports. As a percentage of manufacturing exports, the performance of non-traditional products also improved in the 1990s, although this figure has been erratic. The survey revealed little diversification by individual firms, either of markets or of products. Three-quarters of exporting firms surveyed still exported the same range of products they had started out with. Of those firms that had diversified, all but one were in the wood industry. Buyer–seller links again proved very important in the decision to diversify; however, increasing sales and using excess capacity were also singled out as incentives.

Our study of manufactured exports reveals the manufactured export scene as far from encouraging. Adjustment efforts have been vigorous and yet in some senses have not gone far enough. Liberalisation and a real exchange rate depreciation have assisted in improving the quantity of exports, but barriers to exporting remain in the form of complex legal

requirements and numerous compulsory checks and fees. Ghana is still reliant upon the traditional industries of cocoa and wood products to supply the lion's share of its export proceeds. There remains no obvious growth industry and little sign of technological excellence. In many cases firms are responding passively to outside approaches (as evidenced by the importance for exporting of requests by new and established buyers) rather than as a result of active searches for markets abroad. Exporting firms turn down large export orders because they do not have the capacity to accommodate them. Firms producing for the domestic market concede that exporting would be one way to use spare capacity, but the majority also either find the domestic market sufficient, or are simply not interested in exporting. This is not a dynamic picture.

Appendix A

Table A1: List of some of Ghana's manufactured exports

Traditional

Veneer and sawn timber
Aluminium
Cocoa products

Non-traditional

Wood products
Furniture and parts
Builders' woodwork
Plywood
Fishing boats/canoes
Match splints
Wood charcoal
Wooden poles
Wooden lunch boxes
Railway sleepers
Chewing sticks
Tableware and kitchenware
Reconstituted veneers

Aluminium products
Sheets/coils/plates
Household utensils
Louvre frames
Drums/casks

Prepared foods, beverages etc.
Palm nut cream soup
Canned vegetables
Canned shitto/pepper puree
Canned snails
Tuna loins/canned tuna
Chocolates/cocoa products, sweets
Beer, spirits and palm wine
Non-alcoholic beverages
Mackerel
Jams, marmalades
Peels (fresh fruits)
Orange juice
Pineapple juice
Common salt

Non-ferrous metal scrap
Natural rubber sheets

Others (with export value greater than $50,000 in 1993)
Anago soap
Arsenic trioxide
Plastic articles
Cement
Cotton sheets
Crude glycerine
Drycell batteries
Floor mats
Food flavourings
Fruit juice
Gari
Iron rods
Latex/foam mattress
Machetes/cutlasses
Nails
Nitrous oxide gas
Palm oil
Printed matter
Processed tobacco
Toothpaste
Used tyres
Used/second-hand clothing
Vehicle parts
Wheat bran

Table A2: Equilibrium exchange rates (base year 1960)

	Trading partner's price series	*Domestic price series*	*Equilibrium ER ¢:US$*	*(A) Equil. ER ¢:US$*	*(B) Equil. ER ¢:US$*	*Nominal ER ¢:US$*
1960	100.00	100.00	0.71	0.71	0.71	0.71
1961	100.23	101.33	0.72	0.74	0.70	0.71
1962	100.34	110.12	0.78	0.77	0.74	0.71
1963	100.01	106.93	0.76	0.87	0.87	0.71
1964	100.34	114.51	0.82	0.87	0.92	0.71
1965	102.30	132.88	0.93	1.04	1.00	0.71
1966	105.57	132.78	0.90	1.14	1.09	0.71
1967	105.90	138.97	0.94	1.01	1.07	0.87
1968	108.51	164.13	1.08	1.07	1.13	1.02
1969	112.76	177.81	1.13	1.09	1.13	1.02
1970	116.68	193.28	1.18	1.05	1.12	1.02
1971	120.60	185.50	1.10	1.10	1.08	1.03
1972	126.16	219.24	1.24	1.18	1.12	1.33
1973	142.50	276.45	1.39	1.26	1.11	1.17
1974	169.30	352.33	1.49	1.30	1.12	1.15
1975	184.99	438.58	1.69	1.49	1.25	1.15
1976	193.82	590.64	2.18	2.10	1.59	1.15
1977	205.58	998.37	3.47	3.72	2.05	1.15
1978	221.60	1,471.60	4.74	6.08	2.90	1.76
1979	249.38	2,442.02	6.99	8.30	4.02	2.75
1980	284.68	3,491.31	8.76	10.80	5.36	2.75
1981	310.50	5,228.48	12.03	21.52	10.46	2.75
1982	316.71	7,110.41	16.04	24.10	12.69	2.75
1983	320.63	16,276.46	36.26	50.84	25.33	8.83
1984	328.47	29,537.84	64.23	67.25	46.50	35.99
1985	326.84	46,173.72	100.91	69.14	62.71	54.37
1986	317.36	75,516.88	169.97			89.21
1987	325.86	106,746.0	233.99			162.37
1988	338.93	143,819.5	303.09			202.35
1989	355.60	180,545.6	362.66			270.00
1990	368.35	237,083.5	459.74			326.33

Sources: Statistical Services, *Quarterly Digest of Statistics*, various issues, Accra; International Monetary Fund, *International Financial Statistics Yearbook* (1992).

Notes: Trading partner's price series is the producer price index of the USA. Domestic price series is the wholesale price index. The equilibrium exchange rate is estimated as the ratio of domestic to trading partner's price series

multiplied by the 1960 exchange rate of 0.714.

(A) Equilibrium exchange rate estimated by Frimpong-Ansah (1991). The trading partner's inflation is based on the seven largest sources of imports plus Côte d'Ivoire and Togo.

(B) World Bank estimates obtained from Frimpong-Ansah (1991). It is the equilibrium exchange rate of 0.803 in 1958 multiplied by the ratio of the agricultural, non-tradable CPI for Ghana to the manufacturing unit value index of industrial countries. Estimates are converted to the base 1960 equilibrium rate of 0.71.

Table A3: Major constraints by size and age (number and percentage of respondents in each category)

First ranking	*Micro*	*Small*	*Medium*	*Large*	*Old*	*New*
Raw materials						
Inadequate or unreliable supply of local materials	–	–	5(12.2)	–	7(6.3)	1(4.5)
High price of local raw materials	3(25.0)	2(6.1)	1(2.4)	2(4.1)	4(3.6)	3(13.6)
Price of imported raw materials is too high	–	7(21.2)	5(12.2)	15(30.6)	23(20.5)	4(18.2)
Inadequate or unreliable supply of imported materials and spares	–	–	–	1(2.0)	1(0.9)	–
Technology, equipment						
Equipment is old and replacement costs of equipment is too high	–	3(9.1)	5(12.2)	2(4.1)	10(8.9)	–
Cannot get spare parts	–	–	–	1(2.0)	–	1(4.5)
Finance						
Cannot get credit for raw materials or working capital	4(33.3)	9(27.3)	7(17.1)	6(12.2)	22(19.6)	4(18.2)
Cannot get credit for equipment	2(20.0)	5(15.2)	1(2.4)	2(4.1)	7(6.3)	3(13.6)
Interest rates are too high	–	1(3.0)	3(7.3)	6(12.2)	10(8.9)	–
Labour, management						
Lack of skilled workers	–	–	1(2.4)	–	–	1(4.5)
High labour costs	–	–	1(2.4)	–	1(0.9)	–
Do not have export agent	1(8.3)	3(9.1)	4(9.8)	2(4.1)	8(7.1)	2(20.0)
Don't have information	1(8.3)	2(6.1)	2(4.9)	3(6.1)	6(5.4)	2(9.1)
Inadequate domestic demand	–	1(3.0)	–	2(4.1)	3(2.7)	–
Unpredictable policies	1(9.1)	–	6(14.6)	4(8.2)	10(8.9)	1(4.5)

Source: Survey data.

Table A4: Severity of constraints by size and age

	Micro	*Small*	*Medium*	*Large*	*Old*	*New*
Raw materials						
Inadequate or unreliable supply of local materials	1.8	1.6	1.9	1.8	1.8	1.6
High price of local raw materials	3.6	3.0	3.0	2.3	2.7	3.5
Price of imported raw materials is too high	1.3	4.0	3.4	3.5	3.5	2.9
Inadequate or unreliable supply of imported materials and spares	1.0	1.8	2.0	1.8	1.7	2.5
Technology, equipment						
Equipment is old and replacement costs of equipment are too high	1.9	3.3	3.0	2.5	2.9	2.5
Cannot get spare parts	1.0	2.1	1.9	1.7	1.8	2.1
Finance						
Cannot get credit for raw materials or working capital	4.1	4.0	3.3	2.9	3.4	4.1
Cannot get credit for equipment	3.6	3.5	3.3	2.7	3.1	3.8
Interest rates are too high	5.0	4.1	4.1	3.8	4.0	4.4
Labour, management						
Lack of skilled workers	1.6	1.3	1.7	1.6	1.6	1.8
High labour costs	2.3	2.2	2.0	1.9	2.1	2.1
Unable to attract management with necessary skills	1.3	1.2	1.7	1.7	1.6	1.3
Infrastructure						
Interruption of electricity supply	2.1	2.8	2.5	2.5	2.6	2.0
Inadequate water supply	1.3	1.6	1.7	2.3	1.9	1.4
Demand						
Inadequate domestic demand	3.0	2.0	2.2	2.3	2.3	1.4
Do not have export agent	2.7	3.0	2.6	2.6	2.8	2.3
Don't have information	2.3	3.3	2.8	2.7	2.8	2.7
Unpredictable policies	4.5	3.0	3.4	3.0	2.9	4.2

Source: Survey data.

Note: Survey scores range from 1 to 5. Figures are averages for firms surveyed in each category.

Table A5: Severity of constraints by sector

	Food	*Tex-tiles*	*Gar-ments*	*Leath-er*	*Wood*	*Paper*	*Chem-icals*	*Rub-ber*	*Metal*	*Other*
Raw materials										
Inadequate/unreliable supply of local materials	1.8	3.0	2.0	2.3	2.2	1.3	1.8	1.0	1.1	1.6
High price of local raw materials	2.4	3.5	4.1	3.7	3.3	2.0	2.2	3.0	2.0	2.4
Price of imported raw materials too high	4.1	4.0	3.4	3.7	2.7	4.3	3.4	3.6	3.5	3.4
Inadequate/unreliable supply of imported materials, spares	1.7	3.0	1.0	2.3	2.0	1.0	2.2	1.3	2.5	1.6
Technology, equipment										
Replacement costs too high	2.1	2.5	3.3	3.0	3.0	2.7	4.2	2.4	3.0	3.0
Cannot get spare parts	1.3	3.7	2.1	3.0	2.0	1.0	2.2	1.3	1.5	2.1
Finance										
No credit for materials/ working capital	2.8	3.4	3.7	4.5	3.4	3.0	4.8	3.3	3.3	4.0
No credit for equipment	2.7	3.3	3.7	4.3	3.2	3.7	4.8	3.0	2.9	2.7
Interest rates too high	3.8	3.6	4.7	4.3	3.9	3.8	3.8	5.0	3.0	4.7
Labour, management										
Lack of skilled workers	1.1	2.0	2.0	1.0	1.8	2.7	1.0	1.4	1.4	1.4
High labour costs	1.9	2.5	2.4	1.7	2.2	2.3	1.4	1.9	1.9	1.6
Unable to attract skilled management	1.5	1.0	1.0	1.0	1.7	2.6	1.4	1.0	2.0	1.4
Infrastructure										
Interruption of electricity supply	2.3	1.8	3.3	2.3	2.8	3.0	2.4	2.1	2.0	3.1
Inadequate water supply	2.1	1.6	1.3	1.7	1.9	2.2	2.0	2.0	1.5	1.9
Demand										
Inadequate domestic	2.5	1.0	2.4	3.0	2.0	4.5	1.8	1.0	2.6	1.2
Do not have export agent	2.0	3.0	3.6	3.7	2.3	3.0	3.7	2.3	2.5	2.7
Do not have information	2.6	3.0	4.3	3.5	2.4	3.0	3.8	1.7	3.1	2.7
Unpredictable policies	3.7	5.0	–	–	3.7	5.0	–	1.0	2.0	4.0

Appendix B

Survey Questionnaire

This appendix describes the survey instrument used to collect the firm level data on manufacturing enterprises in Ghana.

A. General firm characteristics

1. When was the business established?

2. When was the last major expansion?

3. What is the main product of the establishment?

4. Is the establishment a part or a branch of a parent enterprise in Ghana? Yes . . . No . . .

5. If yes, what is the name of the parent company?

6. What is the ownership structure?
   (a) private owners only – Ghanaian
   (b) private owners only – foreign
   (c) private owners – Ghanaian and foreign
   (d) state and private – Ghanaian
   (e) state and private – foreign
   (f) state and private – Ghanaian and foreign

7. What is the legal status of this firm?
   (a) single ownership
   (b) partnership
   (c) family business
   (d) limited liability
   (e) cooperative
   (f) subsidiary of multinational company

8. Does your firm
   (a) produce for sale only on the domestic market
   (b) produce only for export
   (c) produce for sale on the domestic and export market

9. How long can your product be stored without serious loss of value from deterioration?
(specify hours, days, weeks or years)

10. Is the demand for your product fairly steady throughout the year?
Yes . . . No . . .

11. Is domestic demand more steady than export demand?
Yes . . . No . . . No difference . . .

12. How many domestic firms do you compete with in selling your products?

13. How many of these firms are
(a) larger than your firm?
(b) smaller than your firm?

14. Has production
(a) increased over the past 3 years → go to Q.15
(b) decreased over the past 3 years → go to Q.16
(c) remained the same over the past 3 years → go to Q.17

15. What factors have been responsible for the increased level of production?
(a) availability of local inputs
(b) availability of foreign inputs
(c) availability of finance
(d) better cedi value of exports/exchange rate
(e) better prices on domestic market
(f) low price of local inputs
(g) increased domestic demand
(h) other, specify . . .

16. What factors have been responsible for the decreased level of production?
(a) lack of local inputs
(b) lack of foreign inputs
(c) lack of finance
(d) low prices on domestic market
(e) high price of local inputs
(f) high cost of foreign inputs
(g) high cost of labour
(h) competition from imports
(i) other, specify . . .

17. What factors have been responsible for the stable level of production?
    (a) lack of local inputs
    (b) lack of foreign inputs
    (c) lack of finance
    (d) low prices on domestic market
    (e) high price of local inputs
    (f) high cost of foreign inputs
    (g) high cost of labour
    (h) competition from imports
    (i) other, specify . . .

B. Production and sales

18. What is your annual production?

19. What was the value of inventories at the end of the last period?

20. What was the cost of raw materials in 1991?

21. What percentage of your raw materials were imported?

22. What were your annual sales?

23. What was the total number of paid employees?

24. What was the total number of apprentices?

25. What was your total wage bill?

26. What was the replacement value of your plant and equipment at the end of 1992? (What could you sell your machine for today?)

26a. How much will you pay for similar new machines?

27. What was the replacement value of the land and buildings? (Specify current value.)

28. What were the indirect costs of your business – rent, utilities, etc.?

29. What was the value of new investments made in 1991?

30. How old are your machines?

31. When was the last time you purchased any new major machines?

C. Capacity utilisation

32. What is the installed capacity of your plant?

33. Given the age of your machines, how much do you think you are capable of producing with your present machinery?

34. How much are you producing now?

35. At what percentage of full capacity did you operate last year? . . .

36. By what percentage could the firm increase output next year (over this year) without additional plant and equipment?
. . . % increase (100% = doubling output)

37. What would you consider to be a 'standard' or 'normal' work week for the plant?
. . . hours of operation per week

38. Would this be full capacity operation? Yes . . . No . . .

39. Do you expect to operate at the 'standard' or 'normal' level in future? Yes . . . No . . .

40. Was actual operation in 1992
    (a) higher than this 'standard' level → go to Q. 41
    (b) lower than this 'standard' level → go to Q. 42
    (c) the same as this 'standard' level

41. Why was actual production last year higher than the standard level?
    (a) increased sales abroad
    (b) increased sales on the domestic market
    (c) other, specify . . .

42. Why was actual production last year lower than normal?
    (a) because of a slowdown in economic activity
    (b) unexpected domestic competition
    (c) price of output too high
    (d) quality of output too low
    (e) foreign competition/imports
    (f) lack of local inputs
    (g) high cost of foreign inputs
    (h) high cost of local inputs
    (i) other, specify . . .

43. Have you considered exporting as a means of increasing capacity utilisation? Yes . . . No . . .

44. If no, give reasons.

45. If firm were to go into exports what will this involve
    (a) no change in plant, equipment or labour
    (b) additional machinery and equipment only
    (c) new building only
    (d) new building and equipment, no more labour
    (e) new building, equipment, no more labour
    (f) more labour only
    (g) equipment and labour, no additional building
    (h) other, specify . . .

D. Exporting activities

46. Do you
    (a) export → Q. 50
    (b) used to export → Q. 48
    (c) have never exported → Q. 47
    (d) do not export directly but firm's goods are exported by intermediaries?

47. Why have you never exported? (skip to section E)

48. Why have you stopped exporting?
    (a) cannot satisfy local market → Q. 50
    (b) decline in quality → Q. 49
    (c) rising cost of local inputs → Q. 50
    (d) end of foreign contract → Q. 50
    (e) other, specify → Q. 50

49. Explain a decline in quality.

50. When did the firm obtain its first export order?

51. Why did the firm start exporting?
    (a) because of the exchange rate depreciation (exporting has become more profitable)
    (b) in order to make use of excess capacity
    (c) to take advantage of the foreign exchange retention scheme
    (d) in response to a specific export order (e.g. bilateral agreement with Cuba)

(e) other, specify . . .

52. Did you obtain any assistance to enable you to export? Yes . . . No . . .

53. If yes, what form of assistance was this?
(a) financial
(b) technical advice
(c) management course
(d) information about an interested buyer
(e) other, specify . . .

54. Have you been exporting regularly since you started? Yes . . . No . . .

55. If no, in what years did you not export since 1980?

56. Can you identify reasons for not exporting in those years?
(a) there was no production in that year
(b) the domestic price was more favourable than the export price
(c) lack of availability of local inputs so could not meet export order
(d) lack of availability of foreign inputs so could not meet export order
(e) other, specify . . .

57. In the year you began exporting, which markets did you export to? Rank them in order of importance (1 = most important etc.) or give percentage.
(a) ECOWAS
(b) other African country
(c) European Community
(d) other European country
(e) USA/Canada
(f) Latin America and Caribbean
(g) Asia
(h) Australia/New Zealand
(i) Middle East

58. Which markets did you export to in 1992 (or latest year)? Rank them in order of importance (1 = most important etc.) or give percentage.
(a) ECOWAS
(b) other African country
(c) European Community
(d) other European country
(e) USA/Canada
(f) Latin America and Caribbean
(g) Asia
(h) Australia/New Zealand

(i) Middle East

59. If markets to which you export have changed since you began exporting, please explain why.

60. Why did you export to those particular markets in 1992 (or latest year)?
    (a) because had information about these markets
    (b) because they were nearer so the transport costs/distances were not prohibitive
    (c) could meet quality specification of buyers in those markets
    (d) our prices were competitive
    (e) would be paid in convertible currency
    (f) other, specify . . .

61. How did you obtain information about your first export market/order?
    (a) through a friend living in the importing country
    (b) through Ghana Embassy in the importing country
    (c) through Ghana Export Promotion Council
    (d) through a domestic trade fair, e.g. Giffex, Indutec
    (e) through exhibiting in a trade fair abroad
    (f) from a trade journal
    (g) through the trade section of the importing country's embassy in Ghana
    (h) advertising products in a foreign magazine
    (i) approached by a foreign buyer
    (j) as a result of business trip by the owner/manager abroad
    (k) other, specify . . .

62. How did you obtain your last export order
    (a) through a friend living in the country
    (b) through Ghana Embassy in the country
    (c) through the Ghana Export Promotion Council
    (d) through domestic Trade Fairs, e.g. Giffex, Indutec.
    (e) through exhibiting in trade fair overseas
    (f) from a trade journal
    (g) through the trade section of the foreign country's embassy in Ghana
    (h) advertisement in a foreign magazine
    (i) approached by a foreign buyer
    (j) from an already established buyer
    (k) business trip by owner/manager
    (l) other, specify . . .

63. Have you got a long-term contract with your major buyers? Yes . . . No . . .

64. Are you still exporting the first item(s) you exported? Yes . . . No . . .

65. If no to Q. 64, have you
    (a) increased the range of items exported? → Q. 66
    (b) reduced the range of items exported? → Q. 67

66. Why did you increase the number of items exported?
    (a) to enter new market
    (b) request from buyers
    (c) to increase sales to existing export market
    (d) to make use of excess capacity

67. Why did you reduce the number of items exported?
    (a) reduced foreign demand
    (b) increased local demand
    (c) wanted to concentrate resources on a few lines
    (d) other

68. If no to Q. 64, when did you change the range of items?

69. When you increased the range of items, did you have to introduce a new line of production? Yes . . . No . . .

70. Have you ever been contacted with an export order which you could not meet? Yes . . . No . . .

71. If yes, why couldn't you meet the order?
    (a) quality of the product.
    (b) size of order too big for existing capacity
    (c) lack of access to credit
    (d) price quotation too low
    (e) lack of adequate raw materials
    (f) other, specify . . .

72. Have you taken advantage of the customs duty drawback scheme? Yes . . . No . . .

73. If no, why not?
    (a) not aware of it
    (b) don't use imported inputs
    (c) cumbersome procedure

(d) other

74. If yes, how long did it take you to obtain the drawback?

75. Do you know of the Generalised System of Preferences (GSP) of the USA, EEC, Canada etc. Yes . . . No . . . (if no skip to Q. 79)

76. How did you learn about the GSP scheme?
(a) from the Export Promotion Council
(b) from the Ministry of Trade and Industry
(c) from the newspapers and the media
(d) from another business associate
(e) other, specify . . .

77. Have you been able to export under this scheme? Yes . . . No . . .

78. If no, why not?
(a) do not produce items which qualify
(b) do not satisfy rule of origin requirements
(c) the export procedures are cumbersome
(d) other, specify . . .

79. Are you aware of the ECOWAS Trade Liberalisation Scheme? Yes . . . No . . . (if no, skip to section E)

80. How did you learn about this scheme?
(a) from the Export Promotion Council
(b) from the Ministry of Trade and Tourism
(c) from the Newspapers and the media
(d) from another business associate
(e) other, specify . . .

81. Have you ever applied? Yes . . . No . . . (if no skip to section E)

82. If yes, were you successful? Yes . . . No . . .

83. If no to Q. 82, why?
(a) do not produce items which qualify
(b) do not satisfy foreign equity requirements
(c) do not meet rules of origin requirements
(d) cumbersome documentation procedure
(e) other, specify . . .

E. Constraints

84. If the firm wished to expand or go into exporting in the coming year what would be the most significant obstacle? Rank them on a scale of 1 to 5 (1= not at all, 3 = moderate, 5 = major obstacle).
    (a) inadequate or unreliable supply of local materials
    (b) high price of local raw materials
    (c) price of imported raw materials is too high
    (d) inadequate or unreliable supply of imported materials and spares
    (e) equipment is old and replacement costs of equipment are too high
    (f) cannot get spare parts
    (g) cannot get credit for raw materials or working capital
    (h) cannot get credit for equipment
    (i) interest rates are too high
    (j) lack of skilled workers
    (k) high labour costs
    (l) unable to attract management with necessary skills
    (m) interruption of electricity supply.
    (n) inadequate water supply
    (o) do not have an export agent
    (p) do not have information about potential markets
    (q) adequate domestic demand
    (r) other, specify . . .

85. Rank the three most serious constraints in Q. 84.

. . .

I. Raw materials

86. What percentage of your raw material is imported either directly or purchased in the local market?

87. Do you have any problems with the regular supplier of your raw materials?
    Yes . . . No . . .
    (a) foreign source
    (b) local source

88. Are the quantities from these sources adequate for your needs?
    Yes . . . No . . .

89. Have you made attempts at finding locally produced alternative sources?
    Yes . . . No . . .

90. If no, why?
    (a) because of financial constraints
    (b) because suppliers cannot meet orders
    (c) because of irregular orders by my company
    (d) other, specify . . .

91. Do you receive your raw materials on time? *Foreign* *Local*
    (a) all the time
    (b) sometimes
    (c) never

92. If (b) or (c), why?
    (a) because of shipping problems
    (b) clearing problems at the harbour
    (c) because of domestic transportation problems
    (d) problems at source of supply
    (e) other, specify . . .

93. Do you place orders for your raw materials regularly? Yes . . . No . . .

94. When do you decide to place orders for raw materials?

95. Are you satisfied with the quality of raw materials from (1 = yes, 2 = no, 3 = not applicable)
    (a) foreign source
    (b) local source?

96. Do you find the price of your raw materials
    (a) cheap
    (b) reasonable
    (c) expensive?

II. Labour

97. Do you require particular kinds/types of skilled labour?
    Yes . . . No . . .

98. If yes, what type of labour?

99. If yes, do you have them? Yes . . . No . . .

100. If yes to Q. 97, do you have any difficulties in getting them?
    Yes . . . No . . .

101. What was the nature of the problem/difficulty?

102. If no to Q. 97, why not?

103. Are you satisfied with the level of productivity of your workforce?
Yes . . . No . . .

104. Is their productivity in your view comparable to international standards?
Yes . . . No . . .

105. If no, why?
(a) because of high labour turnover
(b) because of machine breakdowns
(c) because of inadequate supervision
(d) because of poor health of workers
(e) irregular supply of water and electricity
(f) inferior technology
(g) other

106. If no, have you taken any special measures to increase their productivity?
Yes . . . No . . .

107. Do you find wages
(a) too high
(b) reasonable
(c) cheap?

III. CREDIT

108. Suppose the firm has a large export order to complete next month, and needs money to purchase the necessary raw materials. From which three of the following sources would the firm be most likely to obtain the finance. (Rank them.)
(a) owners' personal savings
(b) firms' savings retained from profits
(c) gifts from relations
(d) pension/redeployment fund
(e) loans from relations/friends
(f) bank loan
(g) bank overdraft
(h) moneylenders
(i) *susu*
(j) suppliers' credit
(k) PAMSCAD

(l) advances from customers
(m) other (specify) . . .

109. What do you think should be the rate of interest on working capital?

110. Are loans for long-term investment of more than 10 years generally available?
Yes . . . No . . .

111. What do you think should be the rate of interest on working capital?

112. Suppose you wanted to purchase equipment to expand your production for exports. From which of the following sources would be most likely to obtain the finance? (Rank them.)
(a) owners' personal savings
(b) firms' savings retained from profits
(c) gifts from relations
(d) pension/redeployment fund
(e) loans from relations/friends
(f) bank loan
(g) bank overdraft
(h) moneylenders
(i) *susu*
(j) suppliers' credit
(k) PAMSCAD
(l) advances from customers
(m) other, specify . . .

113. Has the firm applied for a bank loan in the past three years?
Yes . . . No . . .

114. If yes to Q. 113, how many applications have been made?

115. If yes to Q. 113, how many of the applications were successful?

116. Did you get all you wanted to borrow? Yes . . . No . . .

117. If no to Q. 116, what percentage of the application did you receive?

118. What was the rate of interest on the last loan you received?

119. Did the bank ask for collateral? Yes . . . No . . .

120. For what purpose was the last loan received intended?
   (a) working capital only
   (b) investment to expand business
   (c) working capital and investment
   (d) investment to start business
   (e) other, specify . . .

121. If application for bank loan was not successful did you make further attempts to secure financing from elsewhere? Yes . . . No . . .

122. If yes, which of the following did you apply to?
   (a) gifts from relations
   (b) pension/redeployment fund
   (c) loans from relations/friends
   (d) moneylenders
   (e) *susu*
   (f) suppliers' credit
   (g) PAMSCAD
   (h) advances from customers
   (i) issue equity on the stock market
   (j) other, specify . . .

123. What could banks do to make it easier to borrow?

124. Has the firm applied for a loan from the Export Finance Company? Yes . . . No . . .

125. If yes to Q. 124, how many applications have been made?

126. What percentage of the loan applied for did you receive?

127. What was the rate of interest on the last loan you received?

IV. Technology

128. Has the quality of the products you sell on the domestic market changed in the past 3–5 years? Yes . . . No . . . (if no, skip to Q. 131)

129. If yes to Q. 128, in what ways have they changed? *Improved Declined*
   (a) labelling and packaging (specify) . . .
   (b) characteristics of the product (specify) . . .

130. What determined the change in quality?
   (a) new firms entering the market
   (b) competition from imports
   (c) decline in competition
   (d) change in demand
   (e) availability of required inputs
   (f) began exporting some of the product

131. Has the quality of your exports changed in the past 3–5 years?
   Yes . . . No . . . (if no, skip to Q. 134)

132. In what ways have they changed? *Improved* *Declined*
   (a) labelling and packaging (specify) . . .
   (b) characteristics of the product (specify) . . .

133. What determined the change in the quality?
   (a) greater competition in the market
   (b) to keep up with changing trends in demand
   (c) requested by the buyer
   (d) in order to meet quality control standards, e.g. health regulations
   (e) other, specify . . .

134. In order to change the quality of your product do you need to
   (a) import more raw materials?
   (b) change equipment?
   (c) change production process?
   (d) other, specify . . .

135. Have you changed the production process in the past 10 years?
   Yes . . . No . . . (if no, skip to Q. 138)

136. If yes, to Q. 135, please give exact year.

137. If yes, to Q. 135, give reasons:
   (a) because firm introduced new product
   (b) replaced old equipment which had high costs
   (c) to improve quality of existing product
   (d) other, specify

138. How do you keep up to date with changing trends in product quality and design?
   (a) attend domestic trade fairs
   (b) advice from buyers
   (c) attend foreign trade fairs

(d) publications
(e) business associates
(f) other, specify . . .

139. How do you obtain information about new machinery and equipment?
(a) from journals
(b) domestic trade fairs
(c) foreign trade fairs
(d) supplier of your equipment
(e) salespersons
(f) other, specify . . .

140. When did you buy a major piece of equipment?

141. Why did you buy it?
(a) to replace obsolete equipment
(b) to expand production of existing product
(c) to introduce a new line of production
(d) other, specify

V. Infrastructure

142. Do you have any large infrastructural problem? Yes . . . No . . .

143. If yes to Q. 142, specify the problem.

144. How serious is the problem of electricity?
(a) no problem (→ Q. 146)
(b) small problem (→ Q. 146)
(c) big problem (→ Q. 145)

145. Electricity is a problem because of
(a) power outages/unstable
(b) not supplied to area
(c) too expensive
(d) other, specify . . .

146. How serious is the problem of water?
(a) no problem (→ Q. 148)
(b) small problem (→ Q. 148)
(c) big problem (→ Q. 147)

147. Water is a problem because of
    (a) unstable supply
    (b) not supplied to area
    (c) too expensive
    (d) other, specify . . .

148. Any other infrastructural problem?

VI. Regulations

149. Do any government regulations inhibit your operations? Yes . . . No . . .

150. If yes, explain.

151. Any other problems inhibiting your ability to export?

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Exporting Manufactures from Ghana: Is Adjustment enough?

Amoah Baah-Nuakoh, Charles D. Jebuni, Abena D. Oduro and Yaw Asante

With their small domestic markets, and the weakness of world markets for their traditional commodity exports, increasing manufactured and other non-traditional exports is a major priority for African economies. But at present African manufactured exports are negligible. To reverse this situation it is essential to understand the obstacles that stand in the way, and this book is a valuable contribution to such an understanding.

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