STRUCTURAL CHANGE IN THE LEATHER AND LEATHER PRODUCTS INDUSTRY IN THE EUROPEAN DEVELOPED MARKET ECONOMIES

by

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"Structural Change in the Leather Industry"

ABSTRACT

The leather and leather products industry in the European developed market economies has declined considerably over the last two decades, commensurate with its growth in the developing and other low-wage regions of the world. The decline is manifested in the cuts in production, in the level of employment and in the diminution of productive capacity, as the industry has found it difficult to cope with the pressures that have been brought to bear on the structures of leather and leather goods manufacture. The pressures are associated with the rising costs of labour and raw materials and with increased competition from goods of low-wage countries. The process of structural adjustment suggests a movement towards a concentration of production. However, given the nature of production in this sector, the beneficial effects of concentration and technological change have been minimal. From the evidence it is concluded that future prospects of growth in the leather and leather products industry in the developed market economies are quite bleak.

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ABSTRACT

L'industrie de cuir et des produits en cuir dans les économies des marchés développés Européens, est de plus en plus en baisse depuis les vingt dernières années, comparativement à sa croissance dans les régions en voie de développement et dans les autres régions due monde avec des bas salaires. Le déclin se manifeste à une réduction de production, au niveau de l'emploi et à une diminution de la capacité productive, car l'industrie a eu des difficultés en affrontant les pressions exercées sur les structures de la fabrication du cuir et des produits en cuir. Ces pressions sont associées à la hausse des coûts de main-d'oeuvre et des matières premières, et sont également associées à l'augmentation de concurrence avec les marchandises en provenance de pays aux salaires modérés. Le processus de l'adaptation structurale s'aiguille vers une concentration de production. Pourtant, étant donné, le genre de production dans ce secteur, les résultats sonlageants de la concentration et du changement téchnologique ont eu un effet minimal. On pourrait donc déduire de cette analyse que les perspectives d'avenir pour une croissance de l'industrie de cuir et des produits en cuir se présentent assez mal dans les économies des marchés développés.

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PREFACE

An examination of recent economic performance of many developed market economy countries (DMECs) shows, that certain manufacturing sectors have declined as a result of their inability to adjust to changing economic conditions. Such a decline is manifested in cuts in production, increases in the general level of unemployment and the deterioration in the competitive position of these sectors, both in domestic and in international markets.

The poor performance of these sectors has highlighted their inability to cope with general economic pressures influencing structural change. These pressures result from both internal and external influences on the industrial structures They involve the effects of such factors as: changes in technology and productivity; increased costs of production stimulated by higher energy prices; related problems of supply; increases in the wages of labour; intensification of import competition, etc. The measures adopted in combating or offsetting these pressures, determine the direction and nature of the restructuring process.

Confronted with such pressures, the industrial sectors have certain options at their disposal in adapting to the changing economic environment. In the process of 'structural adjustment', the prime concern is the removal of inefficiencies in operation in order to maintain

competitiveness. The adjustment could be through technical change; reorganisation of management and production, usually necessitating a movement towards concentration or specialization; and relocation of activities.

However, the market conditions could be such so as to hinder the efficient restructuring of the industry. The impediments could stem from a number of factors ranging from limits to the availability of finance and capital to peculiarities in the organization of production. If the firm is unable to overcome the obstacles, it must pay the price for being inefficient, in which case it closes down all or part of its operations or redeploys its activities elsewhere where it can still function as a profitable economic unit. Hence, those activities which are unprofitable and inefficient (non-competitive) are weeded out, giving rise to a new overall structure of production.

The sectors that have suffered the most in the developed market economies, are those which could be described as 'traditional'. By this we mean those industrial sectors which have their historical antecedents in the craft industry and whose modern day production processes are characterised by a relatively high labour and resource intensity. One interesting case of the declining 'traditional' manufactures in the developed market economies is the leather and leather products industry, which is the major concern of this thesis. More specifically, the decline is emphasized by analyzing the performance of the leather sector in the European DMECs over the last fifteen years.

Why the leather and leather products industry? Why look at a sector which perhaps is among the more minor concerns in the developed market regions in terms of the income it generates and in terms of the value of goods that are traded? The sector seemed interesting for essentially these reasons. First, because very little work had been done on it. Second, it provided an opportunity with which we could highlight not only the structural changes taking place, but also the tense economic relations between the developing countries and the developed market economies of the world. It would also highlight the ongoing discussion of basic policy issues in international trade, structural adjustment and redeployment of productive capacities so much a part of the agenda both within the countries concerned and in the international agencies like UNIDO (United Nations Industrial Development Organization) and UNCTAD (United Nations Conference on Trade and Development).

The underlying global situation is reflected, on the one hand, by a decline of leather and leather goods manufacture in most developed market economies, and on the other, by considerable growth in the sector in the developing countries particularly over the last decade. The developing countries now enjoy a comparative advantage over the developed market economies not only in the production of leather and leather goods, but also in the production of goods of most other 'traditional' industries. In the development strategies of many of these countries, the traditional manufacturing industries play a major role as earners of foreign exchange, urgently demanded for the purchase of crucial inputs in the drive towards

industrialisation. The development of traditional activities also increases income and to a great extent alleviates the problems associated with unemployment. This is the guiding principle of many trade policy decisions that have been undertaken in most developing regions of the world.

Third, in the leather and leather products industry, issues of technology and foreign direct investment were of minor importance. This is so for the technology differentials are not so skewed in favour of any one region. The technology is easily accessible, and even though more sophisticated production techniques have been experimented with, their applicability in commercial use as yet has been extremely limited. Also given the constraints on the industrial organisation in the sector and on the nature of the production processes which limit the realisation of economies of scale, one can see why hardly any multinationals exist in the sector. Hence it was felt that an investigation of structural change and restructuring in the leather and leather products industry in the developed market economies would illustrate in a sharp way the general decline of certain traditional manufacturing activities in these economies, not on grounds of technology or lack of finance, but purely on grounds of efficiency.

To stabilise the industry and restrain the pace of decline the producers in the developed market economies have taken steps to adapt structurally to the economic situation. However, it should be noted that structural adjustment in the leather and leather products industry has not been a smooth process, and varying degrees of success has been achieved over regions.

The industry has grown in some DMECs while it continues to decline in others. This uneven development has presented economic and policy oriented obstacles in the restructuring process, both in the DMECs as well as globally.

The process of structural adjustment in the leather and leather products industry in the western industrialised economies, specifically the European ones, is the major focus of this dissertation. The basic objective of the study is: (a) to analyse the historical process of structural change and the resulting restructuring in the leather and leather products industry on an international basis in general, and in the European DMECs in particular; (b) to assess the future prospects for producers of leather and leather products in the industrialised regions; and (c) to identify areas for international co-operation.

The general guidelines for the thesis are essentially the search for answers to some fundamental queries. (1) Has the decline in the leather sector been overall or is it confined to particular regions? If the decline is not a general phenomenon, then regions where the industry has suffered need to be distinguished from those where it has prospered. (2) What are the basic causal factors accounting for such decline and to what extent and how have they affected structural change? (3) Have internal developments been more influential or has the decline been essentially precipitated by import competition? (4) If international trade has been a major factor, then has the decline been conditioned more by trade between the developing and the developed market economies or between the DMECs themselves? (5) How viable is the redeployment

proposal as a step towards an efficient restructuring of the industry?

The study is effectively broken down into four distinct parts and the methodology adopted is the following:

In the first part, the theoretical basis of the research is outlined. Borrowing from classical formulations of 'location theory' - as well as some contemporary views - we first attempt to outline a frame of reference for analysing structural changes in industrial sectors. Second, we emphasise the major factors which influence the location of production, with a view to ascertaining the feasibility and non-feasibility of location in a particular place, not only on pure economic and efficiency grounds, but also in terms of certain non-economic considerations. In this theoretical section we also deal with the theory of comparative advantage in trade as a basis for policy formulation, especially in the developing countries. Essentially what we endeavour is a more dynamic interpretation of the comparative cost doctrine, which it is hoped would enable us to fully understand the nature of recent policy decisions undertaken in the developing countries, with respect to trade in leather and leather goods.

In the second part of the thesis, we examine recent global developments in the leather and leather products industry with the objective of establishing the present 'state of the art', and the respective positions of the developing countries and the developed market economies. An attempt is also made at discussing trends that will influence future developments in the industry.

The third part of the study constitutes the core of the analysis, where we consider structural change in the three most important subsectors of leather, ie. raw material supply, leather tanning and leather footwear production. We first attempt to examine the impact of factors such as technology, cost pressures and import competition on the existing structures of leather and leather goods manufacture in Western Europe. Second, we consider the restructuring process in the industry. What is endeavoured here, is to gauge the magnitude of decline in the various European DMECs with the objective of: (i) identifying factors facilitating and impeding the desired form of restructuring; and (ii) ascertaining the actual pattern of restructuring in leather and leather products industry in Western Europe over the last few years.

In this section we also examine the scope of redeployment of the various structures associated with leather and leather goods manufacture, from the declining to the prospering regions. The underlying assumption is that such relocation would prove fruitful in the global restructuring of the industry. It is acknowledged that there are certain constraints on the actual process of redeployment. The factors working towards and against redeployment are surveyed.

The final section reviews the policy issues and their impact on global restructuring. It is argued by quite a few experts in the leather field that the disruption of free trade and competition, has created obstacles for the efficient restructuring of the industry in many regions of the world. The developments which hare required the imposition of such measures are considered. Also elaborated are the consequences of conflicting

policies on the general ordering of the leather and leather products industry.

There are some serious handicaps in our analysis, of which one in particular must be emphasised. This has to do with the availability of data on the leather and leather products industry. It is not only the choice of the region of case study that is influenced by factors such as availability of data, on the basis of which one could embark on an ambitious project, but there are also considerable differences in the range and quality of data available to make possible the analysis envisaged. Initially, I had also wanted to include the developing countries in the research but the available data severely restricted the possibilities of analysis. However, it was not just in the case of the developing countries where problems of data collection were encountered but also in the developed market economies as well. For example, I had wanted to supplement the data with some more recent figures, which unfortunately were not available. I could only find solace in the fact, after talking to many knowledgeable persons in the field, that the trends in leather and leather goods manufacture had not changed significantly. On the contrary, I was assured that if at all they had changed, it was in a direction which would reinforce the claims made in the thesis. The quality of data available was also quite poor. This needless to say had serious implications for the methodology.

There are a few people to whom I am largely indebted for their help and for generally putting up with me. To Irving Glass at OECD, for rescuing the work by providing some desperately needed data. To Juhani Berg and Magne Nestvold at UNIDO for precious time spent on trying to make me understand the workings of the industry. To Asif Hasnain for his help and advice when tackling matters pertaining to policy. To Kurt Hoffman of SPRU at the University of Sussex, for his help on issues relating to footwear technology. To Tom Naylor, for his encouragement and help in seeing the project through and finally to Herman Muegge, my major critic for his constant encouragement and support when things seemed to be falling apart. To all these people go my heartfelt thanks. I would also like to thank Fiona Pearson at the University of Sussex and Elisabeth Glaser at UNIDO for their good natured attitude in dealing with, which throughout my schooling has been described as, an atrocious handwriting.

THE THEORY

CHAPTER I: THE THEORETICAL FRAMEWORK

The theoretical framework of the dissertation is to a large extent derived from the theory of industrial location and the theory of comparative advantage in trade. The hypothesis advanced provides the necessary foundation on which to build the structure of analysis concerning the global distribution of, movements of capital in, and the formulation of policy issues about the leather and leather products industry. Where location theory is useful in the investigation of restructuring in the leather sector, the doctrine of comparative advantage provides a useful perspective in the discussion of policy issues and trade between the developed and developing countries in leather and leather goods.

Location and the 'Spatial' System

The classical theory of industrial location as advanced by Weber and subsequent developments which include the works of Hoover, Losch and Isard are taken as the starting point of the restructuring and locational analysis.[1] These classical

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1. The theory of location was first developed by Alfred Weber in 'Theory of Location of Industries', University of Chicago, Chicago, 1929. The theory has a number of limiting assumptions like fixed coefficient production functions, stability of market and input sites and a competitive output market, but can still be used to explain the locational patterns of industries today. Subsequent developments tried to breathe realism by modifying some basic assumptions. The first modification was made by Edgar Hoover in 'Location Theory and the Shoe and Leather Industries', Harvard University Press, Cambridge, Mass. 1937, who introduced the theory of production, characterised by economies of scale, import substitution and realistic transportation rate structure. August Losch further improved the construct by introducing the demand factor, in 'The Economics of Location' Yale University Press, New Haven, 1954. Walter Isard completed the synthesis by reducing location theory to a generalised profit maximising theory of the firm, 'Location and Space Economy, The MIT Press, Cambridge, Mass. 1956..

and neo-classical theories of location, have as their focus the development of an 'autonomous theory' that is where there is a separate object of study and where the 'spatial' is treated as a closed system. The theories proceed with the analysis of an abstract firm, the basic unit of production, which has no effective structural relationship with the rest of the economy. Such an approach has limited significance. As logical constructs these theories merit consideration but they have little explanatory value when confronted with real situations. Though classical and neo-classical theories of location examine both the perfectly competitive situation and one where there is a certain degree of oligopolistic control, they do so individually where the relationship between the two situations (ie. perfectly competitive and oligopolistic) is ignored, and the dynamics of development (eg. an oligopolistic situation developing from the conditions of the perfectly competitive) are not apparent.[1]

From the very outset the objective of the thesis has been to give an adequate analysis of the reality of restructuring in the leather and leather products industry in the developed

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1. The shortcomings, Doreen Massey states, stem from the observation that 'most industrial location theory is in fact closely related to "economics", but in the sense that it derives very directly from neo-classical marginalist economic theory, sharing its ideology and its epistemological approach. This relationship has influenced the definition of the object for study, the methodology and the main elements of historical development' in 'A Critical Evaluation of Industrial-Location Theory' in Hamilton and Linge (ed), Spatial Analysis, Industry and the Industrial Environment, John Wiley, Chichester, 1979.

market countries of Europe. This obviously cannot be undertaken on the basis of the classical constructs. Consequently the concepts need to be considerably modified to encompass a dimension paid scant attention in the classical and neo-classical doctrines. What is proposed should be interpreted merely as an adjunct rather than as a replacement for the established hypothesis, for no comprehensive alternative theory is offered.

A more viable approach seems to be one in which instead of moving towards an abstract model of behaviour where historical variations are absent, we attempt to analyse behaviour in its historical context. In order to do so the focus must change from the individual firm, as the locus of explanation, to the system where behaviour is interpreted as the product of the overall structure in which the individual firm is affixed. The necessity of undertaking such an approach, is emphasised by Doreen Massey in the following statement:

> "A structural approach is demanded because behaviour must be explained not assumed, because it cannot be explained at the level at which it occurs and because historical change and development must be understood together at 'micro' and 'macro' levels respectively. These conditions demand a 'theorised' relationship between the nature of locational behaviour and the structural context within which that behaviour is produced." (1)

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1. Ibid. p.70. Massey by way of an example considers a crisis in a system and concludes with an assertion that it is '... only within the context of an economic crisis, and its implications for the production process and consequently for locational requirements, [that] the spatial behaviour of the individual firm [is] understood'. p.71.

Thus what is attempted is a formulation of a framework for explaining the locational changes with respect to the general characteristics of the economic system and the variations in the system. The thesis is an attempt at such a form of explanation having as its empirical focus the spatial implications of the restructuring carried out in the leather and leather products industry in the European developed market economies over the last two decades.

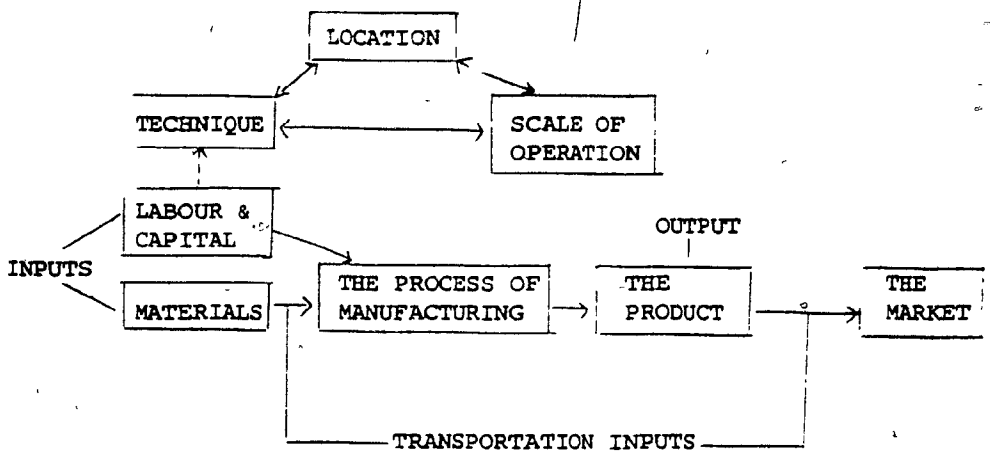
One fundamental observation must also be noted. Spatial arrangements stemming from location decisions are concerned primarily with the so called 'areal variations' in industrial structures and performance, and when the dispersion of specific industrial sectors is considered, it is affirmed that each industry adopts its own distinct form of distribution. This is a crucial point and will become clearer when we examine the basic features of locational decisions. If this is accepted then, in case of shocks to the system and the ensuing crisis, three intrinsic responses need to be ascertained for each sector: (i) How the industrial sector is affected by the crisis and the particular reasons for restructuring?; (ii) How are the production and labour processes to be reorganised?; and (iii) What are the spatial implications of the restructuring?

In reformulating location theory, we are essentially moving from a 'micro' to a 'macro' concept. The discussion is initiated with the 'plant', the basic unit, and proceeds to take account of; the 'industrial organisation' (the structure that underlies the functioning of a production unit); the

'industry', a larger and broader category consisting of establishments engaged in similar activities; and finally the 'system', defined as comprising of different types of operating units bound together by a functional relationship.[1]

Location decisions, true to the classical concept, are specific to the plant. However, it is obvious that these decisions are not, and cannot be, made in a 'spatial vacuum'. What happens at the level of the 'system' has far reaching consequences for individual production capacities. Therefore location decisions are not only influenced by prospects of profits and considerations of cost, but also by many elements of the political and socio-economic environment (the focus of some may not be entirely economic), in which production is carried out.

The Determinants of Industrial Location



1. This as J. Karaska points out defines the basic focus, where '... the firm is seen as only one element in the total system or mileu, and the industry is viewed as related to all other elements in the system', 'The Metropolitanisation of Industry', in F.E.I. Hamilton (ed), Contemporary Industrialisation. Spatial Analysis and Regional Development, Longman, London, 1978, p. 30.

The technical relationships of production are delineated in the chart above.[1] It is acknowledged that a particular production process is predicated upon three decisions: scale of operation, the technique employed and the location of production. These decisions are by no means mutually exclusive. The first two, for instance, exercise considerable influence on each other; the scale of operation determines the technology that is required, while the availability of technology is a major factor in the scale preference. These two decisions may be interpreted as being internal to the manufacturing process, but the effect of external factors on the process can also not be downplayed. It is only after the decision to locate production is undertaken that the scale of operation and the technique become apparent. The choice of technology and scale of operation could then be construed as being sub-sets of a major location decision. The determination of location for a productive activity depends, of course, on many elements. Some of these are sketched out below[2] and their influence on locational choices in the leather and leather products industry is also considered.

(1) The need for <u>land</u> is fundamental in all manufacturing activities and along with capital, raw materials and labour it constitutes as the base of operation. Land preferences vary over industrial sectors for land is not homogeneous. It

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1. Reproduced from D.M. Smith, <u>Industrial Location: An Economic and Geographical Analysis</u>, II edition, John Wiley & Sons, Toronto, 1981, p. 24.

2. Some of the elements have been abstracted from Smith (1979). For a detailed account see pp. 23-64.

differs with respect to its natural attributes and it is this diversity which is an important consideration in decisions pertaining to the choice of location.

The qualitative aspect of land is particularly important in the case of tanning activities. Tanning operations require significant quantities of water, so land near sources of water is desired. Secondly the tannery effluents are hazardous to life in general, and are major pollutants. Their dispoal needs to be organised properly. Therefore land which is quite removed from habitable regions is also preferred.

Footwear manufacture and leather goods production, on the other hand, are activities where no major land specifications are needed, except perhaps access to human resources.

(ii) Capital needed to assist the transformation process is the second basic requirement of manufacturing activity. Capital distinguishes itself from land through its greater mobility, which is relatively higher for liquid capital than for physical. Access to sources of capital is a major determinant of location. However, its accessibility is dependent on the conditions of supply, on the risk factor and upon considerations of stability, not only at the level of the enterprise but of the system as well.

The capital requirements in both leather, leather goods and footwear production are low. Tanning though is a slow process, which suggests that relatively a good deal of capital is tied up for a significant period. In the manufacture of footwear and leather goods, the capital outlays are less significant and the turnover is fairly quick.

(iii) All manufacturing requires raw materials. These materials are not evenly spread over the globe. Their distribution could act as a major factor in the choice of location of a plant.

Raw materials are perhaps the single most important aspect of production in the leather sector. It has been estimated that as much as fifty-five to sixty per cent of the costs associated with leather manufacturing operations are due to raw materials.[1] In the case of footwear and leather goods, which utilise finished leather, 40 per cent and 35 per cent of total costs respectively are made up by the intermediate product.[2]

(iv) Labour requirements are yet another crucial element of manufacture. The amount and type of labour demanded differs over industries. The distinctive labour requirements make some places more preferable than others for location purposes. The degree of influence labour exercises on plant locations varies over industrial sectors. In those sectors where mechanisation, automation and the tendency to substitute capital for labour is high, the importance of labour as a locational factor diminishes. However, advantages with respect to cost, quality and quantity are still vital for some industrial sectors.

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1. See UNIDO, World-Wide Study on the Leather and Leather Products Industry, UNDP/ICIS 934, 1979.

2. These figures are rough estimates. Interview with Juhani Berg, technical expert on footwear manufacture and Senior Industrial Development Officer, United Nations Industrial Development Organisation (UNIDO), 14th January, 1982.

The leather sector is characterised by a relatively high labour intensity in production. The skill factor is not so important either in tanning or in leather goods manufacture, but certain skills are a necessary requirement for footwear production. Overall the availability of labour plays a major role, as in other traditional sectors, in the location of productive activities associated with leather.

(v) In an open economy, access to markets, is an influence in industrial location. The significance of the market as regards labour, raw materials and the final distribution of products is fairly clear. The effect of demand on location can be analysed by evaluating the nature of the market, the cost of supplying it and the price charged for the product. Proximity to the market is advantageous in many ways. Besides eliminating certain indirect costs, '... easy access to a large market may permit scale economies to be achieved that will more than offset the cost of assembling and processing materials that are greater than in other possible locations'.[1] This is a major concern in leather and leather goods manufacture, given the nature of industrial organisation, where small and medium scale firms predominate.* The behaviour of a small firm is significantly different from that

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1. M. Chisholm, Geography and Economics, G. Bell & Sons, London, Praeger, New York, 1966, p. 147.

* Only BATA International, engaged in the production and distribution of leather, leather footwear and leather goods could be classified as a transnational firm with large scale productive capacities. Bally and Salamander are two others who have multinational operations. However, they are essentially involved in the retail trade. Most of their production is obtained through sub-contracting to small producer units in Italy and Spain.

of a larger economic concern, as the producers are much more vulnerable to cost pressures. Hence location near the markets is preferred by the producers of leather and leather goods.

(vi) Transportation and the associated costs are important issues as well in the choice of location. With recent advances being made in communication and specially given the changing nature of the firm, the importance of transportation has declined for many industrial sectors. This is not so for the leather and leather products industry, where the industrial organisation has not undergone any appreciable change over the last two decades. For this sector, in some cases the transportation costs can be prohibitive.

(vii) The inducements offered to the industry are also of concern in industrial location. In the realm of policy, steps taken by governments towards fostering growth in a particular sector can play a decisive role in the choice of location.

These factors by no means exhaust the list that needs to be considered in location decisions; they are only some of the most obvious. For example, the existence of a necessary infrastructure and a reasonably functioning services sector is also crucial in the choice of location. It is unlikely that an entrepreneur would locate production where his survival is jeopardised and prospects of growth hampered by externad diseconomies. Once all the factors, which include the pure economic as well as the socio-political, are evaluated by the entrepreneur, a decision to locate or not to locate production is taken.

If the decisions is positive, it may still be difficult to postulate that such a decision is the best obtainable, for future developments could produce economies as well as diseconomies of scale. The most that can be suggested is that such a locational pattern satisfies certain necessary conditions of optimality. As Losch reflected in his pioneering work: '...there is no scientific and unequivocal solution for the location of industrial firms, but only a practical one: the test of trial and error'.[1]

The Comparative Cost Doctrine and Policy Formulation

In understanding the policy actions of most developing countries, we broach the question of the allocation of resources with the discussion being centered around the involvement of the classical principle of comparative advantage and the consequent argument of growth promotion through specialisation. More specifically, use is made of the Heckscher-Ohlin account of the comparative cost doctrine,[2] as a basis for policy decisions. The version of the doctrine essentially advances the view of benefits accruing to a country though the export of commodities produced by the utilisation of the country's more abundant factor of production. On the other hand, the country imports those commodities produced with its relatively scarce resources. In short, the comparative cost doctrine postulates an optimum pattern for a country in production and trade, by comparing the opportunity cost of producing a given

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1. August Losch, The Economics of Location, Yale University Press, New Haven, Conn. 1954.

2. See J. Bhagwati, 'The Pure Theory of International Trade: A Survey', in American Economic Associates, Surveys of Economic Theory: Growth and Development, vol.2, Macmillan, New York, 1966, pp. 172-181.

commodity with the price at which it can be imported or exported. The critical assumptions reflect comparable factors of production and homogeneity of production functions among countries, as well as full employment and equilibrium. Essentially the assumptions are similar to those advanced by the general equilibrium theory.

Consideration of policy formulation in the developing countries simply from the view point of classical comparative advantage theory is not only flawed but aimless. The classical concept is static, and given its restrictive assumptions it ignores the realities that underline most developing economies today. However, the applicability of the comparative cost doctrine to the situation characterising present day developing countries is not totally irrelevant. On the contrary, with certain modifications the doctrine is extremely relevant. These modifications take the form of a more dynamic approach, for it is essentially the static nature of the theory which limits its applicability and which needs to be eliminated.[1]

If the interdependence of growth and trade theory is postulated, then a more dynamic interpretation of the comparative advantage theory, incorporating growth, is conceivable. There are apparent contradictions in the implications of the two theories, which are a result of their different orientation and assumptions. A resolution of these contradictions, it

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1. Jacob Viner in defending the comparative cost approach admits that a dynamic comparative advantage approach is necessary, to account for changes in the efficiency of production over time, the existence of external economies and the differences in the opportunity cost and market prices of commodities and factors. 'Stability and Progress: The Poorer Countries' Problems' in D. Hague (ed), Stability and Progress in the World Economy, London, 1968.

is felt, would contribute greatly to the development of a theoretical framework for analysing policy issues.

The modifications suggested by incorporating growth theory are dynamic in an essential way, as Chenery notes, '... in that a particular change depends not only on time but on other variables in the system'.[1] Basically what is required is the repudiation of some restrictive assumptions of the comparative cost doctrine. In particular, the equilibrium in factor markets needs to be dropped, in order to allow for qualitative and quantitative changes in the factors over time, and to take account of the external and internal economies of scale. The consequences are described by Chenery:

> "These changes destroy the simplicity of the classical system, in which allocation decisions can be based on a partial analysis because adjustments in the rest of the economy are reflected in equilibrium market prices. In the dynamic analysis, it may not be possible to state that a country has a comparative advantage in producing steel without specifying also the levels of production of iron ore, coal and metal working over time. In short we are forced to compare alternative patterns of growth rather than separate sectors, and we cannot expect to find simple generalisations of the Heckscher-Ohlin type concerning the characteristics of individual lines in production." (2)

Even after these modifications, we cannot safely suggest that an efficient allocation of resources will take place. What at best could be implied is that such a pattern of trade and production would maximise income over time. Given the interdependence of sectors, the preferences of sectors in

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1. Hollis Chenery, 'Comparative Advantage and Development Policy', in AEA, Surveys of Economic Theory: Growth and Development, Macmillan, New York, 1966, p. 129.

2. Ibid. p. 129.

production and trade can no longer be made along the lines of the principle of comparative advantage. It could be stated, however, that a country has a comparative advantage in a particular sector for a specified set of production levels in the supplying and using sectors. Such a provision, Chenery states, '... may be unimportant [for a developed country], but in the less developed ones it is crucial in a number of industries'.[1]

The sectors that are therefore chosen are selected to satisfy a basic objective of most developing countries. Through production and export of commodities in which a country enjoys a comparative advantage, not only are the income and employment levels being raised but much needed foreign exchange is also being acquired. The acquisition of foreign exchange is of utmost urgency for most developing countries in order to pay for the necessary inputs, usually high technology goods, required in the development of certain key sectors of the economy, not to mention the need to service external debt

The thesis does not specifically deal with the policy formulations in the developing countries. However, the framework outlined above can be construed as a guiding principle for policy decisions in many developing countries. It should be clarified that adequate theory only serves as a launching pad in the formulation of development policy. The environment in which the policy maker functions also plays an important role in reaching the practical conclusions of

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1. Ibid. p. 151.

specified objectives.

The theoretical principles underlying the choice of location and policy need to be asserted to understand the basic issues which rule trade in specific commodities, between the developing and developed countries and also to analyse the expansion of sectors such as leather in the developing countries and their subsequent decline in the developed world. The theoretical groundwork having been established, it is now necessary to elaborate the historical developments which have characterised the leather and leather products industry over the last two decades. This is attempted in the following chapter.

THE MAJOR TRENDS

CHAPTER II: AN OVERVIEW OF GLOBAL DEVELOPMENTS IN THE LEATHER AND LEATHER PRODUCTS INDUSTRY. 1965-1977

In the last ten to fifteen years, the leather and leather products industry in the European developed market economies (DMECs) has shown considerable decline. The products of this sector, from the DMECs, have in recent years suffered in markets all over the world, as their production has been cost-inefficient compared to production in the developing and low-wage developed market economies. The wage element is very important. The sub-sectors of the industry - tanning, footwear, garments and leather goods manufacture - are still fundamentally traditional labour-intensive activities. Even with the application of modern technology in the different production processes, the operations have at best been described as '... craft process(es) assisted by science, technology and machinery'.[1] As a consequence of the cost-efficient nature of production in the low-wage countries, the industry has exhibited significant growth in these regions commensurate with the decline in the high wage countries.

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1. Arie Kuyvenhaven, 'Technology, Employment and Basic Needs in Leather Industries in Developing Countries', Discussion Paper 51, Erasmus University, Rotterdam 1980, p. 22.

The primary objective of this chapter then, is to highlight global developments in the leather and leather products industry, to ascertain the extent of growth and decline in the various regions. The reason is two-fold. First, a sketch of global developments is required to clarify the dominant trends in the industry, which in turn will enable us to furnish a perspective on structural change in the leather sector in the DMECs. Such a perspective is necessary because: (a) we note that international developments have far reaching consequences for the industry in specific regions; and (b) it is confirmed historically that structural change in specific regions has relevance not only for particular adjustment processes, but also for restructuring as it manifests itself internationally.

Second, in the final analysis the question we are confronted with is one of direction: where is the industry headed? The orientation of change can only be determined by first examining the variations in industrial structures in the developed and developing regions of the world, and second, by evaluating the performance of these industrial structures in different regions over time, with a specification of the nature of particular problems that each region encounters.

In this chapter, an essentially quantitative exposition of developments over the last ten to fifteen years in livestock, hides and skins, tanning, leather footwear and leather goods (garments) sectors is presented. This is supplemented by a

general consideration of trade flows, in the leather and leather products industry, between the devloped and developing regions of the world.

Livestock, Hides and Skins

The basic raw material for leather and leather goods production is obtained from a conglomeration of farm bred and other animals, both mammals and amphibious and non-amphibious reptiles. General observation and empirical evidence suggest cattle, sheep and goats as the predominant source of supply, as 95% of the raw material used in leather production is acquired from them. Horses, pigs, camels, donkeys and reptiles are the other major sources. These latter anthropoidal species, however, are characterised by limited availablity and/or by specialised production processes in the conversion of their skins to leather and are therefore, not as decisive as the former. The attention thus, will be focused on the aforementioned species.

In 1977, the global population of the cardinal livestock forms was estimated at 1,301 million head of cattle, 957 million head of sheep and 457 million head of goats. Of the total population, the majority (55%) were to be found in the developing countries. A breakdwon into specific groupings of cattle, sheep and goats show the relevant percentages in the developing regions, to be 58.8%, 41.3% and 78% respectively. For the developed market countries the appropriate shares were 23% for cattle, 33.2% for sheep and 4.1% for goats. The remainder was the population in the centrally planned economies of Asia and Eastern Europe.

TABLE 2.1: LIVESTOCK POPULATION AND SLAUGHTER RATIOS (1977)

REGIONS	CATTLE			SHEEP			GOATS		
	Numbers	Slaughtered	%	Numbers	Slaughtered	%	Numbers	Slaughtered	%
Developing countries (including Asian CPE)	862	129.6	15	451	183.2	40.2	434	153.5	35.4
Developed countries (including Eastern Europe and USSR)	439	156.1	35.5	506	200.5	39.6	23	13.5	58.7
World	1,301	285.7	21.9	957	383.7	40.1	457	167.0	36.5

SOURCE: Prepared from data in UNIDO, World Wide Study on the Leather and Leather Products Industry, UNIDO/ICIS. 134, 1979.

This snapshot view then establishes the developing regions as the major habitats of these animals. It is important to empahsise again that the inhabitants are not so widely dispersed as one might imagine. Though they may be found in some quantity in all regions, the major population and species are relatively concentrated in particular areas of the world.

On the face of it, the massive population of the animals suggests an equally massive supply of hides and skins. However, two factors exercise a strong influence on the procurement of this basic raw material. First, the supply of hides and skins is dependent upon the demand for meat, rather than being a direct result of a demand for leather goods and footwear. The figures that matter then are for the animals slaughtered. These in turn are associated with the demand for meat. Second, the rearing of animals and their slaughter in different areas of the world is conditioned by factors whose scope is not only economic and technical but also social. To take the example of India, in many regions slaughter of cows is prohibited on religious ground. Also in many places in Africa, the size of a cattle and goat herd is a direct determinant of a man's social status, and a diminution in size of the herd is considered as a fall in man's standing in society. These social aspects have consequences not only for particular regions, but to a large extent also play a major role in the determination of the actual worldwide ayailability of the material.

In 1977 of the total population of the world's primary livestock only 21.9% of cattle, 40.1% of sheep and 36.5% of goats were slaughtered (see Table 2.1). Differentiation by regions reveals that although the population of livestock is higher in the developing countries, the slaughter ratios are significantly lower than the ones for the developed countries. Numerically, the evidence translates into 15% cattle, 40% sheep, and 35.4% goats as percentage of livestock slain in the developing countries.[1] Concerning the livestock population in the developed regions, including the European Centrally Planned Economies, the relevant slaughter percentages were 35.5% for cattle, 39.6% for sheep and 58.7% for goats.[2] Thus, whereas the figures for the livestock population in the developing countries are impressive indeed, the same cannot be said for the supply and procurement of hides and skins from these economies.

It is not only in quantitative terms that the developed countries have an advantage as regards the supply, but also in terms of quality. The superior quality of the raw material from the developed countries is directly related to the technically advanced animal husbandry methods practiced in these countries. The larger quantities obtained in the industrialised economies, (ie., the yield and surface area of the raw material procured from the developed countries being far in excess of that acquired from the developing regions), could also be ascribed to these practices (see Table 2.2).

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1. Includes the Asian CPEs.

2. Including the Eastern Europe CPEs and USSR.

TABLE 2.2: WORLD SUPPLY OF HIDES AND SKINS (1977)

	Million pieces	% of World Total	1000 Tons	% of World Total	Million sq. ft.	% of World Total
BOVINE HIDES AND SKINS						
Developing countries (including Asian CPEs)	129.6	45.5	2101.0	40.3	3369.3	37.9
Developed countries (including Eastern European CPEs and USSR)	156.1	54.6	3106.4	59.7	5526.2	62.1
World	285.7	100.0	5207.4	100.0	8895.5	100.0
SHEEP AND LAMB SKINS						
Developing countries (including Asian CPEs)	183.2	47.7	115.8	37.5	1284.5	46.9
Developed countries (including Eastern European CPEs and USSR)	200.5	52.3	192.7	62.5	1453.1	53.1
World	383.7	100.0	308.5	100.0	2737.6	100.0
GOAT AND KID SKINS						
Developing countries (including Asian CPEs)	153.5	91.9	116.5	91.7	770.7	92.4
Developed countries (including Eastern European CPEs and USSR)	13.5	8.1	10.6	8.3	63.5	7.6
World	167.0	100.0	127.1	100.0	834.2	100.0

SOURCE: Prepared from data in UNIDO World Wide Study on the Leather and Leather Products Industry, UNIDO/ICIS, 134, 1979.

Specifically, the relevant approximations for bovine hides reflect a much larger supply from the developed countries than from the developing areas. The picture for sheep and lambskins closely resembles this. However, the sheer numbers of goats in the developing countries, attests to a relative supply situation in goatskins and kidskins opposite to the one noted for cattlehides and sheep/lambskins.

Tanning

The policy adopted by the developing countries of curtailing exports en masse of raw hides and skins, in order to service the domestic production units has proved extremely beneficial for the development of the leather and leather products industry in these economies. The ramifications of this policy have been, at this stage, most pronounced in the tanning sector.

In the developed market countries, production of leather is noted to be declining. Burdened with high factor costs, quite a few tanneries have closed their operations or merged.[1] Even with the productivity increases that are noted, the tanning sector in most industrialised economies has responded negatively. Production has migrated from the industrialised to the developing countries and within the developed bloc to regions with low wage labour. But the situation has not been resolved altogether. The pressures

1. See the following chapter of this study for a more detailed assessment of closures.

that the industry, particularly the tanning sector, had been subjected to were quite severe and a lot of old problems still persist. The responses of the entrepreneurs in the developed countries to these developments will be dealt with later. However, suffice it to say that as a result of these developments, we note a continuous fall in the industrialised bloc's share of global production over the last ten years.

Hides and skins first are 'cured' by a simple process to prevent putrifaction and decay, and are then tanned into leather. Tanning units are not high technology industries and can be employed at different levels of development. They can range from very traditional and artisenal in form, to highly mechanised operations. The quality of the product that is realised varies not only over the type of plants in use but also over the production processes. The considerations governing production are in most instances market derived. For example, in most developing countries it becomes feasible to direct processes towards the production of low quality leather for use in end products slated for sale to mass low income units, whereas high quality leather usually ends up as an item of export.

In 1977, 12 billion square feet of leather (composite of hides and skins) was made available for various production uses, of which 61.64% was processed in the developed countries and 38.4% in the developing regions (see Table 2.3). In terms of consumption, 70.1% of the total supply of tanned leather was absorbed by production units in the developed countries. The

industrialised economies are thus noted as the major markets for semi-tanned and tanned leather.

TABLE 2.3: COMPOSITE HIDES AND SKINS AVAILABLE SUPPLY AND NET CONSUMPTION OF LEATHER (Million Square Feet) (1977)

	Available Supply	%	Tanning Input	%	Net Consumption	%
Developing	5424	43.5	4782	38.4	3730	29.9
Developed	7043	56.5	7685	61.6	8737	70.1
Total	12467	100.0	12467	100.0	12467	100.0

SOURCE: Prepared from data in UNIDO, World Wide Study on Leather and Leather Products Industry, UNIDO/ICIS 134, 1979.

In the developing countries between 1966 and 1976, the production of bovine light leather went up by 54%, and that of sheep and goat leather by 53% (see Table 2.4). The growth was particularly significant in the major Latin American countries, such as Argentina, Brazil, Mexico and Uruguay and in the larger South Asian economies of India and Pakistan. In the Latin American case, production of bovine light leather accounted for almost 50% of the total output of the developing countries in 1976, while 55% of the total production of sheep and goat leather from the developing countries, could essentially be attributed to South Asia and to some extent the Far East.*

* Though the data in table 2.4 does not distinguish between Far East and South Asia, the fact that South Asia has been a more dominant force in the production of sheep and goat leather is acknowledged by most experts.

TABLE 2.4: PRODUCTION IN DEVELOPING REGIONS (Million Square Feet)

	1966	1976	%
BOVINE LIGHT LEATHER			
All Developing Countries	712.2	1094.7	57.7
Latin America	304.6	497.5	63.32
Far East (and South Asia)	16.8	112.0	566.6
SHEEP AND GOAT LEATHER			
All Developing Countries	560.6	857.7	53.9
Latin America	70.5	117.=	66.1
Far East (and South Asia)	322.2	474.6	47.3

SOURCE: Tabulated from data in UNIDO data base.

The developing countries leather processing grew by 44% in hides and 30% in skins between 1966 and 1977. In 1977, estimates pointed to 99% of the total supply of bovine hides in the developing countries being utilised by local tanning units. The rate of utilisation of domestic supply in sheep/lambskins and goat/kidskins was estimated at 68% and 77% respectively. It is predicted that by 1985, the tannery inputs in the developing countries would show an appreciable increase over the 1977 figures. The composite share of hides and skins inputs, obtained from within the developing regions is expected to go up from 79.3% in 1977 to 84.5% in 1985. Moreover, the developing countries position internationally is also likely to improve by 1985, with their share in the utilisation of global supply rising from

44.2% to 48%. The point to be made here is that whereas a decade or so ago, the developing countries with major livestock populations were essentially suppliers of hides and skins to the developed economies, they are now absorbing much of the raw material in domestic production. Indeed many developing countries are already net importers of raw material, according to one renowned expert.[1] A fact which is reflected by the excess of tannery input in these economies over available supply.

1. Interviews with Mr. Magne Nestvold, Senior Industrial Development Officer, Industrial Operations Division, United Nations Industrial Development Organisation, November 1981 - February 1982. The countries specified by Mr. Nestvold were the Republic of Korea, Taiwan, India, Brazil, Argentina, Mexico and Pakistan. Unfortunately it is not possible to give a more comprehensive picture due to data constraints.

TABLE 2.5: AVAILABLE HIDE AND SKIN SUPPLY AND TANNERY INPUT - PRESENT AND PROJECTED - 1977 and 1985.

	1977 (Estimated)				1985 (Projected)			
	AVAILABLE SUPPLY		TANNERY INPUT		AVAILABLE SUPPLY		TANNERY INPUT	
	Million pieces	Square ft.(mil)	Million pieces	Square ft.(mil)	Million pieces	Square ft.(mil)	Million pieces	Square ft.(mil)
BOVINE								
Developed	156.1	5526.2	157.4	5572.0	159.7	5621.4	156.3	5533.0
Developing	129.6	3369.8	128.3	3324.0	140.1	3628.0	143.5	3716.0
World Total	285.7	8896.0	285.7	8896.0	299.8	9249.4	299.8	9249.0
SHEEP AND LAMB SKINS								
Developed	200.5	1453.1	259.4	1868.0	209.3	1525.1	259.3	1875.0
Developing	183.2	1284.1	124.3	870.0	192.2	1346.2	142.3	996.0
World Total	383.7	2737.2	383.7	2738.0	401.6	2871.3	401.6	2871.0
GOAT AND KIDSKINS								
Developed	13.5	63.5	49.5	246.0	13.4	62.1	43.4	202.0
Developing	153.5	770.7	117.5	588.0	162.0	810.3	132.0	670.0
World Total	167.0	834.2	167.0	834.0	175.4	872.4	175.4	872.0

SOURCE: Calculated from data in World Wide Study on Leather and Leather Products Industry, UNIDO/ICIS. 134, 1979.

Consumption of Leather

In absolute terms, leather consumption has gone up in both the developed and the developing regions. However, the growth rates for the latter easily outdistance those for the former, implying that structural expansion in the developing regions has been greater than in the industrialised economies. The success that has been achieved by the developing countries in broadening their base of operations is clearly attested to by the increasing share of leather consumption in these economies.

For the period 1972 to 1977, a 24% increase is noted in the consumption of leather in the developing countries, and it is expected that by 1985 it would increase by another 8%. Similarly, the consumption of leather also increased in the developed economies, in the 1972-77 period, but the rate of growth (13%) was less than in the developing countries. By the end of 1985, the forecasts for the developed economies suggest a minimal improvement (2%) over the 1977 figures (see Table 2.6).

TABLE 2.6: NET LEATHER CONSUMPTION (Million Square Feet)

	1972-1974	%	1977	%	Projected 1985	%
Developing Regions	2,998	28.0	3,730	29.9	4,040	31.1
Developed Regions	7,727	72.0	8,738	70.1	8,952	68.9
World	10,725		12,468		12,992	

SOURCE: Tabulated from UNIDO, OECD and ILO data

Footwear

Footwear production is the largest consumer of leather among all branches of leather goods which compete with it for the available supply. In recent years trends have indicated a declining share in leather consumption for the footwear industry in general. Nevertheless, the majority of the leather which is produced and made available for downstream production is still absorbed by the footwear sector. Over the years though, leather footwear has lost some of its primacy with more end uses being found for leather, and with the advent of synthetics, mass footwear manufacture can no longer be basically identified with leather.

The developed countries are the major producers of leather shoes, accounting for 72.2% of the world output in 1977. However, footwear manufacturing in the developed regions has suffered over the years, declining 13.4% over the period 1966 to 1977. During the same period, production of leather footwear in the developing countries has gone up by 48.2% and also their share in the total output has risen from 20% in 1968 to 28% in 1977 (see Table 2.7).

TABLE 2.7: WORLD LEATHER SHOE PRODUCTION (Million Pairs)

	1968	1977
Developing Countries (including the Asian Centrally Planned Economies)	574	851
Developed Countries (including the European Centrally Planned Economies)	2,295	2,216
TOTAL	2,869	3,067

SOURCE: Tabulated from UNIDO, OECD and ILO data

It is projected by UNIDO that by the end of 1985 the production of leather footwear in the developing economies would have increased by 15% over the 1977 levels. Much of the growth is to be centered in Latin America, where production is expected to go up by 25%. Compared to this, a 4% increase is envisaged for the developed economies; the major growth areas being Southern Europe and Oceania. Forecasts of a rise in the consumption of leather shoes in the period 1977-85 are also in order, with consumption in the developing countries expected to rise by 16% and in the developed regions by 5% (see Table 2.8).

TABLE 2.8: PRESENT AND PROJECTED PRODUCTION AND CONSUMPTION OF LEATHER FOOTWEAR (Million Pairs)

	PRODUCTION			CONSUMPTION		
	1977 (Est.)	1985 (Proj.)	%	1977 (Est.)	1985 (Proj.)	%
Developing Regions (including the Asian Centrally Planned Economies)	851	987	15.0	768	888	15.6
Developed Regions (including the European Centrally Planned Economies)	2,216	2,307	4.1	2,298	2,406	4.7
TOTAL	3,067	3,394	7.4	3,066	3,294	7.4

SOURCE: Tabulated from data in UNIDO data base.

Leather Goods (Garments)

In recent years, a significant growth is noted in the world's leather product manufacturing industry, with the garments sub-sector contributing the most to its development. In the last fifteen years, there has been a substantial increase in production in this sector. Much of the leather supply supporting this growth has been at the expense of other manufactures, particularly footwear. In the developed countries especially, it is observed that while in 1968 only a minor 10% of the available leather supply was being utilised in leather garment production, it had swelled to 30% in 1977 (see Table 4.6).

The incipient production techniques in garment manufacture utilised sheep and lambskins predominantly, and to a lesser extent goatskins (which were and are essentially used in the manufacture of high fashion and luxury items, such as shirts, ladies gloves, etc.). However, recent technological innovations have presented cattlehides as a major raw material in the production of garment leather. This singular development has been by far the most influential factor stimulating the massive growth in the leather garment industry. Leather products and garment manufacture is strongly influenced by design and fashion. If there is some sort of balance with respect to footwear manufacture, between 'need' and more fad oriented influences as determinants of production volume, garment manufacture is almost totally dictated by design and fashion consideration.

The market conditions in this sector are representative of a strong demand factor, and with the recent inroads made in expanding the available supply, the demand can now be met more effectively.

In terms of trends in production, the developing countries have an upper hand over the developed regions in absolute terms. In 1977, 56% of output came from the developing regions, 34% from the developed market economies, while Eastern European nations produced 13%. Production is concentrated in particular regions of the world, with Southeast Asia (Republic of Korea and the island of Taiwan) accounting for almost one-third of the global output. The share of the developing countries is expected to rise, though not significantly. Many experts believe that the centrally planned economies of Asia, most notably China, will play a major role in this projected growth.[1] In the developed economies, production is expected to go up as well though their share in total output is a projected decline.

On the consumption side, 90% of the production of leather garments is estimated to be absorbed in the developed countries markets (1977 figures), with the Western European nations constituting the biggest share - 38% of the total world consumption. UNIDO projections indicate a 74% increase in consumption for the developing countries to the year 1985, with their share in total global consumption going from 10% in 1977 to 16.2% in 1985 (see Table 2.9).

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1. op.cit. Interview with Mr.Magne Nestvold, UNIDO, Vienna, 1981-82.

TABLE 2.9: PRESENT AND PROJECTED PRODUCTION AND CONSUMPTION OF LEATHER GARMENTS (Million Pairs)

	1977 (Est.)	1985 (Proj.)	%	1977 (Est.)	1985 (Proj.)	%
Developing Regions (including the Asian Centrally Planned Economies)	21.3	24.0	12.7	3.9	6.8	74.4
Developed Regions (including the East European Centrally Planned Economies)	17.0	18.0	5.9	34.4	35.2	2.3
TOTAL	38.3	42.0	9.7	38.3	42.0	9.7

SOURCE: Tabulated from data in UNIDO data base.

Whereas favourable trends are noted in production and consumption in the developing countries, much of the production will continue to be absorbed in the developed market economies. Even though consumption levels are expected to rise in the developing regions, given the projected increase in the standard of living of most people, the scope of potential market development is relatively small.

International Trade

The trade in the leather sector, between the major trading zones has grown significantly in the last decade. The striking element of this growth, has been the advances made by the developing countries in expanding their exports of

leather and leather products. The rise in exports reflects not only the development of the industry in the developing regions, but also the intensification of competition between the developing and developed countries in world markets.

Production in the developing countries in those industries in which they enjoy a comparative advantage has been geared towards the fulfillment of three basic objectives:
(i) the addition of value to the raw material at source;
(ii) the creation of employment and income; and
(iii) the acquisition of foreign exchange through exports.
These objectives are specified in the economic policy of many developing countries. In the leather sector, as much of the produce of the developing countries is exported to the developed regions, which are the major markets, it would be safe to suggest that international movements play a major role in shaping the production structure of leather and leather products industry in the developing regions.

The curtailment of raw hides and skins exports by many of the larger developing countries, to the developed market economies is a consequence of the economic policy. The curtailment is designed to fulfill the first two objectives, ie., add value at source and increase income and employment. The cutbacks are evident from the data (see Table 2.10), where we note that the share of the developing regions in the total imports of the developed market economies declined from 24% in 1970 to 14% in 1977.

TABLE 2.10: IMPORTS OF HIDES AND SKINS (SITC 211) BY 21 DMECs (1977)

Country of Origin \ Importing Country or Region	USA	Japan	EEC	Italy	EFTA	1977	21 DMECs (b) 1970	21 DMECs (b) Growth rate 1970-77 (a)
World	97	324	1147	511	142	1720	619	16%
21 DMEC	45	305	921	370	17	1405	414	19%
EEC	2	16	515	229	63	596	133	24%
FRG	0	1	71	37	12	84	27	18%
France	1	1	142	117	2	146	32	24%
United Kingdom	1	0	118	29	10	129	20	31%
EFTA	1	1	54	25	15	70	24	17%
Centrally Planned Economies	-	2	21	16	1	25	15	8%
United States	-	236	72	29	6	340	101	19%
Australia	1	37	181	50	15	234	89	15%
New Zealand	20	10	84	30	3	118	51	13%
Developing Countries	45	15	163	99	11	235	151	7%
DC Market Share (%)	46	5	14	19	9	14	24	

(a) Percent annual average compound rate of growth
(b) By DMECs we mean, member countries of EEC, EFTA, Australia, Canada, Japan, New Zealand & the US.

SOURCE: Tabulated from UNCTAD data.

In the same period, the exports of raw hides and skins from the developed market countries to the developing areas increased proportionately from 11% of the total in 1970 to 16% in 1977, indicating the growth of processing facilities in the latter.[1] The major suppliers of the raw material have been United States and Australia, and much of the material has been exported to the Republic of Korea.

In leather, the exports of the developing countries to the developed market economies grew fairly significantly between 1970-77 showing an annual average growth rate of 20%. Figures for 1977 show that of the total exports of leather from the developing countries, more than three-fourths were taken up by the developed market economies, around 15% by the centrally planned countries and less than 5% by other developing regions. Of the total exports of the developing countries, the majority (over 70%) were absorbed by the EEC countries. The major exporters of leather were India, Argentina, Brazil and Pakistan while the important destinations were Italy, United Kingdom, the Federal Republic of Germany and outside the European Community, the USA (see Table 2.11).

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1. UNCTAD, International Trade in Hides, Skins, Leather, Leather Products and Footwear, ID/WG.319/4, 1980, Table 13, p. 27.

TABLE 2.11: IMPORTS OF LEATHER (SITC 611) BY 21 DMECs (1977)

Country of Origin \ Importing Country or Region	USA	EEC	FRG[d]	Italy[d]	EFTA	21 DMECs[b] 1977	21 DMECs[b] 1970	21 DMECs[b] Growth rate 1970-77[a]
World	176	1296	392	296	240	1869	550	19%
21 DMEC	81	808	290	113	207	1203	367	19%
EEC	63	661	252	77	157	930	300	18%
Italy[c]	5	175	116	-	33	217	39	28%
EFTA	2	47	18	2	42	92	26	20%
United States	-	31	6	4	3	87	23	21%
Other MECs[d]	7	32	10	12	4	47	7	31%
Centrally Planned Economies	1	19	3	8	2	22	5	24%
Developing Countries	88	436	88	162	27	596	171	20%
DC Market Share (%)	50	34	22	55	11	32	31	

(a) Percent annual average compound rate of growth.
(b) By DMECs we mean, member countries of EEC, EFTA, Australia, Canada, Japan, New Zealand & USA.
(c) Included in EEC totals.
(d) Other market economies: Greece, South Africa, Spain and Turkey.

SOURCE: Tabulated from UNCTAD data.

The leather exports from the developed market economies to the developing countries also grew significantly, showing an annual average growth rate of over 20%. These exports were fairly concentrated both in terms of origin and of final destination. Japan and the USA were the major exporters accounting for 70% of the total exports of leather from the developed market economies, and the Republic of Korea the major recipient among the developing regions.[1] The leather exported to these regions, is essentially manufactured into different products and re-exported.

The trends marking the development of the leather products (footwear and 'other goods')* industry in the developing countries also manifest themselves in the changing trade picture. As evidence, we note that the share of the developing countries in the total world exports of leather products, grew from 9.7% in 1970 to 24.8% in 1977. The growth can be highlighted in two ways. The first is by considering the imports of leather footwear and 'other goods' by the developed countries. Overall these imports grew by 21% and 22% respectively in the period 1970-77. However, when we consider only the imports from the developing countries the annual growth rates are noted to be much higher. In the same period; the footwear imports of the developed economies from the developing regions grew by 40% and those of leather goods by 35%. A further disaggregation of leather goods category, shows a 41% growth rate in the developed countries imports of leather garments from the developing areas.[2]

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* The 'other goods' category includes leather manufactures such as saddlery, beltings, travel goods, leather garments et.

1. Ibid,
2. Ibid, UNCTAD ID/WG.319/4, 1980, pp. 15-22.

TABLE 2.12: IMPORTS OF LEATHER FOOTWEAR (SITC 851.02) BY 21 DMECs (1977)

Country of Provenance \ Importing Country or Region	USA[c]	FRG[c]	France[c]	UK	EEC	EFTA	21 DMECs[b] 1977	21 DMECs[b] 1970	21 DMECs[b] Growth rates 1970-77[a]
World	1236	911	370	308	2137	591	4466	1191	21%
21 DMEC	467	715	286	178	1311	522	2977	958	18%
EEC	411	639	268	155	1659	413	2623	819	18%
Italy	311	545	239	102	1158	220	1765	562	18%
EFTA	17	71	17	20	139	104	269	83	18%
Other MECs	213	88	32	31	188	23	453	102	24%
Spain	194	70	32	28	161	21	399	97	22%
Centrally Planned Economies	45	44	17	39	115	14	200	38	27%
Developing Countries	511	65	34	60	202	32	836	79	40%
DC Market Shares(%)	41	7	9	19	9	5	19	7	

(a) Percent annual average compound rate of growth.
(b) By DMECs we mean, member countries of EEC, EFTA, Australia, Canada, Japan, New Zealand & USA.
(c) Included in EEC totals.

SOURCE: Tablulated from UNCTAD data.

Another way of looking at it is to consider the developing countries' exports to the developed market economies. A notable increase in exports of all categories of leather goods occurred over the last decade. However it should be noted that the major exporting nations are relatively few in number. For example, of the total exports of leather footwear from the developing region in 1977 to the developed market economies, the footwear exports of the Republic of Korea and Brazil constituted 67% by value. The market share was high for the developing countries, in the USA (41%) and Japan (65%) but fairly low in the EEC (9%).[1] Similarly, in the exports of leather products, the Eastern Asian region accounted for more than half (60%) of the total, while Brazil provided another 10%. A breakdown of leather products into commodities according to SITC code (three digit) shows that the major destination was the USA. The developing country market share in the USA for the basic manufacture of leather (beltings, saddlery, etc.) (SITC 612) was 58%, for goods such as travel items, handbags, etc. (SITC 831) 70% and for leather garments (SITC 841.3) 83%. For the EEC the respective shares were 17%, 26% and 21%.[2]

Thus in the interpretation of this data, the pattern of development of the leather and leather products industry becomes more clearly defined, specifically with respect to regional bias towards the sub-sector. We noted earlier the

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1. Ibid, ID/WG.319/4, 1980, pp. 22-25.

2. Ibid, See Tables 6, 7 and 9, pp. 13, 15 and 19.

present emphasis of certain developing countries on leather processing (tanning), and of certain others on the manufactures of leather. The raw material rich areas have opted for a broad path of development by first trying to establish a 'base' and then building on it. Though their influence is acknowledged in all the sub-sectors, in the current trade picture their presence is felt much more in trade in products from the initial stages of leather manufacture. On the other hand, some resource poor areas have tended to take advantage of their economic situation, especially those which are blessed with a basic industrial infrastructure, and have demonstrated remarkable growth in the last decade, eg., the Republic of Korea, Hong Kong and Taiwan. These areas are most important among the developing countries with respect to trade in leather products.

The development of trade illustrates the deep rooted structural malaise of the developed market economies in the leather and leather products industry. The severe decline manifests itself, particularly so in the case of the EEC countries, in two ways: (i) the rising exports of raw hides and skins to the developing economies, implying that it is no longer economically feasible to process the raw material at home; and (ii) the strong dependence of these countries on the imports of leather which have been growing at an annual average rate of 18%. Much of this leather (over 50%) is now obtained from the developing countries.

In summarising the trends in the leather sector, three fundamental conclusions are discerned:

(i) The growth of the leather and leather products industry is not a general phenomenon across all developing countries. Those regions which enjoy a significant population of cardinal livestock forms have seen considerable growth. These would include, chiefly Argentina, Brazil, India and Pakistan and to some extent the North African region and the Middle East. The general availability of, and the ease of access to the raw material, however, is not the only criterion for development. The growth of the industry is also noted in places having relatively restricted supplies of livestock, but which have facilitated leather and leather goods production through the provision of low cost labour and which have shown themselves to be sufficiently endowed with the necessary artisenal and entrepreneurial skills. The Republic of Korea, Hong Kong and the Island of Taiwan, are examples of this latter category;

(ii) Similarly, the decline in the industrialised countries is not a general phenomenon in terms of its impact. There has been migration, within the developed bloc, of leather and leather products industry, towards countries which are characterised by low labour costs, like Italy, Spain and Portugal. The industry has flourished in these regions concomitant with its decline in other areas of the industrialised world;

(iii) The growth and decline of the industry in the developing and developed market countries respectively is not absolute. If the developing countries possess an advantage over the industrialised regions in terms of livestock supply and low factor costs, the latter predominate with respect to certain extraneous considerations of design and fashion. The major markets which are essentially to be accounted for in the developed market countries and which are acutely affected by these 'considerations' are thus to a large extent controlled by the industrialised countries.

These are the dominant themes in the changing pattern of global production and trade in the leather and leather products industry. Structural change in the leather sector in the European developed market economies (DMECs), constitutes perhaps the most significant aspect of the changing world structure of production. However, it should also be noted that this structural change is itself significantly influenced by global developments. Thus, the analysis of structural change in the leather and leather products industry, in any one specific region must be undertaken within the frame of reference presented above. In turn, the perspective offered enables us to perceive the 'spatial implications' of the structural change in the DMECs.

STRUCTURAL CHANGE AND REDEPLOYMENT

CHAPTER III: ADJUSTMENT PROCESS IN THE TANNING INDUSTRY IN THE EUROPEAN DEVELOPED MARKET ECONOMIES

The tanning and leather processing industry in the European 'developed market economies' (DMECs) has exhibited negative trends over the last ten to fifteen years. The decline has been conditioned by factors whose interplay has at the same time accounted for growth of the tanning industry in many developing countries of the world. The functional nature of these factors is partly economic and partly policy oriented, and they operate within the dimensions of a national economy, as well as internationally.

First, there is the question of the rising wages of labour which, given the 'state of the art' in leather manufacture, have rendered the production of leather in the European DMECs cost-inefficient compared to production in the developing countries. Second, it is generally accepted that the policy pursued by many developing countries, of curtailing the exports of raw hides and skins, in order to expand their industrial processing capacities has worked against the interests of the tanning establishment in the European DMECs. However, it should also be stressed that the supply of raw material to the tanning units in the European DMECs, forthcoming from some major developed countries, such as the USA and Australia, has diminished as well. Finally, it is reasoned that as a consequence of the rise of petroleum based

substitutes in the late sixties and early seventies, the footwear and leather products industry's demand for leather has fallen. This has also abated the progress of tanning in Western Europe. The extent of each factors influence on leather processing in the European DMECs is very difficult to ascertain, but to a certain degree they become evident in the course of the analysis. A detailed investigation, given the limitations of data, is also beyond the scope of this work. However, this does not preclude a general consideration of these factors in the analysis of structural change, not only in tanning but also in the footwear industry in the European DMECs.

The most important element for leather tanning are, of course, the raw hides and skins. It has been estimated that on the average, as much as 65% of the costs associated with leather processing operations could be attributed to the raw material. Thus it could be suggested that the question of securing an adequate supply of the raw material, is of primal importance in determining the economic viability of tanning unit. Where the fortunes of the industry could be so swayed by the issue of the availability or non-availability of an input, it becomes necessary to analyse the conditions governing its supply.

This chapter is divided into two parts. The first examines the changing structure of raw material supply in the European DMECs, while the focus of the second is the tanning industry in Western Europe.

TABLE 3.1: TRENDS IN APPARENT AVAILABILITY OF RAW HIDES AND SKINS FOR TANNING IN DEVELOPING AND DEVELOPED COUNTRIES

	1962 - 64		1967 - 69		1974 - 76		Growth in availability	
	Availability '000 tons[1]	Share of total per cent	Availability '000 tons[1]	Share of total per cent	Availability '000 tons[1]	Share of total per cent	1962-64-1967-69	1962-64-1974-76
							per cent per annum	
Raw Hides, wet salted weight								
Developed countries	2471	65.2	2797	63.7	2865	57.8	2.5	1.2
Developing countries	1318	34.8	1592	36.3	2088	42.2	3.8	3.9
WORLD	3789	100.0	4389	100.0	4963	100.0	3.0	2.2
Raw Sheepskins, dry weight								
Developed countries	281	84.2	302	82.3	246	75.0	1.5	-1.1
Developing countries	53	15.8	65	17.7	82	25.0	4.2	3.7
WORLD	334	100.0	367	100.0	328	100.0	1.9	-0.2
Raw Goatskins, dry weight								
Developed countries	49	49.0	43	41.7	32	27.1	-2.5	3.5
Developing countries	51	51.0	60	58.3	86	72.9	2.9	4.4
WORLD	100	100.0	103	100.0	118	100.0	0.6	1.4

[1] expressed as production + imports - exports.

SOURCE: Tabulated from data in UNIDO Data Base.

A. Structure of Raw Material Supply in the European DMECs

The investigation of the nature of the supply of raw material in the European DMECs is based upon the following evidence.

In 1976, of the total available world supply of hides and skins, almost 42% came from the developing countries while 55% was from the developed economies. But if one were to reflect on the situation a decade prior to this, the representative figures are observed to be much more skewed in favour of the developed countries. Consideration of Table 3.1 illustrates two trends; (i) the developed countries' relative share has been declining over the last 15 years, while an increase is noted in the share of the developing regions; and (ii) the supply of raw material has gone up in the same period, except in the case of sheepskins, which have declined.

In the European DMECs specifically, a cursory observation regarding livestock, shows that in the 1970-75 period the numbers of cattle and sheep went up in nearly all the countries, while the goat population remained more or less the same. Further, it is noted that the figures for the animals slaughtered also increased, though not very significantly (see Table 3.2).

Assuming that all the slaughtered animals' hides and skins in the European DMECs are absorbed by the tanning units in the region, it still leaves a considerable shortfall of supply necessary to allow the tanning units to operate at full capacity. For example, tanning units of European DMECs in 1975 processed 50 million pieces of hides and 188.6 million pieces of skins. The available supply of hides and skins from developed countries in Europe only accounts for 56.6% of processed hides and a very meagre 36% of processed skins. This suggests that as much as 43% of hides and 65% of skins were processed from material obtained from areas outside the confines of the European DMECs.[1]

TABLE 3.2: POPULATION AND SLAUGHTER OF LIVESTOCK IN SELECTED DEVELOPED MARKET ECONOMIES

	CATTLE (mill)				SHEEP (mill)				GOATS (mill)			
	Numbers		No. Slaughtered		Numbers		No. Slaughtered		Numbers		No. Slaughtered	
REGION	1970	1975	1970	1975	1970	1975	1970	1975	1970	1975	1970	1975
FRG	14	14	4.6	4.7	0.8	1.0	0.4	0.5	-	-	-	-
France	22	24	4.3	4.7	9.8	10.5	7.2	7.6	0.9	0.9	0.5	0.5
Italy	9	8	1.5	1.8	8.0	8.9	5.6	6.9	1.1	1.0	0.6	0.6
UK	12	15	3.8	4.8	19.2	19.7	11.7	13.1	-	-	-	-
Spain	4	4	1.9	1.8	18.5	16.3	11.4	11.7	2.6	2.4	1.0	1.0
EEC	72	79	17.8	20.3	41.3	43.6	26.1	28.6	2.3	2.2	1.3	1.3
DMEC Europe	101	110	21.7	28.5	108.9	112.6	50.8	56.1	29.6	28.5	11.9	11.2

SOURCE: Tabulated from UNIDO and OECD Data.

1. This is the difference between the number of hides and skins processed in the European OECD and the number available in these regions. See Table 3. for data on production (processing) of hides and skins into leather.

Trade in Hides and Skins

The situation pertaining to the availability of raw hides and skins in Western Europe, from within the European DMECs as well as from other international sources must also necessarily be clarified. In the first instance, the exports and imports of raw hides and skins by specific European DMECs become the focus of review. The essential point of such an examination being a reflection on the access to the supply of raw hides and skins from the European DMECs. The flows of raw material into these economies from regions outside the confines of the European DMECs are then dealt with subsequently.

The exports of raw hides and skins by the European DMECs in general, and the EEC in particular (except Italy), grew quite signifcantly over the period 1970-75. The increase in exports is noted for all categories of raw material; cattle-hides, calfskins, sheep and lambskins with the exception of goat and kid skins. Taking the case of cattlehides which predominate in the overall exports of raw hides and skins, as an example, we note that over the period under examination, France's export went up by 76%, the Federal Republic of Germany's (FRG) by 26.5%, the Netherlands' by 38% and of the United Kingdom (UK) by a stupendous 209% (see Table 3.3).

TABLE 3.3: EXPORTS OF RAW HIDES AND SKINS FROM EUROPEAN DMECs AND SELECTED COUNTRIES, 1970-75, ('000 metric tons)

	CATTLEHIDES			CALFSKINS			SHEEP AND LAMBSKINS			GOAT AND KIDSKINS		
	1970	1975	% change	1970	1975	% change	1970	1975	% change	1970	1975	% change
FRG	59.9	75.8	26.5	3.6	5.6	86.7	.4 (a) 1.2 (b)	.4 (a) 1.0 (b)	-12.5	-	-	-
France	56.5	99.4	75.9	12.9	23.2	81.2	4.2 (a) 1.3 (b)	4.7 (a) .9 (b)	1.8	.7	.6	-
Italy	10.2	4.2	-58.5	1.0	3.3	23.0	.4 (a) 1.5 (b)	.3 (a) 1.4 (b)	-10.5	-	-	-
United Kingdom	22.4	69.3	209.4	1.3	2.3	76.9	3.6 (a) 5.7 (b)	4.5 (a) 6.4 (b)	17.2	.1	.1	-
Netherlands	37.9	52.2	37.7	15.7	19.2	22.3	2.6 (a) 1.4 (b)	2.7 (a) 1.5 (b)	5.0	.3	.2	-
European DMECs	275.0	427.0	55.3	46.2	67.6	46.3	29.4 (a) (b)	32.4 (a) (b)	10.2	3.7 (a) (b)	3.4 (a) (b)	-
EEC	238.0	384.1	61.0	37.4	57.4	51.5	24.5	27.2	11.0	1.4	1.2	-
European DMECs (Excluding Italy, Spain and Portugal)	264.5	422.8	59.8	45.2	64.3	42.3	27.3	30.5	11.7	3.7	3.3	-
EEC(excluding Italy)	227.8	379.9	66.8	36.9	54.1	46.6	22.6	25.5	12.8	1.4	1.2	-

(a) Pelts pickled or dry; (b) wooled

SOURCE: Tabulated from data in I. Glass, Preliminary Report: Leather and Leather Products Industry in OECD Nations (unpublished document).

The exports of raw material by the European DMECs are essentially destined for countries within the region. Table 2.10 shows that in 1977, 97% of France's exports of raw hides and skins by value, 85% of the FRG's and 91% of the UK's were accounted for in the EEC region with Italy being the major recipient.

What is then deduced from the evidence is that the raw material exports have been particularly impressive in the case of high wage countries (where the tanning industry has suffered), implying a movement away from processing the material in these regions. The inference is further reinforced by a consideration of the changing import picture for raw hides and skins, in the European DMECs. Here we note that the regions which exhibited growth in the exports of raw hides and skins, show a decline in the imports of the raw material over the period 1970-75. In the FRG and the UK, specifically, the imports declined by 39% and 18% respectively. However, increases are noted in the French imports of raw material, and also, of course in Italy and Spain where the imports went up by 18% and 76% respectively (see Table 3.4). In 1975, Italy accounted for 54% of the total imports of raw hides and skins in the EEC and 42% of the total in the European DMECs.

TABLE 3.4: IMPORTS OF RAW HIDES AND SKINS OF EUROPEAN DMECs AND SELECTED COUNTRIES, 1970 and 1975 ('000 metric tons)

	CATTLEHIDES			CALFSKINS			SHEEP AND LAMBSKINS			GOAT AND KIDSKINS		
	1970	1975	%	1970	1975	%	1970	1975	%	1970	1975	%
FRG	63.8	39.1	-38.7	6.4	5.7	-10.9	5.1(a) 6.0(b)	3.7(a) 5.6(b)	-16.2	1.9	.8	-
France	25.8	43.1	76.1	2.3	2.0	-13.0	9.1(a) 74.3(b)	7.9(a) 69.9(b)	- 6.7	2.4	1.1	-
Italy	179.0	211.4	18.1	16.0	38.4	140.0	15.2(a) 23.0(b)	18.1(a) 18.2(b)	- 5.0	13.0	12.7	-
United Kingdom	40.0	33.0	-25.0	1.8	1.2	-33.3	14.9(a) 15.8(b)	10.4(a) 15.3(b)	-16.3	1.3	.7	-
Netherlands	50.0	31.5	-37.0	2.9	4.5	55.2	0.5(a) 3.7(b)	2.4(a) 1.4(b)	- 9.5	2.1	.1	-
Spain	34.2	60.4	76.6	6.8	5.4	-20.6	5.7(a) 11.3(b)	3.8(a) 7.6(b)	-32.9	2.9	3.4	17.2
European DMECs	482.5	502.3	4.1	44.9	62.5	39.2	187.7	167.0	-11.0	24.3	21.3	-12.3
EEC	391.9	395.0	.8	31.1	52.8	69.8	167.6	152.9	- 8.8	20.7	15.3	-26.1
European DMECs (excluding Italy, Spain and Portugal)	262.4	226.4	-13.7	21.4	18.3	-14.5	142.9	126.4	-11.5	8.4	5.0	-40.5
EEC(excluding Italy)	212.9	183.6	-13.8	15.1	14.4	- 4.6	129.1	116.6	- 9.7	7.7	2.6	-66.2

(a) pelts pickled or dry; (b) wooled.

SOURCE: Tabulated from data in I. Glass, Preliminary Report: Leather and Leather Products Industry in the OECD Nations, (unpublished document).

As much of the raw material utilised by the tanning units in the European DMECs comes from outside the region, it becomes necessary to identify the sources of supply.

Of the total imports of hides and skins into the EEC countries in 1977 as much as 55% of the imports (by value) were from outside the EEC. Historically, the European DMECs have depended upon the USA and Canada for the major part of the supply of hides and upon Oceania for skins. In 1977 these latter mentioned regions along with other developed countries outside the EEC accounted for 40% of the EEC imports of the raw material by value. The developing countries' share in the imports was 14%.[1]

The developing countries had been prominent contributors of raw material to the tanning units in the European DMECs. After the policies effected in some regions which curtailed the supply of the raw material to regions outside the national boundaries, their importance as unit suppliers has declined. But even now an appreciable quantity of the raw material is being exported from the developing countries to the developed market economies of Europe. The major destination of these exports are the EEC countries which, in 1977 absorbed 70% of the total developing countries exports of raw hides and skins to the developed market economies of the world. In absolute terms, the developing countries exports to the developed regions may have gone up (7% growth rate between 1970-77), however, their share in the developed economies imports of hides and skins has declined from 24.3% in 1970 to 13.6% in 1977.[2]

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1. See Table 2.10.

2. See Table 2.10.

What is inferred from this is that the developing countries which at one time exported a higher share of their raw material production to the European DMECs have through their policies adversely affected the supply situation in Western Europe.

Where the share of the developing countries exports of raw hides and skins to the European DMECs has receded over the years, the flows from other major developed countries, such as the USA and Australia, highlight a situation of their own. The pattern that is sketched from the evidence is consistent with the trends perceived in the development of the leather and leather products industry in the European DMECs over the last decade. For example in cattlehides, which are a major processing material, the USA exports to Western Europe are noted to have increased by 46.5% in the period 1971-78. However, the majority of the raw material has been destined for the southern low wage regions of Europe, more specifically, Italy, Spain and Portugal. Preclusion of these countries from the calculations shows that the USA exports of cattle-hides to the European DMECs actually declined by 12.2%. Much of the raw material (hides and skins) previously exported, by the USA and Oceanian region, to the major northern economies of Western Europe, is now sent to Korea, Taiwan and Southern Europe as the costs of processing the material in these regions are much lower. In the determination of the structure of raw material supply in the European DMECs, the

two fundamental conclusions that are drawn from the empirical data highlight: (a) the dependency of the European DMECs leather processing units on external sources (ie. outside the European DMECs) of raw material supply; and (b) the stimulus provided to the tanning industry in the southern European regions by the changing trade flows of raw material, at the expense of the major northern economies, particularly the FRG and the UK, and to a lesser extent, France.

B. Structure of Tanning in the European DMECs

The assertion that the changing pattern of supply of hides and skins has significantly influenced the development of downstream production processes in the European DMECs over the last two decades, is acknowledged. However, though the availability and non-availability of raw material may have swayed the production of leather, one way or another, it cannot be deemed as the moot cause of structural change in the leather processing industry in the European DMECs. Rather, it could be argued that the hides and skins supply to various economic entities, in the European DMECs, is itself determined by the predicament of the industry in specific regions. In support of this argument the basic causal factors must necessarily be outlined.

What could be postulated as the basic causation? The point is difficult to establish, but it is felt that the major causal influences could essentially be identified at the level

of the sector. The developments at the 'macro' level, give rise to factors (eg. technological changes in the prices of factors of production) which are primal influences and have far reaching consequences for specific industrial sectors. But the way in which each sector is affected is determined by the particular nature of production and organisation in the sector, and the extent to which a production process is vulnerable to technological change.

In recent years, the high technology industries in the European DMECs have displayed considerable growth, while the more 'traditional' ones (those where production is characterised by labour and 'basic' raw material intensity), have not fared well. These latter industries have found it difficult to cope with the pressures that have been brought to bear and have declined. The pressures are clearly depicted by the inability of these industrial sectors to deal with rising costs. Moreover, technological change has also not been able to alter the production processes in a way so as to relieve the adverse affects on the basic nature of production. The tanning and footwear industry belongs to this latter category.

The tanning industry in most Western European economies has declined in every conceivable way; reduction in output, fall in employment and shrinkage of capacity (see Table 3.5). To stabilise the industry and restrain the pace of decline the producers in the European DMECs have taken steps to adapt

structurally to the situation. In this section we will probe the adjustment process in the industry in Western Europe, by investigating: (i) changes in the organisational structure of industry; (ii) changes in production and employment; (iii) the effect of rising costs and technological change on the industry; and (iv) international trade flows.

TABLE 3.5: STRUCTURAL CHANGE IN THE TANNING SECTOR IN THE EUROPEAN DMECs

	Number of Establishments			('000) Employment			(pieces '000) Estimated Capacity			('000 pieces) Production		
REGION	1965	1975	%	1965	1975	%	1965	1975	%	1965	1975	%
European DMECs	1990	1702	-14.5	69	65	- 6.1	Hides: 54,400 Skins: 147,025	Hides: 53,750 Skins: 153,325	-1.2 4.2	Hides: 51,505 Skins: 158,590	Hides: 50,444 Skins: 188,678	-2.1 19.0
EEC	1436	1179	-17.9	47	42	-10.6	Hides: 42,300 Skins: 133,900	Hides: 38,300 Skins: 136,400	-9.5 -1.9	Hides: 41,565 Skins: 134,100	Hides: 37,715 Skins: 142,190	-9.3 6.0
European DMECs (Spain, Italy, Portugal excluded)	1224	1017	-16.9	48	39	-18.8	Hides: 37,800 Skins: 95,025	Hides: 30,350 Skins: 82,925	-19.7 -12.7	Hides: 31,605 Skins: 119,190	Hides: 24,684 Skins: 80,868	-21.9 -32.2
EEC (without Italy)	978	770	-21.3	38	30	-21.1	Hides: 31,900 Skins: 90,900	Hides: 24,300 Skins: 78,400	-23.8 -13.8	Hides: 26,965 Skins: 109,500	Hides: 19,815 Skins: 71,990	-26.5 -34.3

SOURCE: Tabulated from data in I. Glass, Preliminary Report: Leather and Leather Products Industry in the OECD Nations, (unpublished document), OECD, The Footwear Industry; Structure and Government Policy, and SATRA Statistical Reviews, 1975-80.

Changes in the Organisational Structure

The tanning industry in the European DMECs is characterised by the presence of a large number of small and medium scale production units. The trend, though, is noted to be towards the establishment of large scale enterprises with the marginal firms going out of business or merging to form bigger units.

What reflects the tendency towards concentration of production is the observation that while the number of plants in the European DMECs went down, in the 1965-1975 period, the 'estimated capacity per plant' increased. The plant closures have been prominent in all the countries of Western Europe, but the incidence of closures seems to be much higher in the northern regions than in the southern ones (see Table 3.5). Similarly, when the change in 'estimated capacity per plant' is considered, the data shows that the increase is much more pronounced in the southern economies (see Table 3.6).

TABLE 3.6: CHANGE IN THE ESTIMATED CAPACITY PER PLANT: TANNING

	Capacity/Plant ('000 pieces)		% Change
	1965	1975	1965-1975
European DMECs	101.22	124.02	22.5
EEC	122.70	148.18	20.8
European DMECs (excluding Spain, Italy and Portugal)	108.52	111.38	2.6
EEC (excluding Italy)	125.56	133.38	6.2

SOURCE: Calculated from data in Table 3.5

What is inferred from the evidence is, that though 'concentration' seems to be a general trend in the European DMECs, the emergence of large scale processes seems to be more frequent in the mediterranean regions. The point to some extent, is corroborated by an expert in the field, who after an extensive tour of duty in Western Europe was of the opinion that 'concentration' activities (the establishment of large scale production units, mergers and the revamping of old processes), were indeed more intensive in the southern regions, ie. Italy and especially Spain and Portugal.[1] Given the basic information, where in the ten year period 1965-1975, the number of establishments decreased and the 'estimated capacity of plants' went up in almost all European DMECs, it

1. op.cit., Interviews with Mr. Magne Nestvold, UNIDO, Vienna, November 1981 - February 1982.

could be surmised that concentration is and has been a crucial element of the restructuring process in the tanning industry in Western Europe.

Production and Employment

As regards production and employment in the sector, it is noted that the overall production of leather in Western Europe increased by 14% while in the EEC it went up by 2.4% in the period 1965-76. However, except for Italy, Spain, Portugal, Ireland and Greece a decline is representative of all major economies. Similar is the case for employment. The number of labourers decreased sharply in European DMECs as a whole, with the major decline (21.2%) being observed in the EEC countries, excluding Italy. Where the industry has grown the employment figures show a positive growth rate, as for example in Italy (33%) and Spain (22%).

TABLE 3.7: STRUCTURAL CHANGE IN THE TANNING SECTOR IN SELECTED EUROPEAN DMECs (1965-1975)

	Number of Establishments			Employment ('000)			('000 pieces) Estimated Capacity*			Production ('000 pieces)		
	1965	1975	% change	1965	1975	% change	1965	1975	% change	1965	1975	% change
FRG	236	160	-32	9	7	-22	Hides: 10,000 Skins: 17,000	Hides: 6,000 Skins: 12,000	-33	Hides: 8,300 Skins: 27,000	Hides: 5,100 Skins: 10,600	-55
France	352	288	-18	7	6	-14	Hides: 6,400 Skins: 60,000	Hides: 5,900 Skins: 55,000	- 8.3	Hides: 5,700 Skins: 2,400	Hides: 4,600 Skins: 35,600	-16
United Kingdom	270	237	-12	12	10	-16	Hides: 8,500 Skins: 9,000	Hides: 6,500 Skins: 7,500	-20	Hides: 8,150 Skins: 31,500	Hides: 5,850 Skins: 22,700	-28
Italy	458	409	-12	9	12	33	Hides: 10,400 Skins: 43,000	Hides: 14,000 Skins: 58,000	35	Hides: 14,600 Skins: 24,600	Hides: 17,900 Skins: 70,200	125
Spain	120	135	13	9	14	22	Hides: 5,000 Skins: 8,300	Hides: 8,000 Skins: 11,600	47	Hides: 4,400 Skins: 13,300	Hides: 6,600 Skins: 35,000	135

SOURCE: Tabulated from I. Glass, Preliminary Report: Leather and Leather Products Industry in the OECD Nations, (unpublished document), and SATRA, Statistical Review, 1975-1980.

Influence of Rising Costs and Technological Change

The tanning sector in Western Europe has also been hit hard by certain exogenous factors. Raw materials take up almost half of the total production costs of a tannery. With the constraints on supply, it has been difficult to procure adequate quantities for Western European tanneries. The increase in costs is a crucial factor. The rapid rise in the price of raw hides which is evidenced during much of the seventies, coupled with an increase in wage rates, given the fact that tanning process is characterised by a high labour participation, has had a pronounced effect on the tanning establishment in the European DMECs. The result being that a substantial capacity is lying unutilised and the smaller enterprises which have been unable to cope with the cost pressures have been forced out of business. The size factor is an important one. The small firms lacking the necessary finances find it impossible to conduct research, which could lead to cost saving measures, and have thus suffered. The large establishments, on the other hand, which possess the necessary capital to purchase or develop technology, have consequently performed much better in adjusting to the cost pressures.

In recent years, technological change has been initiated, aimed at improving product quality. The use of chrome salts and new chemicals has been introduced which though, makes the new processes relatively expensive, is expected to bring about

a qualitative improvement and thereby increased competitiveness in certain markets. So far these innovations have had little impact in restraining the decline. Rather given the present predominance of small and medium scale firms and the state of technical organisation, innovations such as the ones referred to above, have only worked towards aggravating the cost pressures.

As the sector is characterised by labour intensive operations, in the treatment of large batches a possible movement towards increased mechanisation might also be suggested. Automated processes replacing manual operations can indeed be foreseen in the near future but one can realistically posit limits to the extent of automation. The finishing aspects, for example, deal with each piece of hide and skin individually and it is noted that until now "...these operations have required an almost irreducable amount of labour which no feasible or universally applicable machinery has been able to replace."[1] Whether automation is the answer for the revival of the sector remains to be seen. Ironically, the industrial reorganisation can only be envisaged by a movement towards increased mechanisation of the production process. One factor working in its favour, is the trend towards 'concentration' of production in the European DMECs. Given the trend towards 'concentration', one can also not rule out the possibility that in the long run tanning could become a specialised large scale

1. ILO, Effects of Technological Developments in the Occupational Structure and Level of Employment in the Leather and Footwear Industry, Geneva, 1979, p. 17.

chemical process. Indications are that it probably will, in which case a totally new organisational structure, more readily adaptable to exogenous influences just might evolve.

The Developed Market Economies and International Trade in Leather

In assessing the exports of leather for 21 developed market economy countries (DMECs) for the years 1970 and 1977, the basic observation reflects that much of the leather that is exported is, and has essentially been utilised in the leather manufacturing establishments of the developed market economies. In this seven year period a slight increase is also noted in the leather exports to the developing countries. Where, in 1970, the developing regions' market share in the developed countries' exports of leather was 11%, it rose to 16% in 1977.[1] The developed regions' own share in the total imports of leather by the developed economies in 1977, was 64%, the developing countries supplied 32%, while the remaining 4% came from the socialist/centrally planned economies.

The major destination for the leather exports of the developing countries to the developed world was the EEC region. It is noted that of the total earnings of the developing economies from exports of leather to all developed economies of the world, 73% of the revenues were realised from exports to the EEC countries. In the EEC's total imports of leather, the market share of the developing countries was close to 33%.

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1. op.cit., UNCTAD, ID/WG.319/4, 1980, Table 13, p. 27.

Consideration of exports of Western Europe between 1970-75, by types of leather, emphasises an increase in the exports of bovine leather, and a decline in the exports of leather from sheep and goatskins (see Table 3.8). Indications are that, as yet, not a very significant quantity in either type of leather (ie., heavy, light or sheep and goatskin), finds its way to the developing countries' footwear and leather products manufacturing units. Figures show that of the total exports, by types of leather, of the developed market economies in 1977, the developing regions' received 18% of bovine leather, 14% of sheepskin leather and 9% of goat leather.[1] Over the years, however, the situation seems to have changed, with more leather being exported to the developing countries commensurate with the growth of the leather and leather products industry in the region. This is affirmed by a 26% growth rate in the exports of leather from the developed market economy countries to the developing areas between 1970-1977.

TABLE 3.8: EXPORTS OF LEATHER OF EUROPEAN DEVELOPED MARKET COUNTRIES, 1970-1975

REGION	Heavy Leather[a]		Light Cattle+Calf[b]		Sheep & Goat Leather[b]	
	1970	1975	1970	1975	1970	1975
European DMECs	13.5	21.2	39.6	46.4	25.5	23.9
EEC	11.4	14.9	35.4	40.4	24.3	21.4
European DMECs (excluding Italy, Spain and Portugal)	10.3	14.4	34.0	37.2	24.3	21.0
EEC(excluding Italy)	9.2	8.7	30.0	31.4	23.8	19.0

(a) in '000 tons; (b) in Million M^2

SOURCE: Tabulated from data in I. Glass, Preliminary Report, Leather and Leather Products Industry in the OECD Nations, (unpublished document).

1. Ibid.

A breakdown of the imports by the developed market economies in the period 1970-75, depicts an increase in imports for all types of leather (see Table 3.9), except in the case of heavy leather (essentially used in the manufacture of saddles, harnesses, footwear soles etc.), whose imports declined, especially in those countries where the industry has retrogressed (ie., all European OECD countries excluding Italy, Spain, Portugal and Greece). In Western Europe in 1975, the largest advance (70%) was observed in the imports of leather from sheep and goatskin. The developing countries supplied a significant quantity and their share in the total imports of the developed market countries in 1977, by type of leather, was 33.5% in bovine, 25% in sheepskin and 76.2% in goatskin.[1]

TABLE 3.9: IMPORTS OF LEATHER BY EUROPEAN DEVELOPED MARKET COUNTRIES, 1970-1975

REGION	Heavy Leather (a)		Light Cattle + Calf (b)		Sheep and Goat Leather (b)	
	1970	1975	1970	1975	1970	1975
European	31.6	40.2	33.1	48.8	28.2	47.8
EEC	27.9	32.2	27.4	38.3	23.7	44.7
European (excluding Italy, Spain and Portugal)	17.8	11.4	31.2	45.1	24.5	33.8
EEC (excluding Italy)	15.1	9.0	25.8	35.4	22.0	31.6

(a) in '000 tons; (b) in Million M^2

SOURCE: Tabulated from data in I. Glass, Preliminary Report: Leather and Leather Products Industry in the OECD Nations, (unpublished document).

1. Ibid., UNCTAD ID/WG.319.4, 1980, Table 3, p.8.

If leather is considered by its types and uses, an increase is observed in the imports of European DMECs of sheep and goat-skin leather, which are mostly used in the production of leather garments and luxury leather goods. This points to a switch in emphasis in these countries, from leather footwear production to other products. Indeed, Table 3.10, showing the differing quantities utilised by leather footwear and leather goods production units in the developed market economies in 1968 and 1977 confirms this trend.

TABLE 3.10: LEATHER USAGE IN DEVELOPED MARKET ECONOMIES (1968, 1977)

Item	1968	1977
Shoes	60% - 70%	50% - 60%
Leather Goods and Accessories	15% - 20%	20%
Clothing	3% - 5%	20% - 30%
Gloves	3% - 5%	

SOURCE: Tabulated from data in UNIDO data base.

Conclusion

In conclusion, it is affirmed that the tanning industry in the European DMECs has deteriorated over the last decade or so. This is evidenced in the declining levels of production and employment and the contraction of productive capacity. The retrograde tendencies, however, are by no means a general phenomena. From the evidence available it has been clearly

established that the tanning industry has declined in the northern European DMECs, but has grown in the southern countries. The reason for this uneven development could essentially be attributed to the capacity of these regions in furnishing viable responses to the problems that the tanning sector in Western Europe has been confronted with. The major element of these responses has been their ability to deal with the cost pressures that affect the structures. The mediterranean regions are also places where low cost labour is abundant. Consequently, given the general availability of a prime input, processing of leather has grown significantly in these regions.

The developing countries have also exercised influence on the development of the tanning industry in the European DMECs. However, at first glance, it seems that the pressures on the structures are not as severe as most tanners in the developed market economies say they are.[1] The rise of the tanning industry in the developing countries has made considerable demands on the domestic supply of hides and skins, which has led to a decline in the share of the developing countries exports of hides and skins to the developed market economies over the years. Still we note that a significant quantity of the raw material is exported to the developed regions, particularly the European DMECs. However - there is little evidence to substantiate this - it is widely believed

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1. See Chapter VI of this study.

that the majority of the raw material exported by the developing countries is essentially destined for the southern European DMECs, specifically Italy.[1] How extensively have supply restrictions in the developing countries hurt the tanning sector in the northern European DMECs? It is difficult to ascertain. But one thing is quite clear; the restricted supply is a secondary issue and that the decline of tanning in the European DMECs is essentially ordered by internal influences (such as the huge increases in the wage rates etc.).

We also note that much of the leather produced globally is utilised in the developed market economies. Though the developing countries' share in leather utilisation is rising, the developed market economies are still pre-eminent in the manufacture of leather products. The next chapter will consider the restructuring process in the leather footwear industry in the European DMECs.

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1. Interviews with Mr. M.Nestvold , UNIDO, Vienna, November 1981 - February 1982.

CHAPTER IV: ADJUSTMENT PROCESS IN THE FOOTWEAR INDUSTRY IN THE EUROPEAN DEVELOPED MARKET ECONOMIES*

The elements which have hampered the progress of tanning in the European DMECs over the last decade, are also the relevant issues in the discussion of footwear manufacture in these economies. Like tanning, the footwear industry in the European DMECs has also suffered; the decline is manifested in the dimunition in capacity, employment and production levels. Like tanning, footwear manufacture in western Europe can also be identified as a relatively labour intensive activity, and like in the processing sector, one notes that the small and medium scale production units predominate. Even the responses of the two sectors are similar. The production of footwear has also gravitated towards the low cost southern European regions in light of rising wages and subsequently the high costs of production to be encountered in the northern European DMECs. The factors influencing the 'slump' are quite the same for the two sectors as the organisational structures bear close resemblance. However, the degree of impact of each factor upon each sector varies.

Changes in the Organisational Structure

The organisational structure of the footwear industry in the European DMECs, has in the last fifteen years, undergone a more

* Footwear in this usage means leather footwear unless otherwise specified.

profound change than the structure of tanning. The fundamental aspect of the transformation is very aptly reflected in the change in the number of establishments engaged in leather footwear manufacture, and in the estimated capacity of plants and employment. For the European DMECs as a whole the number of establishments declined by 21%, estimated capacity by 5% and employment by 2% over the ten year period 1965-1975. However, this does not portray the true picture about restructuring in the footwear industry in the European DMECs. If the principle growth poles, ie. Italy, Spain and Portugal, are excluded from the calculations, we note that the decline is far more pronounced (see Table 4.1). Especially in the case of the EEC countries (excluding Italy), the change over the 1965-1975 period can be described in no other way than as 'staggering'; the number of units fell by 35%, employment by 21%, while estimated productive capacity declined by 20%.

TABLE 4.1: STRUCTURAL CHANGE IN THE LEATHER FOOTWEAR SECTOR IN THE EUROPEAN DMECs

	Number of Establishments			Employment (in '000)			Estimated Capacity (million pairs)			Production (million pairs)		
	1965	1975	% change	1965	1975	% change	1965	1975	% change	1965	1975	% change
European DMECs	8681	6887	-21	496	484	-2	965	912	-5	592.5	661.1	12
EEC	6899	5310	-23	385	341	-11	776	673	-13	469.2	471.3	.4
European OECD (excluding Portugal Spain and Italy)	3489	2494	-29	-	-	-	515	422	-18	385.5	302.9	-22
EEC (excluding Italy)	2329	1510	-35	275	216	-21	436	348	-20	328.9	252.3	-23

SOURCE: Tabulated from I. Glass, Preliminary Report: The Leather and Leather Products Industry in the OECD Nations (unpublished document), OECD, The Footwear Industry: Structure and Government Policy, 1976.

TABLE 4.2: STRUCTURAL CHANGE IN THE LEATHER FOOTWEAR SECTOR IN SELECTED EUROPEAN DMECs (1965-1975)

	Number of Establishments			Employment (in '000)			Estimated Capacity (million pairs)			Production (million pairs)		
	1965	1975	% change	1965	1975	% change	1965	1975	% change	1965	1975	% change
FRG	713	488	-31.6	96	72	-25.0	140	90	-35.7	124	77	-37.9
France	870	503	-41.0	78	73	- 6.4	112	105	- 6.3	126	84	-33.3
Italy	4570	3800	-16.8	110	125	13.6	340	325	- 4.4	140	219	56.4
United Kingdom	252	207	-17.8	66	47	-28.8	130	110	15.4	128	69	-46.1
Spain	315	268	-14.9	45	82	82.2	90	145	61.1	56	130	132.1

SOURCE: Ibid.

The lower rate of decline in estimated productive capacity than in the number of establishment, would suggest a movement towards concentration of production. This conclusion is confirmed by an examination of change in the 'estimated capacity per plant' in the European DMECs over the stated period. Here it is observed that 'estimated capacity per plant' actually increased concommittant with the fall in the number of establishments. Now if the low wage regions of Western Europe are to be excepted from the examination, it is further noted that the increase in 'estimated capacity per plant' has been greater. What this suggests then, is that concentration is a more extensive phenomenon in the regions characterised by high wages and where the industry as a whole has declined.

TABLE 4.3: CHANGE IN ESTIMATED CAPACITY PER PLANT

	1965 ('000 pairs)	1975	% Change
European DMECs	111.16	132.42	19.1
EEC	112.48	126.74	12.7
European DMECs (excluding Spain and Portugal)	147.61	169.21	14.6
EEC (excluding Italy)	187.20	230.46	23.1

SOURCE: Tabulated from data in Table 4.1.

Rationalisation through concentration is but an obvious preferred alternative for the footwear industry in the European DMECs. This is both dictated by internal developments (ie. internal to the industry) and necessitated if the industry is to maintain its competitive position in world markets. Usually concentration has taken the form of " ... complete closures of enterprise(s) ... or take over by large firms of small and medium sized units with very specialised lines of production".[1] In the major countries, the FRG, France and the UK, the closures have outnumbered new ventures as is quite evident from the data. The smaller units have had to bear the brunt of closures,for they have found it extremely difficult to retain the competitive edge in light of the increased costs of production and the fact that they basically find themselves financially constrained.

Demand for and Production of Footwear

Unlike tanning where the product obtained is essentially an intermediate good, the end product of footwear manufacture is retailed through commercial outlets for general public consumption. At this stage then, the consumer demand factor acquires importance. Of course, one major element of this demand is the price that is charged for the product, but there are other extraneous considerations as well whose focus

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1. OECD, The Footwear Industry: Structure and Government Policy, Paris, 1976, p. 18.

may not be economic at all, which play an important role in the actual determination of demand. For example, it is also expected that the product have some aesthetic appeal, something which is directly related to consumer demand. It could therefore be stated [without any further indulgence in consumer psychology] that in footwear manufacture it is not just the treatment of a large batch of materials as in tanning which is important, but the intricacy of detail and consideration of fashion are also very crucial. The fashion aspect may have very little to do with the processing of leather, and may be important only so far as it might influence the type and quality of leather that is demanded by down-stream production sectors, it is fundamental in manufacturing activities whose essential aim is the production of leather goods.

Which is a more important influence on demand; the price or the aesthetic element? The answer, we believe, embodies not only geographical considerations but the historical as well. The pre-eminence of one over the other may vary over region as well as over time. At this stage though, it can only be suggested that there is some measure of a trade-off between cost considerations and aesthetics which underlies effective demand in footwear.

In recent years, the price charged has played a major role in the formulations of demand in Western European economies. The demand for footwear as a whole (ie. leather footwear as well as footwear of other materials) in Western Europe has grown very slowly over the last two decades. For the sixties

and the seventies, trends show a decline in the proportion of consumer budget spent on footwear.[1] Given the incidence of rising prices, where footwear prices have gone up but less than general consumer prices, it is inferred that people are spending more on items of basic necessity other than shoes. The untoward effects are particularly severe on the production of footwear made out of leather, whose prices have risen more than that of footwear as a whole.[2]

The turning point in footwear production (of all types of footwear) in the European DMECs was 1969-70 (see Table 4.4). In this period, the production levels exceeded one billion pairs, but since then there has been a considerable fall in output and the decline in production is observed to be more pronounced in the high wage countries than in the low wage ones.

Figure 1 depicting the performance of various countries in the EEC, reveals declining levels of output for all, except Italy. In particular leather footwear manufactures declined significantly, both in absolute and relative terms. However, with the increase in theprice of oil in the early 1970s, which also raised the prices of petroleum based synthetics - whose impact on footwear manufacture will be examined below - leather has regained some of its lost share. This development

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1. Ibid., OECD, 1976, p. 14
2. Ibid., OECD, 1976, (see Tables 1 & 2), pp. 13-14.

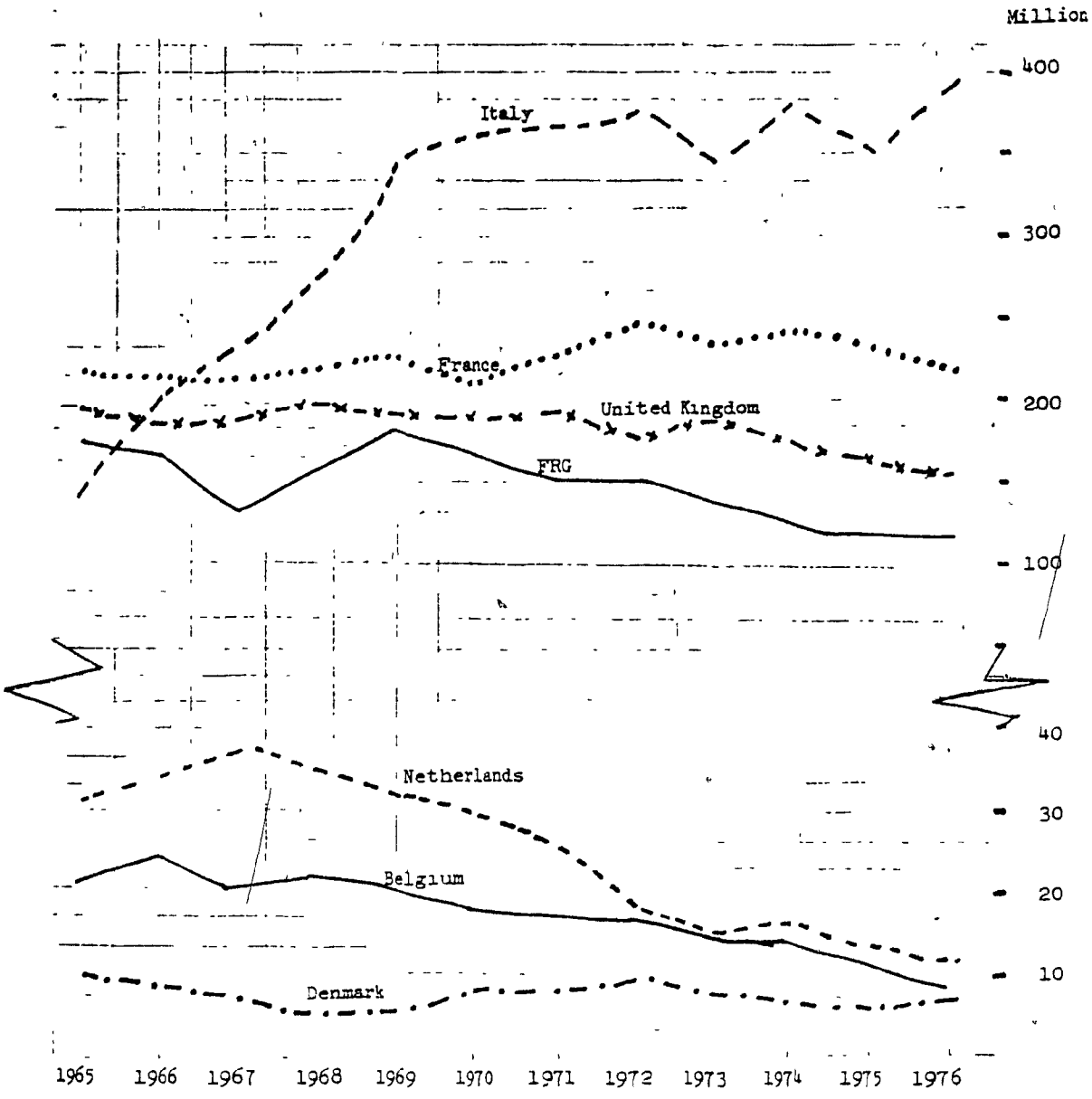
TABLE 4.4: PRODUCTION OF FOOTWEAR IN SELECTED DMECs (million pairs)

COUNTRY	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
FRG	111.4	111.2	118.5	122.7	117.3	104.0	119.1	122.7	116.5	112.8	108.2	-	85.5 (68.6)	77.8 (68.4)	79.0 (69.2)	77.6 (67.8)	73.7 (68.4)	(69.8)
France	99.1	107.8	110.3	89.0	93.0	86.6	87.6	94.1	86.0	91.8	98.1	-	87.8 (37.1)	88.9 (38.8)	94.0 (44.2)	99.9 (46.2)	99.2 (50.0)	101.7 (49.6)
Italy	-	-	-	-	-	-	-	-	-	262.8	265.9	-	163.0 (44.8)	215.0 (61.8)	264.0 (67.8)	249.0 (68.6)	279.1 (71.2)	338.0 (69.1)
Portugal	8.8	8.8	10.8	11.7	12.3	13.6	15.2	15.2	16.0	15.4	15.0	-	-	-	-	-	-	-
Sweden	10.2	10.3	10.4	10.1	7.8	7.6	6.5	6.1	5.2	4.1	4.4	-	3.8 (28.8)	3.5 (28.5)	3.1 (23.7)	2.7 (22.0)	2.0 (19.8)	2.4 (26.4)
Switzerland	10.4	11.2	12.0	11.7	11.7	11.0	10.7	11.0	10.2	9.5	8.9	-	-	-	-	-	-	-
Canada	39.8	39.0	36.8	38.8	40.4	38.6	41.9	42.4	27.7	29.4	26.2	-	-	-	-	-	-	-
United Kingdom	-	-	-	-	-	-	-	-	-	-	-	-	66.8 (38.6)	65.3 (39.8)	64.9 (41.3)	65.9 (41.3)	65.5 (42.3)	67.8 (45.5)

( ) Indicates production of footwear with leather uppers as percentage of total footwear production.

SOURCE: Tabulated from OECD, The Footwear Industry:Structure and Government Policy, 1976 and SATRA Statistical Reviews (1975-1979).

FIGURE 1: FOOTWEAR PRODUCTION IN EEC (Selected Countries)



SOURCE: European Confederation of Footwear Industry.

somewhat stimulated the production of leather footwear in the European DMECs, as is evidenced from the data, and we note that their share in the total footwear production has been rising since 1974. A further evaluation of footwear production over 1965-75 shows leather footwear production to have gone up by 12 per cent in the European DMECs and by 4 per cent in the EEC (see Table 4.1). The growth is again fairly concentrated within regions, for with the omission of Italy, Portugal and Spain, the relevant figures show a 22% fall in production in the European DMECs and a 23% decline in the EEC.

Thus we conclude here that the decline in footwear production is far more exaggerated in the high wage European DMECs than in the low wage ones. Rather it could be asserted that the mediterranean low wage regions have actually restrained the pace of decline of footwear manufacture in Western Europe. Given that some of these declining regions have historically been involved in a big way in leather footwear and leather goods manufacture and that they are still the major markets for these products, the trends highlight the sensitivity of the situation.

Use of Synthetics and Footwear Technology

In footwear manufacture the choice of material determines the production process. Thus, when we talk of footwear production in general, a distinction needs to be made with respect to the type of product that is manufactured. Fifteen to twenty

years ago, leather was the predominant material in the making of footwear, however, in recent years it has lost a significant ground to synthetics and plastics. Leather is still the primary material of footwear manufacture though, and it accounts for more than half of the footwear manufactured in the industrialised countries, but its share in total footwear production has declined. The leather previously utilised in the production of shoes is now being used in the manufacture of other leather goods.[1]

The major reason for the growth of synthetics and other substitutes has to do with cost factors, the concentration of production in the industry and the increased mechanisation of the production process. This is so reasoned for it is believed that synthetics and other leather substitutes can be more easily adapted to modern mechanised methods of production than leather.

In order to facilitate the application of new technologies, synthetic footwear has been developed after extensive research. One would tend to believe that it has become more a part of larger enterprises than small or medium scale units. This is so, for footwear manufacture is a fairly complex operation ranging from a 'craft industry' to one using the most advanced techniques. A major characteristic of footwear production, as stated earlier, is the diversity in terms of

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1. See Table 3.10 in this study.

size, colour and style as a consequence of which shoes are generally produced in small batches. Frequent styling changes are a symbolic feature which make highly mechanised processes relatively uneconomic. Given the fact that production processes are primarily labour intensive, this implies that production of footwear is not very receptive to labour saving innovations, which in turn strongly influences the size of the production unit (firm). Generally, the chief obstacle to innovation comes from the small size of the firm, which does not allow it to bear the costs associated with research and development. In several European countries, however, research has been undertaken by various private and government sponsored institutions, like Shoe and Allied Trades Research Association (SATRA) and Centre Technique de Cuir, which have taken steps in stimulating the interests of the manufacturers in technical progress and encouraging the use of more modern production methods and new ideas. In this way they have helped the small footwear enterprises in adjusting to changes in the economic environment of their respective economies.

The productive activity in footwear manufacture is divided into various 'departments' or 'steps', and with each is associated a specific labour component and technique. Some of these 'steps' are more accommodating to technical change while others present a few problems. With the recent innovations in 'lasting' and 'bottoming', certain production steps have been eliminated and here we acknowledge the efforts towards increased mechanisation of the production

process. The upshot of this development has been an alteration in the general pattern of demand in favour of synthetic products, for the reasons mentioned above. Therefore, it could be stated that automation in shoe production seems most feasible in the manufacture of synthetic footwear.[1]

The new production processes have also had an impact on the employment of labour in the industry. The innovations have tended to 'economise on labour requirements' and in the reduction in the number of operations and the time required for each of these. The change in the organisation of production is also responsible for a particular form of labour displacement. Earlier activity in footwear had worked towards subcontracting of some of the production steps. The smaller firms found this method cheap and efficient, especially so in Italy and Spain where the presence of a family enterprise and the 'flexibility of homeworkers' has allowed it to be a very profitable venture. However, the recent trends in most Western European countries have significantly

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1. One expert seems to be very much in agreement with this reasoning, and points to a distinct product differentiation between the low wage and the high wage regions of Western Europe. In the high wage countries where the major concentration activity is affirmed, he reflects that synthetics have in recent years become very popular with the larger footwear producers as witnessed by the phenomenal growth in sports shoes, of brands such as Adidas, Pony, Diadora etc., where as much as 70% of the footwear produced anually is from synthetics. In the south where small scale production units are predominant, leather is essentially the preferred base material of manufacture. Interview with Juhani Berg, Senior Industrial Development Officer, Industrial Operations Division, UNIDO, Vienna, 14th January, 1982.

reduced the traditional form of subcontracting. The onus is on large firms which are increasingly making the subcontractor redundant.

Recent Developments in Footwear Technology*

The issue of technical change incorporating the use of computers has been widely broached in discussions on restructuring of specific industrial sectors in the European developed market economies. In the case of the leather and leather products industry, the question is often put forward whether the adoption of computerised methods would alleviate the problems of the industry and subsequently set it on a course of recovery and eventually, growth.

Footwear production ranks among the most labour intensive activities in the entire manufacturing industry. The production process involves certain working steps, (cutting, fitting, lasting, bottoming, finishing and warehousing, etc.), which all require a fair amount of labour. Although mechanisation of certain steps has been consistently emphasised in restructuring, the extentof technical transfiguration of the production processes in footwear has not been significant. The attempts to undertake mechnisation have been instigated in

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* I would like to thank Kurt Hoffman of the Science Policy Research Unit (SPRU) at the University of Sussex, United Kingdom for his valuable assistance in familiarising me with the CAD/CAM (Computer Aided Designing and Computer Aided Machines) technology and the use of microprocessors in the leather and leather products industry.

order to combat the pressures (such as labour costs) affecting the structures in the DMECs in order to revitalise the production process. The transformation involving the use of computers and labour-saving machinery has so far been predominantly employed in the high skill activities (such as cutting, stitching, etc.), associated with footwear manufacture.

Computers (and automated processes) have specifically been employed in footwear manufacture, in the pattern grading, designing and cutting operations, as well as in the fitting room, where high skill labour, costs and materials are the major considerations. Pattern grading, designing and cutting are also the working steps most receptive to technological change.

In reality, however, there are major constraints in applying computers. While designing and grading can be undertaken with relative ease, cutting is a much more delicate operation since the choice of the material to be cut, is the major deciding factor in the choice of technique. The adequacy of a computerised cutting machine depends upon the degree of adaptability to the chosen technique. Leather most often has to be cut in single layers as each piece has to be inspected for imperfections and quality. Though, this does not rule out the use of an automated process, it does definitely reduce the efficacy of the operation. Synthetics and other man-made materials on the other hand, allow for a wider use of automated cutting processes. Due to their

uniformity with respect to colour, texture, etc., they can be layered into a desired thickness for efficient cutting through computerised operations. However, caution must be exercised in the choice of technique, for at times its very usefulness can be questioned. For example, earlier technology emphasised the use of the laser beam in cutting. This was widely proclaimed then, but over time it has been established that cutting by laser is not very feasible, as it burns the edges of the leather and in the case of synthetics fuses the material.

Automated stitching and sewing operations are designed to produce a quality product and to provide relief from high costs of skilled labour employed in the 'fitting room . Stitching and sewing are very skilled activities in footwear manufacture, and at times firms have difficulty in recruiting labour for machine sewing. Automated processes have been often mentioned as alternatives which would combat the dis-economies and further improve on results of machinists using manually controlled machines.

This is one department of footwear manufacture, where perhaps the most research, concerning automation, has been undertaken. The technology overlaps the one employed in the textile industry, and the developments in technology in the textile sector can easily be extended, with slight modifications, to incorporate not only footwear manufacture but also the manufacture of leather garments.

In the case of sewing and stitching in footwear, certain machines facilitating automation have been introduced. These machines whose mode of operation is similar to the ones used in pattern grading and cutting, fall under the category of CAD/CAM technology. They are controlled by programmable units called PROMs, which are tiny electronic memory devices directing the action of precision feed for fast accurate sewing. The extent of utility varies over different machines, but their basic strength lies in the fact, that their use lowers direct labour costs, increases output per unit of time and generates a better and more consistent quality of production. Their disadvantages are with respect to the high capital costs of purchase, their inflexibility in terms of their adaptability to frequent styling changes, etc., and high maintenance costs.[1]

When the relative strengths and weaknesses are balanced against each other, the advantages of employing these machines in footwear production do not seem to be very significant. On the other hand, their use in textiles has led to substantial benefits for the industry. In the manufacture of clothing, stitching and sewing is perhaps the most important department, but the importance of stitching and sewing with respect to other working steps in footwear manufacture can in no way be over-emphasised. Further, footwear production is still very

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1. See R.P. Phillips, BSc and T.J. Freer, BSc, Automatic Sewing Machine, Shoe and Allied Trades Research Association (SATRA), June 1980.

much a small and medium scale activity and this is a major deterrent in the employment of computerised technology, as the initial capital costs are prohbitive. In most instances it has not been feasible to acquire an expensive technology which is relatively infelxible and at best provides relief for only one-tenth of the labour costs. Its resourcefulness becomes apparent only in production along specialised lines and in larger scale units manufacturing large quantities of footwear.

In retrospect, it can be said that till now the production processes in footwear have not been very receptive to modern technology, nor has modern technology helped that much in alleviating the problems of the developed market economies, especially the Northern European DMECs, in this sector. Theoretically, footwear production is characterised by a wide variety of techniques, ranging from craft manufacture to mechanised production, and by variety of products. The 'derived characteristics', such as investment costs and employment vary with the nature of the final product and the technology used. The technology adopted reflects the 'specifications' of the product which in turn depends upon market demand. The point being that the choice of modern methods in the manufacture of footwear, does not simply entail the relative ease with which shoes are produced. Technology of any potential use must be consistent with factors, such as scale of operation, financial constraints, changes in consumer behaviour, etc., which are significant in influencing everyday production decisions.

The Developed Market Economies and International Trade in Footwear

The marked decline in the leather footwear industry in the developed market economies is further established, by an evaluation of the trade flows over the last ten years. The benchmark year for leather footwear production in the DMECs, especially the EEC, was 1969-70. In this year the industry produced nearly a billion shoes of all types, employed close to half a million operators and had a surplus of $420 million of exports over imports.[1] Since then the industry has deteriorated in nearly all spheres of activity of footwear manufacture, especially those involving leather. Between 1972 and 1976, a general decline is affirmed in which 'production declined by 9 per cent, employment by 17 per cent, exports by 13 per cent, the export surplus by 47 per cent and imports from all sources grew by 3 per cent'.[2]

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1. Guy Reaks, 'A broader market would relieve impact of imports', Leather, February 1978, p. 47.

2. Ibid.

TABLE 4.5: BALANCE OF FOREIGN TRADE IN FOOTWEAR WITH LEATHER UPPERS IN SELECTED DMECs

in million pairs

Countries	1963	1975	1976
Germany	-14	-67	-77
United States	-24	-146	-177
Sweden	- 5.3	- 9.3	- 8.9
BLEU	- 3.7	-13.8	-17.6
United Kingdom	- 4.1	-14.0	-18.0
Canada	- 1.8	- 7.8	- 9.7
Netherlands	- 1.8	-14.8	-17.0
Switzerland	- 1.3	- 7.6	-10.0
Denmark	- 1.5	- 2.2	- 4.1
Norway	- 1.3	- 4.9	- 6.3
Italy	42	143	173
France	11.9	- 3.0	-12.8
Spain	1.8	58	62
Japan	5.4	0.6	0.4
Ireland	1.1	-	1.1
Austria	0.5	4.8	2.2
Portugal	0.4	3.5	3.9

SOURCE: Tabulated from data in OECD, The Footwear Industry: Structure and Government Policy, 1976.

For the European DMECs, the situation changed from one of net surplus to one of net deficit. In 1963, net exports amounted to 44.3 million pairs. In 1974, the deficit was 49.6 million pairs. The period 1971-75 specifically is quite representative of the long term decline in the exports of European DMECs, particularly the EEC region. The general trend for Western Europe as a whole is towards an aggravation of this deficit.

The imports of leather footwear of the European DMECs, on the other hand have grown significantly in the last ten years. In Western Europe, during the period 1970-75, they increased by 44 per cent, while for the EEC specifically they grew by 50 per cent. The potential for growth in the demand for leather footwear exists, with leather coming back into favour in footwear production. The indicative trend presents us with the evidence (see Table 4.7) which shows an increase in the apparent consumption of leather footwear in the late seventies in some major economies of Europe, and the rise in the share of imports in apparent consumption. In this regard, it is further noted that rose to more than half of the leather footwear consumed in France, the Federal Republic of Germany and the United Kingdom was comprised of imports (see Table 4.8B).

TABLE 4.6: EXPORTS AND IMPORTS OF LEATHER FOOTWEAR IN EUROPEAN DMECs (million pairs)

REGION	EXPORTS 1970	EXPORTS 1975	EXPORTS % change	IMPORTS 1970	IMPORTS 1975	IMPORTS % change
European DMECs	283.4	286.9	1.2	138.0	198.3	43.7
EEC	233.4	197.3	-15.5	110.0	164.7	49.7
European DMECs (excluding Italy, Spain and Portugal)	71.8	80.4	11.9	135.9	196.2	43.6
EEC	60.3	52.7	-12.6	108.4	163.4	50.7

SOURCE: Tabulated from data in I. Glass, Preliminary Report, The Leather and Leather Products Industry in OECD Nations (unpublished document) and OECD, The Footwear Industry: Structure and Government Policy, 1976.

TABLE 4.7: APPARENT CONSUMPTION OF LEATHER FOOTWEAR IN SELECTED EUROPEAN DMECs (million pairs)[a]

REGION	1975	1976	1977	1978	1979	Change (1975-1979)
France	92.4	107.1	111.9	112.0	123.1	33.2%
Italy	66.9	91.1	76.0	82.6	88.7	32.6%
FRG	144.6	155.6	158.8	156.5	172.3	19.6%
United Kingdom	79.8	83.5	83.6	89.7	104.9	31.5%
Sweden	12.3	11.1	11.1	8.4	11.5	- 4.2%

(a) Apparent Consumption = Production+Imports-Exports

SOURCE: Calculated from data in SATRA, Statistical Reviews, 1975-1979.

TABLE 4.8A: PERCENTAGE SHARE OF IMPORTS IN CONSUMPTION OF FOOTWEAR IN DMECs (By categories of footwear)

	Leather		Slippers		Textiles		Rubber		Plastic	
Country	1962	1972	1962	1972	1962	1972	1962	1972	1962	1972
Germany	10.6	43.3	2.5	46.7	72.3	68.1	32.5	95.1	77.4	95.8
France	2.2	18.5	0.9	21.5	11.3	38.7	53.1	76.5	0.4	19.6
Italy	0.2	1.1	4.1	6.5	9.5	(a)	16.4	(a)	-	50.6
Spain	-	0.08	0.05	3.6	-	4.9	-	-	-	13.9
Portugal	-	3.4	-	-	-	100	-	133.3	-	-
Sweden	32.9	77.9	26.7	51.0	140.0	77.8	26.1	60.0	33.3	100
Switzerland	23.5	60.2	-	87.1	128.6	-	77.8	83.3	See Rubber 1972	
EEC	23.5	60.2	-	87.1	38.8	69.6	36.8	84.6	16.7	47.0
OECD	6.0	26.0	7.3	20.9	24.1	38.2	46.0	43.9	27.3	57.6

(a) See Plastic 1972

SOURCE: Tabulated from data in OECD, The Footwear Industry: Structure and Government Policy, 1976.

TABLE 4.8B: SHARE OF IMPORTS IN APPARENT CONSUMPTION OF LEATHER FOOTWEAR IN SELECTED EUROPEAN DMECs (Percentages)

Country	1975	1976	1977	1978	1979
France	26.4	31.7	29.7	31.3	36.5
Italy	1.9	1.6	2.2	2.8	5.4
FRG	53.3	57.7	59.8	61.3	65.6
United Kingdom	79.8	83.5	83.6	89.7	104.9
Sweden	73.3	75.7	79.3	79.8	81.7

SOURCE: Calculated from data in SATRA, Statistical Review, (1975-1979).

The majority of the imports of leather footwear of the developed market economies in 1977 were to be accounted for in intra-developed economies trade (67 per cent). For example, 80 per cent of the EEC's imports of leather footwear, by value, came from other developed market economies and 70 per cent of the total import trade was within the EEC's sphere of influence. As regards the particular countries, United Kingdom imports from the EEC comprised 50% of the total imports by value, for France the figure was 72% and for FRG 70%. The major area of provenance was Italy.[1] This is contrasted with the position of the USA which imports predominantly from the developing countries. The share of the developed market countries in total imports of the United States (by value) was only 38%, with Italy taking up 75% of this share.

Centrally Planned Economies account for a very minor share in the total imports of leather footwear (by value) of the DMECs. In 1977 their share was 4%. Of the total exports of leather footwear by the CPEs to the DMECs in 1977, 65% were absorbed in the EEC and EFTA countries.

Among the developing countries, exports to Western European countries, the Asian economies, notably the Republic of Korea and Taiwan play the major role. The growth of footwear manufacturing in thse economies has indeed been remarkable, where production has tripled in the short space of four years, (ie. between 1972-1976). These economies, in 1977, exported

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1. See Table 2.12 in this study.

more footwear than all the footwear exporting countries combined in 1970,[1] and their imports to the DMECs, during the 1970-77 period, increased by a 40 per cent annual average compound rate of growth.[2] Their percentage market share in the DMECs imports of leather footwear in this seven year period went up from 7% to 19%.

Most of the leather footwear produced in the developing countries and slated for export to the DMECs, has been destined for the USA markets, while in Western Europe the share of developing countries has been lower. For Europe, the competition from the developing countries presently is most important in footwear made out of materials other than leather. Thus, if trade analysis were to incorporate all kinds of footwear, we note that Taiwan and South Korea increased their exports in the first half of 1977, to the EEC alone by 40%.

The investigation thus shows that the flows of leather footwear from the developing countries to the European DMECs, though, increasing are as yet not very decisive as regards their impact on structural change in the footwear industry in Western Europe. In concludion, we also note that the structure of footwear manufacturing in the developed market economies has been severely affected by the intensification of competition, both from sources within the confines of the developed market regions and from outside their sphere. The

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1. Op.cit., Guy Reaks, 1978, p. 49.

2. See Table 2.12.

inert export situation of most developed countries, is reflective of the decline in the industry and the waning of these countries position in international markets. The increasing impact of imports, most importantly on the declining structures, is also quite marked. The increase in imports, however, is not only confined to leather footwear but also in shoes made from other materials (Table 4.8A). In leather footwear though, the growth of production and of the sector in general in Italy, Spain and Portugal has had by far the most significant impact on structural change in the footwear industry in Western Europe. The penetration of DMECs markets by the developing countries' manufactures of footwear though not so significant, is also an important point of deliberation and cannot be dismissed lightly.

CHAPTER V: THE LOCATION FACTOR AND THE 'REDEPLOYMENT' ISSUE

In the structural adjustment process we ascertain varying responses on part of the entrepreneurs in light of the changing internal competitive position of production units. These responses are manifested in their actions aimed at altering the technical nature and/or the management structure of production and in the redeployment of productive activities. The redeployment issue is the focus of analysis in this chapter.

Before stating what we actually mean by redeployment, it is assumed, given the theoretical precepts as outlined in Chapter One, that redeployment is influenced by two inter-related factors; (i) expectations of growth and (ii) a need to avert the adverse pressures on the industrial structures at the present location and in so doing to move from a less efficient nature of production to a more efficient one.

Redeployment is undertaken, mainly to compensate for the apparent lack of resources and the necessary inputs. The motive is to locate activities in areas where there is an easy access to resources, and where the prospects of profitability and growth are enhanced. However, redeployment does not necessarily imply actual physical relocation. The process, in its broad meaning, is essentially defined by contractual arrangements and the agreements could take any number of different forms; technology transfer, franchise,

licensing, agency, buyback, and equity participation to joint ventures (which could involve physical relocation).

Redeployment and the Leather and Leather Products Industry

The leather and leather products industry scores high on our list of potentially redeployable capacities. In a recent study undertaken by UNIDO, it was concluded that '... the major factors determining the international division of labour, apart from policy induced parameters are the availability of highly qualified labour and the degree of innovation in production, on the one hand, and the supply of poorly qualified labour and raw materials on the other'.[1] The leather and leather products industry falls into a category of structures, where the basic requirements, namely the raw material and labour intensity in production, are fairly well established. Given the fundamental advantage of the developing countries in livestock of low cost labour and the presence of some basic skills, it could be suggested that the manufacture of leather and leather goods, is not only more efficient in the developing countries but also, on pure economic grounds, more suited to the economic environment of these regions. Therefore, in a consideration of a global restructuring scheme it could further be proposed, that redeployment of production of leather and leather products, from

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1. UNIDO, Structural Changes in Industry, ID/265,1981,p.78.

the developed market regions to the developing ones, represents a logical alternative.

The question of redeployment in the leather and leather products industry rests on four basic factors; access to raw material, access to low cost labour, access to markets and the level of technological and business skills. These factors are the major considerations influencing and shaping the actual process of redeployment. The extent to which each factor influences the process varies. Examination of the recent performance of the leather sector in the DMECs suggests low wage labour as being the major element in the choice of location of production. This, presumably, is due to the wage differential between the DMECs and low wage countries, which are sufficiently large. However, the supply of raw material, market access and to some extent the availability of technological skills also play a very important role. Hence, the preference of producers in the high wage DMECs for redeployment to low wage developed market economies (Italy, Portugal and Spain) and to those developing countries which possess the basic infrastructure (NICs) to facilitate production (Argentina, Brazil, Republic of Korea, Island of Taiwan, Hong Kong,etc.).

Rationale for Redeployment

The future prospects of an increase in production and employment in the leather sector in the Western market economies would seem quite bleak if the present technology and the industrial organisation characteristic of leather and leather goods production in these economies remains unchanged. The small and medium scale firms in most DMECs have been, and are incapable of coping with the problems that have arisen. As has been well established in the previous chapters, the producers in the DMECs have, therefore, resorted to measures, leading to a concentration of production in order to take advantage of the resulting economies of scale. The movement till now has not really borne fruit. In fact, the situation in the leather and leather products industry in the developed market economies has deteriorated further in the last five years.[1] Given dissimilarity in the production processes in the differentsub-sectors, the relieving effects of concentration and technical change are also not applicable for the industry as a whole. Furthermore, in production where leather as a material is the basic concern, the advent of automated processes has not been very effective either.

In this case cost considerations, especially of labour costs, acquire significance. An enquiry into the leather and leather products industry in the FRG and Sweden, does indeed reveal

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1. Op.cit., Interviews with Mr. Magne Nestvold, UNIDO, Vienna, 1981-82.

wage costs as the major concern of the entrepreneurs.[1] It is further envisioned that the situation, vis-a-vis the rising wage costs, in the leather and leather products industry in the developed countries is likely to worsen in the next few years, and efforts on part of the producers of leather and leather goods in Western Europe to combat these pressures are most likely to fall through.[2] In the final analysis then, the producers are left with two choices: close shop or redeploy the productive activities.

Redeployment of production to the developing countries is suggested because production and employment in leather and leather goods manufacture has increased quite impressively over the last decade. The growth of the leather sector in the developing countries has been made possible by a more extensive and intensive utilisation of resources and labour, which are to be found in relative abundance in these regions. Moreover, the prospects of further growth of the industry in these regions are extremely bright. The growth of the industry in the developing countries would have been even more remarkable than what has been documented, but for the apparent lack of markets and technical and business skills. In this respect the advantage of the developed market economies is

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1. These are two studies commissioned by UNIDO, surveying structural change in Sweden and the Federal Republic of Germany, to be published shortly. The documents were entitled Structural change in the Leather and Leather Products Industry in Sweden and Structural Change in the Leather and Leather Products Industry in the FRG. However, no documentation numbers were alloted at the time. The preliminary drafts were made available to me by UNIDO.

2. Mr. J. Berg citing general trends in the structural changes in Western Europe. Interview, Vienna, 14th January, 1982.

clearly recognised. Assuming that the decline in the leather and leather products industry in the DMECs continued unabated, there would exist a 'surplus pool of expertise'. The question has been aptly put as to whether the skills in the DMECs could be mobilized to provide services to the developing countries which lack the skills,[1] and in so doing contribute not only to the development of the sector, but also to the overall development process in those regions?

Factors Aiding and Restraining Redeployment

In conclusion it is affirmed that the major debate about redeployment in the leather and leather products industry has centered around the question of locating production near the sources of raw material and labour supply or near the markets. So far, the producers in European DMECs have facilitated in their redeployment operations by the growth of the industry in the southern peripheral economies of Western Europe. They have opted to locate much of their production in these areas, where, besides enjoying the advantage of low wage labour, they can also utilise the relative nearness of the large European markets. However, with the increasing saturation of markets and production in the DMECs, the producers are beginning to emphasise developing countries in their choice of location of production, not only because of their inherent advantages in the manufacture of leather and leather goods, but also due to their market potential.

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1. UNIDO Background paper for the First Meeting of the Industrial Working Group of the Leather and Leather Products Industry Panel, UNIDO PC.23, 1982, p. 23.

But redeployment cannot be accomplished so easily as one might be lead to believe, for besides there being factors aiding the redeployment process, there are some major constraints as well. Though it is acknowledged that low wages, access to raw material and the prospects of new markets could entice producers to redeploy capacities, unstable socio-political and economic conditions, a lack of infrastructure which could prevent a firm from being dynamic and expansive and a lack of technological and business skills could prove as hinderances to the redeployment process. Also communication links are likely to influence the choice of location. Indeed, when the producers were queried as to the 'pros and cons' of redeployment, the factors delineated above were well cited issues.[1]

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1. The two studies on Structural Change in the Leather and Leather Products Industry in Sweden and Structural Change in the Leather and Leather Products Industry in the FRG, included a survey of producers with the objective of ascertaining their views regarding redeployment of productive activities.

POLICY ISSUES AND MAJOR CONCLUSIONS

CHAPTER VI: ECONOMIC POLICY AND DIVERGING INTERESTS: THE ECONOMICS OF THE EMERGING TRADE CONFRONTATION

The developing countries possess an inherent advantage in that, (i) they are the natural habitats of the majority of the livestock species providing raw material for leather production and (ii) low cost unskilled labour needed to run the production process in different sub-sectors is readily available. From the immediate post-war period to the late sixties the developing countries acted essentially as suppliers of raw material to the processing units of the developed market economies (DMECs). In recent years their strategy has been to build up production capacities for finished leather, footwear, garment and leather goods in order to take full advantage of their assets. The basic intent behind the strategy is to develop resource based industries, among them leather and leather goods, by adding value at source, increasing employment and income. Preferential treatment is given to exports of final and intermediate goods against exports of raw materials through commercial policy in order to supply the developed markets with semi-finished and finished products. The progress made towards achieving these goals has been very positive.

The advantage of the DMECs is in their being the major markets of leather and leather goods. (In 1977, the DMECs consumption of global output was 70% for leather, 74% for leather shoes and 89% for leather garments.) The DMECs also

exercise their superiority in the fields of technology, management, marketing, fashion and design, while a lack of adequate skills is a characteristic of many developing countries. Counterposed to the growth of the industry in the developing regions, the leather sector in recent years has exhibited an appreciable decline in most DMECs. The manifestations of this contraction are evident in the trends over the last fifteen years which show declining employment and a consistent fall in the number of operational plants. The chief elements of the decline are associated with the costs of labour and raw material and with increased competition from goods of low wage countries. As a result, within the DMECs, production has gravitated towards the low wage countries of Italy, Spain and Portugal where the industry has exhibited considerable growth.

Impact of Policy Actions on International Developments in the Leather and Leather Products Industry

The developing countries' control over the basic raw material is by far their biggest asset. The increased utilisation of this material at home has greatly benefited the tanning industry in the developing world. As stated earlier, the growth has been supported by various types of policy actions to aid the industry through its infant stage of development. The main feature of these policy actions has been the curtailment of exports of raw hides and skins. The general economic pressures on industrial structures in the developed market

economies have coincided with the policies adopted in the developing countries. The limitations imposed on the exports of raw hides and skins have considerably reduced the supply to tanning units in the DMECs, especially in most EEC countries. Most of the input for downstream production which initially came from the tanning units in the DMECs has declined over the years as a result of a fall in the supply of raw material from the developing countries.

The advances made by the tanning industry in the developing countries have provided considerable stimulus to the leather products industry. The growth of footwear and leather goods manufacture in the developing countries has resulted in the developing countries providing increasing competition to similar manufactures of the DMECs in markets all over the world. At present footwear and leather goods produced in the developing countries are by no means imposing on the world markets, as for example in the case of leather footwear from the DCs which in 1977 accounted for only 28% of the total world production. However, leather footwear and other goods from the developing countries are increasingly becoming a major factor to be reckoned with in future international commodity flows. The DMEC's producers of leather products, severely affected by the internal pressures have found this import competition to be quite damaging to their existing unsatisfactory position and have petitioned their respective governments for protection.

The subsequent rise of protection in most developed market countries is an observable reality.

Impact of Developing Countries Policies and Changes in Raw Material Prices on the DMECs Leather Sector

The restrictions imposed by the developing countries on their exports of raw hides and skins and the competition provided by their manufactures has affected the leather and leather products industry in the DMECs in the following ways:

(i) The general supply of raw hides and skins to the tanning units in the DMECs has been reduced.

(ii) The restrictions on supply of raw hides and skins has also cut back on a particular kind of material from the developing countries slated for use in specialised end products, having specific characteristics and not easily substitutable. This cut in supply has worked towards retarding the growth of the leather products industry in the DMECs.

(iii) The rapid increase in the imports of the developed market countries of low cost footwear and leather goods from developing regions has, in part, contributed to the unemployment in this and related sectors in the DMECs with increases in unutilised capacity also being noted.

(iv) The expansion of the leather sector in the developing countries has restricted access to these markets for the leather products from industrialised countries.

The major affects on structural change in the leather and leather products industry, however, are not confined to the direct interaction between the DMECs and the developing bloc. One important factor influencing restructuring has been the fluctuation in the price of hides and skin in the last decade. These fluctuations have exercised a significant effect on restructuring in the last ten years comparable in impact to any other factor and, according to one qualified observer, any conflict of interests which exists today between the developing countries could be attributed to periods of market instability brought on by these price movements.[1] The first period, 1975-1979, chrnoicles the rise of prices of raw hides and skins to unprecedented levels. This rise resulted in problems for most leather manufacturers in the DMECs, who bought material on world markets and already burdened with heavy production costs, found themselves under a financial constraint. Further, the high price of raw material was reflected in the price of finished products which led to a significant decline in consumer demand and gave impetus to production in substitute materials. In the early 1980s when the price of raw material fell drastically, the leather goods producers were left with large inventories of products, valued far above current replacement costs, which had to be disposed. Subsequently, production cuts were ordered leading to labour displacement and closure of factories. At this juncture, it is reflected that even the 'relatively

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1. Op.cit., UNIDO, UNIDO/PC.23, 1982, p. 21.

low-volume, low-priced imports from developing countries aggravated the existing situation and yielded increased protection and further imposition of trade barriers by developed countries'.[1]

On the basis of evidence available and through the analysis of structural change in the leather and leather products industry in the DMECs, it is inferred that the major factors influencing decline are most significantly associated with internal developments in the DMECs and sectoral migration within these regions. The developing countries, though progressively affecting global restructuring, cannot be held responsible for the destabilisation and distortion of global production and trading patterns. However, the 'conflict of interests' is quite visible and in recent years it has intensified. Perhaps further examination of the basic policy positions of the developed market economies and the developing countries would further elucidate the major issues.

Basic Policy Positions and International Trade between DMECs and the Developing Countries

The producers of leather and leather goods in the DMECs have heaped much of the blame for the decline in the sector in recent years on the policies of the developing countries in limiting the supply of exportable raw material. The restrictions, they charge, have '... wreaked havoc with raw

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1. Ibid. p.11.

material price stability and completely changed the character, prospects and profitability of tanning in many countries of Western Europe and elsewhere'.[1]

The leather goods manufactures in the DMECs, blame the import competition from developing countries leather products for much of the unemployment problem and closure of productive capacities in the industry. The sequel to this, they point out, is that it becomes '... very hard for the labour and management directly affected to accept the burden of the whole process of import adjustment'.[2] To combat this state of affairs, the producers in the DMECs have called for action on part of their governments to protect their interests. Linking the problem to the developing countries restrictions on exports of raw hides and skins, they have demanded protection and retaliatory policy measures from their governments indicating that as the developing countries deny access to their raw materials, '... it is no longer possible to operate an open door policy in the other half'.[3]

The developing countries basic position is that only by safeguarding their raw materials have they been able to provide their downstream production units with material well below global free market price level. If this price edge were taken away, they could not, due to the lack of adequate skills and technology which is still acutely felt in most developing

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1. Eugene Kilik, 'A case for a re-appraisal of the world leather economy', Leather, February 1978, p. 47.

2. UNIDO and UNCTAD, Selected issues of trade and development in the Hides and Skins, Leather, Leather products and footwear sector, ID/WG.319/3, p.6.

3. Guy Reaks, 'Political influences on development and trade', Leather, February, 1980, p. 22.

regions, at this stage, be expected to compete internationally. In the absence of these skills, manufacture of high quality products is beyond their scope. Thus so far only low priced products are offered on world markets. Further, if developing countries' prices of raw material were equalised with global market levels, the domestic retail price of final products would rise tremendously. This would eventually lead to a considerable fall in demand in low income regions.

Protectionist measures adopted by the DMECs have had dire consequences for the leather products industry in the developing countries. These measures have been extremely selective in nature, and it is noted that their effects are '... especially serious on those developing countries which depend on a relatively small amount of trade in manufacturing in a still narrow range of products'.[1] There are also cost considerations. Though the DCs possess an economic advantage vis-a-vis labour costs and supply of raw material, their costs with respect to machinery, chemicals, etc. are fairly high. These inputs have to be imported, and their purchase, coupled with transportation costs yields input costs which makes it very difficult to meet foreign competition. Thus, the developing countries have imposed certain restrictions with the objective of stimulating the establishment of leather and leather products industry domestically.

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1. UNCTAD, ID/WG.319.4, p.

The problems in the global ordering of leather and leather products industry stem from a proliferation of these measures on the part of the developing countries governments and the Governments' policies of the DMECs. The interplay of these policies has worked towards restricting and distorting international trade flows. These measures have become a cause for serious concern, leading to an emerging conflict between the developing countries and the producers in the DMECs. This has also led to a concern in many circules that '... unless the leather manufacturers of the world can establish an equitable distribution of manufacturing capacity and share of the business ... the [conflict] could develop into an outright confrontation'.[1]

There are those who have expressed hope that a dialogue between the parties in conflict could prove beneficial not only for the individual participants but the leather and leather goods industry as a whole.[2] The reasoning is that the mechanisms and policies which would serve the interests of all parties can only be achieved through mutual understanding.

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1. Guy Reaks, 'The world of leather in 1979 is distinctly divided', Leather, February 1979, p. 45.

2. See, Sir Kenneth Newton, Presidential Address to the International Council of Tanners in Buenos Aires, April 5, 1978, 'Call for re-appraisal of world trade relationships', Leather, May 1978, p. 19.

CONCLUSIONS

The leather sector in most developed market economies of Europe has experienced a serious decline in the last decade. Moreover, a ranking of sectors in the European DMECs, based on growth projections, gives a low ordering for the leather and leather products industry. The dismal developments in the industry are marked by cutbacks in production, lay offs and a closure of significant numbers of producing units.

However, it should be noted that the decline in the European DMECs is not a general phenomenon. Rather it is essentially evident in the north-western economies. Corresponding to this decline has been the growth of the sector in most developing areas as well as in some low wage DMECs. The countries located in the southern periphery of the continent, namely Italy, Spain and Portugal are, along with the developing regions, areas where the leather sector has exhibited substantial growth over the last fifteen to twenty years. The growth is evident by the increase in productive capacity, employment as well as by an ever increasing share of these regions in the world production of leather and leather goods.

The major cause of the decline in leather and leather products industry in the developed market economies are rising production costs. Over the last ten years, the wage bill of companies has risen significantly in the DMECs. This increase has had dire effects on labour intensive industries

whose costs have grown at the same time when there has been a rise in prices of raw materials. The point being that there is homogenity in the cost structures of most northern European DMECs, where wages and raw materials account for very high portion of total costs, and that the success of the industry in the Southern European regions has in a large way been due to relatively low wages and perhaps,to some lesser extent, due to the flexibility and fashion consciousness of the producers.

These rising costs have also been the major cause of decreased international competitiveness of leather and leather goods of the developed market economies. As a consequence the structures of the leather and leather products industry in the European DMECs have also been strongly influenced by import competition which has lent weight to the already existing economic pressures on the sector. The magnitude of this import competition is quite impressive indeed. As a case in point, we take the example of footwear in which the deficit in trade balance , for all European DMECs except Italy, Spain and Portugal, points to consumption levels outstripping production in the last eight to ten years.

It should be noted though, that trade within the industrialised bloc has exercised a much more significant effect on structural change in the sector in the DMECs, than trade between the DMECs and the developing regions. However, developments in the developing countries of the world reflect trends which indicate that these regions would in the future,

subject the structure of leather and leather goods production in the European DMECs to increasing pressure.

The penetration of DMEC markets by the developing countries at present, though in no way decisive, can definitely be described as improving over the years. In studies undertaken by UNIDO on structural change in Western Europe, it was discovered that the largest increase in the share of total import market of European DMECs in the decade of the seventies, was achieved by the developing countries and one of the most important commodity groups in this regard was leather, leather goods and footwear. Further, the calculation of revealed comparative advantage showed that the DMECs were at a clear comparative disadvantage in trade with developing countries in leather and leather footwear.[1] It seems that in light of the high inflation situation in the DMECs, low priced leather products from the developing countries has been preferred as '... potential buyers consider the price sufficiently low to compensate for inferior quality'.[2]

The above is perhaps the fundamental conclusion that could be drawn at the level of the system. It is within this structural context that the 'behaviour' of the industry is 'produced' and understood. Having stated the major reasons for re-structuring, we come to a point where we need to assess the

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1. UNIDO, Structural Change in Industry, ID/266.

2. UNIDO, Future Structural Change in the Industry of Sweden, UNIDO/IS. 191, p. 16.

re-organisation in the production and employment in the leather and leather products industry in the European DMECs.

At the level of the industry it is concluded that restructuring of the leather and leather products industry in the DMECs has basically involved an alteration of the very nature of production. This can be ascertained from trends characteristing change in the organisational and production structure. More specifically they indicate a decline in the number of small firms,a decline in skilled and unskilled labour employment and a movement towards concentration. The tendencies could in great measure be construed as responses of the industry to problems that have arisen over the years. The entrepreneurs of leather and leather goods in the DMECs have sought a way out through technical change and concentration of production as a rational recourse to restructuring the sector.

The leather sector in the European DMECs is, even now, generally characterised by the presence of a large number of small and medium sized firms. The size aspect seems also to be a product of most 'traditional' manufacturing, among them leather and leather goods, whose other major trait is labour intensity in production. The pressures on the structure of leather and leather products industry have, however, encouraged a movement towards the establishment of large-scale production units, through mergers, take-overs as well as through the setting up of new capacities. It is pointed out that advantages accrue to large scale enterprise

through its '... ability to create and maintain branch loyalty, to service [its] sale outlets effectively, to purchase materials in bulk and ... to be able to afford to follow fashion closely while still catering to the mass market'.[1] Further reasons for this are, that such a movement towards rationalisation of production would facilitate technical innovation in displacing labour and consequently would cut down on wage costs.

However, in a situation such as this, we are confronted with a paradox. We note that the growth of the industry is particularly strong in regions where the small scale units predominate, such as the southern European DMECs and the developing countries. On the other hand we also observe that even with efforts, on part of the producers in most northern European DMECs, to offset the adverse pressures on the structures of leather and leather goods manufacture, the decline in the industry in the DMECs has not been stemmed. On pure economic grounds, the concentration of production is indeed a logical step. However, it is fact that the key issue in this regard is not the size of the production unit but the very 'nature of production'. If concentration could change this basic 'nature of production' in the leather sector, then perhaps we would see a growth of the leather and leather products industry in the DMECs. At this stage though, no

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1. N.S. McBain, The Choice of Technique in Footwear Manufacture for Developing Countries, Report to the Ministry of Overseas Development, United Kingdom, mimeo.

amount of technical change, or the reorganisation of the production, has been able to alleviate the adverse effects. These adverse tendencies, given the 'state of the art' in the industry, influence the very roots of leather and leather goods manufacture and one can only conclude that in this situation the decline in the industry is likely to persist.

Regarding the spatial implications of restructuring in the leather and leather products industry in the DMECs, redeployment of production to low cost regions has been an often encountered alternative. Redeployment has taken the form of locating activities in those areas which include the low wage DMECs as well as the developing countries, where the ncessary advantages can be envisioned and where the basic infrastructure can also be found. In the case of the DMECs, production has essentially gravitated towards the southern economies of Europe, (Italy, Spain and Porugal), while those developing countries have been preferred which are industrialising rapidly, the so-called NICs. The majority of the redeployment activity in the sector, till now, has been towards the low wage developed market countries. However, the developing countries are acquiring increasing importance.

The low cost of labour is perhaps the major motivation in re-deployment of leather and leather goods production. The other factors noted are: easy access to raw material and the potential for the development of new markets. The constraints number quite a few. Starting from the very basic issue of the small size of firms which hinders redeployment, they include

limitations on the availability of finance, lack of qualified labour, lack of certain necessary technological skills, transportation costs, weak communication, etc. It is evidently the small producer who is shouldering the main impact of the economic pressures and is finding it increasingly difficult to adjust to the changing economic environment. He lacks the necessary finances to combat the adverse tendencies, while there are not many other options left available to him. The large units have an advantage in that besides being able to incorporate new technologies into their structures more readily, they also have the necessary finances which allows them a certain degree of freedom of operation.

From the evidence it could be concluded that the plausability of redeployment is greater in the case of a large firm than that of a small one.

On a general level, there is a basic reluctance on the part of the producers of leather and leather goods in the European DMECs, to accept the situation in the sector pertaining to its decline and the deterioration of their competitive position. The feeling seems to be that redeployment can be avoided by technical change that would reverse the trends characterising the sector.* The odds on such a change taking place are very low; revolutionary changes which could alter the very nature of production cannot be envisaged, at least not in the near

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*. These are elaborated in the two surveys presented in UNIDO, Structural Change in the Leather and Leather Products Industry in Sweden and UNIDO, Structural Change in the Leather and Leatner Products Industry in the FRG. (No document numbers alloted.)

future. Thus, given the state of art in leather, leather goods and footwear manufacture, as well as the continuing presence of debilitating pressures on the structures, it is concluded that future prospects of growth in the leather sector in the developed market economies are extremely bleak.

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