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TRANSNATIONAL BUSINESS COLLABORATION WITHIN

THE EUROPEAN COMMUNITY 1966 - 1975 :

AN ECONOMIC AND GEOGRAPHIC INTERPRETATION

by

Robert David Stinson, B.E.S.

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A Thesis submitted to the Faculty of
Graduate Studies and Research in partial
fulfilment of the requirements for the degree of
Master of Arts
in International Affairs

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The undersigned hereby recommend to the Faculty of Graduate Studies and Research acceptance of this thesis, submitted by Robert David Stinson, in partial fulfillment of the requirements for the degree of Master of Arts.

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ABSTRACT

A major criticism of the study of international integration is that it is too concerned with governmental, institutional integration. Also, the study of integration and international corporations has gone on independently when the activities of the latter have a profound effect on the former. This paper aims at correcting these deficiencies by focusing on the transnational business collaborations (TECs) being established between European firms (1966-1975), in order to determine more precisely the extent to which the transnational business enterprise is creating a new space-economy in the European Community. By investigating the industrial mechanisms through which the European transnational increasingly operates, the study identifies a new regional centre of economic activity being formed around the European Rhinelands, complementary to the former dominance of the national economic core areas.

The analysis of TEC data reveals that transnational business activity has significantly increased during the nine year study period; increasingly TECs are multilateral in character; the majority are now between only community firms; and they are especially prevalent in metal-using, food and service industries. There has been a definite micro-dispersion of industry on the local level, but on the macro-regional level, there has been a continental concentration along the European corridor. In this process European firms are establishing TECs to exploit the corridors advantages in labour, markets, transport-communication accessibility, and agglomeration economies.

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R. D. Stinson

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INTRODUCTION

In recent years scholars have focused their attention on the increased importance of non-governmental entities, such as multinational business enterprises, professional associations, trade unions or political groups. Their development has diminished the importance of the state-centric model of international politics in which the nation-state is the principal actor in the international system. The emergence of transnational actors in a group of states like the European Community¹ which is pursuing a programme of regional integration is especially significant because, not only is a regional market for industry being established, but also regional institutions with governmental authority. Business enterprises, increasingly engaged in transnational activity, will place more and more demands on this incipient regional system² of the Community to facilitate their own endeavours, and thus act as stimulants for the further development of the integrative movement. The focus of this paper, therefore, is on the forms of international transactions that business enterprises have adopted as they attempt to readjust their strategies and structures to the new operational milieu of the EC.

There has been a noticeable lack of research and systematic treatment of how European firms are responding to contemporary

Industrial trends within the context of the Community, especially with regard to the development of regional industrial structures. There may be two reasons for this. First, most research which approached the question of regional integration has looked at it from the point of view of governmental action creating supranational institutions without considering the behaviour and responses of non-governmental actors³. This writer feels, however, that we must uncover the sources of integrative support if we hope to transcend the what and how of the EC system and understand the why and where it may develop from here. Secondly, those that did draw conclusions about the behaviour of individual business enterprises have suffered from a lack of statistical data. Most have simply noted the failure of EC industry to "come together" into European-based enterprises; they have grossly underestimated enterprise response to the changing economic and geographic conditions within the Community and the ability of industrialists to adapt to national obstacles confronting trans-frontier business activity.

Werner Feld's book, Transnational Business Collaboration Among Common Market Countries (1970)⁴, represents the exception to the general neglect of this topic. He was more concerned, however, in examining a number of case studies of trans-frontier enterprise collaboration and then postulating their political and social integrative effects using David Easton's and Leon Lindberg's system-model of the EC⁵, rather than interpreting the data in terms of either geographic or economic industrial trends. Quite

recently there has appeared Bernard Mennis' and Karl Sauvant's book, Emerging Forms of Transnational Community (1976)⁶. This is the first major work devoted to the emergence of the transnational enterprise, that investigates the perceptual and attitudinal characteristics concerning integration held by a number of corporate managers.

Despite these two books, what has gone unappreciated, given the contemporary importance of scale economies and international specialization, is the rise of transnational business collaborations (TBCs) between community firms to overcome national barriers and difficulties. These collaborations may range in form from various contractual arrangements to direct equity participation. More importantly, many scholars of political and economic integration have neglected the spatial dynamics of this corporate reorganization as it affects regional industrial patterns and trends. Thus, although there is a vast literature on the expansion of international business in recent years, and an equally impressive volume of work on integration, they have developed independently of each other despite the profound repercussions one has on the other. This paper is aimed at correcting this almost complete lack of empirical analysis of the role and effect of transnational business collaborations on an evolving integrated, industrial structure in the EC.

The purpose of this paper, therefore, is to undertake a comprehensive analysis of industrial interpenetration and restructuring within the Community by focusing on transnational business

activity - the form, extent and distribution of TBCs among member-countries for the period 1966 to 1975 - in order to determine whether they are significant mechanisms for enterprise reorganization from the national to the regional scale, and to uncover their role in the integrative process in Europe in terms of an evolving, regional industrial structure. This writer argues that international de jure mergers of enterprises are not necessary for European industrial integration to proceed, and that the success of the EC has promoted the development of new spatial economic relationships that have fostered the growth of a continental axis of development which is both a cause and an effect of further TBC activity.

The period of study, 1966-1975, was chosen for several reasons. First, the writer wanted statistical data embracing the period when the full customs union of the European Economic Community (EEC) was established (1968). Furthermore, since the early 1970s the EC Commission has published statistics on such TBC activity as joint venture formation, takeovers and certain other forms of financial acquisitions; and if adjustments are made for definitional changes, data can be assembled for the entire 1966-1975 period. One must also make note of the effect of the expansion of the EEC in 1973, especially the inclusion of Britain.

The evolution of modern European industry displays two trends related to the question of transnational business collaborations. First, increased concentration within industrial sectors⁷, and second, the gravitation of industrial activity towards a regional core area.

The former has occurred most predominantly within national

economies; but in recent years, as this paper will show, the movement towards establishing community-wide linkages has gained momentum. Community enterprises have adopted a more international orientation, but not necessarily by continental concentration in the form of the traditional American multinational, but through a variety of other forms of transnational business collaboration that permit them to exploit the advantages and characteristics of the European industrial tradition and environment.

Corporate interpenetration on a regional scale has been determined by locational, as well as economic factors. The establishment of a common market, economically centred on the Rhine delta and valley (i.e. Rhineland) in terms of population, resources and infrastructural services, has greatly enhanced the opportunities for transnational business collaboration. The formation of this economic corridor along the Rhineland stands out as one of the most significant new developments in the postwar economic history of Western Europe. There is a definite tendency for industry to concentrate into a "European growth axis, stretching from the mouth of the Rhine to Milan; about the success of this belt there can be no doubt".

There are several reasons why the development of this corridor and the rise of TEC activity is so significant. It is now generally accepted that the business enterprise, especially the transnational firm, with international activities extending beyond mere exporting and importing functions, has a tremendous impact upon social,

political and economic conditions. Its development has produced one of the fastest growing bodies of literature in the past decade. The actions of enterprises have a pronounced effect on a country's balance of payments, the location of its production facilities, and on its governmental policies. They may also prompt other non-governmental actors to undertake similar transnational activities. As firms adjust to the new regional market established by the EEC and as a new regional centre of economic activity becomes as attractive for industries as the economic core areas of the member-countries, there exists an opportunity to develop a more competitive and efficient industrial structure based on a continental scale. At the same time, it should be noted that there is the danger of more critical centre-peripheral disparities which might jeopardize the whole integrative process by reinforcing the emergence of ethnic subnationalism and regional devolution.

The behaviour of community enterprises is therefore of key importance both in terms of their industrial location and transnational linkages. This writer became especially interested in this problem over the last few years through studies of the integrative experience within Europe and other work undertaken on the organization and operations of multinational corporations, especially those involved in East-West trade. In addition, these immediate interests were backed by a long-period of geographic studies in which the writer acquired an appreciation of the significance of the spatial dimension to many current world problems,

a dimension ignored by too many analysts of the European experience.

However, the difficulty with studying the transnational behaviour of community enterprises stems, not only from the limited statistical data on TNC activity which is available, but also from the very fact that the European Community at present resembles a "half-way" regional system, and even the half-way is questionable. Power still resides predominantly with the Member-countries, but the long-term influence of the regional institutions should not be under-estimated, and in such areas as antitrust and agriculture they hold considerable authority. When contemporary industrial trends are added to this complex and evolving regional system in which national and supranational decisions and policies may not be the same, and at times even contradictory, it is of little wonder that the task of identifying industrial patterns can be exceedingly difficult and presents many anomalies.

Drawing on an academic background that has stressed an inter-disciplinary approach to research problems, this writer hopes to overcome at least some of these difficulties and shed a different perspective of analysis on European integration, in terms of both the transnational behaviour of individual enterprises and the new spatial structures of industry being created (the latter being both a cause and an effect of the former). Understanding of the integrative process within Europe can be strengthened by an in-depth analysis of how individual business enterprises are perceiving and adjusting to the changing circumstances of the Community's development.

Although the basic approach, or perspective of analysis employed throughout most of this paper is neoclassical, liberal-economic rationale, it is somewhat deficient given contemporary conditions in mixed, "post-capitalist" economies, and given the rise of transnational enterprises. Therefore, it was found useful to complement this approach with ideas and perspectives furnished by marxist analysis and by industrial organization theory. The value of the latter two is that they tend to highlight the spatial structure associated with the mode of production (i.e. the way in which the factors of production are organized, used and structured). This is obviously important in any consideration of spatial relationships, and since market integration in neoclassical rationale is conceived in some abstract, ahistorical space.

Nevertheless, the traditional, liberal-economic approach is extremely valuable in analyzing relations of exchange, since it conceives of production in terms of a technocratic world of factors of production, firms and consumers, and the decisions taken by such actors. Responding to supply and demand conditions, the "hidden hand of market processes" creates the most desirable and efficient economic structures - which in turn are assumed to be the most egalitarian type of integration.

Other scholars however, especially those with some marxist training, have shown the value of a different approach which focuses not on market exchange, but on the forces and relations of capitalist production. This approach stresses that the very processes of market economies leads to non-egalitarian economic structures due to the competition of

capital, usually concentrated in the capital cities of the national economic structures, which attempts to maximize its own benefits. This type of analytical approach offers several advantages in dealing with recent forms of transnational business activity, and especially their spatial dimension. It is recognized that the behaviour of transnational enterprises is inappropriately handled by traditional, liberal economics (i.e. its tenets concerning consumer sovereignty, limited firm size, free market entry, etc). And the work of Gunnar Myrdal¹⁰ and François Perroux¹¹ has demonstrated that the nature of modern production does lead to imbalanced economic structures, and the importance of seeking the underlying causes of regional imbalances in capitalism itself. Therefore, it is not only very useful, but necessary, that an effort be made to concentrate on the structure and relationships of capitalist production in advanced Western societies.

This is not to say that the liberal-economic rationale is invalid, rather that it tends to be deficient with regard to transnational firms, and for focusing attention on the spatial structure of industry being created. With the continued trend towards monopoly and multi-national capital, what seems to be emerging is "a new meso-economic sector, between conventional macro- and micro-economic orthodoxies as described in the literature".¹² New "meso-economic" enterprises - transnationals - now dominate modern industrial production, and are creating a new transnational space economy by virtue of their international corporate hierarchies and multinational supply, production and distribution activities. Therefore, it is important to bear in mind that the mode of produc-

tion has always determined the spatial structure of economic activity.

The analysis of the transnational behaviour of European enterprises proceeds in four chapters. Chapter One sets out definitions and introduces thematic concepts; Chapter Two investigates the complex social, political and economic milieu of the EC to identify the basic forces creating, molding or hindering TBC activity and to detail the particular characteristics of each type of TBC; Chapter Three analyzes the data on TBC activity for 1966-1975 and interprets them, also using case examples, to trace the evolution of an European industrial structure; and Chapter Four is a case-study of TBC activity in the iron and steel industry to illustrate and support observations and conclusions uncovered in the preceding chapters.

To set this study firmly within the conceptual framework of contemporary research, Chapter One defines TBCs within a context of the literature on integration and transnationalism. All relevant terms and concepts will be defined as rigorously as possible. The question of transnational collaboration between firms is interpreted within the scope of increased economic interdependence between nation-states. That interdependence is based on the inherited and natural advantages of the European Rhineland which has been given new meaning because of the internationalization of production and capital and the establishment of the common market. Here two themes are introduced which appear throughout the paper: the main problem for European industry is that it is caught in the dilemma

of continental concentration and a regional system still dominated by the decision-making authority of its component-parts; and the spatial ramification of this, that the former economic equilibrium that existed between the national economic core areas and peripheries is being altered by new spatial conditions of an EC-centred core region. It is argued, therefore, that the relationship between TBCs and the new regional pattern of industry is based on the dynamics of industrial location and the necessity of the modern international business organization - all within the complex social, political and economic milieu of an evolving regional system.

Chapter Two proceeds to investigate the complex milieu which has fostered the rise of TBCs as a means of industrial reorganization to take advantage of continental opportunities. The principal question dealt with in this chapter is transnational versus national enterprise consolidation as alternative means of restructuring. A comparison is made of TBC-type activities at both the national and international level which reveals that, although the former completely dominated the latter during the 1960s, transnational collaborations of the type described increased far more rapidly during the period of study and actually outnumbered purely national TBC-type formations during the early 1970s. An attempt is then made to isolate the basic factors underlying these patterns and show how the inter-relationship between different relevant actors, as well as the historical evolution of European industry, has favoured the development of TBCs as means for continental concentration among

enterprises. In addition, an effort is made to explore in detail the different types of TBCs, whether cooperation agreements, subsidiary and joint venture formation, or various kinds of holding company arrangements. Several interesting facts emerge from this analysis which are taken up and developed in succeeding chapters: national concentration may represent an important stage towards transnational formations, rather than the two being completely separate and competing trends; and regional industrial policies, whether by the member-countries or the EC, may be creating a critical man/land imbalance because the development of the transnational zone of the corridor is heightening regional disparities within the Community.

Once the complex character of the European industrial environment is appreciated and the different types of TBC formations described, Chapter Three examines the statistical data on the number, type and distribution of TBCs. The analysis of the data revolves around questions of industrial location and industrial organization as they are incorporated and played out in the evolving regional system of the EC. The economic and geographic bases of TBC trends are evaluated in turn with regard to the statistical evidence presented; special attention was given to case examples, illustrating many of the points argued. Finally, it is possible to conclude that European geography is playing a new, and as important a role as the new economic conditions of world business, in influencing industrial activity, and that community businesses

are gradually capitalizing on these new conditions, given the complexity and obstacles inherent in the regional system, by means of transnational business collaborations.

Chapter Four is a case-study of the iron and steel industry. It offers the opportunity to corroborate the evidence and conclusions thus presented, as well as to undertake an in-depth study of the restructuring process as it has occurred in a particular industry. The steel industry was chosen because it has generally been regarded as an industry basic to the development of national industrial structures. It represents an industry where member-country intervention has been especially active in order to preserve the national identity of the major enterprises, yet it also represents the earliest attempt at regional reorganization through the creation of the European Coal and Steel Community (ECSC) in the early 1950s. In these circumstances the degree of TEC activity takes on even more significance, pointing out the strength of the geo-economic forces underlying reorganization. And finally, the steel industry has been under intense competitive pressures in recent years, which has placed an onus on the iron and steel enterprises to seek immediate remedial action; that action is indicative of responses other industries are more gradually being induced to make.

In the conclusion, this writer will draw on the evidence assembled and the analysis undertaken to assess the role of transnational business activity and the formation of the corridor.

for European industrial integration. Also, several thematic topics, not specifically related to TFCs but inherent throughout the paper and which struck this writer as of special interest, will be discussed briefly.

It should also be noted that a number of illustrations, both figures and tables, are employed throughout this paper. In all cases it was found more convenient to collect all notes and sources for each illustration in a separate section at the end of each chapter.

Introduction

References and Notes

- 1 The European Community, or as it appears abbreviated in this paper, EC, is a term used to refer to the three organizations - European Coal and Steel Community (ECSC), European Economic Community (EEC), and European Atomic Energy Community (Euratom) - which were formed by separate treaty and directed by separate organizations until 1967, when the three executive offices were merged into the European Commission. On January first, 1973, the six original members, West Germany, France, Italy, Belgium, Luxembourg and the Netherlands, were joined by the United Kingdom, Ireland and Denmark.
- 2 The EC has been described as an evolving dynamic system with its institutions possessing a certain legitimacy and authority in specific fields at any one time. The regime of the system is the institutional system of the three communities, in which member-countries are seen as subsystems of the central Community political system. At present, the latter is dependent upon the former. (Leon Lindberg, "Integration as a Source of Stress on the European Community System," International Organization, Vol. 20, Spring, #2, 1966, pp. 233-265)
- 3 Bernard Lennis and Karl Sauvant (Emerging Forms of Transnational Community, 1976, p. 33) distinguished between two types of integration: formal governmental, and a behavioural, transnational one. They note that the most prevalent conceptualization of integration found in the literature is that of positive, formal, governmental integration.
- 4 Werner J. Feld, Transnational Business Collaboration Among Common Market Countries (New York: Praeger Publishers, 1970).
- 5 David Easton, A System Analysis of Political Life (New York: John Wiley and Sons, 1965); and Leon Lindberg, "Integration as a Source of Stress on the European Community System," International Organization, Vol 20, Spring, #2, 1966, pp. 233-265.

- 6 Bernard Hennis and Karl T. Sauvant, Emerging Forms of Transnational Community (Lexington, Massachusetts: D.C. Heath and Company, 1976).
- 7 Defined as the increased domination of particular industrial sectors of the economy by fewer and fewer business enterprises.
- 8 T.H. Elkins, "Life on the European Growth Axis," Geographical Magazine, Vol. 44, #6 (March, 1972), p. 375.
- 9 Mary Jane Adams, "Ethnic Subnationalism, Regional Devolution, and European Integration," Unpublished M.A. Thesis (Carleton University, Ottawa : School of International Affairs, 1978).
- 10 Gunnar M. Myrdal, Economic Theory and Underdeveloped Regions (London: Gerald Duckworth, 1957).
- 11 Francois Perroux, "Note sur la Notion des Pôles de Croissance," Economie Appliquée, 1 et 2, pp. 307-320, (1955); and L'Economie de III^e Siècle (Paris: Press Universitaire de France, 1964).
- 12 Stuart Holland, "Meso-economics, Multinational Capital, and Regional Inequality," in Economy and Society in the EEC, Roger Lee and P.E. Ogden, eds. (Westmead, Barnborough, Hants., England: Saxon House, 1976), p. 45.

Chapter One : Interdependence

1. Integration and Transnationalism

Integration and transnationalism are closely connected in that it was integration theorists who first pointed out to other political scientists the significance of non-governmental actors to the study of International Relations. Joseph Nye and Robert Keohane¹ have persuaded many scholars in their field of the usefulness of the transnational concept in modern studies. They defined transnational relations as unofficial or semi-official contacts, coalitions or interactions across state boundaries by both private (business enterprises, interest groups, foundations, etc) and public (governmental departments or agencies operating independently of government supervision)² transnational actors. The burgeoning of transnational relations by such non-governmental actors has increased the degree of interdependence between domestic and foreign problems so that there is a greater sensitivity between nation-states and the international system.

This obviously will have important repercussions on a group of states like the European Community which are engaged in a regional integration programme. It also raises the question of what is precisely meant by integration in this context. In studying nation-state integration, most writers have resorted to disaggregating the concept, developing specific measures for its components,

and leaving the relationship between the components for empirical verification, in order to overcome the ambiguities and difficulties of broad definition. The most common division is between economic, political and social integration³, "each associated with a relatively clear measurement or particular type of evidence"⁴. Economic integration, the one principally involved in this paper, is generally conceded to embrace two main concepts; welfare maximization through freer trade, and interdependence, resulting from investment flows and inter-firm agreements. The first involves the equalization of factor prices and the abolition of discriminatory practices between national economic units, and the second involves the merging of economic structures and the coordination of business efforts on a regional basis by enterprises of the participating economies.

The traditional interpretation of economic integration has been primarily in terms of the former concept, welfare maximization, with governments being the principal actors and initiators, and with system-level decision-making being by national governments working in cooperation. In Europe great progress has been made in trade liberalization and the establishment of the EC institutions in Brussels, but little has been achieved in the creation of concrete cross-national economic structures. This raises a significant criticism of integration theory in general and the European experience specifically, mainly that it has been too absorbed with "governmental integration". In fact, the functional division of integration into economic, political and social components, tends to obscure perhaps

a better division, focusing on levels of decision-making, between a formal, institutional integration in which governments create system-level decision-making institutions (i.e. the Brussels organization), and a more behavioural, transnational integration in which various subnational actors take decisions which generate interactions between themselves within the integrating area.⁵

The early European unionist movement of the late 1940s and early 1950s was heavily predicated on formal, governmental interaction, and the assumptions underlying the federalist, functionalist and neo-functionalist schools bear testimony to it. On the other hand, it was Karl Deutsch, in his concept of a "security-community",⁶ and Ernest Haas, through his definition of integration as a "process of shifting loyalties",⁷ who first dealt with the behavioural aspects of integration. In Western market economies, behavioural integration is mainly carried on by private actors, such as business enterprises, who increasingly reorient their behaviour (activities) along regional, system lines.

In addition, traditional theory of integration, and of liberal capitalist economics in general, has limited value in such a regional economic system, increasingly dominated by large, international business enterprises. And too much concentration on governmental integration has meant a failure to consider the international role and spatial dimensions of the contemporary capitalist mode of production. The mode of production is the way in which the forces of production (the way the elements of production are organized

and used) are structured by the dominance of the relations of⁸ production. In recent years, economists are turning a less jaundiced eye to such a "marxist perspective", and recognizing the usefulness and validity of such an analysis.

The fact is that there is a close, interdependent relationship between the mode of production, and integration and the spatial structure. The spatial structure of economic activity has always been determined by the particular character of the mode of production at any one period of historical time.⁹ Thus capitalism developed from a trading and local, craft-based mode of production (mercantilism), which saw the growth of large towns (usually capital cities or ports) to a larger size than in any other historical period; then, a period of coal-based industrial capitalism saw the growth of large cities over northwest Europe, resulting from the spatial extension of the mode of production as the nation-state grew and implemented mercantilist policies over wide areas; and finally, advanced or "post-capitalist" society has intensified urban-industrial concentration in the developed regions of Europe and America, as the international relations of the mode of production are now increasingly controlled and¹⁰ directed by economic, world business entities.

The prior period of industrial capitalism of the 19th and early 20th centuries, based on the nation-state and their capital cities (which formed economic core regions), has been revolutionized

by the emergence of the transnational enterprise. For large, international firms, market integration based on liberal economic theory is not so much inappropriate, as deficient, since old tenets about consumer sovereignty, free entry into the market, limited size of the largest firms, etc, are no longer relevant. However, they still may hold true for the thousands of medium and small sized firms. The point is that the new, "post-capitalist" mode of production, dominated by a few hundred international corporations, has introduced new relationships between the forces of production and in turn is creating a new space economy (spatial structure) in the EC. It is very important, therefore, that a precise definition of integration be employed, that concentrates on the behavioural activities of business enterprises as they respond to new stimuli and create new forms of spatial organization within the Community.

This paper is mainly concerned with the economic and behavioural aspects of the integrative process, since it is specifically focused on transnational business collaboration between business enterprises in the EC. Since there is no single measure that adequately portrays all facets of behavioural, economic integration, for the purposes of this paper it is defined as a process whereby the economic structures of the national economies comprising the EC establish inter-connecting linkages through the reorganization of functional activities on a regional and/or

global scale. This may involve the linking up of production units, financial institutions, services and transportation-communication networks in a variety of sectors of the economy. Therefore, to focus more directly on transnational business collaboration in industry, industrial integration will be defined as the merging of the industrial structures of the participating economies by means of numerous types of cross-national business arrangements that European Community firms employ to take advantage of the evolving regional business system.

To repeat, then, our definitions :

- 1.1 economic integration is a process whereby the economic structures of the national economies comprising the EC establish inter-connecting linkages through the reorganization of functional activities on a regional scale, thus creating a complementary business community.
- and 1.11 industrial integration is the linking-up of the industrial apparatus of the participating national economies by means of various types of cross-national business arrangements that European enterprises employ to take advantage of the evolving EC regional economic system.

In this regional economic system, business enterprises have become increasingly engaged in these cross-national business arrangements, to serve the continental market more efficiently. The term transnational business collaboration has been employed to describe such transactions and it is defined as :

- 2.0 transnational business collaborations (TBCs) are those transactions between business enterprises which possess distinct economic function, as well as long-term collaborative or partnership characteristics.

The two most common forms of TEC activity considered in this paper are either (1) contractual agreements for co-production, supply or marketing, or (2) foreign financial participation (equity participation) which may take several forms: subsidiary formation; joint equity ventures, and equity acquisitions of existing firms. All of (2) represent different avenues by which enterprises might engage in direct foreign investment.

- 3.0. direct foreign investment is investment by enterprises (or individuals) in foreign business assets so that some operational control is secured over those assets, depending upon the type and degree of equity participation.

As mentioned the principal types are :

- 3.1 subsidiary formation is the setting-up of a firm by an enterprise from a member-country (or non-member-country) in another member-country of the Community, in which the latter has 100% controlling interest in the former.
- 3.11 a joint venture is a mixed equity enterprise set-up in one member-country by two or more partner enterprises, one of which is of a different nationality, and in which operational control is shared between the founding enterprises.
- 3.111 equity acquisition is the financial acquisition of equity in a community enterprise by a firm from a different member-country, or non-member-country, with the range of possibilities extending from minority acquisition to the full takeover of capital, and resulting "economic merger" of operations in a reorganized, transnational business entity (international merger).

It is important to note that all types of TECs, whether contractual agreements in which there is no direct foreign investment or equity

participations, may be used in a number of ways to internationalize an enterprise's operations, as will be discussed in Chapter Two. Even in transnational cooperation agreements, enterprises can secure many of the benefits of equity participation (i.e. central direction and international scale of operation) through joint management boards for control and through joint worker committees for coordinating production¹¹. Or collaborating firms may use the different types of equity participations to merge their operations internationally by creating a central decision-making "holding company" with a number of subordinate operating companies (see Chapter Two).

The fundamental causes for the development of transnational business collaboration are found in the general internationalization of the business environment during the second half of the 20th century. This environment was promoted by liberal postwar economic conditions and the dramatic improvements in transportation and communications which saw the multinational enterprise become the prime agent of economic transactions¹², with direct foreign investment¹³ the main vehicle of its expansion. "For market economies as a group, foreign production has already surpassed aggregated exports as the most important vehicle for delivering goods to foreign markets."¹⁴

Multinational enterprises treat the world as a single operational milieu and integrate their functions among their foreign subsidiaries or affiliates to realize, at least in theory, least cost supply, production and distribution. Therefore, they may

be defined as :

- 4.1 A multinational enterprise is a centrally directed business organization, possessing operational units abroad, usually large enough to have a turnover in sales of at least \$100 million annually. (15)

Such enterprises constitute powerful transnational actors. However, even smaller, more nationally oriented enterprises now quite often possess at least one type of equity participation or transnational contractual agreements for cooperation.¹⁶ This is especially true in Europe where the regional market is split by legal, psychological and other non-tariff barriers which seriously impede EC firms from consolidating on a continental basis similar to that which is possible in the United States, despite the existence of the EEC. The term transnational enterprise will hereafter be used to describe all firms that engage in border-crossing economic activities, beyond export and import transactions, thus including both the traditional multinational enterprise and smaller, nationally-oriented enterprises that engage in TBCs.

- 4.11 A transnational enterprise describes all enterprises that are engaged in border-crossing economic activities, beyond export and import transactions; specifically with reference to this paper all those that engage in TBCs.

The establishment of the EEC in 1958 radically altered the previous economic order in Europe and created a new operational field for the transnational enterprise to develop and flourish. It provided existing multinational firms new opportunities to seek least-cost production and distribution locations within

it, and stimulated domestic national firms to reorientate their operations to the new business environment by establishing collaborations with firms in other member-countries. This has upset the previous economic order which had been based on national governments promoting separate economic development programmes that created similar industrial structures, except in cases where classic conditions of internationalization specialization were so strong that they lead to intra-regional differences. Today, the rise of the transnational enterprise and the example of the United States or the Soviet Union, clearly illustrates that economic might, technological advancement, and the maintenance of a quality of life desired by its citizenry, requires the harnessing of resources and opportunities on a continental scale. For the transnational firm the EC represents a market of nine-member countries (Figure 1), creating a huge trading zone with the world's second largest GNP (\$1,057 billion in 1973, compared to that of the United States, at \$1,295 billion¹⁷); the total population of the nine is now 254.5 million (1975), compared to 213.6 million¹⁸ in the United States and 254.4 million in the Soviet Union.

The need for multinational-styled firms in Europe was first pointed out by Jean-Jacques Servan-Schreiber, in his book The American Challenge (1961)¹⁹. However, the most attractive way to create European multinationals, given numerous bureaucratic, managerial and fiscal obstacles to merging domestic national enterprises across national boundaries, was through the intra-national merger of two or more firms, rather than intra-community mergers.

Figure 1
THE
EUROPEAN
COMMUNITY

1 : 10 million

R. D. SIMON 75

The former type of merger may be defined as :

- 5.1 intra-national mergers occur when two or more national firms engage in corporate consolidation leading to the formation of one economic unit, either by direct acquisition or amalgamation (20).

Intra-community mergers (international mergers), on the other hand occur between enterprises from different member-countries within the Community :

- 5.11 intra-community mergers occur when two or more national firms, at least one from a different member-country, merge some or all of their functional activities across national boundaries by direct financial acquisition and/or contractual agreements resulting in corporate consolidation on a transnational basis.

Intra-community mergers have been far less prevalent than intra-national ones, due to a host of difficulties that will be discussed later; although direct equity acquisition occurs quite frequently, amalgamation of two community enterprises is legally impossible. Therefore, the only example to date of European enterprises actually "coming together" are the six well-known international "marriages" between community firms²¹, which do so through a complex manipulation of TBC arrangements. The term Eurocompany will be used to describe these enterprises :

- 5.111 A Eurocompany is a form of transnational enterprise, patterned on the American model of the multinational, and formed by the intra-community merger of two or more European national enterprises through various TBC arrangements which usually involve the establishment of one or more holding companies.

The most well-known Eurocompanies include: Royal Dutch/Shell, Unilever, Iffa-Gevaerts, VFW-Fokker, Dunlop-Pirelli and Hoesch-Hoerovens.

The internationalization of many aspects of modern economic life is pushing many hitherto domestically oriented, or at best export-import oriented European enterprises to operate increasingly on the scale of the evolving EC economic regional system. The basic cause behind the multinational spread of European firms, as in the case of American enterprises, is to exploit oligopolistic advantages in technological innovation²², first through export and then the establishment of foreign subsidiaries. Key factors for the move from export to foreign production are generally recognized as the size of the host country market and the existence of trade barriers.²³ For American and British multinationals the former has been more important, while for continental European enterprises the latter has been found to be the main stimuli for foreign production - in pre EEC it was tariff barriers, and in recent decades non-tariff barriers.²⁴

Unlike their European counterparts, the American multinational manufacturing enterprises undertook massive direct foreign investment in Europe in the early postwar years. By the end of 1970, the half-way point in this study, direct American investment in Europe amounted to \$21.5 billion, of which \$12 billion was in manufacturing subsidiaries; total European direct investment in the U.S. was only \$9.5 billion, with around \$4 billion in manu-

25
facturing. However, European enterprises have not been inactive
transnationally, especially during the 1960s and 1970s, a fact
often overlooked by the very size of the American phenomena and
the lack of European statistical data. European firms have a long
26
history of transnational activity, and after the mid-1960s a
very rapid expansion of direct foreign investment in production
27
subsidiaries occurred. By 1971, the largest industrial enterprises
headquartered in the EC of the nine accounted for 4,322 foreign
manufacturing subsidiaries, compared to 4,246 for U.S. multi-
28
nationals. Of these, parent enterprises in Britain accounted
for 2,207 foreign manufacturing subsidiaries, West Germany 792,
France and the Netherlands 429 each, Belgium and Luxembourg
together 276, and Italy had 133 subsidiaries controlled by
29
major industrial enterprises with headquarters located there.

In a regional market like the EEC, the step from trade
integration to interpenetration of industry at the production level
is made more attractive: "a number of large multinational companies
have come increasingly to operate on a multinational level, and
these include Philips (Netherlands) which now has works in almost
every Community country, and Olivetti (Italy) with a large European
30
network of manufacturing plants". Since the late 1960s, EC
firms have achieved an above average expansion of industrial
investment outside their own countries, not only into the U.S.
but more importantly within the Community. In this same
period American direct foreign investment into the Community and

elsewhere has declined, lagging even behind the international growth rate of direct investment abroad.³¹

In the light of these developments, the transnational firm is becoming a common feature of the European business environment. There has been a tendency for European industry to not only reorganize itself on a regional scale, but also to gravitate towards the centre of the market wherein are found the highest values for investments of labour and capital. This new centre of economic activity within the EC conforms to the Rhinelands. This region was formerly divided by politics, but since the division of postwar Europe, the refocusing of Western efforts in the EEC, and the acceptance of an European ideal by many political and economic elites, this central corridor has become a powerful magnet for economic activity due to geography and economics. The new importance of this core area is seen in the amount of new industrial investment going into it: into the Rhine areas of West Germany, into the Benelux countries, and into the northern and eastern departments of France.³²

It is the combination of optimum conditions in all aspects of supply, production and distribution that have made this region so attractive to industrialists, and in the absence of restrictions it will undoubtedly continue to be the recipient of a disproportionate amount of foreign investment (i.e. American). The Community companies themselves, based as they are still on national markets, have been slower to relocate drastically, but with the drift to the west in Germany and the consolidation of industry in the Randstad and mid-Belgium, the concentration into the macrocore has steadily become more marked. (33)

The Rhine and its tributaries have always been one of the major, if not most important, rivers in continental Europe. That this area is a transnational zone by definition enhances the trend towards transnational business collaboration, as European enterprises seek to survive in an international commercial environment dominated by considerations of size and concentration. Thus, the activities of Europe's enterprises are creating through their cooperative agreements, economic mergers and new investments, a system of economic links and interdependencies that is strengthening the movement towards the integration of the European industrial community.

The basic problem for industry in the Community, it is generally argued, is that it is caught between the forces of continental concentration, generated by the customs union effects of the EEC on the one hand, and the administrative and institutional obstructions to such concentration presented by the dynamics of the embryonic regional system of the EC (recall footnote 2, Introduction, p.15) :

- 6.0 the regional system refers to the territorial extent and institutional-administrative structures of the European Communities; it includes both the central system authorities in Brussels and the national subsystem components of the member-countries.

Therefore, while the postwar liberal economic environment and the establishment of the EC itself, were great stimuli for European firms to reorient their business strategies and structures to the

regional and global scale, national outlooks, biases and institutional structures continued to discourage this reorientation.

In addition, the Community's official policy was caught in the dilemma of encouraging trans-European business arrangements to offset excessive nationalistic trends, while at the same time prohibiting what were perceived as undersirable monopolistic concentrations. The results have been twofold.³⁴ First, although there has been a pronounced rise in mergers and cooperative agreements among enterprises, they have been primarily national rather than transnational. And second, the main success of the EC, at least in industry, has been in establishing a framework for harmonization of national industrial policies, rather than the formation of any significant transnational industrial structures. In fact, the main thrust of EC industrial policy in terms of effective action has been in its regional competition policy.

Despite these complex industrial conditions in Europe, and the new, worldwide conditions of scarce resources and fierce international competition which they face, European enterprises are gradually realizing the potentials afforded by transnational business collaboration to overcome these difficulties. Altered world conditions were heralded by the American currency devaluations of the early 1970s and the oil crisis of 1973 which placed a new imperative on intense international competition, based not so much on comparative advantage as technological innovation.³⁵ Certainly, TECs should not be interpreted as a panacea for the

complex challenges of this new industrial milieu (since European firms possess a number of unique advantages upon which to draw³⁶), but they do constitute a significant and growing industrial phenomenon within the Community which will likely have profound repercussions on the type of Europe that emerges in the 21st century.

In sum, community enterprises may turn to transnational business collaborations to overcome non-tariff barriers to regional trade, to realize advantages from production rationalization and economies of scale on a regional basis, and to exploit more effectively special technological and locational advantages. At the same time, transnational enterprises involved in such collaborations are drawing national economies closer together in a process that is part of an overall spatial reorganization around a new regional centre. The continued development of these trends can have far-reaching implications for the future integration of the Community, not only economically, but in social and political areas as well.

2. Delimitation of the European Corridor

Mention has already been made of the fact that the industrial structure of Europe was dramatically disrupted by postwar developments. Certainly the establishment of the Common Market, in combination with technological advances in a number of fields, has altered the spatial conditions underlying supply and demand in Europe. The effect this has had on economic activity in general, and on individual enterprises specifically, is to create a new regional economic system which is increasingly reflected in a more concentrated pattern of population, industry and communications.

These changes have witnessed the emergence of the trans-national enterprise as the dominant form in the contemporary, capitalist mode of production. They are creating a new space-economy by their allocations of resources on a world scale, in which a firm's locational decisions are not just "least cost" determinants, but the most "efficient" in terms of social, political and economic considerations. This is to ensure stable growth conditions and assured profits. Since these can and have to be done today on a large scale of operations, one of the most predominant characteristics of capitalist production is increased industrial concentration.

The approach used in this paper deals with "concentration" in two senses: the economic and the geographic, or concentration

of production in a few enterprises and the concentration of investment flows into specific localities. Both tend to reinforce each other and create an environment which encourages EEC activity. One significant repercussion of the EEC has been to increase the concentration of economic activity by community firms, so that by 1973 forty-two enterprises accounted for 50% of all sales of major firms in the EC.³⁷ "Throughout the Community the absolute level of concentration measured on the sales variable is generally fairly high, and indeed the level would be even higher if concentration were measured by reference to profits and other financial variables."³⁸

This trend towards economic concentration within fewer and fewer larger firms has been fueled by increased international competition and an international credit system³⁹, with labour migration to the main centres of capital development as the lever⁴⁰ permitting such accumulations of capital. This trend towards monopoly capital has been accelerated by structural shifts in employment from traditional to advanced industries, by greatly increased internal economies created by technological innovation, the establishment of the common market for regional activities, and the example of the American multinationals. It will be shown that European enterprises have responded with primarily national mergers and takeovers to strengthen their competitive positions, but that in recent years such monopoly concentrations⁴¹ have been accompanied by unprecedented transnational activity.

The counterpart of firm concentration can be seen in the location of complex industrial activities, and to understand the spatial dynamics of such a "region" as the EC one can draw on a vast literature⁴². The concept of a region contains two basic ideas: a geographic area constituting an entity, and the idea of a high degree of inter-relationship between its various parts⁴³. This inter-relationship usually reveals two distinct features of internal structure, nodal and homogeneous types of areas, or core and periphery respectively. Although each plays a different role in the spatial organization of society, they are tightly linked by flows of labour, capital, goods and services. Economic activity has a tendency to concentrate in nodal (urban) areas where exchanges of goods and services predominate. The homogeneous or periphery areas of a region fall outside the urban-industrial commuting and trading area of the nodal centre and is usually based on a common exportable output.⁴⁴

This is a very basic description of the mode of production which has dominated Europe for the past one hundred years, in which the city system has represented the structure of the space economy through which production is achieved. As noted the mode of production has changed over time, but the spatial structure of industry in the Community today still reflects industrial capitalism which reached its high point in the late 19th and early 20th centuries. During this period, coal-based industrial capitalism intensified the urban system of northwest Europe, and coupled with the appearance

of national financial systems and the encouragement of governments centred in capital cities, "all ensured the maintenance and growth of national centres of accumulation and control" ⁴⁵

Therefore, a core-periphery model is readily identifiable in Europe prior to the last war, with most industrial enterprises concentrated in the economic core regions of the individual nation-states. This spatial structure of the mode of production has been dramatically modified in the past three decades because Western, "post-capitalist" economies have moved to an internationally controlled and integrated system of production dominated by the transnational enterprise. Such enterprises have become the international controllers of the means of production and resource allocators on a global scale. The tendency for monopoly capital to develop in the capitalist system of production was noted by such different writers as Adam Smith and Karl Marx. ⁴⁶ In moving to an international scale of production, a new regional space economy is being created in Europe, based on transnational corporate hierarchies and regional-global organization of supply, production and distribution operations.

Presently, the EC's large market has acted as a stimulus to those enterprises most able to take advantage of economies of scale, especially in specific locations where earnings from capital and labour are the highest. Thus factors of production are drawn from the periphery to the centre by (perceived) superior opportunities for labour and entrepreneurship, and similarly

capital and raw materials are drawn to the centre to fuel its expanding economy.⁴⁷ In turn, there is a tendency for economic activity to gravitate to the centre of the market it is serving, and to reinforce the geographic concentration of industry there. Therefore, contemporary structural changes in industrial organization and in markets are intensifying and concentrating economic activity on a supranational scale. And in the EC, the Rhine and its adjacent lands have all the resources and attributes, both human and physical to be its economic heartland. Previously, this area was divided and kept separated by political boundaries, but even 19th century industrialism could not eradicate its advantages as the centre of continental unity. Although the capital city core areas of the member-countries are still much in evidence, a new regional core area has developed in the years since the last war.

The political map of Europe that displays nine individual countries is quite incorrect: "this is a false picture since the political map does not reveal the extent to which interdependence has become a reality, one of the foremost expressions of which is the EEC"⁴⁸ Changes in the capitalist mode of production, economic dictates, and the continent's geography, now combine to push for greater industrial integration. The Rhineland is rich in physical resources, the area represents a major transportation axis, and its inherited labour skills and markets make it the natural focus for any form of economic integration.

If one examines the present pattern of population, industry, energy and transportation in the EC, the existence of this European economic heartland is readily apparent. In terms of population the dominance of the Rhine axial belt, extending across the Alps to the upper Po and across the North Sea to include the British Midlands, is pronounced (Figure 2, basemap). Figure 2 shows that the most heavily populated areas are still concentrated along the old coalfields and along the Rhine, both merging in the north to form a huge megalopolis of the European northwest, stretching from southern Netherlands into central Belgium and including the Ruhr and French Nord regions. The total population of this area is approximately 38 million, including as it does the great metropolitan areas of Randstad, the Rhine-Ruhr, and the sprawling conurbation of southern Belgium-northern France. This huge megalopolis is roughly centred on Rotterdam; within a 600 mile radius, 160 million people of the Community's 258⁴⁹ million people reside.

Associated with the great metropolitan cities falling within this radius is found the greatest concentration of European industry : Figure 2 (basemap) illustrates that such cities as Amsterdam, Rotterdam, Dortmund, Dusseldorf, Cologne, Frankfurt, Liège, Gent, Milan-Turin, London and the Midlands are all the centre of a major industrial district. Again, these industrial districts are predominately concentrated along the Rhine, its tributaries and delta, as well as in eastern and northern France and the British southeast.

LEAF 41 OMITTED IN PAGE NUMBERING.

UNIT 2 ENERGY OVERVIEW

Major basins
 Crude Oil and Product
 Pipelines
 ——— THE EUROPEAN CORRIDOR

— Motorways
- - - Waterways, over 1500 ft.

16000

This great urban-industrial complex of northwest Europe is based on the region's advantages in energy supplies and transport facilities. The axial belt from the Midlands to the upper Po valley contains the heart of the Community's power resources : the bulk of the EC's coal for secondary uses, which accounted for 23% of Western Europe's inland energy consumption in 1973⁵⁰, comes from the Franco-Belgian, Kempenland or Ruhr fields; the Community's reserves of natural gas and oil are found around the North Sea and in the Po valley; and hydroelectric power is supplied mainly from the Alpine region. In addition, imported oil, which now supplies the Community with approximately 60% of its energy requirements⁵¹, has meant that refineries and oil pipeline terminals dot the North Sea coast, from Le Havre to Hamburg, and the Mediterranean coast from Marseille to southern Italy. Thus, the EC's major oil facilities are grouped around those estuaries with the best connections with the interior urban-industrial regions. The lower Rhine delta is one of the Community's most important oil importing and refining regions (see energy overlay, Figure 2), while pipelines and waterways carry imported crude to interior refining locations, such as the Ruhr, the middle Rhine (Karlsruhe) and southern Germany-eastern France (Ingolstadt+Strasbourg), which have stimulated the development of vast chemical-industrial complexes. Figure 2 clearly demonstrates the fact that the Community's principal energy capacity is highly related to the development of an urban-industrial belt which is closely aligned with the Rhine system.

This region also contains the Community's most extensive transportation-communication system. The transportation overlay of Figure 2 depicts the two prime modes of industrial transport, motorways and waterways, and illustrates their heavy concentration along the Rhine and deltalands; undoubtedly, the Rhine delta from Randstad and Antwerp to Duisburg (Figure 3) is the great heart of the Community's system, and its major transshipment point. The Channel ports from Le Havre to Hamburg, including the great euroports of Rotterdam and Antwerp, handle the bulk of the Community's seaborne commerce.⁵² "The coastal zone from the northeast France to the southern Netherlands has become the Community's major 'industrial coast', and here refineries, steelworks, chemical and processing plants use imported energy and raw materials and then transfer the products to the industrial areas of the interior."⁵³

The transportation overlay of Figure 2 also shows that the network is highly concentrated along the Rhine-Rhône axis, where the Belfort Gap links the upper Rhine via the Rhône-Saône to the Mediterranean coast. Secondary routes include the Seine-Paris, Channel-London-Midlands, western coast of Italy, Hamburg-Hesse, and the Alpine routes; the Aare river valley with its industrial districts of the Swiss Plateau-Jura and readily linked to both the upper Rhine and to the Italian Piedmont and Lombardy via the Alpine passes, is an important segment of this core region although lying outside the Community.

Therefore, in all these factors, population, industry, energy

THE EUROPEAN CORRIDOR

Figure 3.

and transportation, the dominance of this European axial core is clear. Its heart is undoubtedly the delta-Rhineland area, but it extends south through the Alpine routeways to the Italian Po valley and across the North Sea to embrace southeast Britain. In the balance of this paper, this great transnational zone will be referred to as the "European corridor", and should be interpreted as including the forementioned areas.

- 7.0 European corridor centred on the continental Rhineland, extends north to the British southeast and Midlands and south across the Alpine routeways to northern Italy; it represents the "heartland" of the EC in terms of population, industry, energy and transportation facilities (Figure 2).

But what is the precise relationship between transnational business collaborations and this corridor? Their inter-relationship is based on the dynamics of modern industrial organization and location, as they apply to the complex European industrial milieu. "A general description of what is happening in the modern industrial world is that the macro-location of industry and population is tending towards an ever-increasing concentration in a limited number of areas; their micro-location, on the other hand, towards an ever-increasing diffusion or sprawl,"⁵⁴ What this means is that industrial enterprises are no longer confined by transportation technology to city centres or by energy sources to ore-coalfield sites, but are free to locate throughout the commuting and trading area of core regions; but at the same time, there is a tendency for nodal centres to grow and coalesce into vast macro-

regional urban industrial complexes, such as the northeastern metropolitan region of the United States, the industrial corridor of southern Ontario, from Windsor to Montreal, or the European corridor of the EC.⁵⁵

The micro-diffusion or sprawl of industrial enterprises is produced by such centrifugal forces as technological advances, both in industrial processes and in transportation and communications⁵⁶, and the development of new energy sources. These have allowed industrial firms to escape congested urban centres and establish suburban industrial parks or create manufacturing towns in previously rural locations, in much the same way that people have been freed to leave the cities for the suburbs or even country residences. This diffusion of industrial activity is countered on the macro-level by such centripetal forces as demand, scale and agglomeration. Greater sophistication of industrial processes and finer division of labour, as well as the vast expansion of light and tertiary industries which are very market oriented, has increased the importance of locational interdependence within widely spread but highly concentrated regions :

In the twentieth century the growth of clusters of urban settlements is more frequently found around large metropolises and results in what are sometimes called "city regions". The towns in these city regions are related to one another by the functions which they perform. Some may form commuter settlements, some may be shopping and administrative centres, and some may possess a mixture of functions. But they will be bound together by social and economic links, if not by a continuous built-up area. (57)

These city regions will form multi-centred urban agglomerations stretching over vast distances, often seemingly separated by underpopulated land, but are actually closely interconnected by transport facilities, specialized industrial functions and patterns of social interaction. For example, the country between the Netherlands and West Germany is rural and has remained relatively underdeveloped for centuries. However, under the new conditions of the EC, the most visible sign being the construction of motorways in the area, the Dutch Randstad and Rhine-Ruhr complex is gradually coalescing into a single gigantic urban region.⁵⁸ These functionally separated, but geographically concentrated multi-centred urban agglomerations, therefore, represent powerful magnets for business enterprises. The most efficient enterprises take advantage of these developments by locating in these optimum, macro-regional areas for supply, production and distribution. With the establishment of the EC, technology, capital and labour now flow more readily from low earning areas to high until a new equilibrium is reached based on the regional system, rather than the individual member-country subcomponents. "The centre reaps the advantage of scale economies and the net effect may be the replacement of national centre-periphery disparities with a wider community centre-periphery."⁵⁹

Thus the European corridor now offers business enterprises the best location in terms of markets, scale economies and agglomeration benefits, given its inherent advantages in population, resources, transportation and energy supply-distribution. Previously, this pivotal area was split by the separate nation-states, with

national boundaries representing barriers to economic contacts and seriously impeding the corridor's functional completeness. Due both to inertia and to a host of remaining non-tariff barriers, however, European enterprises have been slow to relocate and take advantage of these new economic realities, and are still primarily based on national economic cores and markets. Yet dramatic changes are in evidence: one has but to pick up any recent article or book on a member-country or a component industry, and the author inevitably writes of such developments as the drift of West German industry towards its western boundary, the consolidation of industry in Randstad, central Belgium or in the Nord, or the tendency for processing industries to concentrate along the North Sea or Mediterranean coasts (i.e. the ends of the corridor) and secondary industries to develop in the middle and upper Rhinelands.

As will be shown, TBCs represent one means by which industrial enterprises in Europe may adapt to these new economic conditions, by tapping the economic potential of corporate reorganization on a regional scale while at the same time preserving a significant degree of national identity. This paper will show that, just as the business operations of industrial enterprises are tending to "gravitate" towards the corridor, it is precisely those firms located near or within the corridor that tend to be the most active transnationally, establishing TBCs to develop the functional completeness of the corridor and exploit its advantages on a regional or global scale.

In recent years, a number of writers have called attention to the emergence of this European core region, and although defini-

tional boundaries vary with approach used, they are all in effect measuring the existence of the corridor. Its first manifestation was the Heavy Industrial Triangle at the turn of the century, extending from the Ruhr, to Lorraine and the Nord; in recent years Geoffrey Parker⁶¹ has given it wider extent and called it the super- or macro-core of Western Europe (see Figure 4). Other writers have noted the formation of a great northwest European megalopolis, as the urban centres of the region have steadily expanded and coalesced. I.B. Kormoss⁶² has identified this megalopolis as stretching from Calais to IJmuiden, inland to Hanover, then south to Switzerland and back through eastern France; and John Glasson⁶³ speaks of European economic activity being concentrated in the "Golden Triangle", from Birmingham, the Ruhr to Turin-Milan.

Clark, Wilson and Bradley⁶⁴ (1969), quantitatively measured the attractiveness of this European centre region for industry, using the concept of economic potential. This concept is based on gravity models, whereby the economic potential of each major region in Europe was evaluated by summing the regional incomes around its focal point and dividing it by the distance costs of reaching it from every other centre. Regions with the highest economic potential were assumed to be the most attractive to industry for reasons of economies, markets and services available; in other words the basic centripetal forces identified previously. Contour maps of "equi-potential", showing areas of highest to lowest economic potential in terms of market potential (i.e.

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incomes) and accessibility (i.e. transport costs), were then constructed, for years before and after the formation of the EEC.

Before the EEC (Figure 5a), the national economic core areas were clearly discernible as regions of highest economic potential. However, by the late 1960s noticeable changes had occurred (Figure 5b); the region of highest potential now clearly formed a European centre around the Rhine valley, eastern Belgium and southeast Netherlands. Significantly, the Benelux countries, which before the establishment of the EEC were major troughs of depression, were now areas of intense economic potential activity. The model was then adjusted to take into account the enlargement of the Community and the possible use of containers for sea freight transport. This improved the economic potentials of peripheral locations accessible by sea, including southeast Britain and the central Italian peninsula (Figure 5c).

These studies support our assertion that new equilibrium conditions for supply and demand have been created in the EC, based on a regional system within which the European corridor provides the best industrial locations in terms of market access, scale economies and agglomeration effects. As domestic national firms seek to survive under new regional and global economic conditions, transnational business collaborations allow them to broaden their structures and activities and reorient them towards the corridor. This in turn strengthens the attractions of the corridor and generates a cumulative dynamic between the two interacting trends.

FIGURE 5.

Clark's Maps of Economic Potential in EC

Pre-Treaty of Rome

Post-Treaty of Rome

Enlarged Community

3. Glossary of Terms

This section is intended to provide a quick reference guide to the definition of terms employed throughout the paper.

- 1.1 Economic integration is a process whereby the economic structures of the national economies comprising the EC establish inter-connecting linkages through the reorganization of functional activities on a regional scale, thus creating a complementary business community.
- 1.11 Industrial integration is the linking-up of the industrial apparatus of the participating national economies by means of various types of cross-national business arrangements that European enterprises employ to take advantage of the evolving EC regional economic system.
- 2.0 Transnational business collaboration (TBC) covers those transactions between business enterprises which possess distinct economic function, as well as long-term collaborative or partnership characteristics; in this paper they include (1) transnational contractual agreements for cooperation, and (2) foreign financial participation (equity participation) which may take several forms, as follows under direct foreign investment.
- 3.0 Direct Foreign Investment is investment by enterprises (or individuals) in foreign business assets so that some operational control is secured over those assets, depending upon the type and degree of equity participation. Three types are of particular relevance to this study.
- 3.1 Subsidiary formation is the setting-up of a firm by an enterprise from a member-country (or non-member-country) in another another Community country, in which the latter has 100% controlling interest in the former.

3.11 A joint venture is a mixed equity enterprise set-up in one member-country by two or more partner enterprises, one of which is of a different nationality, and in which operational control is shared between the founding enterprises.

3.111 An equity acquisition is the financial acquisition of equity in a community enterprise by a firm from a different member-country, or non-member-country, with the range of possibilities extending from minority acquisition to the full takeover of the capital, and resulting "economic merger" of operations in a reorganized transnational business entity.

4.1 A multinational enterprise is a centrally directed business organization, possessing operational units abroad, and usually large enough to have a turnover in sales of at least \$100 million annually.

4.11 The term transnational enterprise describes all firms that are engaged in border-crossing economic activities, beyond export and import transactions; it therefore includes all firms have established TBCs, as well as including the traditional multinationals.

5.1 Intra-national mergers occur when two or more national firms engage in corporate consolidation leading to the formation of one economic unit, either by direct acquisition or amalgamation.

5.11 Intra-community mergers occur when two or more national firms, at least one from a different member-country, merge some or all of their functional activities across national boundaries by direct financial acquisition and/or contractual agreements resulting in corporate consolidation on a transnational basis.

5.111 A Eurocompany is a form of transnational enterprise patterned on the American model of the multinational, and formed by the intra-community merger of two or more European national enterprises through types of TBC arrangements which usually involve the establishment of one or more holding companies.

6.0 The regional system refers to the territorial extent and institutional-administrative structures of the European Communities; it includes both the central system authorities in Brussels and the national subsystem components of the member-countries.

7.0 The European corridor, centred on the continental Rhinelands, extends north to the British southeast and Midlands and south across the Alpine routeways to northern Italy; it represents the "heartland" of the EC, in terms of population, industry, energy and transportation facilities.

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References and Notes

- 1 Some of the most recent work of Robert O. Keohane and Joseph S. Nye, Jr., includes : "Introduction: The Complex Politics of Canada-American Interdependence," International Organization, Vol. 28 (Autumn, 1974), 595-607; "Transgovernmental Relations and International Organizations," World Politics, Vol. 17 (October, 1974), 39-62; and Transnational Relations and World Politics (Cambridge Mass: Harvard University Press, 1972).
- 2 Robert O. Keohane and Joseph S. Nye, Transnational Relations in World Politics (Cambridge Mass: Harvard University Press, 1972), p. xi.
- 3 Both Joseph Nye's book, Peace in Parts (1971), and Leon Lindberg and Stuart Scheingold's book, Europe's Would-Be Polity (1970), did much to further the trend of disaggregating integration into various dimensions and suggesting the possibility of multiple dependent variables.
- 4 Joseph S. Nye, Peace in Parts: Integration and Conflict in Regional Organization (Boston: Little, Brown and Co, 1971), p. 27.
- 5 Bernard Mennis and Karl P. Sauvant, Emerging Forms of Transnational Community: Transnational Business Enterprises and Regional Integration (Lexington, Mass: D.C. Heath & Co, 1976), p. 32.
- 6 Karl Deutsch, Political Community and the North Atlantic Area (Princeton, N.J. : Princeton University Press, 1957).
- 7 Ernst B. Haas, The Uniting of Europe: Political, Social and Economic Forces, 1950-1957 (Stanford, Calif. : Stanford University Press, 1958).
- 8 Roger Lee, "Integration, Spatial Structure, and the Capitalist Mode of Production in the EEC," in Economy and Society in the EEC, Roger Lee and P.E. Ogden (eds.) (Westmead, Farnborough, Hants., England: Saxon House, 1976).
- 9 Ibid., p. 23.
- 10 Ibid., pp. 23-24.
- 11 A number of case studies which describe these various collaborative arrangements are found in Werner Feld's book, Transnational Business Collaboration Among Common Market Countries (1970).

- 12 Bernard Mennis and Karl Sauvant in their book, Emerging Forms of Transnational Community (1976), concluded that transnational enterprises were the major factor in international economic transactions. They found that the foreign production of U.S. affiliates was about four times the value of the country's exports; for the U.K. it is more than twice her exports and for France they are nearly equal. The value of exports for the other EC countries still exceeds foreign subsidiary production; for Benelux its about half, and for West Germany and Italy foreign subsidiary production is about 40% of their exports.
- 13 Defined as : investment by enterprises or individuals in foreign business assets so that some or total control is secured over those assets depending upon the type and degree of equity participation.
- 14 Mennis and Sauvant, Emerging Forms of Transnational Community, p. 5.
- 15 Many writers have defined the multinational enterprise; this definition is based on the work of Raymond Vernon, Sovereignty at Bay (New York: Basic Books Inc, 1971), Chapter one.
- 16 A United Nations' 1973 study revealed that of 7,300 companies which operate in at least one other country beside their country of origin, about 4,000 were domiciled in the EC, compared to some 2,500 of American origin. (UN, Multinational Corporations in World Development; New York: 1973, p. 13^a)
- 17 World Almanac 1977 (New York: Newspaper Enterprise Assoc., Inc, 1977).
- 18 United Nations, Demographic Yearbook 1975.
- 19 Jean-Jacques Servan-Schreiber, Le Defi Americain (Paris: Denoel, 1961); translated as, The American Challenge (New York: Atheneum, 1968).
- 20 It is possible to distinguish between takeovers (or acquisitions) where firm A offers cash or its own shares for shares in firm B, has its offer accepted and firm B disappears, from mergers (or amalgamations) where a new firm C is formed to absorb firms A and B, shareholders in A and B accepting shares in C which survives while A and B disappear. (Harry Townsend, Scale, Innovation, Merger and Monopoly. London: Pergamon Press Ltd, 1968, p. 48)

- 21 The six Eurocompanies are: the two oldest, Royal Dutch/Shell (British-Dutch, 1907) and Unilever (British-Dutch, 1929); the four most recent ones, Agfa-Gevaerts (German-Belgium, 1964), VFW-Fokker (German-Dutch, 1969), Dunlop-Pirelli (British-Italian, 1971), and Hoesch-Hoogovens (German-Dutch, 1972).
- 22 Lawrence G. Franko, The European Multinationals (Stamford, Conn. : Greylock Publishers, 1976), p. 24. Franko provides several references for the role of oligopolistic competitive advantage in explaining the rise of multinational enterprise: Steven Hymer, The International Operations of National Firms (Cambridge Mass. : MIT, unpublished Doctoral Dissertation, 1960); Raymond Vernon, "International Trade and International Investment in the Product Cycle," Quarterly Journal of Economics (May, 1966); Richard E. Caves, "International Corporations: The Industrial Economics of Foreign Investment," Economica (February, 1971); and Louis T. Wells, Jr., (ed.), The Product Life Cycle and International Trade (Boston: Harvard Business School, 1972).
- 23 Raymond Vernon, "International Investment and International Trade in the Product Cycle," Quarterly Journal of Economics (May, 1966), pp. 190-204; and Raymond Vernon, Sovereignty at Bay (New York: Basic Books, 1971).
- 24 Franko, The European Multinationals, p. 103.
- 25 Paolo M. Rogers, "Multinational Corporations: A European View," Annals of the American Academy of Political and Social Science, Vol. 403 (September, 1972), p. 59.
- 26 Lawrence G. Franko, "The Origins of Multinational Manufacturing by Continental European Firms," Business History Review, Vol. 48, -3- (Autumn, 1974), pp. 277-302.
- 27 For figures on the increase of direct foreign investment by European countries (i.e. stock of foreign direct investment of various parent countries) see Mennis and Sauvant, Emerging Forms of Transnational Community, p. 13. For the number of foreign manufacturing subsidiaries established or acquired by parent enterprises from the U.S., Britain, continental Europe and Japan between pre-1914 through 1970, see Franko, The European Multinationals, p. 10.
- 28 Franko, The European Multinationals, p. 12.
- 29 Ibid.

- 30 Geoffrey Parker, The Logic of Unity (London: Longman, 1975), p. 45.
- 31 Manfred Holthus and Georg Koopmann, "Multinational Enterprises in the EEC," International Economics, (February, 1975), p. 38.
- 32 Geoffrey Parker estimates that two-thirds of all American industrial investment in Europe is going into this new European macro-core region (Logic of Unity, pp. 160-161).
- 33 Parker, The Logic of Unity, p. 161.
- 34 Business International SA, The European Communities Today and Tomorrow (Geneva: 1969), p. 44.
- 35 The key to the maintenance of the multinationals position, according to the product-cycle model, is continued introduction of new products (technological innovation) in order to create new oligopolistic advantages, because after a few years its position is eroded by new competitors who quickly enter the market and buyers become more price responsive thus threatening the multinational with diseconomies of large size and its expensive organizational apparatus. Gerhard Mally notes in his book, The European Community in Perspective (1973), that with the advent of transnational actors and its corollary, interdependence, the international system is being transformed from one of monopoly of the state into one of oligopolistic competition with numerous international actors.
- 36 The European industrial environment does possess certain unique advantages over the American, especially with the new emphasis on scarce resources and quality production. These include Europe's lower labour costs, its stress on competitive standards, especially in West Germany, and its educational system which has continued to produce skilled craftsmen. One might also note that the continental European system of rigid, exclusive corporate finance, in which businesses are dominated by families and their private banks, or a few wealthy individuals, has meant that European firms were far less troubled in finding investment finance and in avoiding the financial difficulties that many North American and British firms have experienced in the past decade.

- 37 EC Commission, Fourth Report on Competition Policy (Brussels: 1975), p. 119.
- 38 EC Commission, Fifth Report on Competition Policy (Brussels: 1976), p. 141.
- 39 Roger Lee, "Integration, Spatial Structure, and Capitalist Mode of Production in the EEC," in Economy and Society in the EEC, Roger Lee and P.E. Ogden (eds.) (Westmead, Farnborough, Hants., England: Saxon House, 1976), p. 18.
- 40 Stuart Holland, "Meso-economics, Multinational Capital and Regional Inequality," in Economy and Society in the EEC, Roger Lee and P.E. Ogden (eds.) (Westmead, Farnborough, Hants., England: Saxon House, 1976), p. 30.
- 41 Lennis and Sauvart, (Emerging Forms of Transnational Community), using foreign direct investment as an approximate measure of transnational enterprise activity, found that foreign production of affiliates is now the principal means of delivering goods to markets, and that since the 1960s, European companies have greatly increased their stock of direct investment abroad. This has been directed mainly to the developed market economies, primarily other community countries.
- 42 The study of regional spatial structure has been extensively developed since it was originally undertaken by W. Christaller and A. Losch in their "central place model", and more recently by F. Perroux's "growth pole model". Contemporary research can be divided roughly between inter-urban studies, represented by the recent writings of B.J.L. Berry and W. Garrison, and intra-urban studies, best seen in A.E. Smailes' and W.I. Carruther's work. Perroux's growth pole concept has been readily adopted by regional planners and expanded by J. Boudeville, who specified the geographic space of a growth centre or point, rather than Perroux's more general idea of growth pole in "economic space". Thus some writers conceive of the growth pole as relating to the national or international scale, and growth centre to the local, regional scale. Both the central place and growth pole concepts provide good theoretical models to help explain spatial interactions. However, there has been a great deal of recent work studying specific spatial interactions using a variety of mathematical models (i.e. gravity and potential models, linear programming, game theory, markov chain and stochastic information models).
- 43 Edgar M. Hoover, An Introduction to Regional Economics (New York: Alfred A. Knopf, 1971), p. 122.

- 44 Ibid., p. 124.
- 45 Lee, "Integration, Spatial Structure, and Capitalist Mode of Production in the EEC," p. 25.
- 46 The rise of large corporations (monopoly capital) was foreseen by classical economists. Adam Smith's third force causing economic growth was capital accumulation; "capital" here was the stock of goods used to support "productive" labour, and the accumulation of capital was due to someone foregoing income in consumption. Karl Marx, on the other hand, saw that the basic premise behind the whole capitalist system was the need for continued capital accumulation. This was because the dominating aim to increase profits was faced with the continued trend of declining profits since surplus-value could only be extracted from labour - yet at the same time there was the need to increase constant capital (i.e. machines) in order to accumulate and keep wages low.
- 47 Malcolm J. Moseley, Growth Centres in Spatial Planning (Oxford: Pergamon Press, 1974), p. 116.
- 48 Parker, The Logic of Unity, p. 1.
- 49 Ibid., p. 163.
- 50 William Wallace, "Europe: Changing International Context," Section II, Energy, World Today, Vol. 31 (May, 1975), p. 188.
- 51 Ibid.
- 52 Parker, The Logic of Unity, p. 150.
- 53 Ibid., pp. 153-159.
- 54 Colin Clark, F. Wilson and J. Bradley, "Industrial Location and Economic Potential in Western Europe," Regional Studies, Vol. 3, #2 (1969), p. 197.
- 55 Jean Gottmann, Megalopolis: The Urbanized Northeastern Seaboard of the U.S. (Cambridge, Mass.: MIT Press, 1964).

- 56 Innovations in transportation and communications have greatly reduced distance costs for goods which were formerly very market-oriented because of weight, bulk or perishability. In addition, new processes in industry have lessened the importance of formerly material-oriented industries by greatly increasing output per unit, and thereby undermining locations formerly determined by cost or difficulty of transport of material inputs.
- 57 James H. Johnson, Urban Geography (London: Pergamon Press, 1967), p. 79.
- 58 Peter Hall, The World Cities (Toronto: McGraw-Hill Book Co, 1966), p. 122.
- 59 John Glasson, An Introduction to Regional Planning (London: Hutchinson Educational Ltd, 1974), p. 308.
- 60 Geoffrey Parker's, The Logic of Unity (1975); D. Burtenshaw's, Economic Geography of West Germany (1974); T.H. Elkins', "Life on the European Growth Axis," (1972); John Ardagh's, The New France (1973); Hugh Clout's, The Franco-Belgian Border Region (1975), as well as the book Regional Development in Western Europe (1975), which he edited.
- 61 Parker, The Logic of Unity, 1975.
- 62 I.B.F. Kormoss, "Les Communautés Europeennes: essai d'une carte de densité de population," Les Cahiers de Bruges, II (1959).
- 63 Glasson, Regional Planning, 1974.
- 64 Clark, Wilson and Bradley, "Industrial Location and Economic Potential in Western Europe," 1969.

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Source Material for Figures

- Figure 1 : The European Community in Maps, EC Commission, 1974, and Goode's World Atlas (12th ed.).
- 2 : T.G. Jordan, The European Culture Area, 1973, and the European Community in Maps, EC Commission, 1974.
- 3 : Faber Atlas
- 4 : Glasson, Regional Planning, 1974, and Parker, The Logic of Unity, 1975.
- 5 : Glasson, Regional Planning, 1974, pp. 310-311.

Chapter Two : Milieu

This chapter is intended to investigate the economic and political background which has fostered the rise of transnational business collaboration as a means of establishing regional industrial integration between business enterprises. It concludes with an examination of specific types of TBCs which have developed. TBC activity represents a mechanism by which firms may reorganize and reorientate their strategy and structure to the regional scale of the Community, given the numerous technical, legal, political and psychological barriers to such readjustment that still exist. In this process of readjustment, firms will be encouraged to seek TBCs by the economic tendency towards corporate internationalization. Also, the continued development of a new centre of economic activity along the transnational zone of the corridor is increasingly an alternative to the national economic core areas for industrial investment.

Very succinctly, section one of this chapter identifies the basic contemporary industrial trends (national and transnational consolidation); sections two, three and four seek to explain the dominance of national consolidation and outline problems and difficulties confronting transnational trends; section five examines an ideal solution to these circumstances (European company law); and section six investigates the means businessmen and industrialists are employing to contend with this complex industrial milieu (TBCs).

1. Industrial Consolidation in the EC, National versus Transnational

Despite the growth and locational advantages of the European corridor, industrial enterprises in the EC have been slow to restructure their organizations to take advantage of the new regional infrastructure that has evolved. In fact, there seems to be an apparent discrepancy between the drift and concentration of firms along the corridor, towards the Rhinelands, Randstad, mid-Belgium or eastern France, and the often raised complaint that European firms have not taken steps to organize themselves on a continental scale, in order to meet the "challenge" of the large American multinational enterprises.¹ Although community enterprises may be gravitating towards the corridor, there are obviously serious impediments to the formation of unified trans-frontier business structures. Although much has been accomplished in creating the economic customs union of the EEC,² there has been a gross under-estimation of the strength of other barriers that coincide with national frontiers, aside from duties and tariffs.

The only evidence of European firms formally "coming together", are the highly publicized Eurocompanies, of which there are six major ones in 1978: Agfa-Gevaerts (German-Belgium, 1964); VFW-Fokker (German-Dutch, 1969); Dunlop-Pirelli (British-Italian, 1971); Hoesch-Hoogovens (German-Dutch, 1972); and the two oldest, Royal Dutch/Shell (British-Dutch, 1907) and Unilever (British-Dutch, 1929) (discussed later in this chapter). Instead what has occurred, especially during the late 1960s, is the consolidation

of firms on a purely national basis. This process has taken the form of intra-national mergers by takeovers and equity participations of varying proportions. European enterprises have even preferred acquisition deals with American multinationals, rather than any form³ of transnational relations between firms in other member-countries. This has often been due to the perception of the American multinational as being superior in technology and capital, a perception which is certainly not always true, and also due to a host of difficulties associated with trans-European arrangements which will be discussed later.

A very revealing statistic is the comparison between national and transnational equity participations during the 1960s and the 1970s, with a further breakdown of transnational ones between those involving only community firms and those with third country firms (Table 1).⁴ The two sets of figures in Table 1 have different time and definitional dimensions, and therefore are difficult to interpret comparatively. It is obvious, however, that there has been a great increase in both national and transnational consolidation among enterprises operating within the Community judging from the large number of participations that occurred in only three years of the 1970s period. And, while national consolidation continues to be most prevalent, transnational equity participations have apparently been far more frequent in the 1970s than before. In addition, intra-community participations are not only increasing, but have become more prevalent than participations with third

Table 1.

Equity Participations in the EC

During the 1960s and 1970s.

Takeover/Mergers : Majority Control Participations

1961-69

Between national firms	1,861
Between member-country firms	257
Between member-country and foreign firms	820

Takeover/Mergers and all Equity Participations

1973-75

Between national firms	2,651
Between member-country firms	770
Between member-country and foreign firms	583

(N.B. equity participation includes
full takeover/mergers to minority
financial participations)

country firms.

If one examines the 1970s more closely, it is apparent that transnational equity participations have in some years experienced a far greater increase than purely national ones. Table 2 examines the number of new equity participations occurring in each year, 1973 to 1975; three types of participations are presented, full takeovers and merger of industrial operations, equity acquisitions resulting in some degree of operational control, and joint ventures. Table 2 reveals that in 1973 transnational operations accounted for 61% of all takeovers, equity acquisitions and joint ventures, and involved 57% of those firms taking part in such operations. National takeovers, equity acquisitions and joint ventures accounted for 39% of all such activity and 43% of the number of firms involved.

This supports statistical data analyzed in Chapter Three on TBCs which shows that transnational operations greatly increased in the late 1960s early 1970s, reaching a high in 1972-73, before falling off in 1974-75 (see Figure 8, p.131). Regardless of this, Table 2 still illustrates how strong purely national takeovers, equity participations and joint ventures are as a business trend within EC member-countries. During the last two years of the period reviewed here, 1974 and 1975, national operations regained their lead over transnational activity in terms of the total number of such operations and the number of firms involved. In 1974, national operations accounted for 53% of all takeovers, equity acquisitions and joint ventures, and 69% in 1975, while

Table 2.

Number of New Equity Participations in the EC
 occurring in 1973, 1974 & 1975
 National versus International

Year		Takeover/mergers		Equity Acquisitions		Joint Ventures		Total	
		N.O.	N.F.	N.O.	N.F.	N.O.	N.F.	N.O.	N.F.
- numbers -									
1973	Nat.	138	318	381	835	121	473	640	1626
	Int.	-	-	571	1154	427	1003	998	2157
1974	Nat.	165	404	611	1300	149	517	920	2221
	Int.	-	-	407	941	403	1098	810	2039
1975	Nat.	231	548	1125	2351	286	1167	1642	4066
	Int.	-	-	375	870	264	1034	639	1904
- percentages -									
1973	Nat.	100	100	40	42	22	32	39	43
	Int.	-	-	60	58	78	68	61	57
1974	Nat.	100	100	60	58	27	32	53	52
	Int.	-	-	40	42	73	68	47	48
1975	Nat.	100	100	75	73	52	53	69	68
	Int.	-	-	25	27	48	47	31	32

N.O. : N.O. - Number of operations Nat. - National
 N.F. - Number of firms involved Int. - International

Takeover/merger - full acquisition of enterprise
 equity and merger of participants
 into one economic entity

Equity Acquisition - financial participation which
 results in some degree of
 operation control

Joint Venture - joint equity participation in formation
 of new economic entity between two or
 more partners

International operations - are transnational participations
 between EC or third country
 firms

transnational operations declined from a high of 61% in 1973, to 47% in 1974 and 31% in 1975. Takeovers and mergers were entirely national, numbering 534 in the three years, while transnational activity was most common in joint venture formation, numbering 1,094 to the 556 that were carried out nationally; equity acquisitions were split more evenly, 2,117 occurred nationally and 1,353 were between transnational participants.

These statistics indicate that transnational consolidation has become a very significant component of enterprise restructuring within the EC, especially compared to 1960 trends (see Table 1). Nevertheless, the prevalence of national consolidation continues to be one of the most salient characteristics occurring among European industrial enterprises. Although transnational operations declined in 1974 and 1975, the EC Commission has pointed out that this should not be interpreted as evidence of a long-term tendency for national operations to grow at the expense of transnational ones⁵, rather that transnational participations have been more adversely affected, at least initially, by the general economic recession of those years than national ones. Yet national and transnational consolidations are intricately related, since they both have the same root causes⁶, and are bound to evolve simultaneously. It may ultimately be argued that, within the framework of the evolving EC regional system, national merger represents an important first stage towards transnational corporate consolidation. This idea will be taken up again, especially in the fourth chapter

on the iron and steel sector.

It seems that the dominance of national consolidation over transnational activity, at least in absolute numbers if not in relative growth rates, reflects an easier path for European firms to overcome the difficulties presented by modern scale and cost requirements. It was noted that between 1973 and 1975, there were 534 full takeovers and mergers of enterprises, and that all were national: "mergers, and to a lesser extent production cooperation among firms, occurred for the most part within countries, rather than between, thus the degree of interpenetration remained small".⁷ The failure thus far of European industry to create more extensive transnational corporate linkages to match the Community's infra-structural improvements, has been the major disappointment of all advocates of the pan-European movement. Only in recent years has there been a new awareness of the strength and resilience of the many non-tariff barriers to industrial integration within the Community.

2. Obstacles to Transnational Consolidation

The preference for national consolidation of industry can be traced to national industrial policies, which in turn reinforce non-tariff barriers to the formation of any serious trans-frontier industrial structures. A national strategy for industry has become the common catchword today, replacing somewhat the older policy concerns for increasing GNP and employment. It usually involves the idea of "structural change", whether geographic relocation, or alteration (expansion or contraction) in enterprise size, or

composition of the economic sector. This is all for the purpose of increasing industrial efficiency or improving productivity. However, what happens in practice is often just the reverse because national industrial policies are usually beset with non-economic priorities which lead to greater domestic protection and industrial inefficiencies. Member-country governments continue to intervene in the industrial sector for social and political reasons, such as assisting declining industries or promoting "national champions" in specific branches.

National industrial policies, therefore, represent a serious impediment to the regional reorganization of industry and they work in conjunction with a number of non-tariff barriers to restrict transnational consolidation. Even with the establishment of the customs union, and despite the continued work of the EC Commission to harmonize legal, technical, fiscal and other border-crossing procedures, many such barriers still persist.

One of the most difficult problems is legal, since there is no legal framework providing for transnational de jure mergers; that is, there exists no European company law specifically designed to permit mergers to take place across national boundaries, as domestic mergers do under national legislation. In Europe, "for all practical purposes an international merger in the juridical sense is impossible". This explains the total lack of transnational takeover/mergers in Table 2, the continued strength of national consolidation over transnational, and the fact that there are only the six major Eurocompanies in the EC at this writing (1972). This

topic about the work being done on a statute for European companies will be developed more fully in section five.

Other serious ~~obstacles~~ take the form of a variety of regulatory barriers. Most EC member-countries have retained some exchange controls which complicate the conclusion of transnational cooperation agreements and impede their subsequent operational phases. Accounting differences also vary from country to country; in West Germany and Britain disclosure requirements are very strict, while in Italy only sketchy financial statements are required. In addition, differences in technical standards have proven to be a major problem because products and services must comply with varying national regulations, and this presents great difficulties for manufacturers hoping to sell their goods on the regional market. For example, the MAN-Saviem transnational cooperation agreement⁹, which provides for the partners to offer an integrated line of trucks, was initially endangered because the French partner, Saviem, experienced great difficulty in the West German market due to the different technical standards required there.

There are a number of fiscal obstacles as well which have continued to hinder transnational consolidation. In terms of creating transnational corporate organizations, the principal fiscal obstacles are the capital gains taxes on unrealized profits at the time of the proposed merger and the system of double taxes on profits remitted by subsidiaries to parent enterprises. In addition, there are many tax obstacles to trade under TBC arrangements, and in many cases border taxes on the movement of goods have actually increased

despite the customs union. Even though a common added-value¹⁰ turnover tax system (TVA or VAT) has been adopted, the national governments have considerable discretionary power on its implementation and level. What they have done, therefore, is to gradually increase the rates of both their equalization taxes on imports and their tax drawbacks on exports in order to protect domestic producers: "thus erecting a tax wall that produces protective effects equivalent to those existing when the now-abolished customs duties¹¹ were levied on intra-EC trade". Similarly for excise taxes, they are refunded on exports and charged on imports. Also, there are a host of minor border taxes, i.e. fees for customs documents, etc, which are only very gradually being removed and thus act as a brake on transnational cooperation between firms, as well as perpetuate distortions in the allocations of resources within the regional system.

Aside from legal, fiscal and other regulatory barriers, a second major problem area to transnational consolidation is the numerous bureaucratic obstacles. Foremost among these is the individual member-governments' nationalistic response and political opposition to mergers with foreign firms and/or foreign equity participation in any "national companies". Member-country authorities often attach a prestige element to the preservation of enterprises which have acquired a national identity, or have a high-technology, "glamour" character. Or they may wish to maintain national control of various strategic industries

like military manufacturers. The classic example of this was the French government's rejection of the proposed Fiat-Citroën merger until French financial participation was guaranteed in the new holding company, and that the managerial independence of Citroën's military manufacturing subsidiary, Panhard-Levasser, was assured.¹² However, after further negotiations difficulties continued to arise and the project was abandoned.

Another very significant area where national government involvement seriously hinders the development of transnational corporate linkages is in public purchasing. National governments continue to award public contracts to national firms, even though far better arrangements may be available through other EC enterprises. Given the size of public spending in modern industrial economies and the need for scale economies in high technological industries, discriminatory public purchasing "has been a major handicap to European firms in the key industries, and a large cause of waste of public funds"¹³. During the 1960s each member-country, faced with intense competition in advanced technical industries from the United States and Japan, tried to create its own "national champions", as promoters of technological progress and innovation. Most have not been successful due to high costs, limited resources and poor management. Nevertheless, there has been some transnational cooperation in one or two fields, i.e. computers, aerospace engineering.

A third major area of concern affecting business relations and structures is the numerous managerial obstacles to the creation of

any sort of European enterprises, revolving around such issues as language, degrees of professional skills, and nationalistic attitudes by business executives and workers alike. Most of the Community's Eurocompanies have a single board or joint representation on the board of directors of the two partners, as well as a system of work committees at various levels of operations to ensure close coordination in planning, production and marketing. Language certainly hinders the full integration of human assets even though many of the top personnel are often now multilingual. The problem arises from precise interpretations, so that some collaborating firms have adopted a working language to facilitate the integration of functions.

Socio-psychological problems and stereo-typical images are still very much apart of the Community's business world.¹⁴ Historical resentments persist and there is still the image of the industrious German, the easy-going Italian and the individualistic Frenchman or the frugal Dutchman. Another aspect of this problem is nationalism for its own sake :

Namely, a bias in favour of maintaining the national identity of an organization on the grounds of managerial or economic chauvinism. Managers are chauvinistic because they either take pride in being part of a purely national firm or because they personally have an ethnocentric attitude aimed at safeguarding the particularism of their organization. Although European managers, normally, are not against internationalizing their company's scope, they often resist supranationalization. In other words, international business is desirable as long as the ties with the home country remain strong and unquestionable. (15)

Thus, even within some of the EC's major enterprises, there are elements that seek to preserve the national character of their firms which in turn may influence business strategies and decisions to incorrectly evaluate the changing industrial circumstances of the Community, or to recognize their best long-term interests.¹⁶ In fact, most of the EC's multinationals, and most certainly its transnational enterprises, still retain a very strong national presence. This greatly hinders the potential for trans-frontier collaboration and if transnational negotiations between two enterprises are successful, there is always the possibility of complications in its operational phase arising from the technical, fiscal and other regulatory barriers which were previously described.

Therefore, the business enterprises of the European Community are faced with a myriad of obstacles in any efforts to establish any substantial transnational consolidation. One recent study interviewed the top managers of 154 major European enterprises and statistically identified the major obstacles as perceived by these business executives¹⁷ : the principal obstacles were lack of a European company law permitting de jure mergers, fiscal difficulties and nationalistic attitudes. However, it should be pointed out that a number of writers¹⁸ have noted that judicial problems can be overcome through a variety of transnational business collaborations and that, as the study above also concluded, nationalist attitudes and fiscal disparities continue to be the most fundamental barriers to transnational business relations between community firms.

3. Regional Industrial Policy

The answer to encouraging more transnational consolidation between community firms would seem to lie in effective industrial policies on a regional scale. Although national industrial policies and non-tariff barriers continue to plague the reorganization of industry on a regional scale, the EC Commission has stated one of its prime objectives is to promote the formation of cross-national business structures¹⁹. At the same time, the EC's mandate established by the Treaty of Rome is clearly limited to competition practices, rather than overall industrial concerns. And to compound the matter, transnational consolidation itself has a tendency towards oligopolistic concentrations. In addition, the spatial dimension to any such consolidation has a tendency to concentrate in the centre of the enlarged market, in this case around the continental Rhineland, thus increasing centre-peripheral disparities and negating stated goals about regional development, both by the EC Commission and national governments. Therefore, the EC presents a complex and often times paradoxical business milieu.

To understand these complexities it is helpful to envision²⁰ the European Community as an evolving regional system in which the preponderance of decision-making authority still resides with the subsystem (national components), rather than the central system (Brussels administration). This has meant a degree of ambivalence between such relevant actors as businessmen, politicians, national administrators and policy makers, and the EC commissioners and

bureaucrats; all of whom have different interests and perspectives so that often divergent and even contradictory decisions are made and implemented. In addition, the balance of authoritative decision-making in both industrial and regional policy is heavily weighted in favour of the subsystem national governments. Therefore, these actors have not been able to develop a comprehensive and effective industrial policy which would facilitate the merging of the industrial apparatus of each member-country, and the main success of the EC in this regard has been only in terms of trade liberalization and infrastructural improvements. ²¹

Member-countries continue to use the numerous non-tariff barriers to shield domestic industries from community and third country competition. This was readily apparent from the discussion in the preceding section. The difficulty is that such barriers, not only impede the development of modern technological industries on a regional scale, but lead to localized differences in wages and employment opportunities which maintain regional imbalances rather than reducing them. The differences in working conditions between the two sides of the upper Rhine is a classic example of this and is described in the next chapter. Therefore, enterprises that do attempt to operate on the regional level, based on the European corridor as a new centre of economic activity, find rationalization, integration and expansion plans impeded by non-tariff barriers or stopped by governments which prefer to subsidize unprofitable operations rather than face the social upheavals of plant closures. This represents a waste of economic resources

by burdening the more efficient firms with higher taxes and other costs, and makes it extremely difficult for enterprises to attain desirable economies of scale.

The solution to this problem entails major economic measures which involve political action at the highest level. As yet the national governments have proven extremely reluctant to hand over any economic powers to the Brussels organization which would allow a more complete European industrial policy to be fashioned and implemented. "The resistance of governments to the harmonization of taxation, legal and institutional arrangements which inhibit increased competition, through the penetration of domestic markets by foreign suppliers, is a further sign that they do not wish to surrender control to the European Community."²²

However, in 1970 the EC Commission did propose a basic framework for a community industrial policy; it called for the removal of all non-tariff barriers and discriminatory practices which hinder trans-frontier economic mergers between firms, the adoption of a European company statute, the maintenance of fair competition and the insurance that such measures are in line with social and economic aims of the Community.²³ Yet in terms of effective action, the Commission is limited by its mandate encompassed in the terms of the Treaty of Rome. The European Community through its executive body, the Commission, was not, as earlier noted, given specific responsibility for industrial policy; the latter resides with individual member-countries. The only authority the Commission possesses in this area is in terms of Articles 85 and 86, its

anti-trust legislation, and Articles 92 and 94 which prohibit state aids which interfere with trade between member-countries. Specifically, Article 85 covers practices prohibited to firms (price fixing, market-sharing, agreements on control of production, markets, technological development and investment), and Article 86 is on the abuse of dominant market position (imposition of inequitable terms or prices, limitations on productions, and other measures on monopolies that would handicap competition).

However, these articles do not give the EC Commission direct authority to promote or even to prohibit transnational economic agreements or mergers; they represent after-the-fact rulings by the Commission. What has happened in practice, therefore, is that the Commission interprets industrial policy from a wider perspective than it has actual powers: to reinforce the European development of industry on a regional scale and promote trans-frontier cooperation between community firms, and at the same time preserve the unity of the common market by ensuring business operates along competitive lines while protecting the consumer.²⁴ This policy often may raise a dilemma between transnational reorganization and "free competition". What enterprises now generally do therefore, is to propose any major international expansions, takeover/mergers, joint ventures or cooperation agreements they are planning to the Commission, in order to avoid any likely counter-action by the EC when the collaboration is actually underway. The Commission in its turn, has generally taken a stance favouring transnational restructuring over a strict interpretation of the competition articles, if "the economic and technical benefits to the EC clearly outweigh

the restrictions"²⁶, which are provided under exemption conditions of Article 85.

In addition, the EC is not only caught in a conflict between pursuit of this policy and its formal mandate, or between itself and national governments over industrial policy, but also over the related problem of regional policy. Here in fact, the EC's industrial policy, i.e. promotion of transnational business cooperation and structures and the further economic unification of the member-countries, may counter the desired aims of decongestion of the EC's main industrial regions and the development of peripheral areas. Regional disparities in living standards, employment, income, etc, usually arise because of the tendency for industrial activity to concentrate in certain more favourable locations. With the establishment of the EEC, the former national disparities between peripheral and national economic core areas, is gradually being replaced by a new regional imbalance between the centre of the EC, i.e. the corridor; and the periphery. Therefore, the EC Commission's effort to promote transnational consolidation can have the effect of heightening regional imbalances and thereby threaten the long-term integration of Europe by aggravating linguistic and cultural divisions through economic inequalities.

The present EC resembles a half-way house in which a new equilibrium of economic forces is being sought in a very imperfect milieu. The regional centre-periphery imbalance is caused by the new conditions of competition which encourage the more efficient enterprises to expand and relocate as capital

and labour flow to the most favoured area in the new regional market (comparability principle). Within Europe this region is already lined with highly developed industrial areas, from London to northern Italy, due to this corridor's natural advantages in resources, geographic accessibility, and locational centrality. It's potential was previously handicapped by political fragmentation, but with the continued removal of barriers and the promotion of international business, the corridor has reasserted itself as the economic centre of Europe. This process will probably accelerate because modern industries are increasingly market oriented and the corridor provides external economies and specialized commercial and financial services.

This writer cannot stress enough the interrelationship that exists between industrial activity and its spatial manifestation, especially as it effects human conditions and perceptions in the whole integrative process in Western Europe. The man/land relationship presents two critical problems for the Community as the spatial dynamics of the evolving European corridor unfold. The first is the under-developed peripheral regions of the northwest British Isles, southern Italy, western France, Brittany, the Central Massif, and parts of northern and eastern Germany, which in the new enlarged market are even further removed in the EC centre-periphery than the old national peripheries. Secondly, regions within the European corridor face problems of industrial adjustment, either because of declining industries associated with the ore and coalfields, or the adaption and

development of formerly "frontier lands" to the changed circumstances.

Although the EC Commission is very aware of these regional problems, effective action at the supranational level is severely limited by the fact that regional policies are again dominated by national governments. The only regional powers the EC possesses are under Article 92, whereby it can prohibit state aids which distort competition, and provide funds for regional assistance and development through the European Investment Bank, the Social Fund and the ECSC. Aside from these the Commission can only act as an advisory or coordinating body for national policies. However, the Commission's record in controlling state regional aids has not been good, and, "if anything the feature has been one of retrogression"²⁷ .. Conflicts between Brussels and member-countries over the evaluation of regions for assistance are continually arising; for example, the Belgian government was providing assistance to industries in the southern part of the country and located within the corridor, but the Commission saw this as an unfair advantage and the national government as needed assistance to a slow growth area²⁸. In addition, although the majority of EC regional funds are employed in regional peripheries, a significant proportion has been used for infrastructural improvements within the corridor and the majority of ECSC funding has been used for the reconversion of industries associated with the old coalfield sites, the majority of which lie within the corridor.²⁹

In sum, industrial and regional policies within the Community are certainly not always the same. They may in fact contradict each other, depending upon the perception and interpretation of the relevant actor, either the EC Commission or member-country governments.

4. Evolving Industrial Structure in the EC

The corporate response to this 'European industrial environment' has varied, depending upon a host of background factors: nationalism, character and size of particular industries, corporate attitudes and historical evolution. However, three overriding processes seem to underlie current European industrial restructuring. First, economic-political forces pushing for industrial consolidation, mainly on the national level; second, scale and cost requirements pushing for transnational reorganization at the macro-economic level; and third, forces of economic geography, or industrial location, pushing towards industrial concentration along the European corridor. Therefore, in the evolving EC regional system industry has exhibited several important anomalies. European industry is dominated by a number of small or medium-sized firms, yet individual market sectors are increasingly dominated by a few large enterprises. And although the structural reorganization of industry has proceeded

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most strongly nationally, numerous large and small firms are responding to regional infrastructural benefits and market opportunities through a variety of transnational business collaborations.

One of the most persistent problems for community industry is the existence of numerous small enterprises³⁰, which seriously inhibits competitive efficiency. This is especially detrimental for advanced, technical industrial sectors. At the same time, however, the principal industrial sectors have fallen increasingly under oligopolistic control of a few large enterprises. This is occurring in each member-country; for example, in West Germany "a considerable number of industries now are dominated by just a handful of companies"³¹. In 1973, 42 of the Community's largest firms, defined as firms with annual sales of more than 200 million u.s.³² and numbering 332 enterprises, accounted for 50% of the sales in the nine member-countries and 37 accounted for half of all the workers employed by these 332 enterprises.³³ Although Britain has the greatest number of the Community's largest enterprises (116 out of the 332), West Germany and then France experienced the greatest increase in the number of such large enterprises in recent years.³⁴

In a study published in 1976, the EC Commission reported :

The analysis of a number of product markets reveals that there are very high levels of concentration reflecting the existence of extensive economic power held by the leading firm on the same markets in different member states; it also shows that economic power or dominance is frequently in the hands of the major multinational firms. (35).

In addition, the actual degree of concentration is likely far higher than most studies estimate it to be, because of the extensive financial interpenetration of community enterprises through various joint or cross-holding companies. These types of companies will be examined in section six, and they will be seen to be much in evidence in the iron and steel industry (Chapter Four).

The national governments of the member-countries have played a significant role in furthering industrial concentration by facilitating national mergers, takeovers and minority equity acquisitions. Britain, France and Italy set-up governmental agencies in the late 1960s to promote such operations within their own countries.³⁶

West Germany did not experience this national merger boom in quite the same way. Here there was a tendency to favour the existence of several competing enterprises in the same industrial sectors, instead of creating large nationalized corporations. This German policy was due to several factors: the government's determination to maintain a low profile and let competition determine the success or failure of enterprises; the close links between industry and the German financial community ensured adequate capital requirements to smaller sized firms; and the willingness of German industrialists to work together to divide markets and reach production agreements that allowed them to overcome scale requirements by specializing and maintaining an intimate relationship with market tendencies. These agreements and arrangements were not limited to West Germany alone, and it will be demonstrated in the next chapter that West

German enterprises have proven to be consistently the most transnational in orientation during a study of the period 1966-75.

Given the large number of smaller enterprises in the EC (compared to the United States) which are less able to internationalize their operations due to national barriers, perceptions and biases, European firms have turned more to TBCs in attempting to deal with international competition and the evolving corridor of economic activity. Therefore, although the Community has its share of multinational enterprises, defined as firms whose annual sales turnover is over \$100 million with affiliates and subsidiaries in numerous countries, there are many more domestic firms which may also be called transnational enterprises because they engage in various trans-frontier collaborations. This is suggested merely by the fact that a United Nations' 1973 study³⁷ revealed that of 7,300 companies which operate subsidiaries in at least one other country besides their country of origin, about 4,000 were domiciled in EC countries compared to some 2,500 of American origin. The Community's transnational enterprises which fit the classic definition of large multinationals are concentrated in petroleum and chemicals, motor vehicles, food or electronics and electrical engineering.

Relative to the rest of the world only about 150 of the world's largest corporations are based in the EC³⁸, and very few of these have the size or vast international production network of American multinationals. This is readily demonstrated by the small level of direct foreign investment of the EC member-countries compared to that of the United States.³⁹ It has only been within

recent years that community based enterprises have initiated major foreign investments.

It is perhaps instructive to note the case of West German firms which have been the most successful in international markets over the years. Since the mid-1960s they have drastically altered their business strategy, which in turn necessitates structural reorganization, in order that they might contend not only with the increased domination of world trade and production by foreign multinationals, but also to be in a better position to face deteriorating business conditions brought on by increased taxes and inflation, currency difficulties and increased labour militancy. Formerly, West German firms emphasized foreign sales through highly organized and efficient national and international sales organizations, but "a new phase in international development of German companies started in the mid-1960s with the growth of foreign based production subsidiaries"⁴⁰ . . . This is still a very new trend and the relative figures are still small, but West German direct foreign investment did increase from \$2,056 million in 1965, to \$11,925 million in 1973.⁴¹ Yet for reasons of scale and efficiency, given the European industrial situation compared to the American, the preferred route is often collaboration arrangements, foreign subsidiaries, or joint ventures in other member-countries : "because of their relative smallness compared to leading multinational companies, many of even the largest German companies are now being forced to consider mergers or close joint ventures with foreign companies"⁴² . . . And within the rest of the Community, there is a similar movement

by business enterprises underway.⁴³ However, the question of international mergers of community firms presents too many problems as was previously noted.

There are two solutions then for EC enterprises. The first is the introduction of a European company law which would permit enterprises to engage in formal corporate mergers across national boundaries, and the second, which is currently in progress, the formation of "economic mergers" through a variety of TFCs which permit firms to operate more efficiently in the regional market centred on the corridor. The former "ideal solution" is discussed in the next section, and the latter "ad hoc solution" is examined in the last section.

5. Societas Europaea (SEs)

Within the European Community business enterprises are governed by the laws of each member-country where their "legal seat" is considered to reside - defined as their principal place of business, not as their place of incorporation. (Netherlands is the exception where the reverse is true). A basic fact of life for enterprises doing business in Europe, is that an intra-community merger is impossible under the individual member-country company and tax laws. In the company law field, Netherlands does not recognize any kind of mergers, whether domestic or transnational; in West Germany there exists no legislation permitting intra-community mergers; and in France, Britain, Italy, Belgium and Luxembourg, there exists only legislation permitting national firms

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to absorb foreign firms.

The two responses to this circumstance, by business and policy-makers, should be noted because both have a bearing on the evolution of the regional business system in the EC. First the efforts of the EC Commission in handling this problem will be considered, and then the reaction of European enterprises.

The Commission has been working along two avenues to promote community firms to reorganize their activities on a regional basis: first, legislation to permit de facto intra-community mergers, and second, the creation of a European company statute. Although there has been some practical progress made with regard to the former, this cannot be said to be true for the latter. Article 226 of the Treaty of Rome specifically required the member-countries to "negotiate" the possibility of mergers between firms governed by the laws of the different members, but the work accomplished so far has not been impressive. The 'convention for the mutual recognition of companies' has been concluded (1962), and two other conventions⁴⁵ are in draft form. One provides for the intra-community merger of public enterprises by absorption or by joint venture, and the other is on bankruptcy proceedings in the EC.

Obviously the complexity of harmonizing nine different sets of company law is proving extremely difficult, which would seem to suggest a far better alternative would be the creation of a "Statute for European Companies". "The aim is to create a commercial company which can be established in any member state and be subject to a standard set of Community company laws in the

form of a Community regulation which would automatically become the law of the land in each member state."⁴⁶ In 1970 the EC Commission proposed its draft statute of the Société Anonyme Européenne (Societas Europaea, or SE), which covered all aspects for the formation of a European company.⁴⁷ The proposed SE would be open to private capital from all member-countries, possess a legal status in all and be registered with the European Court. In organization it resembles a West German enterprise in that it has the dual board system and worker participation; there is a managerial and supervisory board with one-third of the latter members being worker representatives.

However, this draft statute continues to remain precisely that, despite the fact it is generally considered to be one of the most well thought-out pieces of company legislation in the world, especially in the areas of labour relations and corporate organization. In addition, there are now six EC directives on the SEs, but again only the first dealing with disclosure, validity of obligations by contracting enterprises and nullity has been⁴⁸ officially accepted.

What accounts for the slow acceptance of SEs or the legislation permitting intra-community mergers? Although much technical work has been done on both approaches to the problem of trans-national consolidation, some of the principal difficulties centre around the question of worker participation since the SE is modelled after the West German experience, and around the question of the status and acceptance of non-member-country enterprises whose

control rests outside the EC but operate within. The proposed SEs follow the German pattern of dual boards (board of management and a supervisory board) which allow worker participation in the decision-making process. The SE provides for one third worker participation on the supervisory board. Although this kind of organization has been made available to French enterprises, since the French company reforms of 1966, worker representation in management has been resisted in other member-countries except West Germany. The second problem revolves around the issue of national ownership; whether the majority of capital in the new SE or between the merging firms must be owned by a specific proportion of nationals of the participants. Carried one step further, this means should a firm be excluded from forming a SE or merging when it is a subsidiary of another enterprise from a non-member-country. Both these difficulties revolve around sensitive political issues and account for the slow progress in both SE and intra-community merger legislation.

Several points should be made at this time. First, despite the obstacles to transnational consolidation and despite the forces pushing towards national consolidation of industry, a number of industrialists have perceived and acted upon the necessity for a regionally based European industry centred on the corridor. In fact, a number of such men have made it quite plain that "international concentrations are feasible, and the legal constructs they require are not complex". In other words, the formal,

juridical integration of corporate entities may be difficult, but managerial-operational integration of industries, so that rationalization strategies to take advantage of economies of scale, is easily achieved through financial ties and transnational agreements.

Although national concentrations may provide an initial step towards forming such relationships, by themselves they are inadequate to reach the scale of operations needed for efficient rationalization because they tend to split markets too finely and lead to duplication of processes.

A second point to note ~~is that~~ if even the largest European enterprises are reluctant to engage in foreign subsidiary formation and instead opt for joint ventures, cooperation agreements or mergers through holding company arrangements, then the situation is even more acute for Europe's many medium and small-sized firms. Here various forms of TBCs, which do not necessarily entail equity participation, permit such firms to reorientate their activities to the evolving community business system: "literally hundreds of EC firms have entered into cross-licencing, reciprocal distribution and contract-manufacturing agreements with firms of the EC, as well as non-EC countries"⁵⁰. In many cases, such agreements pave the way for later, more intense forms of collaboration.

6. TBC Mechanisms of Industrial Integration

In the "Statute for European Companies", there are three proposed ways of setting-up a SE: by the merger of two or more public enterprises (the SAs or AGs in France and West Germany, respectively); by the setting-up of a common holding company while the sub-operating companies continue to maintain a domestic identity; and by setting-up a SE as a joint venture of two or more member-country enterprises. However, these same mechanisms can occur at present without resort to a legally constituted transnationally registered SE. Although the completion of regulations permitting intra-community mergers or the formation of the SE would certainly facilitate the process of industrial restructuring within the EC, the absence of special legal forms has not prevented industrialists from turning to a variety of "ad hoc solutions", i.e. TBCs, to achieve similar ends.

Aside from straight-forward transnational agreements, community firms can engage in "economic mergers", if not legal ones, by financial participation which can take the form of subsidiaries, joint ventures or holding company arrangements. These are all possible because in all member-countries, and most of the Western world as well as four of the socialist countries of Eastern Europe, foreign and domestic enterprises are permitted to be shareholders of other (foreign and domestic) enterprises - this is of course the basis of the classic multinational enterprise - subject to national government regulations concerning foreign direct investment.

Therefore, four principal types of transnational business arrangements and/or entities may result from TBC activity: cooperation agreements, subsidiary formation by setting-up a wholly-owned new firm in one country by a national firm from another, joint ventures and the formation of holding companies (which involves any of the above).

(1.) Transnational Cooperation Agreements.

Transnational cooperation agreements have been used by all types and sizes of EC firms to overcome the difficulties of continental rationalization, and in the case of Europe's oldest Eurocompany, Unilever, to permit a form of de facto international merger. In fact, such arrangements are often preferred because they allow the partner enterprises to retain an independent legal identity, thus satisfying any governmental or psychological biases about preserving national firms.

The simplest form of transnational cooperation usually involves the joint production of some product and/or sharing of each others marketing system for its distribution. Often the cooperation agreement is in effect for a specific time-period with options for renewal or adjustments. Coordination of activities is achieved through joint management and workers committees:

On the top management level, periodic meetings must be set-up between the collaborating firms to evaluate the success of the venture and to eliminate, as early as possible any misunderstandings which have a way of creeping into transnational undertakings. The coordination itself is carried out through various committees and working groups composed of officials of the collaborating firms. The committees normally

engage in operations and staff work and may be charged with the determination of production goals and methods, marketing problems and other activities. In the working groups technical details are worked out in which engineers often play the major role. (51)

Two examples of this type of transnational cooperation are the agreements between MAN and Saviem⁵², the German and French truck manufacturers, and the agreement between the French precision electronics and optical firm, Sapelem, and Rank Precision Industries of London⁵³. The MAN-Saviem 1960 agreement was described earlier, but it does serve to illustrate two points of economic importance about "transnational" EC enterprises: first, the division of labour allows the collaborators to take advantage of scale economies on a regional level, and secondly, the collaboration permits the partners to be in a far stronger position for the penetration of third market countries. In this case, the collaboration is especially beneficial to MAN in African countries and for both partners in Eastern Europe. The Sapelem-Rank agreement of 1974, on the other hand, illustrates one means by which EC firms avoid the expense involved in duplicated research. In such high technology industries as electronics and optics, research and development costs can be extremely high. Therefore, the Sapelem-Rank agreement calls for cooperation in research and development, and then the manufacture and distribution of precision optical equipment between the two partners.

It is interesting to note that Unilever, a Eurocompany established at the beginning of this century, is based on a simple

"equalization agreement" between the two partners. Under this form of arrangement both the British and Dutch registered firms retain their separate identities and their individual subsidiaries; in fact, the two firms are legally independent except for two special agreements. The first ensures that the top management is the same group of people for both partners, and the equalization agreement ensures that the shareholders get the same benefits, although the performance of each partner may vary. Operationally, the Dutch based firm handles the European market, while the London firm handles the British and world markets. In the battle for sales with the American multinationals, perhaps "their greatest strength lay in their national managements and their ability to adapt products to local markets", and at the same time they were able "to plan campaigns internationally, more centrally and quickly, using the resources of the whole organization"⁵⁴.

(2.) Subsidiary Formation.

Another very common form of FBC is for one national firm to set up subsidiaries in another member-country. As explained in section four of this chapter, this form of foreign direct investment has gathered momentum in each member-country since the mid-1960s, and from 1966 to 1972 it accounted for approximately 60% of all transnational activity; that is in each year, there were almost three times as many subsidiaries established as either joint ventures (20%) or equity acquisitions (20%).⁵⁵

The formation of subsidiaries is most typical of the Community's largest transnational enterprises. For example, the Dutch electronics and electrical equipment enterprise Philips Gloeilampenfabrieken, which is one of the largest single enterprises in the EC⁵⁶, has subsidiaries in over forty countries and employs some 400,000 people; or the West German chemical enterprise, Hoechst⁵⁷, has factories in some thirty-five countries, including a huge plant in Antwerp, Belgium.⁵⁸ One may also include such enterprises as Daimler-Benz, Renault and Volkswagenwerk in motor vehicles, or BASF, ICI, Bayer, Cie Francaise des Petroles and Royal Dutch/Shell in chemicals and petroleum products, or Siemens, Philips and AEG-Telefunken in electronic and electrical equipment. The EC's Business Cooperation Centre found precisely these highly concentrated industries least likely to engage in transnational partnerships such as cooperation agreements and joint ventures. A breakdown of the statistics on firms seeking transnational partners revealed "an absence not only of the extractive industries, but also of highly concentrated sub-sectors such as basic chemistry, the motor vehicle industry, iron and steel, heavy electrical machinery and large-scale electronics"⁵⁹.

It is these industrial sectors, therefore, dominated by large multinational-styled enterprises, that rely foremost upon subsidiary formation. It should also be noted that a "subsidiary relationship" occurs from the equity acquisition of an existing firm by a parent enterprise. In both cases the affected firm is the object of direct foreign investment, it is the means that varies.

(3.) Joint Ventures.

Joint ventures are mixed equity enterprises formed by two or more partner firms, in which the equity capital is divided in varying proportion between the founding enterprises but management is effectively shared. The newly formed enterprise may be used for collaborating in supply, production or distribution. As noted previously, joint ventures accounted for approximately 20% of all transnational activity in the years 1960 to 1962, and it will be shown in the next chapter that these relative proportions held true until 1965 when there occurred a noticeable drop in joint venture activity.

The advantage of joint ventures is that, like cooperation agreements, the identity of the participants is preserved, while both or all partners benefit from the activity of the new mixed equity firm. Therefore, it represents an excellent substitute for the formation of an SE, possessing the advantage of flexibility and no problems with regard to different member-country company laws. An example of a joint venture is IFEC, established in the Netherlands in 1975 by Fiat SpA of Italy and Klöckner-Humboldt-Deutz of West Germany, to handle the combined production of commercial vehicles, buses and tractors of both founding enterprises. Another example is the joint venture, Panavia, formed by the British Aircraft Corporation, Messerschmitt-Boelkow-Blohm of West Germany, and Alitalia of Italy to build military airplanes. In the formation of these joint ventures, it is important to note that the

founding, or parent firms, continue to operate as legitimate marketing enterprises in other fields. In some cases, and even, especially between less diverse parent enterprises, the joint venture may gradually take over all the activities of the founding partners which then become merely holding companies for the joint venture (see part 4 below):

Undoubtedly, for most medium-sized EC enterprises, transnational cooperation agreements or joint ventures represent a major operational and psychological step. The largest community enterprises will employ foreign production subsidiaries, but for the vast majority of community firms this is not a realistic option, or more importantly, even a perceived one. The Business Cooperation Centre has found that many such firms are extremely ignorant about how to identify a potential transnational partner, or about the other types of information required for the establishment of such operations.⁶² They found most firms sought only cooperation agreements or limited equity participations: "the majority of applications aim in the first instance at a contractual cooperation in the form of reciprocal marketing of products . . . other modes of cooperation frequently sought relate to the exchange of know-how, specialization or transfer of production, or financial links in the form of shareholding"⁶³.

This seems to suggest that the types of transnational collaborations that result, are a function of the size and sophistication of the enterprises involved and the level of previous EEC experience,

and that the prime motive is some rationalization scheme to operate more efficiently within the regional market. Other inspiring factors that influence firms to seek transnational linkages are related to types of industrial sectors and the prevalent economic conditions at any one time. One might also note the human factor; time and time again, the instigating factor behind some form of transnational business collaboration is a personal contact or friendship.⁶⁴

(4.) Holding Companies.

The closest community enterprises come to intra-community mergers is by the establishment of a holding company in one member-country which acts as a decision-making centre for the transnational participants. These participants become operating subsidiaries of the new conglomerate, and while they may remain visible and legitimate operating units, this form of close collaboration permits centralized control of at least some key operations and a unified financial structure for investment, research and development. The holding company itself, through its various affiliates, is often involved in a number of transnational agreements and/or subsidiary or joint venture formations.

There is no generally accepted definition of a holding company and perhaps the broadest is the most suitable: any company that holds capital shares in any other enterprise or enterprises, which enables it to control operations and policies under centralized management by virtue of the equity participation, and yet permits the operating firms to maintain their own identity.⁶⁵ EC enterprises

have employed variations of the holding company, either cross-, dual-, or central- holding companies, which leave the partners fairly independent while permitting managerial and operational integration in whatever field the participants wish to specify.

Figure 6.

Types of Holding Companies

1. Cross-holding Company

2. Dual, cross-holding Company

3. Central-holding Company

(1.3. : Boxes represent company ownership
Lines represent collaboration.)

The six well-known Eurocompanies are perhaps the best examples of this last type of procedure, usually uniting two national firms on a regional and world scale of operations; there are of course a number of "national" holding companies which pursue international strategies through their various holdings, as will be seen in the chapter on steel.

The Eurocompanies themselves present a fascinating use of holding company arrangements to overcome the numerous obstacles to transnational business consolidation. In the cross-holding variation, each partner holds joint equity in each others subsidiaries, and unity of control is achieved through representation on each others boards. This is the case for the Royal Dutch/Shell Group and the Dunlop-Pirelli Union. In the former case each parent enterprise holds equity in 60:40 proportion in all subsidiaries, whereas Dunlop and Pirelli take varying proportions ranging from 40% to 51%, with the greater holdings being in the major markets of each partner.

One of the greatest difficulties with transnational mergers through financial participations of this type is getting agreement from all shareholders to convert their shares from the original, founding enterprises to the new holding companies. In this case, a dual, cross-holding company may be formed, in which each partner forms a joint working company with wholly-owned subsidiaries. Agfa-Gevaerts has used this solution, whereby each of the original founding enterprises holds 50% equity of each others working firms. Thus the West German Agfa and Belgian Gevaerts

"merged economically" by creating two jointly owned subsidiaries, one in Belgium and one in West Germany, both 50% owned by the two parent holding companies (Figure 6). Very real economies of scale were realized by this intra-community merger, especially on the side of distribution by eliminating overlapping sales activity. 67 The advantage of this type of cross-holding set-up is that it leaves the original founding enterprises with their original stockholdings intact, and unity of control in operations is achieved by an agreement in which the two working companies have identical boards.

One disadvantage of the cross-holding type arrangement, however, is that control is still not formalized and some enterprises feel the need for explicit control in the decision-making unit. Thus both VFW-Fokker (a merger between West German and Dutch aircraft firms), and Hoesch-Hoogovens (a merger of iron and steel enterprises in the same two countries), went a step further. They created a "Zentralgesellschaft", a central working company with an autonomous legal personality, in which the parent enterprises are 50:50 partners in this joint operating enterprise which owns 100% of each of their subsidiaries. In the case of Hoesch-Hoogovens, the Dutch and German parent firms set up a joint holding company, ESTEL registered in the Netherlands, which acts as the decision-making centre for all operating units.

68 There have been recent reports that the Bonn government is encouraging Messerschmitt-Bölkow-Blohm to join the VFW-Fokker Eurocompany in order to add further support to the West German

half of the merger and thus better balance the economic performance of the Dutch and West German collaborating partners.

Therefore, although it is impossible for two or more community enterprises to merge internationally in a legal sense, there are a number of substitute solutions, or "Ersatzloesungen" as the Germans call them, which may be employed to achieve "economic" intra-community mergers. From a managerial and operational point of view they are transnational mergers, creating enterprises with strategic direction on a regional scale and carried through to all functional operations. At least this is what should take place! The record of success of these Eurocompanies is varied. Both Unilever and Royal Dutch/Shell have had a long history of growth and development.⁶⁹ It is somewhat ironic that the two apparent weak unions, VFW-Fokker and Agfa-Gevaerts, have been successful, while the two mergers that seemed to be excellent matches, Dunlop-Pirelli and Fiat-Citröen, have been far from successful and in the case of the latter never materialized.

The success of VFW-Fokker and Agfa-Gevaerts seems to stem from the fact that their mergers were really very simple set-ups, using either the central holding company or dual, cross holding arrangement, as well as the fact that the activities of the partners were very complementary and there was a degree of "human integration" prior to the actual merger.⁷⁰ There had been either close personal contacts between top personnel of the partners, or equity participation, or the existence of previous transnational cooperation agreements which tended to smooth the way for the integration of

the partner enterprises. In the fourth chapter it will be shown that these last two points were very important to the successful merger of Hoesch-Hoogovens, the West German and Dutch iron and steel enterprises.⁷¹

The cases of Dunlop-Pirelli and Fiat-Citren illustrate so clearly the stumbling-blocks to corporate integration on the community level. Dunlop-Pirelli has been a noted failure, stemming from the complexity of legal structures necessary to carry through even the cross-holding of operating subsidiaries, especially on the Italian side, the fact that Pirelli was hit by continued labour unrest soon after the merger (1971), and no serious attempt was made to merge management.⁷²

The case of Fiat-Citren reiterates the importance of merging people, not just corporate structures. The merger appeared excellent on paper as Citren was experiencing financial troubles despite producing quality automobiles; while Fiat had a very good mass market record, but had singularly failed in the high-priced market. However, the complexity of the legal merger proved too complicated due to government interference, on the French side, and it seems both partners approached the merger with conflicting objectives. Citren saw only increased financial backing while maintaining its complete independence, and Fiat envisioned the merger as a partnership arrangement in a new holding company, Parvedi, which would require close collaboration and the surrender of certain powers to the new entity.⁷³ The result was four long years of complex negotiations (1968-72) at the end of which the proposed merger fell through, and Citren

in 1974 solved its financial problems through a national merger⁷⁴ with Peugeot.

What the Fiat-Citroën case illustrates is that the restructuring of the industry to permit joint cooperation in a variety of fields could have been achieved without getting involved in a complex intra-community cross-holding merger. Giovanni Agnelli, president of Fiat, said in retrospect : "If we look at what has been achieved since the relationship was born . . . we can but conclude that the results are interesting and positive. But it is also true that for the most part these results (i.e. industrial and sales cooperation) could have been achieved without any shareholding."⁷⁵ In other words, simple transnational co-operation agreements could have secured the goals of the participants, and it is interesting to note that today Citroën builds transmissions for Fiat at its Metz plant and both firms are now⁷⁶ engaged in a joint, medium-sized van project.

So far this interpretation has described holding companies only in terms of intra-community mergers. However, they are increasingly being used not for such mergers per se, but to amass concentrations of industrial enterprises, usually in related fields, and then to introduce rationalization and specialization of function between corporate subsidiaries. An example of such international conglomerates is the French Schneider Group, which has a variety of interests in steel and engineering firms spread throughout a number of member-countries and the world; or GKN (Guest, Keen and Nettlefords) has interests in over two hundred

firms, from mechanical engineering to the distribution of finished steel products which has embarked on a strategy of continental expansion in recent years.⁷⁷ Such conglomerates act as the gravitational centre for a host of enterprises through which vertical and horizontal integration of industries may be accomplished without resort to any form of de jure international merger.

From this discussion it is obvious that European industrialists can use either cooperation agreements or equity acquisition in a variety of forms to bring about an integration of business activities on a regional basis. A final example to emphasize the variety of forms possible, involves a joint venture, itself used as a holding company for a number of operating companies. This was the case in the joint subsidiary and cooperation agreement established between SHV (Steenkolen-Handelsvereniging of the Netherlands) and Chevron Oil Europe Inc., a subsidiary itself of Standard Oil of California.⁷⁸ Chevron and SHV set-up a joint holding company, Chalpan (1974), with a number of operating subsidiaries in order to serve the continental market of the Community with petroleum products, and in which each partner has an equal share. The operating firms will sell certain petroleum products which were previously handled separately by Chevron's and SHV's distribution networks.

In conclusion to this chapter it can be said that the intra-national consolidation of major industries to achieve economies of scale is the dominant trend in the European Community.

However, on the basis of the measures taken at the community level to promote transnational consolidation and from the record of ad hoc business collaborations that have been undertaken, it is clear that European enterprises do have a viable alternative to strictly national measures and are gradually adapting to a European economic system. In this process national consolidation does not necessarily have to be an opposing tendency, but a significant threshold step towards the continued internationalization of industrial structures in the EC.

European firms seem to have undergone a process whereby they first employed export sales to carry their goods and services to the community market. However, as competition increased, as a new imperative was given to scale economies and international sourcing and distribution, and as a regional infrastructure developed, they have turned increasingly to TBCs to ensure their economic viability. A recent EC Commission study⁷⁹ concluded that as industrial consolidation increased, trade integration at first increased but thereafter it declined and in highly concentrated industries was almost minimal: "the overall conclusion is that cross-frontier interpenetration is on a sharp upward trend"⁸⁰. And in this chapter, it has been demonstrated how this has occurred. Member-country enterprises have initiated major capital investments across frontiers in recent years, as well as establishing numerous cooperation agreements in joint research and development of new products and in production rationalization which often lead to actual intra-community "economic mergers".

TBCs, therefore, represent significant process mechanisms which allow firms to readjust their strategies and structures to the evolving EC regional system in the least traumatic fashion. In the following chapter, the extent and scope of this process will be analyzed by examining two specific types of TBC activity for the years 1960-1975, with special consideration of their spatial character.

Chapter Two : Milieu

References and Notes

- 1 J.J. Servan-Schriber, Le Defi Americain (Paris: Denoel, 1961); translated as The American Challenge (New York: Atheneum, 1968).
- 2 The establishment of the customs union and removal of trade barriers "contributed to a more than six fold increase of intra-EEC trade in the twelve year period following the ratification of the Rome Treaty". (Balassa, European Economic Integration, p. ix).
- 3 During the period 1966-75, the preferred non-member-country for EC firms to seek transnational links was with American enterprises; American enterprises accounted for 21% of the total number of firms involved in transnational operations within the Community in 1966. The United States was still the leading non-member-country partner in 1974, but accounting now for only 10%, which fell to 7% in 1975. (EC Commission, Second Report on Competition Policy, p. 145, and Sixth Report, p. 153)
- 4 The 1961-69 figures are from the EC Commission's Bulletin of the European Communities (Brussels: 1970; p. 30) and include only majority control participations; the 1973-75 figures are from the EC Commission's Fifth and Sixth Reports on Competition Policy (Brussels: 1976 and 1977) and include all equity participations, from minority acquisitions to full takeovers.
- 5 EC Commission, Fifth Report on Competition Policy (Brussels: 1976), p. 111.
- 6 The search for rationalization in modern industrial production in order to permit scale economies and specialization of function.
- 7 Bela Balassa, European Economic Integration (Amsterdam: North-Holland Publishing Company, 1975), p. 243.
- 8 Renato Mazzolini, "The Obstacle Course for European Transnational Consolidation," Columbia Journal of World Business, Vol. 8, #1 (Spring, 1973), p. 53.

- 9 Werner J. Feld, Transnational Business Collaboration Among Common Market Countries (New York: Praeger Publishers, 1970), p. 69.
- 10 Business International SA., The European Communities Today and Tomorrow (Geneva: 1969), p. 80.
- 11 Ibid., p. 44.
- 12 Feld, Transnational Business Collaboration, pp. 38 & 62.
- 13 Richard Mayne (ed.), Europe Tomorrow (London: Fontana/Collins, 1972), in Chapter 11, "Technology and Industry," by Christopher Layton, p. 244.
- 14 Many of the Community's largest enterprises are very "ethno-centric", especially those of France and West Germany; another characteristic is their high degree of paternalism. Family ownership is more prevalent among Europe's firms than America's. Anthony Sampson provides vivid descriptions and examples of these characteristics in his book, The New Europeans (London: Hodder and Stoughton, 1968).
- 15 Renato Mazzolini, "Creating Europe's Multinationals: The International Merger Route," Journal of Business, Vol. 48, #1 (January, 1975), p. 47.
- 16 In a recent survey-interview of some 150 managers of Europe's largest enterprises, Renato Mazzolini concluded that they exhibited a tendency to safeguard the national character and independence of their enterprises, and an inertia or failure to recognize the new operational milieu of the Community for strategic decision-making. (Renato Mazzolini, "Concentrations transnationales: Obstacles et Freins Psychologiques," Direction et Gestion des Entreprises, #2 (March-April, 1977), pp. 7-16.
- 17 Mazzolini, "Creating Europe's Multinationals," pp. 50-51.
- 18 "Les obstacles sont dependent moins juridiques et techniques que fiscaux et nationaux." (Berthaud, Le Marche Commun, p. 203); or, "The majority of executives interviewed for this research felt that the hybrid solutions are satisfactory and that the absence of a legal fusion of the corporate bodies is not a major handicap. The objective of the companies is to achieve an organization and economic amalgamation." (Mazzolini, "The Obstacle Course for European Transnational Consolidations," p. 58).
- 19 Article 220 of the Treaty of Rome specifically requires the member-countries to negotiate the "possibility of mergers

between companies governed by the laws of different countries". And in Community terms, competition policy has to play an ancillary role to other policies; in industrial policy, this means, "competition policy has continued its endeavours to promote cross-frontier cooperation between community firms, particularly small and medium-sized firms". (EC Commission, Sixth Report on Competition Policy, Brussels: 1977, p. 10)

- 20 David Easton has described a political system as that of interactions in any society (including pre-national and multi-national societies) through which binding authoritative allocations are made and implemented. (A Systems Analysis of Political Life; New York: Wiley, 1965). Stress on the system is a function of the inter-relationship between the volume and content of demands, on the one hand, and the responses available to a system on the other. Leon Lindberg expanded Easton's model to identify the EC as an unstable, incipient or developing system; thus, the Community is an evolving dynamic system with its institutions possessing a certain legitimacy and authority in specific fields at any one time. (Lindberg, "Integration as a Source of Stress on the European Community System," International Organization, Vol. 20, June 1967). The regime of the system is therefore the institutional system of the three communities, in which member-countries are seen as subsystems of the central Community political system. At present, the latter is dependent upon the former.
- 21 Suara, footnote #2.
- 22 Sir Alex Cairncross, Herbert Giersch, Alexandre Lamfalussy, Giuseppe Petrilli and Pierre Uri, Economic Policy for the European Community: The Way Forward (New York: Holmes and Meier Publishers, 1974), pp. 144-145.
- 23 EC Commission, Industrial Policy in the Community; Memorandum from the Commission to the Council (Brussels: 1970).
- 24 "La politique industrielle de la CE est double: elle doit renforcer l'assise industrielle européenne mais éviter les monopoles," (Berthaud, Le Marché Commun, p. 203), and "in community terms competition policy has to play an ancillary role to other policies (i.e. general economic and social policies); therefore, in industrial policy, competition policy has to continue its endeavours to promote cross-frontier cooperation between community firms, particularly small and medium sized firms." (EC Commission, Sixth Report on Competition Policy, pp. 9-10)

- 25 The EC law (Articles 25 and 26) transcends all national legislation with respect to restrictive agreements, cartels and dominant position; although the Commission is empowered to launch an investigation of any distortions, it prefers offenders to renounce voluntarily any offending agreements or practices, rather than condemn and fine. But the Commission is ready and willing to take any agreement to the Court of Justice. In February 1972, a European Parliament resolution was passed that requires the preliminary and obligating notification of mergers of concentrations of companies controlling a specified share of the market.
- 26 Business International SA., The European Communities Today and Tomorrow, p. 48.
- 27 Dennis Swann, The Economics of the Common Market (London: Penguin Books, 1972), p. 130.
- 28 Hugh Clout, The Franco-Belgian Border Region (London: Oxford University Press, 1975).
- 29 Geoffrey Parker, The Logic of Unity (London: Longman, 1975), pp. 114-115.
- 30 Claude Berthaud, Le Marché Commun (Paris: Masson et Cie, 1975), p. 199.
- 31 Frank Vogl, German Business After the Economic Miracle (London: MacMillan Press Ltd, 1973), p. 114.
- 32 Units of account were converted into dollars at the rate of 1 u.a. equals 1.20635 dollars.
- 33 EC Commission, Fourth Report on Competition Policy (Brussels: 1975), p. 121.
- 34 Ibid., p. 120.
- 35 EC Commission, Fifth Report on Competition Policy (Brussels: 1976), p. 141.
- 36 In 1970, the French government created the Institut de Développement Industriel (IDI) to assist medium-sized firms merge into larger units. This agency was similar to the one that had been created in Britain, the Industrial Reorganization Corporation (IRC), although it was disbanded in 1970 because the government became wary of the dangers of monopoly. State intervention in Italy has been quite extensive, creating such state-owned giants as IRI (Istituto per la Ricostruzione Industriale) the large state holding

company, or ENI (Ente Nazionale Idrocarburi), the major oil and gas company; these enterprises equal or surpass the size of some of Italy's huge private empires like Pirelli, Olivetti or Fiat.

- 37 United Nations, Multinational Corporations in World Development (New York: 1973), p. 138.
- 38 Berthaud, Le Marché Commun, p. 199.
- 39 The stock of foreign direct investment (book value) in 1971 for the United States was \$96,000 million. This far exceeds that held by the EC member-countries : Britain, \$24,020 m.; France, \$9,250 m.; West Germany, \$7,270 m.; Netherlands, \$3,580 m.; Italy, \$3,350 m.; and Belgium, \$3,250 million. (Mennis and Sauvant, Emerging Forms of Transnational Community, p. 6)
- 40 Vogl, German Business, p. 145.
- 41 Bernard Mennis and Karl P. Sauvant, Emerging Forms of Transnational Community (London: D.C. Heath & Co, 1976), p. 16.
- 42 Vogl, German Business, p. 115.
- 43 Between 1967 and 1971, the stock of foreign direct investment (book value) in West Germany jumped from \$3,015 million to \$7,276 million; France, from \$6,000 m. to \$9,250 m.; Britain, from \$17,521 m. to \$24,019 m.; Netherlands, from \$2,250 m. to \$3,580 m.; Italy, from \$2,110 to \$3,350 m.; and Belgium, from \$2,040 m. to \$3,250 m. (Mennis and Sauvant, Emerging Forms of Transnational Community, p. 13)
- 44 Hans Claudius Flicker, "Company Law within the EC," Chapter 3 in G.W. Keeton and S.N. Frommel's, British Industry and European Law (London: MacMillan Press Ltd, 1974), p. 31.
- 45 The exercise of EC Commission powers can take several forms: conventions (mutually felt protocols); directives (members are obliged to conform, but not necessarily uniformly); and regulations (immediately applicable*all member-countries).
- 46 Derek Prag and E.D. Nicholson, Businessman's Guide to the Common Market (London: Pall Mall Press, 1973); p. 327.
- 47 EC Commission, Société Anonyme Européenne (Brussels : Official Journal No. C 124, 10 October 1970).

- 48 The five other directives are still in draft form : the second directive concerns company formation in the sense of public enterprises (SAs and AGs), and the maintenance of share capital (1970); the third directive concerns domestic mergers of SAs and AGs (1970); the fourth directive deals with the annual accounts of business enterprises (1971); the fifth directive concerns corporate structure of SAs or AGs (1972); and an unnumbered directive is on prospectuses (1972).
- 49 Mazzolini, "The Obstacle Course for European Transnational Consolidations," p. 59.
- 50 Business International SA., The European Communities Today and Tomorrow, p. 20.
- 51 Feld, Transnational Business Collaboration, p. 33.
- 52 Ibid., p. 34.
- 53 EC Commission, Fourth Report on Competition Policy (Brussels; 1975).
- 54 Anthony Sampson, The New Europeans (London: Hoider and Stoughton, 1968), p. 108.
- 55 EC Commission, First and Second Reports on Competition Policy (Brussels: 1972 and 1973).
- 56 Philips is the fifth largest enterprise outside the United States and the sixteenth largest in the world; in 1975 its annual sales were \$10.7 billion with a net income of \$152 million. (Fortune, August 1976, p. 232)
- 57 Hoechst is the ninth largest enterprise outside the United States and the twenty-first in the world; in 1975, its annual sales were \$8.4 billion with a net income of \$100.9 million. (Fortune, August 1976, p. 232)
- 58 Brief descriptions of the EC's largest enterprises can be found in Anthony Sampson's book, The New Europeans, pp. 93-109.
- 59 EC Commission, Report to the Council of Ministers on the Activities of the Business Cooperation Centre (Brussels: 1975), p. 6.
- 60 EC Commission, Fifth Report on Competition Policy (Brussels: 1976), p. 64.

- 61 Mazzolini, "The Obstacle Course for European Transnational Consolidations," p. 55.
- 62 EC Commission, Report to the Council of Ministers on the Activities of the Business Cooperation Centre (Brussels: 1975), p. 6.
- 63 Ibid.
- 64 Werner Feld found that in a number of the case studies he investigated that "in the selection of partners, personal relationships appear, at times, to play a significant part, even when large companies are involved" (Feld, Transnational Business Collaboration, p. 46).
- 65 Bonbright and Means' classic study of the holding company defined it as "any company, incorporated or unincorporated, which is in a position to control, or materially to influence, the management of one or more other companies by virtue, in part at least, of its ownership of securities in the other company or companies" (James C Bonbright and Gardiner C. Means, The Holding Company; republished 1969 by Augustus M. Kelley, New York; p. 10).
- 66 The following sources deal with the EC's Eurocompanies : Heller and Williat, The European Revenge, 1975; Mazzolini, "The Obstacle Course for European Transnational Consolidations," 1973; and Stewart, "Transnational Enterprise," 1972.
- 67 Swann, The Economics of the Common Market, p. 164.
- 68 Economist, "Messerschmitt to Marry?" (30 July 1977), p. 76.
- 69 Royal Dutch/Shell has continually been Europe's largest (and successful) enterprise, and is the third largest in the world, after Exxon and General Motors; in 1975, its annual sales were \$32 billion. Unilever is ranked fourth largest enterprise outside the United States and tenth in the world; in 1975, its annual sales were \$15 billion. (Fortune, August 1976) Between 1963 and 1973, Unilever's sales more than trebled and over the five years, 1967-72, its rise in earnings per share was faster than many other multinationals. (Heller and Williat, The European Revenge, p. 138)
- 70 Robert Heller and Norris Williat, The European Revenge: How the American Challenge was Rebuffed (London: Barrie & Jenkins, 1975), p. 116.

- 71 Hoesch-Hoogovens merged formally in 1972 to create the dual-nationality enterprise, ESTEL, which will be discussed fully in Chapter four.
- 72 Heller and Williat, The European Revenge, p. 118.
- 73 The two firms had eventually settled on a complex financial participation creating the holding company which would control 62% of Citroën, of which Fiat would own 24% and the balance being held by the French Michelin and Berliet families; Parvedi would also take control of Maserati, Italy's luxury car manufacturer through the acquisition of Ferrari in a similar manner. (Feld, Transnational Business Collaborations, pp. 37-38)
- 74 The merger of the two enterprises was completed in 1976, and the new firm is now listed on the Paris Bourse as Peugeot-Citröen. The move has left Citroën's previous owners, the Michelin family, free to concentrate on tire manufacture. The creation of Peugeot-Citröen marks a major step in the concentration of the European automobile industry. Manufacturers are increasingly being forced to seek economies of scale through mergers and joint-production agreements as a result of growing competition from the large American and Japanese producers. (Toronto Globe and Mail, "Marriage is working for Peugeot-Citröen," Report on Business section, August 2, 1977)
- 75 Heller and Williat, The European Revenge, p. 121.
- 76 Ibid.
- 77 The Schneider complex includes four major holding companies and well over sixty operating companies. The Belgian baron, Edouard-Jean Empain is the major stockholder, much to the dismay of the French government; the Empains control Schneider through their own Belgian holding company, Electrorail. In 1974 alone, the Schneider Group took in \$6.7 billion in new orders, of which more than 60% came from subsidiaries and affiliates from other countries. (Fortune, August 1975, pp. 170-180) GKN is a British based holding company with interests in hundreds of enterprises and within recent years is actively expanding its holdings on the continent. (GKN is described more fully in Chapter four)
- 78 EC Commission, Forth Report on Competition Policy (Brussels: 1975).
- 79 EC Commission, Third Report on Competition Policy (Brussels: 1974), pp. 124-131.
- 80 Ibid., 129.

Chapter Two : Milieu

Source Material for Tables

- Table 1 : 1961-69 Takeover/mergers: Majority Control Participations, from EC Commission, Bulletin of the European Communities (Brussels: 1970).
- 1973-75 Takeover/mergers and all Equity Participations, from EC Commission, Forth, Fifth and Sixth Reports on Competition Policy, (Brussels: 1975-77).
- 2 : EC Commission, Fifth and Sixth Reports on Competition Policy, pages 110 and 151, respectively (Brussels: 1976 and 1977).

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- Figure 6 : Mazzolini, "The Obstacle Course for European Transnational Consolidation," (1973).

Chapter Three : Pattern and Process

Transnationalism and the rise of the multinational enterprise are representative of the new age of interdependence in which a nation-state's options to take autonomous, decisive action are increasingly limited. Transnational business collaborations that occur between enterprises within the European Community are symptomatic of this new economic and political reality. Contemporary economic dictates, such as economies of scale, have their counterpart in terms of the pan-European movement as it has been fulfilled by the EC. What few writers have realized is that with the lessening of economic and political barriers between the member-countries, the importance of Europe's geography in influencing industrial location is reasserting itself. This chapter seeks to analyze this phenomenon as it is manifested in the rise of TBC activity.

Section one introduces the historical evolution of industrial activity within the geopolitical environment of Europe during the past century and a half. The resulting pattern is the basic framework on which present processes are creating new trends and complexities. Section two proceeds to examine and analyze one of these new trends; the increased importance of TBCs between enterprises which our evidence suggests have increased greatly, relative to their numbers at the start of the study period in 1966, and that they display a definite regional distribution as well as being more

prominent within certain industrial categories. The third and fourth sections attempt to interpret this evidence by first identifying the prime economic factors underlying the regional development of industry within the Community (Section three), and with these in mind analyze the data on TBC activity in terms of the evolving spatial structure of industry that is increasingly bound up with the geography of the continent, not just that of the member-countries (Section four). For it is the geographic expression of those economic factors of regional development that is creating the business environment that is pushing industrialists to seek transnational linkages so that they might exploit economic advantage within the centre of the whole Community, i.e. the corridor.

• 1. The Geographic Pattern of Industry in
the European Community

The European Community occupies the western extension of the Eurasian land-mass. Basically, it consists of three horizontal macro-regions: the northern plains, central uplands and southern mountains (Figure 7). The oceans in the north and the mountains in the south separate the four extensions, Iberia, Italy, the British Isles and Scandinavia, from the trunk of Europe. The EC was formed and later enlarged along the northwest-southeast diagonal, from Britain to Italy which has had the strongest cultural and historical links.

FIGURE 7.

PHYSICAL REGIONS OF THE EUROPEAN COMMUNITY

1:10 000 000

R. D. SIMMON 1977

Historically, industrial development has occurred within national political structures and depended upon the resources found within each. The evolution of the nation-states and their corresponding economic policies segregated industrial growth into separate core areas which generally coincided with capital cities. The concentration on capital cities represented a legacy of the period of mercantile capitalism, followed by the growth of large cities as the capitalist mode of production was extended territorially and increased the significance of nation-state formation as its corollary (Chapter One, p. 20). However, the occurrence of natural resources was also an important factor in the establishment of early European industries, such as iron and steel, metallurgy, chemicals and textiles. These for the most part were based on the coalfields for power.

Coal, iron and limestone, which were the basic elements of industrial capitalism, were found at the edge of a large semi-circular carboniferous strata extending from the Ruhr, through the Franco-Belgian fields, and then to reappear in the Midlands and east Pennines of Britain. This strata marks the zone where the old worn-down Hercynian mountain blocks, which make-up the central uplands of Europe, meet the northern plains (Figure 7). The physical unity of this zone was divided, however, by political frontiers which separated economically complementary areas and negated the influence of the major European rivers, which tended to tie the plains, central uplands and mountains together. If

the new power sources of the first half of the 20th century, electricity and natural gas, tended to free industries from coal-field locations, the autarkic policies of governments kept them well within the national core areas.

Therefore, the huge urban-industrial structures which grew-up were at one and the same time in close proximity to the carboniferous zone, and yet were separated and developed by peripheral political centres. Industrial capitalism was nurtured by these political structures and the space economy they developed reflected their domination in national urban-industrial networks. Thus, the Lorraine iron and steel region of eastern France was tied to the political centre of France, the Paris region, and while the political centre of pre-war Germany was in the east, the country's economic might rested in the industrial capital concentration of the middle Rhine, from Frankfurt north to the enormous Ruhr complex. The rivalry between these two continental powers, as well as with Britain, in some ways accounts for the continued existence of the smaller powers of Belgium and the Netherlands. The latter country's economic core was founded on the great trading cities of the Rhine delta, which included Amsterdam, Utrecht, Rotterdam and The Hague - now often referred to as the conurbation of Randstad. Belgium's core region was centred on the Walloon coalfields in the south, which formed the eastern extension of the Franco-Belgian fields. The other two principal core regions of Europe were the British industrial belt from London to the Mersey river, and Italy's upper

Po valley between Turin and Milan. Although these two core regions are separated from the continent by the English Channel and the Alps, respectively, the latter never represented a serious barrier to economic contacts.

Today, the pattern of European industry still displays this close inter-relationship between the geographic potential of the continent and its historical evolution of the mode of production. The national economic core regions still retain a strong attraction for new industrial firms, by virtue of inertia and their inherited skills and services. During the contemporary period, however, industry and the general pattern of manufacturing in Europe has been increasingly modified. In Chapter One the modern trends of industry towards macro-concentration and micro-dispersion were noted. These spatial developments coincide with changes in the mode of production as seen in the expansion of direct foreign investment and the establishment of foreign affiliates; during the 1960s in Europe there was a proliferation of foreign manufacturing subsidiaries by parent enterprises (Chapter One, p. 30).

This development of transnational activity by European firms reflects the emergence of a new organization of production in "post-capitalist" societies. If there has been a dispersal of industry away from the historic core regions and the formation of a new regional core area, as the existence of the European corridor suggests, what evidence is there that community firms are restructuring so that they might secure operational viability based on different economic dictates and new geo-political realities?

2. Transnational Business Collaboration in the EC, 1966 - 1975

(A.) Extent of TBC Activity During the Study Period:

As defined in Chapter One, transnational business collaboration can take several different forms, all of which have led to greater industrial interpenetration :

- (1) Contractual agreements for industrial cooperation.
- and (2) Foreign financial participation (equity participation)
in the form of
 - Subsidiary formation
 - Joint equity ventures
 - Equity acquisition of existing firms

(see Glossary of terms, pp. 53-55)

The former activity has become quite common among EC firms (Chapter Two, p. 94). The difficulty has always been in obtaining a clear measure of the extent of equity participation across national boundaries over any meaningful time-period. However, statistics have become available in recent years for the different types of equity participation; that is for the number of joint ventures, as well as the number of equity acquisi-

tions (from a minority share to outright takeover), which roughly coincides with the period since the establishment of the full customs union.

There were, however, many difficulties in acquiring and compiling the statistical data on TBC activity. The principal source of the data employed was the EC's annual Competition Reports, as well as material published by the Business Cooperation Centre (a separate agency established by the EC to assist European businesses meet transnational partners). Therefore, there are several qualifications that should be made clear before presenting the data. First, since the main source is the EC Commission, it might be noted that its statistical bureaux have not the best reputation for accuracy. Second, since the data published in the annual Competition Reports is based on information gathered from specialized press of industry activity, they don't represent the absolute number of TBC operations occurring in each year, but rather provide a sample indicator of transnational activity. Third, a problem with the data employed was that after 1972 the Commission made a definitional change in what it considered international business activity in order that it might better compare national and transnational trends; after 1972, subsidiary formation was dropped, joint venture activity kept, and equity participations were now divided between full takeover and merger of the corporate entity, and lesser forms of acquisition. Therefore, this writer used the data on joint ventures and recombined that on equity participations to obtain statistics on a ten-year

study period, 1960-1975. (No data is available for 1972 because of this changeover). In the balance of this chapter, TBC activity is used to refer specifically to these two forms, equity acquisitions and joint ventures. And the fourth qualification that should be noted is that, although the data represents the number of such TBC operations occurring each year, it is not cumulative, nor does it say anything about the economic magnitude of each such operation to the overall economy.

Table 3 presents data on equity acquisitions, from minority participations to full takeover and merger of enterprises, and joint venture formation for the period under review. It shows not only the number of such TBCs occurring in each year, but also the number of enterprises participating; thus a very active firm may be represented several times, having participated in several different TBCs in the same year. There is a further breakdown on the basis of the numbers of firms involved in each transnational operation, whether bilateral or multilateral.

Table 3 indicates that TBCs have increased in the decade under review. The number of TBCs undertaken each year has steadily increased, ranging from an annual rate of about five hundred equity acquisitions and joint ventures in the 1960s and reaching a peak of 998 in 1973, before falling off to 815 and 701 in the succeeding two years. Figure 2 graphically depicts these trends for the total number of such TBCs, as well as breaking them down between the two types (in this graph the 1960 figures are taken as a base value of 100).

Table 3.

Transnational Business Collaborations in the EC

1966-75

Type of Transnational Business Collaboration				Total		Breakdown by number of firms involved	
Year	Number	Equity Acquisitions		Joint Ventures		Number of firms involved	Multilateral
		Number of firms involved	Number	Number of firms involved	Number		
1966	254	535	315	959	569	461	108
1967	228	468	299	840	527	444	83
1968	241	485	292	888	533	435	98
1969	265	525	324	946	589	472	117
1970	327	642	345	977	672	576	96
1971	368	741	382	954	750	628	122
1972							
1973	571	1,154	427	1,003	998	756	242
1974	407	941	403	1,098	815	577	238
1975	406	870	295	1,035	701	487	214

N.B. Number - These are the number of such TBCs occurring in each year. Number of firms - These figures show how many times firms have participated in such TBC operations; a very active firm may have participated in several TBCs.

Figure 8.

Transnational Business Collaborations

in the EC 1966-1975

- indexed -

LEGEND

- Total Number of TBCs (JV+EA)
- Joint Ventures
- Equity Acquisitions
- Subsidiary Formations (1966-71)

(Semi-Logarithmic 3 Jucks x 70 divisions)

Two noticeable downturns occurred in transnational operations, in the years 1967-68 and again in 1974-75. Both of these periods coincide with recessions in the European economy when firms are less inclined to engage in major trans-frontier, financial operations as the economic climate of uncertainty would dictate the traditional response of retrenchment. If such periods are prolonged and severe enough, they may eventually force firms to seek TBCs as a solution to their economic difficulties; this hypothesis will be taken up later, especially in regards to the iron and steel industry in Chapter Four.

¹ Werner Feld's earlier work on transnational collaborations in the Community (1970), showed that there was a definite upswing in transnational subsidiary and joint venture formation in the late 1960s. He found 1968 was the critical year in that upswing: "the full implementation of the customs union on July 1 of that year may well have been the reason for the remarkable increase in collaboration ventures, since for many enterprises this may have been the signpost that the movement toward full economic integration had passed the point of 'no return'".² The data presented in this paper show a similar upsurge in TBC activity in the late 1960s. The EC Commission found that the annual rate of subsidiary formations in the Community almost doubled from 781 in 1966 to 1408 in 1971³ (this has been included in Figure 8), and Table 3 shows that equity acquisitions more than doubled their mid-1960s rate by early 1970s, before levelling off to a sixty per cent increase over 1966 levels

in the last two years of the study period. The increase in the number of joint ventures undertaken each year has been far less spectacular, reaching a high of 427 in 1973, compared to 315 in 1966. However, new joint venture activity has dropped off far more radically in the two years, 1974 and 1975, than have equity acquisitions.

Throughout the early part of the 1966-75 period, the rate of acquisitions and joint ventures maintained a 40:60 ratio between each other, respectively, in terms of number, until 1973 when the ratio reverse itself in favour of the former. This is explained by the noticeable drop in joint venture formation in 1974-75 when the lowest number of such operations (295 in 1975) were recorded for the whole decade. This probably reflects the severe economic recession of those years, when only larger, European enterprises were in a position to risk international operations which for them is usually direct foreign investment in the form of wholly-owned subsidiaries. Smaller, medium-sized European firms, which are more inclined to form joint ventures or cooperation agreements to remedy cost and deteriorating market conditions, are less likely to initiate such actions that will greatly effect their financial position and organizational operations at such times.

As noted above, the number of new subsidiaries established each year equalled double the combined total of the other two forms of TBCs. Its growth rate was less affected by the 1967-69 recession, and if its rate of growth is projected for the latter half of the early,

1970s it is still almost double both joint venture and equity acquisition levels. Of the latter two, the rate of equity acquisitions surged ahead in the late 1960s and early 1970s, although until the last three years of the study period joint ventures outnumbered them each year. The high growth rate of equity acquisitions, as well as subsidiary formations, reflects the noticeable increase in direct foreign investment by member-country firms (Chapter Two, p. 89) that has occurred during the period under review, in order that they might establish a transnational network of affiliate companies.

If the annual rate of such TBC activity has increased over the past decade, two very significant items also indicate that community enterprises are becoming more transnationally linked to one another; increasingly such TBC activity is multilateral, and the level of non-member-country firm involvement has dropped considerably. Table 3 indicates that multilateral operations have increased from 19% in 1966 to 31% in 1975, in terms of the total number of equity acquisitions and joint ventures. Table 4 then illustrates that such TBCs were increasingly between only community firms, rising from only 35% in 1966, to 57% in 1973. Although the inclusion of Britain in the EC (1973) has had an impact on these figures, the overall trend of greater community firm participation in TBCs is still in evidence; in 1975 more than half of all TBCs (54%) were solely between EC firms. For the number of community enterprises involved in all such TBCs the figures are even more significant, rising sharply from 58% in 1966 to 83% in 1974 and 77% in 1975. This reflects the ever-expanding involvement of EC enterprises in transnational activity, some participating in several such operations each year.

Table 4.

Breakdown of Transnational Operations Between
Member-Country and Non-Member-Country

1966-75

percentages -

Number of Operations

Year	Equity Acquisitions		Joint Ventures		Total for	
	% EC	% NMC	% EC	% NMC	% EC	% NMC
1966	33	67	34	66	35	65
1970	35	65	34	66	38	62
1971	39	61	35	65	41	59
1973	60	40	54	46	57	43
1974	57	43	52	48	54	46
1975	52	48	55	45	54	46

Number of Enterprises Involved

Year	Equity Acquisitions		Joint Ventures		Total for	
	% EC	% NMC	% EC	% NMC	% EC	% NMC
1966	67	33	72	28	58	42
1970	67	33	69	31	56	44
1971	70	30	62	38	55	45
1973	78	22	66	34	73	27
1974	91	9	72	28	83	17
1975	76	24	77	23	77	23

Therefore, the trend towards greater and greater transnational behaviour, increasingly between community firms, stands out for the study period as a whole..

Perhaps the most dramatic change, really the counter-side of the increased transnational behaviour by member-country firms, has been the decline of non-member-country participation in TBC activity, especially the significant drop in American TBC operations into the Community. At the beginning of the study period in 1966, American enterprises were involved in 21% of all subsidiary formations, joint venture undertakings or equity acquisitions in the Community of the six (Table 5), and were usually the principal partner enterprise in any TBC activity in each of the member-countries⁵. However, during the 1970s American enterprises felt the impact of the energy and dollar crises and the pressures of a government concerned over a mounting balance of trade deficit, so that by 1975 the share of American involvement in new TBCs in the Community accounted for only 7%. At the same time, the new industrial conditions of Europe have prompted an increase in trans-frontier industrial investments among EC enterprises.

Although the precise volume of TBCs within the EC may fluctuate each year, their numbers have noticeably increased in the decade under review. In addition, there is a tendency for more and more European firms to engage in transnational business collaborations and recently the most common form has been equity acquisitions as opposed to joint ventures. It has been pointed out, however, that

Table 5.

Source of Community and Non-Community Viruses
Involved in AIDS in the EC

✓percentage -

Year	EC	United States	Switzerland	Denmark	Japan	Other Countries	100%	Total
1986	58	21	5	3	-	4	9	100
1970	56	18	7	3	1	5	10	100
1973	73	12	6	2	2	5	--	100
1975	77	7	5	2	1	2	--	100

the setting-up of new subsidiaries by one community enterprise in another member-country has generally surpassed the combined totals of both other forms of financial participation. In the years 1966 to 1971, subsidiary formation was approximately twice as common as the two other types of equity TBCs⁶, and as noted previously their numbers almost doubled during those five years. In 1971 alone, in the EC of the six, there were 591 new subsidiary formations, compared to 144 equity acquisitions and 134 joint ventures involving only EC enterprises⁷.

At this point it is important to remind readers about several of the qualifications concerning these statistics that were mentioned at the beginning of this section. First, the information on TBCs is partial since it is drawn from reports in the special industry press, and regardless of how meticulously these statistics may be assembled, it is unlikely that they cover one hundred per cent of the cases. Secondly, they show only the number of TBCs, or number of enterprises involved, and don't indicate the economic significance of each transaction. And thirdly, the enlargement of the Community in 1973, specifically Britain's entry, obviously had an impact on member-country and non-member-country statistics of Tables 4 and 5, but does not detract from the basic trends presented. Given these qualifications, the conclusions about European enterprises becoming more transnationally linked to each other remain valid.

(B.) Regional Distribution of TBC Activity:

If the extent of transnational business collaboration within the EC has increased, there has also been a definite spatial variation in this phenomenon. Table 6 illustrates that throughout the period under review, even with the enlargement of the Community, Benelux and West German enterprises have accounted for the majority of transnational activity; that is throughout this period West Germany and especially Belgium have consistently been the most popular terrain for TBC activity. West Germany and Belgium have been the most favoured locations for transnational financial participation in establishing subsidiaries, joint ventures or equity acquisition of existing firms.

Figure 6 also indicates that French firms have registered the greatest growth in transnational linkages during the same period. Between 1966 and 1971, France had the greatest increase in TBCs, increasing its share for the Community of the six by 5%, and in years 1971 to 1973 led all other EC member-countries in the number of TBCs being established there. West Germany, however, has consistently accounted for over 20% of all TBC activity, except for a drop in 1973 due to the enlargement of the Community, but they quickly regained their position in the next two years equalling the performance of French firms involved in TBCs. Today, the degree of industrial interpenetration by transnational collaborations is strongest between German and French enterprises.

Business firms in Belgium have been especially attractive to industrialists and corporate executives in forming transnationally linked enterprises. From 1966 TBC activity has been concentrated there.

Table 6.

Geographic Distribution of Transnational
Business Operations 1966-75
 - percentage -

Country (Location of TBC activity)	Years					
	1966	1970	1971	1973	1974	1975
West Germany	22	24	22	14	22	20
France	19	22	24	22	22	20
Italy	13	12	11	6	7	4
Netherlands	16	13	12	11	8	7
Belgium	24	22	24	19	16	21
Luxembourg	6	7	7	14	7	9
Britain	-	-	-	12	16	15
Ireland	-	-	-	1	1	3
Denmark	-	-	-	1	1	1
European Community	100	100	100	100	100	100

(N.B. Figures within box are for
the Community of the Nine)

However, their relative overall position dropped in the early 1970s due to the rapid advances made by French enterprises and the inclusion of British firms seeking transnational linkages on the continent, especially after 1973. Since then Belgian enterprises have regained their high position, accounting for 21% of all TBCs in the Community in 1975. Transnational activity by Dutch and Luxembourg companies is much smaller, and in the case of the former, in noticeable decline compared to the position of other member-country firms. This reflects to some degree the fact that key industrial sectors in both these countries are dominated by large European enterprises, which have already established international operations through production subsidiaries. A similar situation exists in Italy, where this country's share of transnational operations has steadily declined from 13% in 1966 to only 4% in 1975. In addition, the country's chronic economic conditions have acted as a further deterrent to many firms.

These statistics on the distribution of transnational activity within the Community are further confirmed by additional figures, published by the Business Cooperation Centre. This agency was set up by the EC Commission in 1973 to assist those enterprises interested in transnational business relations with firms in other member-countries, or even firms outside the EC. The Centre acts as an advisor, coordinator and publicizer for such relationships. Table 7 shows that between May 1973 and October 1975, the largest number of requests for information on establishing transnational relations came from West German (25%) and French enterprises (13%). However,

Table 7.

Request by EC Firms for Information
on Transnational Cooperations
(May 1973 - October 1975)

Country	Number of Requests	Percent of Total
Britain	579	29.9
West Germany	488	25.2
France	256	13.2
Italy	207	10.7
Belgium	137	7.1
Netherlands	98	5.1
Denmark	89	4.6
Ireland	77	3.4
Luxembourg	6	0.3
Total	1,937	100.0

the largest single number came from British firms, which accounted for 29% of all requests. This is not too surprising, since it is expected that British businesses would display a certain degree of curiosity and/or enthusiasm so soon after joining the Community. This is reflected in the fact that Britain had a lower than average follow-up after the initial requests were processed, resulting in one or more meetings or negotiations between interested partners were found by the Centre. On an average, 58% of the initial requests resulted in one or more negotiations, with the West German firms achieving the greatest success rate (67%), followed by the French, Dutch and Belgian ones, all at about (62%). The Centre has found that it has been able to establish contacts between interested partners in two-thirds of the cases it handles, and of these one in five results in some form of definite trans-¹⁰national business relationship.

It was previously mentioned that West German and French enterprises were each others preferred transnational partners. Although data available on individual transnational inter-penetration among the various member-countries is scarce and may vary from year to year, Table 8 does indicate the preferred transnational partner for enterprises in each member-country during 1970, the mid-point in the period under study. This table indicates that :

1. Belgium/Luxembourg were the preferred location for community enterprises to establish TBC linkages, with 60% and 57% respectively of their TBCs with other community firms.

Table 8.

Breakdown of Bilateral TBCs between each Member-Country and
Each other Member and Non-Member Country, 1970

- percentages -

Bilateral TBCs between countries originating in	Firms originating in EC countries							Firms originating in NMC							TO
	G	F	I	N	B	L	to	GB	SC	S	US	J	OC	to	
West Germany with firms of	-	24	3	17	8	2	54	9	3	12	19	0	3	46	100
France with firms of	21	-	6	5	11	2	45	13	2	8	26	1	5	55	100
Italy with firms of	7	15	-	5	7	5	39	9	3	9	33	0	7	61	100
Netherlands with firms of	24	8	3	-	17	2	54	12	2	7	24	1	0	46	100
Belgium with firms of	12	19	6	20	-	3	60	7	0	5	19	3	6	40	100
Luxembourg with firms of	11	14	14	14	4	-	57	4	4	17	14	0	4	43	100

G - West Germany
 F - France
 I - Italy
 N - Netherlands
 B - Belgium
 L - Luxembourg
 GB - Great Britain
 SC - Scandinavian Countries
 S - Switzerland
 US - United States
 J - Japan
 OC - Other Countries
 to - total

2. Italian firms established the fewest transnational ties with other community enterprises, with their principal foreign partner being American firms, which were also very prominent in the Netherlands; however, Dutch enterprises also had strong transnational linkages with West German firms, as well as other community countries.
3. West German and French enterprises demonstrated the strongest transnational inter-penetration in each others' industrial complexes, with French firms accounting for 24% of all German TBCs and German firms accounting for 21% of all French TBCs.

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These results confirm trends identified by Werner Feld in the distribution of wholly-owned and jointly owned production subsidiaries for the years 1967-68. That is there was a strong reciprocal interest by West German and French firms in each others' markets, although the latter was more inclined towards Italy and Belgium/Luxembourg in 1968; that Italian enterprises seemed least interested in expanding industrial linkages whereas British firms, outside the EC at this time, were as active transnationally as German, French and Dutch enterprises; and that Dutch enterprises sought TBCs with all EC countries, except Italy where there was minimal interest.

From this evidence and judging from recent statistics on the distribution of TBCs (Table 6, p. 11⁸), it is clear that Benelux and West Germany hold a special significance for transnational business activity, aside from anything related to the dynamism of their economies. It is the contention of this writer that that significance lies in the spatial or locational conditions of production, distribution and marketing in the EC today.

(C.) Breakdown by Industrial Sectors:

Transnational business collaborations involving community enterprises can be broken down not only by geographic distribution, but also by industrial sectors in which they are most prevalent. Table 9 presents this data broken down into seven basic industrial sectors :

1. Metal-Using Industries - includes the metallurgical industries, as well as machinery, electrical machinery, transport equipment and vehicles.
2. Energy Industries - includes the fuel and power industries such as coal mining, petroleum and natural gas and electricity.
3. Chemical Industries - pharmaceutical products, photographic products, industrial chemicals, plastics, and cleaning and maintenance products.
4. Textile Industries - includes cotton, wool, knitted and crocheted goods.
5. Other Manufacturing Industries - includes publishing, paper, glass, leather, footwear and furniture industries, etc.
6. Food Industries - the food and beverage industries, including distribution.
7. Service Industries - includes all the tertiary industries, banking and insurance, holding companies, administration, retail and wholesale trades, etc.

It is the latter two industrial sectors which are most interesting from the point of view of TBCs. From 1966 to 1975 they achieved the highest growth rates for firms engaged in TBC activity.¹² During the 1970s, the service industries were the dominant sector for joint ventures and equity acquisitions.

Table 9.

Transnational Business Collaboration in EC

By Industrial Sectors 1966-75

- percentage -

Industrial Sector	Years					
	1966	1970	1971	1973	1974	1975
Metal-Using Industries	43	36	39	27	21	28
Energy	3	1	1	2	3	2
Chemical	15	11	11	9	9	9
Textile	6	6	5	4	4	4
Other Mfg. Industries	12	13	14	11	9	14
Food Industries	3	7	5	9	4	7
Service	18	26	25	39	50	36
Bank & Ins. Cos.						10
Holding Cos.						3
Other Tertiary						23
TOTAL	100	100	100	100	100	100

1.3. The 1966-71 figures are for the EC of the Six, and TBCs are defined as including international joint ventures, single company subsidiary formation and equity acquisitions of existing enterprises; the 1973-75 figures are for the EC of the Nine, and TBCs are defined as including, joint ventures and equity acquisitions from minority positions to full takeover and merger, and include both international and national operations of these types.

However, Table 9 also illustrates that it was enterprises in the metal-using sector that have accounted for the majority of TBC activity, especially at the beginning of the period under study, before the food and service industries began to erode their dominant position. Nevertheless, by 1975 metal-using firms still accounted for 28% of all joint ventures and equity acquisitions, far ahead of both chemical, textile and other manufacturing industries. These figures are confirmed by the Business Cooperation Centre of the EC, which found that the food, mechanical engineering and structural steel industries were the most active transnational sectors, primarily by small and medium sized enterprises wanting to integrate marketing and production facilities on a regional scale.¹³

It is likely that food processing enterprises are more inclined to opt for foreign affiliates through TBCs, rather than exporting, because of the difficulties and costs associated with transporting bulky, perishable food products. Also differences in taste, as well as differences in health and labelling regulations between the member-countries would likewise favour the establishment of TBCs to serve the large community market. Metal-using firms would display a similar tendency for TBC activity for two possible reasons: first, multinational-styled enterprises dominate several categories included in this sector (i.e. electrical machinery, transport, motor vehicles, etc) which generally prefer the establishment of wholly owned affiliates through equity acquisitions, and

secondly, public purchasing policies of the national governments and non-tariff barriers may act as a stimuli for firms to establish TBC linked companies in other member-countries in order to "jump" national barriers - both psychological and economic. Service industries have become very prominent in TBC activity during the study period. Retail and wholesale trade enterprises have a similar reason as the food processing firms to establish TBC linked foreign firms in the supply, production and/or distribution of goods because of the need for market intimacy within the complex market circumstances of the Community. At the same time, finance capital has experienced a greater degree of continental concentration than industrial interpenetration, as reflected in the international operations of holding companies and financial institutions.

At this point it is advantageous to note several immediate observations about the type of firms involved in TBC activities. It seems that market-oriented industries, especially those in countries which have a large number of small and medium-sized enterprises, are more inclined to respond first to developments in the EC's operational milieu. It is precisely these enterprises which have less of their assets tied up in land and major capital investments which will be better able to reorient their strategy and organization to changing economic conditions on a transnational basis (i.e. food and beverage firms, insurance or holding companies whose main functions are managerial and have a tendency to be

international, and metal-working enterprises whose costs and procurement requirements demand international economies).

If characteristics of particular industries is prime factor in their likelihood of responding transnationally to the evolving EC regional economic system, a second prime factor seems to be competition or profitability in the market place. A firm's economic performance continues to dictate reactions and adjustments according to its perception of the circumstances, type of industry it is, political climate, etc. Thus, although a general economic recession may place a damper on transnational activity, persistent economic troubles over time may push even the large European enterprises to seek major restructuring through transnational measures.

Both these factors will be dealt with in more detail elsewhere, an example might suffice to illustrate these points. The Business Cooperation Centre found that the greatest interest in establishing some form of transnational business collaboration with an enterprise in another member-country came from structural steel and mechanical engineering enterprises.¹⁴ Today, both these industries have experienced two years of the worst recessions since the end of the last war, and have recently become engaged in major structural adjustments through TBC activity in order to survive in a more competitive, more regional centralized industrial geography of the EC.

3. Regional Analysis and New Locational Imperatives Affecting Industrial Restructuring

Transnational business collaborations are occurring within the context of the new regional economic system of the Community. Regional analysis itself has been approached by scholars from two perspectives. First, there is the work of economists in theories concerning regional economic development. Their principal concern has been with the explanation of differences between regions, their growth and development, using such techniques as input-output analysis, economic base theory and other economic models. The second approach is concerned with the internal or spatial structure of regions (theories of spatial structure), and is derived from the work of geographers in locational analysis, although much of the early work in this area was also done by economists. Obviously both approaches are inter-related in that they are both concerned with the development and functioning of regions, and in recent years there has been a convergence especially as geographers have had more economic training.

The earlier, classical models of the spatial structure of industrial distribution are based on the assumption of a rational, "economic man". At the level of the region, or inter-urban, the most prominent is central place theory, and at the level of the location of individual firms, or intra-urban, there has been the least-cost approach, market area analysis and the profit maximization approach.¹⁵ All of these theories assume that there is order,

structure, or a framework to regions or metropolitan areas, which is a function of distance, cost and localized natural resources or man-made facilities. Central place theory has proven especially useful in regional analysis because few others deal as well with the interdependence between the city and its region :

According to the theory, the growth of the city depends upon its specialization in urban service functions, while the level of demand for urban services over the service area determines how fast central places grow. Moreover, it is a general theory in the sense that it not only explains growth in the individual city but also the spatial ordering of urban centres over the regional and national economy. (16)

Empirical studies have shown this to be a highly satisfactory model, especially in dealing with the service hierarchy. However, it is still a very simplified and abstract model, concerned only with service industries and essentially static - explaining the existence of the spatial structure, but providing few insights into the dynamics of evolutionary change.

In fact, traditional theories of the location of central places and industries are all generally static in context, with little consideration of change and development. Dynamic evolution in both economic development and spatial structure has been based on neoclassical, liberal rationale: regions are treated as merely points in space with development seen largely as the movement of capital and labour in response to wage and capital return differentials. It has only been relatively recently that dynamic theories

which inject spatial aspects have been developed. The work of A.O. Hirschman (1958), G.M. Myrdal (1957) and J.R. Friedmann (1969)¹⁷ have all stressed the importance of agglomeration economies to explain recent trends towards the clustering of economic activity. This is very similar to the "growth centre" ideas of regional development introduced by Francois Perroux¹⁸ (1955 and 1964) because it emphasizes geographic differences in supply and demand of resources as factors impeding development, and calls for the concentration of capital and labour into suitable patterns for the attraction, generation and sustaining new economic activity within a region.

Several concepts from these theories and models are important for our analysis of TBC activity, because they help our understanding of the changing regional structure of industry. There is the idea of a hierarchy of urban places, differentiated by the range of services, goods and functions such centres provide, and the growth pole or growth centre idea with its attendant concepts about "leading industries", polarization and spread effects. In some ways the growth point (national scale) or growth centre (regional scale) idea¹⁹, is really the late 20th century update of the 19th century's hierarchy of central places. Contemporary economic conditions have promoted the rise of leading industries, which dominate other economic units in an area and induce them into the pole of growth, thus creating agglomeration economies.

What underlies these developments in the spatial structure of

regions, has been the combined effect of the technological revolution, the liberalization of economic conditions and the development of global communications and transportation. If these are the underlying conditions for contemporary change and growth in the spatial structure, the precise cause of growth remains debatable. The whole question of the growth and development of urban-industrial spatial systems is wide open, reflecting the different approaches employed, the complex nature of the phenomena and the lack of detailed empirical studies. Today, the most commonly accepted idea is that growth is associated with entrepreneurial innovation, which originated in and was transmitted via the urban hierarchy.²⁰

This relationship between industrialization (movement into non-agricultural employment) and urbanization has appeared relatively clear until the mid 20th century. The spatial structure has reflected the dominant mode of production. During the late 18th and early 19th centuries, the most rapidly growing centres were capital cities and commercial centres (i.e. mercantile capitalism), in which manufacturing grew gradually as a substitute for imported products. As the latter became more necessary, as industrial technologies were introduced and spread down the urban economy, there was a concentration and extension of industrial production located in a few principal cities (i.e. industrial capitalism) and organized under the political economy of each nation-state. During the last century and a half of urban-industrial growth, the relationship between initial advantage and threshold size in different urban

functions (represented in central place theory), but also agglomeration economies, combined to produce the spatial structure of industry that postwar Europe inherited. This was the optimum system for exploiting new technological innovation by predominantly national, capitalist elements; a system which strengthened the position of capital cities and established one or two other large "resource cities" (either man-made or natural resource advantages) to become the predominant industrial cities in the national networks of the individual economic cores.

Since the mid 20th century, however, what has happened is industrialization (of the labour force) without urbanization²¹, and the breakdown of the highly concentrated, national hierarchical systems. (This breakdown, or dispersal, is especially significant with regard to manufacturing, as new industries tend to be distributed independently of older ones that formed the principal basis for expansion, growth and development of nations in the past.²²

This has been the result of new technologies, advances in communications and transportation, and new energy sources, which in turn permitted the decentralization of industry in the urban economy both to "smaller cities in the shadow of the metropolises and newer cities distant from the traditional urban centres"²³. Just as the spatial structure of mercantile and industrial capitalism reflected the special historical, technological and economic conditions that determined the organization of the forces of production, recent decades have witnessed the appearance of a new organizational form

of the dominant mode of production - the transnational enterprise.

Historical evidence of the development and growth of the capitalist system indicates the adoption of technological innovation as the most important factor accounting for economic development by means of a particular type of spatial structure. As shown this was a highly concentrated, hierarchial system centred on the core areas of the individual member-countries. Technological innovation was spread through the urban hierarchy by mainly national business entities, which benefitted from (large) urban size for informational flows, large markets and all the factors of production close at hand, as well as from the "neighbourhood effect" of the spacing in the hierarchy of urban centres. Here it might be noted that the traditional economic theories and models, both of economic development and spatial structure, failed to consider the impact of the relationship between the forces of production and instead concentrated on exchange relations. Although this is quite legitimate, it represents only one side of reality, neglecting how the forces of production are structured by their very inter-relationship. The error of the neoclassical concept of market integration is that the market is not deficient as a way of analysis per se, but its use abstracts from the operational space which it occupies.²⁴ This has made traditional theories and models even more difficult to apply today because contemporary societies in Europe and America are evolving a new organizational form of the forces of production which traditional assumptions have very little relevance. Previously

important location criteria, such as transport and labour costs, or external economies of agglomeration and availability of natural resources, operated fairly well within the general equilibrium of each member-country. There was generally free entry into the market by a number of competing business entities, so that industrial location of plants was often related to urban size and spacing.

New technological and economic conditions, and new business organization structures have changed this so that today large transnational firms operate on entirely different scale and under new locational imperatives which reflect this new mode of production.

It is not surprising, therefore, that the locational significance of the transnational enterprise has been for the most part neglected by scholars in both theory and practice: "the multi-locational character of the most important industrial firms is poorly represented in location theory"²⁵ and yet one of the most significant new factors affecting regional industrial structure in the Community and elsewhere, is "the domination of the location issue by the industrial organization, firm or corporation: its goals, growth, size, age, production profile, organization and behaviour"²⁶. In the modern world we are dealing with multi-functional and multi-rational firms with complex linkages, rather than with single plant locations requiring one or two material inputs for distribution in an immediate trading area as envisioned by many of the classical models. The business decisions of transnational enterprises have far-reaching locational implications, and their goals are usually more concerned

with growth, market control, diversification of interests and self-preservation, than with simple profit maximization²⁷.

In pursuing such goals and responding to stress conditions²⁸ which may be affecting efficient operations, these enterprises will seek not only to expand in their present site, but may establish foreign subsidiaries, acquire, merge with, or establish close cooperative dealings with other firms, or even close existing factories and relocate elsewhere. Depending upon a host of economic, geographic and political factors these various options may be transnational in character, and in the circumstances which have been described for the EC this is increasingly a desired possibility.

It has been suggested, therefore, that the best approach to regional analysis is now a combination of industrial organization theory and world-wide sourcing analysis based on the more traditional approaches.²⁹ Location theory of spatial structure, as has been shown, is too dominated by abstract, rather ahistorical and exchange relations of neoclassical, liberal economics. Although certainly this approach still has relevance, especially for thousands of small and medium-sized enterprises in Europe, for the large, transnational enterprises this is not so. For such enterprises, traditional assumptions concerning the market system have little relevance because these firms can themselves dictate demand and set their own prices, and as was noted, are less concerned with profit and production maximization than with stabilizing the conditions for their own survival. "The market is being replaced

by corporate organizations whose activities are necessarily directed towards accumulation."³⁰ Capital accumulation ensures resources for expensive R&D to maintain technological initiatives and organize operations on a vast new scale. Thus, the focus of regional analysis must turn more to the structure and operation of large transnational enterprises.

Chapter Two demonstrated that the transnational enterprise now dominates industrial production in the modern world. Two trends were also noted; industrial concentration as industrial sectors are increasingly dominated by fewer and fewer large enterprises, and geographic concentration, the clustering of economic activity on the macro or regional scale. This latter trend seems to be directly associated with the international organizational structure of the transnationals. Higher corporate functions, such as strategic management and regional and divisional planning and coordination, have tended to be concentrated in major metropolitan areas (permitting quick access to capital and the world economy), while production functions have tended to be more dispersed, responding to the pull of markets, labour and raw materials, but always on an international scale.³¹

Since the transnational enterprise itself has a "centre" and "periphery" in its organizational structure³², from administrative offices to various plants and factories or partner enterprises, these new, transnational corporate entities have become "growth poles" in a complementary spatial system of the corporation, yet

different from that of the spatial system of the urban economy that was previously created. Previously, technological innovation was carried out by a number of competing, national firms, whose key locational, spatial characteristics were related to urban size and spacing. Today technological innovation is dominated by a few transnational firms whose key locational characteristics are related more to its organizational structure, to have central direction and world-wide operations to ensure capital resources necessary to develop new products and processes, and then exploit them as quickly as possible through its affiliate system. The geographic field and locational structure of such a system is quite different from the one focused on the national economic core areas. This is not to say that such areas will henceforth disappear, but that they are being altered, just as the mercantile system evolved into industrial capitalism. In fact, the inherited spatial structure of Europe still has much attraction because with the freeing of industries from distance, energy and raw material constraints, the pull of large concentrated markets has a new importance (especially for the higher corporate functions of the transnationals).

Corporate organization and linkages are in turn the result of contact patterns, informational sources and perception of economic environmental opportunities by industrialists in their locational decisions. Geographers have employed the term "action space" to describe an enterprise's perceived spatial sphere of

action, and this writer has suggested this meaning in the previous use of the term "operational field", or "perceived environmental milieu". The evolving regional structure of the EC is being created by the locational decisions of transnational enterprises as they response to this operational field. Their decisions are in turn determined by knowledge of specific economic opportunities (usually associated with major metropolitan areas), and by underlying factors associated with each type of industry. The execution of various TBC options can be very significant in generating inter-³³ metropolitan linkages, and it is the opinion of this writer that in so doing they are drawing the various industrial areas of the EC closer together around a new regional growth centre based on the corridor of the Rhinelands.

Since the decisions and responses of business enterprises have a spatial form, what are now the key locational factors which signal corporate managers to seek cooperation agreements with a firm in one area and not in another, or to establish a joint venture or subsidiary in a particular region? The evidence presented in section two of this chapter showed that TECs have a specific pattern and character, and this reflects a perceived operational field for the enterprise, while corporate response and change in its organization will then affect the spatial environment itself, either reinforcing or redefining that field. Thus, new locational imperatives are as much a perceptual as an economic problem for the transnational.

Despite differences in approaches to regional analysis (spatial structure and regional economic development, or between liberal, neoclassical rationale and a more "marxist" interpretation) "the basic elements of a dynamic theory of spatial development certainly exist"³⁴. The following section of this chapter will investigate how in responding to contemporary locational considerations regarding industry, which have assumed a definite continental character (reflecting the dominance of the transnational firm in the world economy - advanced capitalism), TBCs are strengthening the emergence of the European corridor.

Examination of the relevant literature reveals that several common considerations enter into the decision on the spatial organization of plants in the modern system. The proximity to markets is easily a leading consideration for enterprises³⁵, followed by the quality and quantity of labour³⁶. Most enterprises seek to exercise the various TBC options in the major metropolitan manufacturing areas.³⁷ Within the Community the removal of external tariffs and the freedom of movement of goods has promoted the flow of capital and labour to the centre of the regional market where optimum earnings may be obtained. This has tended to create agglomeration economies which provide large pools of skilled and unskilled labour, as well as infrastructure services. The EC's major metropolitan markets have special significance for transnational firms, not only because of their locational attraction for higher corporate functions, but also for the establishment of

international production-distribution units via transnational partners and affiliates.

It is recognized that the attraction of such markets really represents the importance of agglomeration economies for many firms wishing to broaden their operational field to the regional scale. Agglomeration economies are basically clusters of firms which establish external economies by virtue of locational association. Three³⁸ types of agglomeration economies are usually identified. Localization economies are economies of scale external to the firm but internal to the industry and encourage the clustering of similar firms because of local skilled labour, specialized subcontracting services, etc. Urbanization economies are economies of scale external to both the firm and the industry and is generally reflected in ease of access to a range of public and private services (i.e. educational facilities, business services, etc). And transfer economies are economies derived from locating close to markets and suppliers and reflected in transportation-communication savings. At the same time the market itself, which develops with such agglomerations, further acts as a magnet to enterprises by the intensity of the demand generated. Thus, a major factor in an enterprise's locational decisions was affected by the creation of the EEC itself. This freed capital and labour movements from the narrower confines of the national subsystems. This represents one postwar change which has permitted major enterprises to establish a new mode of production by creating a new transnational organizational structure, and provides both an example and opportunities to other industrialists to operate on a more continental perspective.

In order to serve the larger continental market, business enterprises require good access to major transportation routeways. During the postwar era, improvements in transportation and communications have literally fused the old nationally-oriented transportation systems of the member-countries into one serving the continent.³⁹ This new system was described in the discussion in Chapter One.⁴⁰ Not only has the expansion of the motorway system, the development of containerized transport, and the related growth of superports and inland ports given a new mobility to the movement of goods and people, but developments in air transport and the specialization of some of the older modes of transport, have also combined to give a new dimension to the European infrastructure.

Related to such improvements are the numerous technological advances that have been realized in almost all industrial sectors. Accelerated postwar technological progress has given European industry a new flexibility to seek industrial locations away from the old national economic core areas. TBC arrangements are especially important for the smaller, medium-sized European firms because they not only allow savings in costs for R&D expenditures, but also facilitate the process of inter-regional technology transfers and product innovation.⁴¹ In recent years output and profits have depended on technological improvements incorporated into larger sized production units.⁴¹ Within the Community this has meant an adjustment in enterprise organization and capacity in order to operate successfully on the larger regional and global markets.

Thus, TBCs have played a major role in fostering a transnational expansion of the economic units engaged in various industries.

Another factor underlying transnational business activity and the formation of a new regional core area, is the development of new energy sources. Since the 1950s, the dominance of coal has been greatly reduced in favour of such "clean" fuels as oil and natural gas, and more recently by nuclear energy.⁴² Pipelines carrying oil and natural gas from the huge coastal terminals and the development of high-voltage power lines permitted industrial enterprises to move from the crowded and polluted environments of the old industrial districts, located for the most part on or near the major coalfields. In most cases new industrial areas were located adjacent to the major markets, in the Rhine delta, southern Belgium, eastern France and the middle Rhineland, so that soon pipelines and electrical transmission lines paralleled the motorways and electrified railways along the European corridor, thus further augmenting its attraction to people and industry.

The net effect of labour and capital mobility, agglomeration tendencies, improvements in transportation and communications, technological advances in industry and the development of new energy sources, has been to make industries relatively "footloose" in site location where the inter-urban network tends to concentrate. In these circumstances, industries are responding to a new set of regional conditions that are now based on the natural resources of the corridor, on the inherited skills and agglomeration economies

that have grown up along and within it and which are achieving new importance and potential with the lessening of political frontiers, and finally, on the stimulus given by the number of localized man-made advantages (transportation and communications). Since most modern industries no longer use energy derived from coal, but rather from easily transported electricity and gas, and since they do require a number of raw and semi-finished materials, "they must have good communications with their component and raw material suppliers and their markets, and they must be ensured of an adequate labour supply"⁴³. In this regard the Rhinelands and adjacent areas offer the optimum conditions, especially the coastal and estuarine ends of the corridor for raw material and energy oriented industries, and the concentration of markets, services and labour in the corridor itself for secondary manufacturers, which in turn promotes the attraction of tertiary industries. Together they create an "operational field" which lends itself to the formation of TBCs by virtue of factors of industrial location operating within an enlarged EC, by the increased interdependence of enterprises as technological processes become more sophisticated, and by corporate organization and linkages which are increasingly international in character.

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A recent study by Paul Romus provides direct evidence that European firms are responding to such regionally oriented factors. Some 291 firms located in development areas and receiving funds from the ECSC and the European Investment Bank, were asked to

evaluate twenty-five factors of location in their attempts to revitalize their industries. The study showed that the prime location factors were: access to the transportation network, availability of serviced industrial land and where applicable, availability of skilled manpower. The study concluded that since the establishment of the EEC, European firms could locate their activities on a continental scale: "il est dès lors permis de choisir les lieux d'implantation industrielle en fonction non plus d'impératifs étroitement nationaux, mais bien des nécessités d'un marché élargi à neuf Etats"⁴⁵.

The region best suited to meet these new industrial requirements on a continental scale, and which is receiving a disproportionate share of new industrial investment⁴⁶, is the European corridor. And the dominate mode of production today, as seen in the trans-national enterprises, is creating a new spatial structure of industry as such firms reorganize their hierarchial functions according to regional and global dictates. Although international, competitive market forces still play an important part in the spatial structure that is developing, new emphasis must now be placed on the forms and processes of corporate restructuring. TBC activity is one manifestation of this new structure of production and an examination of its characteristics and patterns illustrates to some extent the new industrial geography developing in the EC.

In this restructuring, the more developed regions of the Community's metropolitan areas are preferred both for economic

(agglomeration economies, labour mix, capital markets and communications) and social reasons (prestige, manager satisfaction), especially for higher corporate functions. This is strengthening the inherited spatial structure of Europe, while new technologies, new communication systems, new energy sources and new political-economic environments, are encouraging companies to adopt various TBC options for research, supply, production and distribution on a new regional pattern in order to take advantage of scale economies, international markets and the continental geographic realities particular to each type of industry. As enterprises organize their functional units to this new regional system, they are creating a new spatial structure for industry which utilizes the inherent advantages of the European corridor in a regional system. Thus, there is a definite trend for increased structural concentration of economic activity; this is most noticeable for the higher corporate functions of the major transnationals and less for the lower level functions (i.e. production units which are often more dispersed, but still may display a definite regional pattern). Figure 9 graphically illustrates the locational concentration of the headquarters of one hundred of the EC's largest industrial undertakings; the majority lie within the European corridor.⁴⁷

Figure 9.
The Location of
Industrial Headquarters in the EC ca. 1974.
- 100 largest firms -

4. Geographic Interpretation

Throughout the time period under review, West German enterprises have consistently been engaged in more transnational business collaborations than any other member-country's firms. This is not too surprising since the West Germans possess the strongest industrial economy in Europe⁴⁸, and in addition, occupy a pivotal location within the corridor for establishing EEC linkages to serve the enlarged community market.

It is this latter point that makes the West German position somewhat atypical compared to enterprises in other member-countries; that is the centre for German industry continues to be the old industrial belt of the Ruhr-Rhinelands. Similar coalfield sites in other countries, many of them congested and antiquated, have not proven attractive to modern industries which require land for expansion and good access to raw material supplies and markets, as was discussed in the previous section. In this case, this area centred on the Ruhr represents a massive conurbation of 5.6 million people, and was still responsible for over half the coal and over one-quarter of the steel produced in the Community of the six at the beginning of the 1970s.⁴⁹

Therefore, one of the reasons that promotes other community

firms to seek TBCs with West German firms seems to stem from their prime location within the corridor, which itself has undergone extensive modernization and improvements. What has occurred is that the Ruhr and adjacent Rhineland sites⁵⁰ are losing their former heavy industrial characteristics, as revitalization plans exploit their inherited advantages of energy, steel and labour to attract new secondary industries :

Oil refineries have been built to provide a new source of energy, and to act as a basis for a new petrochemicals industry. The steel industry has been virtually created anew since 1945. The making of machines and electrical equipment has shaken off its old dependence on mining, and has begun to assume growth rates at least equal to those of the rest of Germany. A wide range of new industry has been brought in, including textiles and clothing to employ the abundant female labour force. (51)

In addition, the Rhinelands have become a "coastal location", accessible by rivers and canals, as well as being closely followed by major road and rail lines. Most of the Rhine's tributaries, the Moselle, Herne, Main and Neckar, all take European standard vessels of 1,350 tons or more. Two major projects now in construction will make the Rhine a truly European system; the Europa Canal will connect the Rhine and Danube via the Main and is completed as far as Nuremburg, and the project to connect the North Sea with the Mediterranean via a Rhône-Rhine canal will greatly increase the economic significance of the Rhône routeway. Rhine shipping is a major competitor to road and rail

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transport , and it has turned many inland cities into major ports. The most important are on the Rhine itself: Duisburg, Ludwigshaven-Mannheim and Strasbourg, but Nuremburg, Regensburg, Saarbrücken and Thionville have all benefited from canal improvements. Meanwhile, Rotterdam and Antwerp in the north, and Genoa and Marseille in the south are the major entrepôts for the European corridor.

The tremendous growth of economic activity in southern Germany, in the states of Baden-Württemberg and Bavaria, is invariably bound to developments in the corridor. No where else is there a better example of how modern transport methods, such as pipelines, motorways and electrified railways, changed "land-locked" areas into dynamic industrial regions. Today, such technological industries as petrochemicals, electronics, electrical engineering and light consumer durable goods, characterize this region's industrial production.

Thus, the Rhine valley has become the hub of the EC's transportation-communications system, and has attracted numerous secondary metal manufacturing, assembly and consumer service industries, which utilize that system to serve the large adjacent markets of the Community. When TBCs were broken down by industrial sector, two prominent categories were seen to be the service and metal-using industries. It is precisely these industries which are displacing the former heavy industrial industries in the German Rhinelands.⁵³ And given the size of many West German enterprises, and the locational advantages of a new regional inter-metropolitan structure from the British Midlands to the Swiss plateau and

northern Italy, it is the West German firms who have in turn pursued TBC corporate linkages with other community enterprises. In Chapter One it was noted that West German parent enterprises had far more foreign manufacturing subsidiaries than any other continental EC country (p. 30).

Originally, the postwar German business strategy was based on emphasizing export sales of its manufactured products through highly organized national and international sales organizations, but since the mid-1960s there has been a shift to developing foreign based production subsidiaries. However, this has proved difficult to accomplish, even for the largest German enterprises which themselves are quite small compared to the American-based multinationals. Therefore, West German "companies will increasingly be forced for market competition reasons to participate in international mergers and joint ventures"⁵⁴.

For example, recently Henkel of Düsseldorf set-up a joint research company in Switzerland with Colgate-Palmolive, part of a huge American business conglomerate, in which both partners have an equal holding and all patents and know-how developed will be accessible to both.⁵⁵ In this way Henkel is able to engage in costly R&D programmes that will maintain and strengthen its market position in textile detergents. In 1975, Fiat SpA of Turin, Italy, and Klöckner-Humboldt-Deutz of Bremen, West Germany, combined all their industrial and commercial assets relating to the production of commercial vehicles, buses and articulator tractors in a joint venture called IVECO. They chose to locate IVECO in the Netherlands in order to take advantage of its position at the head of the corridor for production, assembly and distribution

to the surrounding "European megalopolis".⁵⁶

Transnational cooperation agreements have also proven popular to community firms for rationalization and specialization of function with West German enterprises, thereby allowing the collaborating firms to better serve the regional market from the economies created. Thus, the major Dutch drug-manufacturer, Gist-Brocades, has a long-term specialization agreement with the West German enterprise, Bayer, whereby raw penicillin manufacture is concentrated at Gist-Brocades' facilities where there is superior experience with fermentation techniques, while Bayer handles the intermediate product preparation in penicillin production.⁵⁷

NKF Staal NV of Alblasterdam, Netherlands, has a similar type of transnational cooperation agreement with the West German steel enterprise, Thyssen AG, on the Rhine at Duisburg, for the production of steel wire rods.⁵⁸ Thus, community firms are increasingly pursuing TBC linkages with West German firms, not only to reduce investment costs and to increase output and production runs through the regional rationalization of functions, but also to secure business opportunities on the important Ruhr and Rhineland markets. For example, the British steel production and distribution company, GKN (Guest Keen & Nettlefords) has been attempting to acquire West German firms located in these areas, i.e. Sachs AG (this case will be discussed in Chapter Four).

Although West German enterprises have consistently been the most transnationally active, French firms have displayed the

greatest increase in TBCs in the past decade, both in terms of absolute numbers and in terms of their relative position within the Community. In the years 1966 to 1971, TBCs increased most significantly in France ; its 1966 base index of 100 rose by 1971 to 201, compared to 179 for Luxembourg, 161 for Belgium, 159 for West Germany, 136 for Italy and 122 for the Netherlands.⁵⁹

Since 1974, French enterprises have continued to be as popular as West German firms as transnational partners, either for the establishment of a joint venture or the acquisition of a company by another country enterprise. In 1975, France accounted for 20% of all TBCs.

Historically, industrial development in France lagged behind Germany, Britain and even the Benelux countries, because it lacked major indigenous supplies of iron and coal. Where it did possess these resources, they were located in its northern and eastern departments, often more closely connected with foreign centres than its own political core in the Paris region. However, a number of factors combined to escalate dramatically French industrial production in the 1960s: the use of oil and gas as new energy sources; new advances in processing and improvements in transportation; government sponsorship of large-scale reorganization of key industrial sectors; and the emergence of a new dynamic leadership, in the civil service, industry and politics, which was devoted to economic progress and shunning off the economic pessimism of the prior generation.⁶⁰

French industry has traditionally been heavily concentrated

in the Paris region, but the last decade has witnessed the dispersal of industrial activity to coastal and estuarine locations. Coastal sites now produce half of the country's total energy output.⁶¹ The Channel and North Sea coast is of primary importance, growing up in response to the availability and utilization of imported raw materials and fuels. These locations have acted as major points of semi-manufacture and/or assembly, and retransshipment to interior markets. Similar coastal industrial developments have occurred along the Mediterranean, from the Rhône delta to southern Italy; the next chapter on the iron and steel industry discusses the corporate linkages that have been formed between the coasts and the interior markets of the corridor. Marseille is the major seaport of the Mediterranean and the second largest city in France; with the construction of the gigantic new port and industrial centre at Fos-sur-Mer, thirty miles west of Marseille near the Rhône delta, its becoming the "Europort" of the south.

The significant point that emerges about the development of this whole area (Marseille-Fos), is that it is strategically placed in its relationship to the European corridor. The Rhône-Saône valley is becoming a major connection between the Rhinelands and the Mediterranean, as an alternative to the trans-Alpine routes, and represents an important connection with the lower Seine-Paris industrial axis through the Rhône valley south, or east through the Belfort gap. This "Y" shaped circuit holds great importance for France and its development within the

Community, which is reflected in the tremendous industrial growth of the Rhône-Alpes region (Lyons-St Etienne-Grenoble). Recently, a new steelworks and rolling mill (Rhônacier, a joint venture between two major French and one West German steel firms) was established in the area in order to supply its growing demand for steel products.⁶²

However, if the industrial structure of the Community is being altered, one would expect to find a major revival of economic activity and the greatest potential for transnational linkages in those regions in France adjacent to the European corridor: in Alsace and Lorraine, and in the Nord. An examination of those regions of eastern France, Alsace and Lorraine, does reveal that they have become increasingly linked to the Rhinelands and have benefitted economically from their location on the corridor. For example, Strasbourg "is now the second inland port of France, after Paris, and is very central to the main areas of economic expansion in the Community"⁶³. The city's economic function has changed remarkably in fact, from that associated with the trans-shipment of goods to the upper Rhine and the trade in coal for Lorraine's iron and steel industry⁶⁴, by the construction of a number of canal diversions which have made the upper Rhine navigable from Basle to Strasbourg. In addition, these diversions provide hydro-electric power and have been built to serve a number of industrial estates developed to attract new industry to Strasbourg or Mulhouse, the two major urban centres of Alsace. Enterprises

Figure 10.

taking advantage of these new sites are often multinationals engaged in vehicles, petrochemicals or electrical engineering looking for serviced industrial land, centrally located within the whole Community and with good access routes. Other enterprises have been drawn in to supply ancillary services, or TBCs have been formed for this purpose, such as the joint venture, Rhin SA, between French, German and Swiss partner enterprises and located at Ottmarsheim on the outskirts of Mulhouse, to supply the growing volume of secondary manufacturers with semi-finished metal products⁶⁵.

Nevertheless, the Alsatian side of the Rhine cannot compare in size of urban centres or economic opportunities to the German centres of the middle and upper Rhine, or with the better working conditions and higher wages in the industries of Karlsruhe, Freiburg or Basle⁶⁶. Although this does give the French cities a competitive advantage, it is still a good indicator of the imperfections that persist in an evolutionary regional economic system that is still dominated by the national subsystems. Although it is true that Strasbourg has attracted a number of petrochemical, pharmaceutical and motor vehicle manufacturers who have benefitted from its location on the European corridor, the main problem for the area, as with the rest of eastern France in comparison with the German side of the Rhine, is its lack of developed network of external economies to attract and support new industries. Another difficulty facing eastern France is that it has poor road, rail and water

connections with the rest of the corridor.

Similar difficulties confront Lorraine, but here the conditions are economically more acute because Lorraine's traditional industries are in decline. The iron mines, the original basis of the region's wealth are wearing thin, and the steel industry cannot compete efficiently with the huge new integrated steelworks being constructed on coastal locations. And the Moselle coal mines are contracting rapidly as well. One of the major difficulties with the Lorraine's revival, is that government policy never permitted the development of end-using steel engineering industries, which in centres like the Ruhr and Saar have enabled labour and businesses dependent on mining to shift to modern industries like electrical equipment and machinery. Therefore, new industrial investment in Lorraine has been limited to the construction of two vast, modernized steelworks (Sollac and Sacilor) to the south of Thionville. However, despite being built with the most up-to-date equipment and adjacent to the new motorway and canalized Moselle, they are at an economic disadvantage compared to integrated coastal steelworks built at the ends of the European corridor, as will be discussed in Chapter Four.

The Saarland, immediately north of Lorraine, was also in economic trouble due to the decline of its coal and steel associated industries. Massive German development funds and better communication arteries and external economies necessary for growth have been effective, so that by 1970 it had the

highest economic growth rates of all the West German Landers.⁶⁷
In addition, the region has received large private industrial investments, especially by motor vehicles, chemical and electro-technical industries.⁶⁸

Another region that has experienced economic revitalization, especially as it has strengthened its ties with the Rhine deltalands and the corridor in general, is the Nord. For decades the region suffered economic stagnation as the textile, coal and metallurgical industries declined. However, within the last decade major new industries, such as plastics and modern assembly-type industries, especially motor vehicles,⁶⁹ have moved into the Nord, preferring coastal sites, rather than the older centres in the Sambre and Schelde valleys. However, even such early industrial cities as Lille are building new industrial areas, such as the Seclin industrial estate on the motorway south of the city, to attract new industries and give older inner city industries room for expansion. The key factors behind the Nord's new economic appeal are: its good supply of local labour and services; excellent location to serve both the Paris and European corridor markets, via the motorways, the deep-water canal between Dunkerque and Valenciennes; and to serve export markets, the new port facilities at Dunkerque, as well as the state aids and encouragement given to firms to locate in the Nord instead of the already highly concentrated Paris region.⁷⁰

The situation in northern and eastern France makes it

abundantly clear that their economic growth is closely tied up with their relationship to the European corridor, and that the type of industries they are attracting tend to be those most associated with TBC activity, either by the traditional multinational enterprise (i.e. petrochemicals, electronics and electrical equipment or motor vehicle manufacture and assembly) or by the generally smaller European enterprise engaged in collaborative agreements in the service and secondary manufacturing industries. In Chapter One it was demonstrated that the Nord and eastern France have the greatest economic potential for growth because of their relationship to the evolving European core⁷¹, and it is a fact that a large proportion of new industrial investment in France is directed to the Nord and eastern region⁷².

One of the more pronounced facts that emerges from the analysis of TBC data in section two, is the relatively high proportion of TBCs recorded by the Benelux countries (Table 6, p. 140). Until the early 1970s, they accounted for approximately 45% of all such activity, and in the last two years under review Belgian firms especially have been most active transnationally, increasing their share from 16 to 21% of the total for the EC as a whole, while Luxembourg increased its position slightly and the Dutch decreased in theirs. These figures confirm Colin Clark's analysis of economic potential in the Benelux countries⁷³, described in Chapter One, when he noted that "regions within the east and south-east of these countries have risen from a position

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in the lowest potential grew to a position in the highest rank, an increase in potential (for economic activity) of over fifty per cent"⁷⁴.

In Belgium, regional development measures have proven especially effective in the Flemish north, while the traditional coal and metallurgical industries of Wallonia in the south have continued to decline. In the late 1960s and early 1970s there have been signs of improved economic conditions even in the south due to better publicity about the area's resources and potential, to the improvements made in transportation facilities with both the corridor and the Paris region, and to "the creation of relatively well-paid jobs in American factories"⁷⁵ which were encouraged to establish European operations in this area.

Nevertheless, Antwerp-Brussels-Gent remains the major industrial growth axis in Belgium and greatly benefits from its location at the head of the European corridor. Recently Brussels has achieved a new "visibility" because of its association with EC offices and activities, and many overseas enterprises are establishing head offices in the city, or at least forming some type of TBC linkages with Belgian firms to gain entry to the European metropolitan markets which lie at their doorstep. For example, the American corporation, Durodyne of New York, has signed a transnational cooperation agreement with the Brussels enterprise, Europair SA, by which the latter will handle all of Durodyne's main production items and accessories for its central

heating and air conditioning units in the EC, Switzerland and South Africa.⁷⁶

All three Benelux countries have benefitted from being situated at the continental head of the corridor. The Randstad region, situated on the Rhine/Maas estuaries and including Amsterdam, Utrecht and Rotterdam, with its huge Europoort facilities, represents the greatest degree of economic concentration in the Netherlands. An examination of Randstad's major industries - food, beverages and tobacco, machinery and transport equipment, and printing and publishing businesses - show that they are all heavily dependent upon supply and/or distribution to or from areas outside the country.⁷⁷ In point of fact, one EC report⁷⁸ confirmed that Benelux enterprises considered together, have far more transnational linkages outside their home countries than most other community enterprises.

Two examples might illustrate the type of transnational activity that Benelux enterprises are becoming involved in, the first with an American firm and the second with another community enterprise. In 1974, Steenkolen-Handelsvereniging NV (SHV) and Chevron Oil Europe Inc, a subsidiary of Standard Oil of California, signed a joint subsidiary and cooperation agreement.⁷⁹ Chevron and SHV set-up a joint holding company with subsidiaries, all known as Chalpam, in which each partner has an equal share. These subsidiaries sell certain petroleum products where Chevron and SHV had previously had independent distribution networks. This

has meant that SHV, a Dutch group with diversified interests in the coal industry, chain stores and transport, no longer directly handles one of its prior interests (i.e. an independent wholesale buyer of certain petroleum products) yet economically benefits from its collaboration with its partner who occupies a stronger and more diversified position in that particular industry. Chevron, on the other hand, has thus doubled its distribution network into the European market. The second example between two community enterprises illustrates a phenomenon that is becoming quite common, transnational collaboration in the production of basic raw materials or semi-finished products. In 1969, a long-term supply agreement for sewing machine needles was reached between William Prym-Merke, an important West German manufacturer of drapery articles, and SA Manufacture Belge d'Aiguilles Beka, which belongs to the Bekaert Group, one of the EC's main producers of drawn wire products.⁸⁰ These enterprises decided to concentrate their combined manufacture of domestic sewing machine needles in the Eupen factory of the Belgian firm in order to set-up a more automated plant in view of the greater quantities which could then be produced and better quality product both Prym and Beka could utilize. Both these cases show the rationalization of production between multi-locational economic units on a definite regional pattern.

The two extremities of the European corridor are Britain's industrial belt of the Midlands and southeast, and the north Italian plain; both are tied to the core region of the Rhineland

by well-developed transportation-communications linkages. British industrial growth points in the Midlands and the southeast are connected by rapid motorway links not only to northern centres in Yorkshire and the northwest, but also to the continent by port facilities and carriers that make use of containers to eliminate costly transshipment procedures. British firms had obviously developed good transnational business linkages with continental enterprises prior to joining the EC in 1973; this fact was brought out several times in section two where it was shown that in 1970 British firms accounted for 10% of all TBCs in the EC (Table 5, p. 137), with a preference for France and the Netherlands (Table 8, p. 144). In Britain's first year of membership, the country accounted for 12% of all TBC formation between member-country enterprises (Table 6, p. 140), and by 1975 the proportion of firms in Britain engaged in TBCs was 15% of the Community's total.

In contrast, Italian enterprises involved in TBCs have experienced a steady decline in their relative position with regard to other member-countries, accounting for 13% of all TBC formations in 1966 and only 4% in 1975 (Table 6, p. 140). Although the larger Italian enterprises may have greatly benefited from the establishment of the EEC and the formation of the European corridor, "relative to other regions of Europe, the position (i.e. economic potential) of the country has not improved"⁸¹, making it very difficult for smaller and medium-sized

firms to take advantage of the changing industrial conditions in Europe. In addition, the country's chronic economic, social and political difficulties have a detrimental effect on such firms and they do not appear as attractive transnational partners to other community enterprises. Therefore, it is usually the large, well-established Italian enterprises, like Fiat, Olivetti or ENI, that are involved in TEC activities. Mention has already been made of the IVECO joint venture between Fiat and the West German firm, Klöckner-Humboldt-Deutz. However, it is worth reemphasizing that although it combined Fiat's automotive expertise with KHD's specialty in steel production and supply, the new firm was located in the Netherlands and not in northern Italy or eastern Germany where the parent companies are situated. Rather the location chosen was right in the centre of the corridor and the centre for production, assembly and distribution to a new regional industrial market.

In summation, several observations about the interrelationship between the structure of Community industry, transnational activity in the EC, and the evolutionary processes inherent in their economic and geographic character may be drawn.

There is strong empirical evidence to support the contention that there has been a micro-dispersion of industry away from the traditional national economic cores, while on the macro-level there has been a concentration within prime regions, identified as forming a European corridor and owing its development to advantages in

labour, markets, transport and agglomeration economies.

To realize the economic potential of this regional corridor, and to strengthen their competitive position, business enterprises are becoming more transnational. Since the latter half of the 1960s there has been a noticeably increase in TBC activity, most significantly among European firms. Several characteristics about the transnational and locational aspects concerning this collaboration should be noted. There seems to be two types of transnational enterprises forming. First those most associated with the need for large urban metropolitan markets that lie along the corridor, such as the food processing and service industries. And secondly, those enterprises associated with advanced technological industries that require large-scale economies and involve costly R&D (i.e. mechanical engineering and motor vehicle firms which are principal metal-using industries, as well as oil, chemical, electrical and electronics industries). Both types display a basic similarity, related to the evolution of a regional industrial structure in Europe; that is the large scale of their procurement, manufacture, processing, or assembly and distribution activities. The former types of enterprises are tending to concentrate at the "ends" of the corridor, while the latter along its central width.

This regional scheme for industrial rationalization has meant that even Europe's many small and medium-sized enterprises have introduced multi-locational specialization between their respective

collaborating economic units. This has been greatly facilitated by the growth in transportation-communication linkages, not only along the length of the corridor, but also within important growth 'foci' lying outside the corridor's immediate axis of growth, i.e. Copenhagen-Bremen, London-Leeds, Le Havre-Paris or Grenoble-Marseille. Improved connections with the corridor have enabled firms from different member-countries to collaborate for reasons of economies of scale and/or the combination of different firms' expertise on a regional level. Therefore, corporate TBC linkages are creating a new interdependent "industrial or urban" space in Europe. Centred on the Rhineland, this space consists of a discontinuous series of high intensity metropolitan areas interconnected by flows of people and commodities. As legal, bureaucratic and technical barriers to TBCs are further removed, business enterprises will accelerate the development of growth points along the corridor, reinforced by circuits and feedbacks that multi-locational specialization entails.

The development of this new industrial structure in Europe raises two very significant, but related questions concerning Europe's future. What are the social and political repercussions of TBC linkages and flows? What will be the long-term structural effect of further concentration of industrial growth within the corridor? Although the political ramifications of TBC activity has been limited so far, one must recognize the potential inherent in TBC developments for changing perspectives and creating new

pragmatic interest groups. The ensuing European idea should enable wider support to be generated for progress towards greater integration. The EC Commission recognizes the importance of TBC activity in this regard and with a greater spectrum of public involvement, progress in the removal of barriers, agreement on a unified European corporate system and monetary union will hopefully be the consequence. Thus the whole process has a reinforcing, self-generating character.

The second question is more complex, almost paradoxical in nature. All economic activity has a spatial dimension and the present developments in Europe, focused on the Rhinelands core, imply a worsening of growth conditions in EC peripheral areas. Therefore, although continued increases in TBCs favour the process of integration, they also hold the seeds for rising discontent and hostility towards a society and political organization that breeds increased internationalization. If the present international, spatial industrial structure is critical for Europe's development and prosperity, it is just as critical that the Rhinelands' core be fully integrated with Europe's rural peripheries. Ideally, this would entail some decentralization of growth points, not only along the corridor, but also into provincial centres and capitals and then into smaller rural centres. This would require a high degree of coordination between the national planning systems of the member-countries, far greater interpenetration of industrial structures, and well-established transportation-communication links.

between peripheral areas and the principal "integration" growth axis along the corridor.

The basic building blocks on which this system is created remains TBCs - the reorganization and reorientation of predominantly national industries on a regional scale. The following chapter proceeds to investigate one specific industry, to see how this process is occurring in iron and steel.

Chapter Three : Pattern and Process

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Sources and Notes for Tables

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- Table 4 : Source- EC Commission, Reports on Competition Policy, Years 1972 through 1977
Notes - Percentages are based on only international equity acquisitions and joint ventures.
- Table 5 : Source- EC Commission, Reports on Competition Policy, Years 1972 through 1977
Notes - The figures for 1966-71 are the EC of the Six, and TBCs are defined as international joint ventures, share acquisitions and subsidiary formations; the 1973-75 figures are for the EC of the Nine, and TBCs include international equity acquisitions and joint ventures.

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Chapter Four : Steel

This chapter on the EC iron and steel industry is intended to illustrate and support the observations and conclusions which have been discussed in preceding chapters. A case-study of the steel industry was chosen because it represents a very visible industry, one which has been regarded as firmly based on national industrial structures. Undoubtedly, this industry has experienced governmental intervention to a large degree in order to preserve the "national character" of the industry in each member-country. Therefore, transnational restructuring takes on even more significance, demonstrating the strength of geo-economic forces underlying EEC activity. In addition, international competition in steel products has been particularly intense in recent years, so that changes in enterprise structure and organization will highlight solutions other European industries are more gradually adopting.

This chapter will therefore answer a number of research questions arising out of the preceding analysis. How has increased economic interdependence affected the EC steel industry? What are the major new determinants pushing towards a new organization of the industry, especially with regards to the formation of the corridor? What forms of restructuring have occurred given national obstacles to transnational consolidation? And since this chapter deals with one specific industry, it is possible to examine more

closely the inter-action and inter-relationship between significant actors: what is the role and significance of the increasing inter-relationship between the EC technocrats, government leaders and business enterprises in the restructuring process?

In dealing with these questions, this chapter is organized in six sections. Section one is a brief introduction to the industry in context to the EC organization and the policies and problems that this entails; section two provides background material on production technology and location to facilitate reader understanding of the changes later discussed; section three then attempts to identify major new determinants of change and the impact they are having on the steel industry; section four proceeds to examine the restructuring of the industry during the period under review in response to these new determinants; section five looks at very recent transnational cooperation among steel enterprises and EC programmes for steel since 1975; and section six is a summation of the results uncovered.

1. The Iron and Steel Industry

Responsibility for industry in the EC is divided between the EEC and the ECSC. The latter organization was established in 1952¹; and tariffs on the trade in coal and steel between member-countries were removed on the first of May 1953. Since that time the industry has experienced many changes. In the mid-1960s, there were some thirty major integrated iron and steel companies in Europe², and presently this number has been reduced by one half. In addition to

the present fifteen companies, there are some one hundred and twenty-five, small and medium-sized, specialized firms (i.e. producers of special steels, re-rolling mills and mini-steelworks)³.

This restructuring of the steel industry has occurred under the EC Commission's auspices. The Commission has actively encouraged the increase in size of production units through mergers and various collaboration schemes, in order to fulfil four objectives: first, to achieve more efficient capacity in individual steelworks; second, to improve production quality of domestic raw material supplies in the face of imports, and to remove intra-community costs; third, to encourage the rationalization of product lines by closer collaboration between steel producers and users; and fourth, to ensure these improvements conform to social and regional policies of the Community.⁴ The reorganization has progressed along oligopolistic lines which, as will be shown, has occurred predominantly by means of national mergers and/or takeovers. The paradox often pointed out, is that this "national" reorganization conflicts with another tenet of stated EC policy: "the Community's steel industry should not be founded on a narrow national basis, which leads to costly dispersions of undersized production facilities, particularly where flat products are concerned, the Community expressed the hope that transnational mergers would take place"⁵.

What has happened is that the Commission is caught in the dilemma between concentration and competition. In turn European steel industrialists contend with a business milieu in which the regional system is dominated by the national governmental components.

The steel industry is no longer the 'glamour industry' it once was. Nevertheless, it is still one of "the essentials of the fabric of material cultures"⁶. If it seems to demonstrate a smaller degree of transnational behaviour and character than many of the more modern industries⁷, this is due primarily to member governments' traditional protectionism against foreign control of what is regarded as a crucial industry, and which has tended to negate continental impulses. However, within the past quarter century new steel technology, new energy sources and new political and economic realities have combined to create a totally different operational milieu for the industry. This chapter will attempt to illustrate how national consolidation has tended to obscure the fact that steel producers themselves have been forced by economic and geographic circumstances to engage in transnational collaborations encompassing the whole Community, which represents the real business environment of European steelmakers today.

2. Characteristics of the Steel Industry

A) Production Technology.

In order to appreciate the new economic and geographic realities of steel, it is necessary to have some idea of the stages involved in the industry's processes. Basically, there are three such processes: first, there is the reduction of the iron ore; second, the pig-iron is then converted to steel by several possible types of furnaces, with the open hearth and basic oxygen being the most

common in use today; and third, the steel is heat-treated and shaped to meet a wide range of uses in a variety of semi-finished forms (i.e. slabs, sheet, rods, wire, blooms and billets). In addition, steelmaking technology has tended to stress the importance of integrated iron and steel works to realize benefits in economies of scale.

In the first stage, the most important developments have occurred in the pelletization process, wherein the ore is reduced to the same consistency and size. This has greatly eased the transport of rich iron ore to Europe from foreign fields, and helped to improve quality control in the furnaces. Similar developments in the preparation of metallurgical coal (coke) have greatly facilitated its transport. Although today four tons of raw materials are still required to produce one ton of steel⁸, the quantity of coking coal required has been greatly reduced. In the last one hundred years⁹ it has fallen from four tons to one ton.

However, it has been in blast furnace technology that the most important developments have occurred. Basically, the process involves the oxidation of excess carbon and other undesirable elements in the iron ore. In the present century the open hearth steel furnace has replaced the Bessemer (1856), Siemens-Martin (1867) and Gilchrist-Thomas (1878) converters, because it allows more volume and more precise control over the process, and therefore, better quality. Yet as late as the 1960s a large percentage of Europe's blast furnaces were still using Thomas converters¹⁰ because of the poor quality of local iron ore supplies; the Thomas con-

verter allowed ore with high phosphorus content to be exploited. In terms of volume, quality and variety of steels produced, the open hearth furnace quickly superseded the converters as the most popular method of steel production, and the use of iron scrap was another important advantage.

However, even better quality and control has been achieved by the use of pure oxygen in the process, and it is more economical than either the converter or open hearth furnace since it relies on the heat of the molten pig-iron directly from the blast for steel-making. In the last fifteen years oxygen steelmaking has made deep inroads on the former dominance of the open hearth method; for example, in 1958, 88% of all British steel production was produced by the open hearth method and only 7% by oxygen steelmaking, but by the early seventies these figures were completely reversed with the former now being under 5% and oxygen steel accounting for 70-75% of total British steel production¹¹. Table 10 shows that in 1974, 60% of the EC's steel production was by the oxygen process. This LD process, as it is known in Europe or the BoF (Basic oxygen Furnace) in the United States, combines the advantages of the Bessemer (high quality iron ore to produce high quality steel) and open hearth furnace (bulk production); and in addition, it is a quicker process for volume production runs for specific steels required. However, scrap is not a significant ingredient in oxygen steel, accounting for a high of only 30% of the charge, whereas up to 50% or more of the charge can be scrap in open hearth steelmaking. Therefore, for a modern integrated steelworks the

Table 10: Type of Steel-Making Used 1974

- million tonnes -

Region	Basic Bessemer Steel	Open Hearth Steel	Electric Furnace Steel	Other Steel
Northern Germany		1.2	0.9	7.5
W. Rhine/Westphalia		6.9	3.3	24.4
Southern Germany		0.5	1.1	
Saar	1.6	0.6	0.4	2.7
West Germany	1.6	9.2	5.7	34.6
Eastern France	4.9	1.2	1.0	4.9
Northern France		1.4	0.6	6.1
France-other areas	0.4	0.4	1.5	1.3
France	5.1	3.0	3.1	12.2
Italy-coastal areas		2.0	0.3	10.3
Italy-other areas		1.5	9.6	0.2
Italy		3.5	9.9	10.5
Scotland		1.5	0.3	0.9
Wales		2.8	0.4	3.4
Northern England		0.9	3.9	5.8
England-other areas		1.0	0.6	0.7
Britain		6.2	5.2	10.8
Belgium	2.4	0.2	0.7	11.5
Luxembourg	2.1		0.1	3.6
Denmark		0.5		
Ireland		0.1	0.1	
Netherlands		0.1	0.4	5.4
EUROPEAN COMMUNITY	11.2 (7%)	22.8 (16%)	25.2 (17%)	88.6 (60%)

most common combination is three open hearth furnaces and three or four oxygen furnaces.¹²

Recent developments, however, have seen the introduction of electric-arc steelmaking which removes the necessity of coking coal almost completely. Here the production of quality steel is ensured through even better control over the process, but the power requirements have so far limited its application primarily to the use of iron scrap. Thus, electric steelworks are usually small and very market oriented. In 1974, electric steel accounted for 17% of the Community's total production (Table 10), just ahead of open hearth produced steel at 16%. Undoubtedly, the future development of steelmaking lies in the further development of an oxygen/electrical furnace combination.

Whatever the steelmaking process used, the molten steel is fashioned into ingots and then into semi-finished slabs, blooms, sheets, etc, at rolling mills. These semi's may be sold or go to a further finishing stage, where re-rolling mills, or plate or pipe mills, will produce strip, plate, pipe, rails and other structural steel shapes.

B) Location.

The prewar locational pattern of the iron and steel industry conformed to an east-west axial belt of industry. This axial belt extended from Britain through northern France, Belgium, Netherlands and northwest Germany, and on into Westphalia, Saxony and into Polish Silesia and Czechoslovakia. The division of Europe after the last war and the establishment of regional economic systems in the

West and East, reoriented this axial belt, especially north-south along one of its secondary extensions: through the middle Rhinelands, Switzerland and northern Italy, which has grown to form the present European corridor and the centre of gravity for population and industry in the Community.

The development of the above-mentioned industrial belts had their origin in the location of coal, which was the essential raw material for iron and steel production in comparison with the other materials required and the economy of transport. Therefore, Europe's industrial zones followed the carboniferous strata of the coalfields along the northern edge of the old Hercynian mountains and hills of central Europe (Figure 7, p.123). Today, these old mountains form high plateaux, cut by deep rivers, and have always been economically significant for their iron, lead, zinc and copper. At the edge of these Hercynian mountain blocks the carboniferous zone emerges, providing ample supplies of coal to fuel Europe's initial industries of the nineteenth century.

Europe's postwar reconstruction was still based on the energy of these coalfields, as well as the industrial skill and power they represented: the Ruhr, Kempenland, Franco-Belgian, Midlands and Pennine fields, with outliers of south Wales and the Saar. Lorraine, however, was the only major source of continental iron ore, stretching along the Moselle escarpment, from Nancy north into Luxembourg (Figure 11). The difficulty was that they were low grade Liassic 'minette' ores, rarely of 20-30% metal content and a high phosphorus level; their major advantage is that they

FIGURE 11 Changing Conditions of Supply for Steel

LEGEND

- Coalfields
- Iron Ore
- Integrated Coastal Steel Plants
- Population Density approx. 1000 inhab. per sq. mile.
- European Corridor

1:10,000,000

R. O. STINSON 1977

are easily mined and the Gilchrist-Thomas method (1878) made them exploitable.

The result of these factors meant that manufacturing in general, and the iron and steel industry in particular, right up until the establishment of the ECSC, was heavily concentrated between the Nord, Ruhr and Lorraine, or as it was called the Heavy Industrial Triangle ('HIT'). However, the unity of the region was more illusory than real :

Although by the twentieth century the existence of this Triangle had in the geographical sense become an established fact, economically its unity was far less obvious since it had grown up in an area divided by the frontiers of three nations, frontiers which had been drawn without any regard for the location of natural resources. Each of these three, and later four, parts was therefore within a different economic system, and each came to be more closely associated with other regions in its respective country than with the adjacent parts of the Triangle. (13)

In the past twenty-five years, major economic, political and industrial changes have altered this pattern significantly and have drawn the adjacent parts together into a more unified operational field. The formation of the European corridor is representative of the search for a new geo-economic equilibrium within Europe, in which economically significant actors jockey for positions through new corporate mechanisms.

The changes that have occurred in the steel industry exemplify these forces at work, as well as illustrate how industrial integration is proceeding in one industry, given the Com-

munity's complex economic, social and political environment. These changes in the steel industry's structure and pattern are revealed to some extent in Table 11, which shows that the EC's steel production has increased dramatically and is now higher than either the United States' or the Soviet Union's. West Germany produces about one-third of the Community's steel output and France about one-fifth. The most noticeable change in recent years, however, has been the decline in Britain's output (which has dropped to under one-fifth of the Community's total), and the rapid increase in output of both the Netherlands and Italy. These trends are symptomatic of the new conditions influencing the steel industry in the EC.

3. Determinants of Change

The last two decades have witnessed dramatic changes which have altered not only the location, but also the organizational structure of the iron and steel industry. Three key factors behind these changes may be identified: first, the new conditions of production in which the two principal raw materials, iron ore and coal, must both be imported from abroad; second, the creation of a continental market for coal and steel products through the ECSC; and third, economic and technological improvements which provided the means by which the industry took advantage of the new operational horizons. These factors correspond to those identified in Chapter Two as underlying the increase in international economies of scale and the formation of transnational business collaborations in the

Table 11: Crude Steel Production 1965-74

World Comparisons

- million metric tons -

Regions	1965	1968	1971	1974
European Community	114	126	128	156
Soviet Union	91	107	121	136
United States	119	119	109	132
Japan	41	67	89	117
Eastern Europe	29	35	42	49

European Community

- million metric tons -

Member-Country	1965	1968	1971	1974
West Germany	36.0	41.2	40.3	51.4
France	19.6	20.4	22.9	27.0
Italy	12.7	17.0	17.5	23.0
Britain	27.4	26.3	24.2	22.3
Belgium	9.2	11.6	12.2	16.2
Luxembourg	4.6	4.8	5.2	6.4
Netherlands	3.1	3.7	5.1	5.8
Denmark	0.4	0.5	0.5	0.5
Ireland	0.1	0.1	0.1	0.1

EC as a whole. In addition, a fourth point should be mentioned: cyclical slumps in the steel industry have also had pronounced impact, especially in the recent 1975-1977 recession.¹⁴

The new conditions of production include the need to import increased quantities of iron ore and coal, the new importance of scrap iron, and the development of a wider range of new markets for steel products. The catalyst for change has been the development of new steel technology in both production and distribution. These have combined to produce three major results: the construction of integrated iron and steel works at the ends of the European corridor, the new pull of major metropolitan markets located within the corridor that have witnessed the appearance of mini-steel works, and the formation of many new trans-corporate linkages enabling the steel enterprises to adapt to the new circumstances of industrial activity based on a central, continental, growth corridor.

Increasingly within the postwar years, Europe has turned to imports of iron ore and coal as home reserves have become inadequate to meet demand both in terms of quantity and quality. The economic position of European produced coal has steadily worsened in the face of cheaper imported coal¹⁵ and the introduction of modern fuels of natural gas, oil and hydro-electricity. Only the Ruhr and Britain's York-Derby-Nottinghamshire fields are still economically competitive. The Franco-Belgian coalfields were uneconomical even ten years ago; the integrated iron and steel plants at Charleroi and Liège are now supplied with coal from Kempenland, the Ruhr and the United States.¹⁶ In the last five years even the Kempenland and

Dutch Limberg fields have suffered in competition with North Sea gas, while the output from the Saar, Lorraine, Lancashire, Welsh and Scottish coalfields have all declined rapidly. The same situation exists for the Community's local iron ore deposits and the competitive radius of Lorraine ore has progressively shrunk. Lorraine deliveries to the Ruhr have ceased, and it supplies only itself, Luxembourg, Saarland, and to a limited extent the Nord. It is estimated that by 1980, the EC will only produce 20% of its iron ore needs.¹⁷

In recent years a new importance has been given to scrap iron as a source of supply and to the many new uses of steel products in a larger, more dispersed market. Mini-steelworks, using electric arc furnaces, have taken advantage of these developments and sprung up all along the population centres of the corridor. Previously the principal markets for steel were the heavy metal-using industries concentrated around the coalfields. Today, modern industries, utilizing the new fuels available and the opportunities of a continental market, have freed themselves from the congested old industrial centres and established themselves in industrial parks and metropolitan regions spread throughout the corridor. These growth centres within the corridor provide a far wider range of end-products for steel, associated with sophisticated modern electrical and machine-tool industries. Equally important has been the establishment of the ECSC and EEC in creating a continental market for the trade in such products. Thus, the political frontiers which formerly divided the industrial zones of West Europe, no

longer prevent the economic interdependence of the European corridor from reasserting itself.

If the establishment of regional economic blocs gave the steel industry the opportunity to reorganize on a continental scale, it was technological innovations and economic improvements that made it possible. Here a number of developments in the industry may be cited, both in production and transportation, although it should be noted that they certainly had their counterparts in other industries. The greatest change has been in the introduction of oxygen and electric steel which require no, or greatly reduced amounts of coal. Also pelletization of coal and iron ore at the mine site has lead¹⁸ to greater transportability, while sintering processes at the steelworks have improved efficiency and quality control in the furnaces. Associated with the former has been the use of large ore and coal carriers which allow these raw materials to be transported in volume great distances, so that American coal can be delivered at North Sea ports at prices below those of locally produced coal.

Therefore, the old interior coalfield sites have been supplanted by locations where all operations can be concentrated, from smelting to rolling, using high quality imports and saving on heat and material transfers. Inevitably these locations are the two coastal ends of the corridor, since they are the major transshipment and processing areas of imported raw materials for the metropolitan markets lying along the corridor. The exception to this occurs when access to cheap canal and river transport permits former interior coalfield locations to be in fact "coastal locations" (i.e. the Ruhr). Generally, however, the

results of these changes has led to the rise of huge integrated coastal steelworks, shifted the emphasis from pre-coalfield sites to the pull of markets locations within the corridor where mini-steelworks can operate efficiently, and also acted as a major stimulus to corporate restructuring of the steel industry through a series of mergers and agreements which is increasing the trans-national interdependence of the industry.

Figure 11 illustrates the fourteen major coastal steelworks in the Community by the mid-1970s. When the ECSC was established coastal sites accounted for about 3% of the Six's steel output. Today such sites account for approximately one-quarter of all steel production in the Community.¹⁹ The first of these was the Italian Taranto steelworks (1959), followed by the Dunkirque and Nieuport steelworks of the French Usinor enterprise (1962) and Britain's Port Talbot works, as well as the Klöckner works at Bremen, West Germany. These steelworks could readily take advantage of high grade ore imports from Sweden, Africa and Latin America, and introduce the latest blast furnace technologies on such a scale as to serve the greater northwest European market, rather than just the former national ones.

It is not surprising, therefore, that Italy and the Netherlands, both lacking traditional raw materials of the industry, have experienced the greatest growth in steel production because of their locational advantages. Their share of EC steel output rose from 4% to 19% in the period 1952 to 1972²⁰, since the most favoured locational areas in terms of the new conditions of supply are the

North Sea coast and the Mediterranean coast, from the Rhône delta to southern Italy. The North Sea works are specifically situated at the mouth of the wide Rhine delta lands, which themselves have developed a large steel-consuming potential at the head of the European corridor. Although the Italian coast is not so favoured, it possesses excellent ports for receiving imported raw materials and it is well situated for the transshipment of semi-finished steel.

After the development of coastal steelworks, the second major result of changes in the steel industry, is the new pull of markets, especially those located along the corridor. Although the new steelworks are certainly more widely dispersed than before, they must be situated to ensure good communications with supplies and to avoid excessive transportation costs for semis and finished products. This latter point is especially relevant today given the decline of interior ore-coalfield sites :

With the great advances made in reducing the quantities and assembled costs of the coal and iron ore required per ton of finished steel, with the importance of purchased scrap in steel production and with transport rates on finished steel products higher than on raw materials, the strongest locational pull has become that of an established market area, where it is of sufficient size. (21)

This is admirably demonstrated by the growth of mini-mills producing 100,000 to 300,000 tons of steel annually from one or two electric arc furnaces, often using scrap for light steel products such as reinforcing bars, wire, rods and sections. These are situated in the metropolitan centres along the corridor where they

take advantage of local market conditions and benefit from the corridor's transportation linkages for raw material supplies. On the other hand, for the large integrated iron and steel works, the European corridor with its markets and labour extending across many frontiers represents its new operational environment²³;

The frontiers have ceased to be barriers, and locations adjacent to them are no longer considered to be either economically or politically undesirable. In fact, the whole situation has now been turned inside out, and these areas are now right in the centre of the economic life of the new unit. (22)

If the optimum conditions of production, both economically and geographically speaking have changed, it is reasonable to suppose that they should be mirrored in changes in the corporate structure of the industry. This question is even more important in the face of new world-wide competition in steel products. In recent years the rise of Japanese, Australian and Third World producers, have demonstrated their ability to produce steel in such quantity and quality to make the major, national European steel enterprises seem obsolete. This raises the significance of transnational business collaborations which would allow nationally-based steel enterprises to reorient their activities to the regional and world scale. The optimum size of a modern integrated steelworks is one with production capacity of at least ten million tons annually.²³ Thus far only the British Steel Corporation, the West German enterprise, August Thyssen-Hütte, and the Dutch-German enterprise, ESTEL, have achieved this scale.

The problem of scale economies is a critical one for community steel producers. As will be seen, the solution primarily sought was national consolidation due to traditional rivalries between the enterprises in different member-countries²⁴ and the strong tendency²⁵ for governments to intervene on behalf of national producers. Yet one fact is now abundantly clear, this solution was only temporary and partial. That should not be too surprising, since it has already been demonstrated that in general national concentrations of specific industries have often proven unsuccessful and less competitive, representing only a stage in the overall restructuring of industry on a regional basis. In the case of the steel industry the balance of this chapter will show how the cost of restructuring the industry to new economic and geographic realities on a national basis is just too prohibitive, so that transnational solutions have been gaining momentum, especially during the recent period of recession.

4. Organizational and Operational Restructuring of the EC's Steel Industry

In this section the process of restructuring in the steel industry will be described, and the EC Commission's attitude and policy towards this process will be examined. The restructuring process in each member-country will be examined since the basic analysis is at the enterprise level; at the same time we will stress the common forces and solutions that such enterprises have experienced and adopted. The restructuring of the industry in each

member-country is illustrated in a series of diagrams (Figures 12, 13 and 14) which, while partial in coverage, do include the major community iron and steel producers, and the most significant corporate linkages established during the period under study.

In examining the steel industry's responses to the forces of change outlined in the prior sections, it is clear that while pursuing national mergers to create larger production units, the industry has also been inclined to transnational collaborations to meet the new conditions of international economic survival. This survival entails both horizontal and vertical integration, often across national frontiers, and demonstrating a definite geographic pattern which furthers the process of continental concentration at the most favourable locational sites. Invariably these sites serve to strengthen the development of the European corridor as a common operational field. In what follows only the salient points about corporate consolidations can be covered. However, additional details are presented in the footnotes and in an Appendix listing the basic elements of all TBCs concluded in the European steel sector.

A) Restructuring and EC Policy :

During the period under review, 1966-1975, the most common form of industrial restructuring was through takeover/mergers, primarily on a national basis, which enabled rationalization of production facilities in terms of specialization of function and concentration of those facilities on a number of nearby sites within

a specific area (i.e. multi-site concentration). Figures 12, 13 and 14 depict the many national consolidations which occurred, especially in the late 1960s, as new international conditions affecting the steel industry reach their full impact (i.e. major foreign sources from Sweden, Africa, Japan, Korea, etc, came into full production, and scale economies became very significant). Thus today the major steel enterprises in the Community remain predominantly national concerns while establishing continental and international scope through TBC activity.

The largest steel enterprise in the EC is the British Steel Corporation (BSC), formed in 1967 from fourteen of the major steel producers in Britain. BSC accounts for 90% of British steel production and 16% of the Community's, and is the third largest steel enterprise in the world with an annual capacity of 25 million tons of crude steel.²⁶ The next largest in the Community is August Thyssen-Hütte (ATH) of West Germany, producing 13 million tons of steel annually, followed by ESTEL (Dutch-West German),²⁷ Usinor and Sacilor (French).

The EC Commission's initial reaction with regard to the wave of national consolidations during the 1960s, was one of cautious support, recognizing the need for scale economies, the high level of investment required and the need for efficient utilization of new capacity. In its "General Outlines of a Competition Policy relating to the Structures of the Iron and Steel Industry"²⁸ (1970), it stated that its aims (see p. 204), could best be served by the reorganization of steel enterprises into about a dozen large groups or

independent corporations. The largest of these would be allowed up to 13% of the EC's steel output, which is equivalent to about 13 or 14 million tons per group; as noted previously 10 to 12 million tons annual capacity is considered to be the required size for a viable iron and steel enterprise²⁹. The Commission felt that effective, if oligopolistic, competition would result.

During the 1970s however, developments have overtaken stated policy and the Commission has been forced into a basically reactive position. In fact, it has been the individual steel enterprises which have taken the initiative in promoting the regional reorganization of the industry, while the EC gropes to find meaningful guidelines for the industry's future development. The entry of the BSC into the common market in steel immediately altered the Commission's perspectives on size relationships between enterprises, while the tendency for steelmakers to seek both national and transnational arrangements with other community producers has created a host of new problems for the Commission. The autonomy of the large national steel enterprises has been threatened by financial participations that produce close corporate interrelationships. A competitive market in related steel products has been seriously undermined by vertical integration; the diversification of steel producers into end-product uses through equity acquisitions (i.e. in mechanical engineering for example).

In its most recent report (1976) on general objectives for the steel industry in 1980-1985, the Commission quite frankly admitted that "such cooperation arrangements and the joint ventures

emerging out of them, make it difficult to maintain effective competition in this industry" ³⁰

B) West German Steel Enterprises :

West German firms, like those in the rest of the EC, have had to contend with two key problems during recent years: the need for domestic relocation as they come to depend upon imports for their primary raw materials, and a change in market demand from basic semi-finished structural products to a wide variety of end-product manufactured uses. The solutions to both have been closely tied to the development of the European corridor and the expansion of transnational collaborations across this operational field.

In West Germany, as in other member-countries, the first steps towards restructuring were made within the national industry and were aimed at the rationalization of production on multi-site, domestic locations, taking advantage of the potentialities of the corridor either in terms of its market or supply-distribution facilities. After the wave of national mergers (Figure 12), the major iron and steel enterprises in West Germany at the end of the 1960s were : Thyssen-Hütte (12 million tons annual crude steel capacity), Hoesch (6.6 million tons), Krupp (4.4 million tons), Mannesmann (3.4 million), Klöckner (3.4 million), Salzgitter (2.3 million) and Röchling (1.8 million tons). ³¹

The first four enterprises are all located in the Ruhr region. Here the trend in the past decade has been the concentration of

Figure 12: Restructuring Iron and Steel Enterprises in West Germany

iron and steel production in the western Ruhr, specifically on the Rhinefront (i.e. land immediately adjacent to the Rhine river), where barges from the delta lands can be easily unloaded. This reflects the decline of local coal production and the new importance of the transportation network in the corridor for imports.

The new realities of steel production are also seen in corporate consolidation and the adoption of new steel technologies. In 1968, Thyssen acquired Hüttenwerke Oberhausen and increased its capacity to a minimum competition level of 10 million tons. Since Hüttenwerke Oberhausen's blast furnaces are located in the central Ruhr, they are today used only for open hearth steelmaking, while new capital investment is concentrated in Rhinefront facilities, especially oxygen and electric furnaces. In the same way, Krupp, whose iron ore is now smelted at Rheinhausen, further up-river from Thyssen's complex at Duisburg on the Rhine, has closed its blast furnaces at Essen, Mülheim and Bochum in the central Ruhr; the molten iron is now taken in special rail "torpedoes" to Bochum for further processing.

Hoesch, also poorly situated in the city of Dortmund, in the eastern Ruhr, has resorted to a transnational merger with the Dutch steel enterprise Hoogovens, in which primary production is concentrated at the latter and finishing at the former. Hoesch emerged only recently from a series of cooperation agreements and national mergers between Dortmunder Hutte, Dortmunder Union and Hoesch during the 1960s. Since they were primary located in Dortmund, they were at a comparative disadvantage to either Thyssen or Krupp, or even

Mannesmann, all of whom benefitted from rationalization based on their Rhinefront locations. Hoogovens, on the other hand, was an old Dutch firm established in 191² at IJmuiden, on the Netherlands' northern North Sea coast. Since it always had used imported raw materials in its furnaces, it was ideally situated to benefit from the new conditions of production in the 1950s and 1960s. What Hoogovens lacked was scale and capital so that, after a series of joint production agreements that greatly facilitated the actual merger in 1972, it formed a Eurocompany with Hoesch called ESTEL (see p.105 Chapter Two), which has a crude steel capacity of 12.5 million tons.³²

In this way Hoesch has been able to offset its poor location and acquire a major, coastal, integrated works where primary production can be concentrated.³³ Hoogovens has benefitted from the merger through access to the range of diversified subsidiaries in related fields linked vertically with Hoesch, and gained a wider sales market and greater research and development capacity. Thus,³⁴ "the eastern Ruhr is now tied to the Rhine delta".

The significant point is that for Ruhr based enterprises the Rhinefront has actually been turned into a coastal location. Given these firms investments in ore mines around the world and the need for such high-grade imports, it is essential that such interior enterprises have access through the delta. Undoubtedly, the Low Countries deserve their appellation as the port of Europe because they are able to handle ore in 80,000 to 100,000 ton carriers, and Dutch and Belgian ports handle approximately 85-90% of West German

seaborne ore traffic.³⁵ The Ruhr steel enterprises operate two ore unloaders at the Europort terminal in Randstad with a combined average of 3,000 tons of ore an hour.³⁶ In addition, there are plans to construct large sintering plants for both coking coal and ore at Europort in order to reduce both the volume of ore required per ton of pig iron produced and the volume of both needed to be reduced before barge transport to the Rhinefront.³⁷ Thyssen itself holds major investments in four transport firms in the Netherlands and one in Antwerp, as well as a chemical-plastic firm in Rotterdam³⁸; and as will be described later, is involved in the huge Solmer integrated steelworks with two French steel firms as a joint venture.

The only truly coastal steelworks in West Germany proper is located at Bremen, on the Weser River. Here the Klöckner enterprise maintains port facilities at Weserport which can handle 90,000 ton ore carriers. The ores are sintered at Weserport and then carried by train to Klöckner's major steelworks situated south of the city of Bremen. Klöckner uses both imported coal and coal from mines in the Ruhr which it still operates along with several open hearth blast furnaces at Haspe. In order to penetrate the British market, Klöckner recently (1974) acquired the firm, Howard E. Perry, based³⁹ in Staffordshire England. Klöckner also does some sintering for the inland Peine-Salzgitter group located in southeast Saxony; these steelworks were originally based on the low-grade iron ores of the Niedersachsen area. Salzgitter is poorly situated not only with respect to the corridor, but also for basic raw material supplies. In recent years it has been actively pursuing plant engineering

contracts with the Soviet Union entailing assured raw material supplies in return for capital and technology.⁴⁰

It is evident that steel enterprises must more and more pursue strategies that provide operational integration on a regional basis through transnational collaborations that link global supply sources with production-fabricating units best located to serve regional and world markets, in this case, within the European corridor.

Thyssen has gained control of a series of subsidiary companies in mining, transport, warehousing, and finishing, as well as acquiring sizeable investments in chemicals, plastics and shipbuilding.⁴¹

The other West German firms have done likewise, either by forming subsidiaries, joint ventures or concluding cooperation agreements, in the full range of steel products, or by concentrating on specific sectors, like special steels.

Equally important to the process of restructuring has been the diversification of interests through forward, vertical integration in order to gain strength in the new steel product markets, and to lessen dependence upon steel alone which may readily fluctuate in demand. Krupp has been most successful at integrating forwards into end-product uses, i.e. metal-fabricating industries. Since 1967-68, when the firm became a public corporation, it has shifted its main emphasis from primary production to plant and mechanical engineering, aircraft, shipbuilding and steel stockholding interests.⁴² Thyssen and Mannesmann set up a joint venture, Mannesmann Röhrenwerke, to pool their steel tube interests (1970)⁴³. Mannesmann Röhrenwerke has since expanded its holdings to include the Dutch manufacturer

of weldless steel tubes, Robur (1972)⁴⁴. Both Thyssen and Mannesman strengthened themselves financially and diversified their product lines in 1973, when Mannesmann tookover the special steels firm, Demag, and Thyssen did the same with Rheinstahl.⁴⁵ Although the latter two acquisitions were nationally based firms, their integration with iron and steel enterprises allows these firms to compete more effectively in the EC's regional market.

Thus smaller, medium-sized steel firms are being drawn into the process of corporate consolidation of the large iron and steel enterprises, and their economic survival often depends on the national and transnational linkages they can form to rationalize their own operations. For example, the special steel enterprise, Korf Stahl, has cooperation agreements with Klöckner and has established several transnational joint ventures with French firms; the latter include Rhin SA in Alsace for the production of wire rod, and Montereau SA on the upper Seine for the manufacture and sale of rolled steel and rolled steel products.⁴⁶

From this examination of the West German experience, there seems to be a definite scheme of development through which steel enterprises have progressed over the period of our study. First, horizontal integration of enterprises to permit the concentration of primary production at waterfront locations, followed by the introduction of rationalization measures between facilities so scale economies could be exploited. Secondly, to strengthen themselves further, firms engaged in cooperation agreements⁴⁷ and/ or vertical integration. This was primarily by means of forward integration

with partners, affiliates or through equity acquisitions or joint ventures, which enabled the participants to serve regional and world markets with varied product lines, from the comparative locational advantage point offered by the corridor. That the corridor is a transnational region by definition, only serves to reinforce the regional reorganization of the industry on a transnational basis.

C) French Steel Enterprises :

A similar process of restructuring is in evidence throughout the Community by other steel enterprises. In France the main areas of iron and steel production are in the Nord and Lorraine, but steel firms are also found in other localities, especially in the Central Massif. The largest steel enterprises, formed from the usual national mergers, are the Sacilor group in Lorraine and Usinor in the Nord (see Figure 13). Originally, the iron and steel works of the Nord were concentrated on the Franco-Belgian coalfields, especially the Escaut River valley at Valenciennes and Demain, as well as around Douai in the Scarpe valley and at Isbergues. However, since the 1960s there has been a dramatic shift in activities.

Usinor was the first to establish a large integrated iron and steelworks on the North Sea coast, at Dunkerque in 1962. This complex now has a capacity of 8 million tons of output⁴⁸, using imported ore and coal on a scale for sale to the entire EC, and not just the French national market. "the Dunkerque plant is in an ideal position

Figure 13: Restructuring Iron and Steel Enterprises in France

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for the sale of steel to other Common Market countries". Meanwhile the operations of the enterprise's old centres of production in the Mauberge and Sambre river valleys are being scaled down and turning more to finishing processes, similar to what has happened in the central and eastern Ruhr. Only the Denain and Valenciennes facilities continue to operate as integrated steelworks.

Although Usinor's activities are primarily concentrated in the Nord, it has been active in extending its operations both nationally and transnationally. In the 1960s it merged with the Lorraine-Escaut enterprise in the Thionville area of Lorraine, and it jointly controls (1973) the huge Solmer integrated iron and steel complex on the Mediterranean coast with the Sacilor group of Lorraine, through the joint intermediate company Sollac; in 1974, with a 25% equity participation by Thyssen of West Germany, Solmer became an international joint venture controlled by Sacilor, Thyssen and Usinor. Recently, Usinor has also formed a joint venture with a French and West German firm, called Rhônacier (1975), for the construction and operation of a steelworks and rolling mill with an initial capacity of 150,000 tons.⁵⁰ Rhônacier will meet the local steel demands of the Lyon-Grenoble growth region which is closely linked to the southern corridor by transportation routeways. Thus, as in West Germany, the pattern of national merger and then rationalization and expansion of activities on a regional scale through transnational collaborations and the locational advantages of the corridor, given the new conditions of supply and demand, is apparent.

It is in Lorraine, the traditional centre of France's steel

industry that enterprises are experiencing the most difficulty of adjustment, despite its location within the corridor. As mentioned, the largest steel producer in France is the Sacilor group, formed by the merger of De Wendel and Sidetor (1968), and possessing a capacity of close to 10 million tons of crude steel annually. Sacilor is the fourth largest steelmaker in the EC after BSC, ESTEL and Thyssen. It has concentrated most of its primary production at the modern Gandrange plant which has a capacity of 4 million tons, while closing many of its other works.⁵¹ However, two major problems remain despite horizontal integration of enterprises and rationalization; unlike the Ruhr, the Lorraine is an interior location poorly served by water and road communications with the corridor, and more significantly, the region has always lacked major metal-fabricating industries which would facilitate diversification, because the French government in the past always discouraged such development in a "frontier zone". Therefore, there is less opportunity for forward integration and less market attractions to compensate for the region's other disadvantages, i.e. poor communications and low-grade ores. In fact, Lorraine during the 1970s has been losing its pre-eminence in French steel production to the Nord for these very reasons, and because the Nord is far better situated for steel enterprises to grow and develop. At the northern end of the corridor, the Nord possesses far better connections with the metropolitan areas of northwest Europe, with overseas markets and even with the Paris region.⁵²

Therefore, Sacilor has attempted to overcome some of these

difficulties and to adjust to new conditions by means of consolidation within Lorraine, but also through a major transnational collaboration and a number of minor ones. In the early 1970s, despite the construction of the Gandrange plant which materialized primarily because of French government prodding and financial support, Sacilor put its major new capital investments into the construction of a large, integrated coastal complex on the south coast of France, at Fos-sur-Mer, west of Marseille (1970-1972).⁵³ This was to be Sacilor's major iron smelting plant, however, as the costs rose Sacilor had to admit Usinor as a joint partner in the Fos company, Solmer, in order to defer the heavy expenses of development of this green-site project (1973). Then at the end of 1974, Thyssen of West Germany also acquired 25% equity holding of Solmer so that now the Fos integrated steelworks is controlled by all three major continental steel enterprises, Sacilor, Usinor and Thyssen. The EC Commission approved this transnational joint venture because Solmer, engaged in primary production of steel⁵⁴, is a "production cooperative" which supplies basic steel at cost price to all three owners in relationship to their shareholding. They will thus acquire the unfinished steel products in their own plants, market them through their own distribution system, and thus continue to maintain "effective competition" in the market.⁵⁵

Within Lorraine itself Sacilor has used transnational joint ventures and equity acquisitions to rationalize production on a more efficient basis. It has formed a joint venture, Lorcoké (1972) with French and Belgian-Luxembourg interests, which supplies all

the partners with coking coal.⁵⁶ Also, through its principal holding company CLIF-Marine, of which more will be said later, Sacilor has acquired the Dillingen steelworks in neighbouring Saar⁵⁷, whose facilities were then integrated into Sacilor's operations in Lorraine. Sacilor has used TBCs, not only for concentration and rationalization at the production end, but also for forward integration into end-product uses. Reference has already been made to its Rhin SA joint venture with the West German firm of Korf and a Swiss partner, Von Moos Acier,⁵⁸ but it has also formed a joint venture with Belgian-Luxembourg interests, called Villerupt SA (1974), which will produce rails for all participants and be marketed separately⁵⁹ by each.

Of lesser importance in France are the scattered steel and engineering centres in the Central Massif. Originally based on local iron ore and charcoal, the new steelworks are based on the use of hydro-electric power in electric arc furnaces and local skills in processing (i.e. fine cutlery made in Thiers, bicycles in Ales, and steel tubes in Montlucon). If the region lacks the scale of steel production of Lorraine or Nord, accounting for about 13% of French production⁶⁰, it has compensated by the high-quality finished steels that are produced and the high degree of vertical integration between electric steel production and the engineering trades. The two principal steelworks are at Le Creusot, controlled by the Schneider group (a major French steel and engineering holding company, but controlled by Belgian interests), and in the region of St-Etienne, the Compagnie des Forges et Ateliers de la Loire. The

former concentrates on the production of special steels and armaments, and the latter on machine tools and electrical equipment. In 1970, these two firms merged to form Creusot-Loire, but it was in actual fact a joint venture formed between the two controlling holding companies, the Schneider group for Le Creusot and Marine-Firminy SA for Loire.

In 1974, however, the Schneider group and two Lorraine based enterprises, Denain Nord-Est Longwy and the Wendel group through its holding company CLIF⁶¹, all attempted to gain control of Creusot-Loire through its joint partner Marine-Firminy. The EC Commission stepped in, suspended all such actions pending a decision under Article 66 of the ECSC Treaty, and finally in 1975 it authorized CLIF to takeover Marine.⁶² CLIF's assets were combined with Marine's to form a new holding company, Marine-Wendel, as the new joint partner with Schneider in Creusot-Loire, and Schneider, which during the takeover bid already controlled 32% of Marine, was required to reduce its holdings to 10%. In this way the CLIF-Marine merger brings together complementary production lines, the crude steel production of CLIF's Sacilor group and the special steels produced by Creusot-Loire, and perhaps it also diffused a situation which might have prompted the French government to intervene. This is because, although the Schneider group is a huge French holding company with diverse interests in manufacturing and engineering activities throughout the world, majority control rests with Belgian interests. The Belgian holding company of Baron Edouard-Jean Empain, called Electrorail, managed to win control of Schneider in the late

1960s, much to the annoyance of the French government.⁶³ It is unlikely, therefore, that the French government would have tolerated Belgian interests gaining total control of Marine, which would have given them interests and an opening into the Sacilor group, as well as total control over Framatome, France's largest nuclear power station constructor, which is a subsidiary of Creusot-Loire.

This case illustrates several key points.. It reveals the complex interrelationships of holding companies which may be used to further rationalization on a national (Creusot-Loire) or transnational basis (Dillingen). And it demonstrates the ever-present national priority which demands that the basic, visible, production enterprises be national in character, while allowing them to interact and diversify on a regional level through TBCs with other community firms.

D). Steel Enterprises in Belgium and Luxembourg:

The steel industry in Belgium and Luxembourg displays similar trends and characteristics apparent in France and West Germany.. That is, national mergers enabling rationalization between production units and then TBCs, either joint ventures, equity acquisitions or cooperation-specialization agreements, in order to achieve competitive efficiency within the larger European market.

In Belgium the industry was originally based on the Walloon coalfields of the south, especially around Liège and Charleroi. Today, however, they no longer provide the coking coal at competi-

tive prices and the industry is now supplied with coal from the United States, the Ruhr and Kempenland (Netherlands). The local steel firms merged and found ways to compete by making use of external economies, rationalizing functions between plants and concentrating on the production of standard steels.⁶⁴ The Liège firms had merged into the Cockerill group by 1970, with a steel capacity of 6 million tons. The group owns three integrated works at Liège, integrated works that specialize in sections and bars at Charleroi (Marchienne) and Athus, and a stainless steel plant in Gent. Similarly, the Charleroi based steel firms merged into Hainaut-Sambre and the Thy-Marcinelle et Monceau enterprises. "Because these mergers have for the most part been on a regional basis, this has allowed the new groupings to effect plant specialization giving important economies of scale."⁶⁵

The Cockerill group is certainly the largest single enterprise, based on its Liège mills, but in efforts to strengthen its continental position and overcome its interior location, it has established three transnational linkages: in the Sidmar coastal complex and in the merger of its Athus plant with the Rodange firm of Luxembourg, both of which are discussed below, and in the establishment of a joint venture in West Germany. The joint venture, Cockerill Stahl, has been used to introduce the Cockerill group's iron and steel products into the prime market of the Ruhr.⁶⁶

In Luxembourg the major steel producer is Arbed, which controls four of the five integrated steelworks at Terres Rouges, and has a steel capacity of about 5 million tons (1970).⁶⁷ Although based on

Figure 14 : Restructuring of Iron and Steel Enterprises in Benelux

the local minette ores and coke from Eschweiler, east of Aachen, Arbed realized that its competitive position would gradually deteriorate in the face of high-quality imports. Therefore, it formed a new company, Sidmar (1962-1966), located at Zelzate on the east bank of the Gent-Terneuzen canal in Belgium, which can receive ore carriers of 60,000 ton size. Today, the Sidmar complex is one of the most efficient in Europe, employing extensive automatic and computer controls. However, Sidmar is not totally an Arbed concern. In fact, it is an international consortium with Arbed holding 55% ownership, Cockerill 30%, and the Italian steel group, Falck, along with the French Schneider and Knutange groups holding the balance.⁶⁸

At the same time that Arbed has increased the production capacity of Sidmar, reaching 2.4 million tons of steel in 1972 and with expansion plans to bring this up to 8 million tons⁶⁹, Arbed's own production based on the orefields has been declining. However, these older works have introduced specialization at the plant level with each one concentrating on one major product line, and this rationalization has been extended to include the Eurocompany, Röchling-Burbach, in neighbouring Saar. The latter merger (1971) combines two small operations to create a more viable unit, given the need to combine dependence on the low-grade minette ores of Lorraine and Luxembourg with high-cost imports of coking coal, which must be brought by rail from the Rhine port of Emden to Volkingen (Röchling) and Saarbrücken (Burbach).

Röchling-Burbach is actually a joint venture because Burbach

is an Arbed subsidiary, and the new enterprise is controlled jointly by Arbed and the West German firm Röchling. Since its formation Röchling-Eurbach has concentrated on the production of both ordinary and high carbon and special steels.⁷⁰ The Saar region itself has received a number of government grants to aid in diversifying existing plants and in attracting motor-vehicles, chemicals and electrical-technical industries.⁷¹ The area has a skilled labour force and good communication links with the European corridor, which will facilitate its plans for broadening its economic base. These circumstances contrast the Saar with the conditions previously described for the Lorraine, which lies to the southwest.

The other Luxembourg based iron and steel producer, Rodange, has established several TBCs. In 1972, it participated in the Lorcoke joint venture with Usinor and Sacilor to supply coking coal to the various partners, and in 1973, it merged its plant activities with the Athus factory of the Cockerill group which specializes in steel sections and bars, thus forming Rodange-Athus.⁷³ The economies realized produced a surplus of metal so the new enterprise formed a joint venture, Villerupt (1974), with Sacilor in Lorraine, whereby Sacilor's Micheville plant was turned into a joint rail mill in which both partners "increased their production capacity on an economically viable basis".⁷⁴

E) British and Italian Steel Enterprises :

Britain and Italy are the two major steel producing

member-countries which are separated from the European heartland of the corridor by physical barriers. Although it was pointed out in the first chapter that these barriers have never really been serious obstacles to economic contacts, the fact that both countries opted for outright nationalization of the major portion of the industry has tended to reinforce this natural separation, by deterring trans-national collaborations with other community steelmakers.

In Britain the nationalization of fourteen of the country's largest steel enterprises to form the BSC (1967) was undertaken to solve the problem of scale in one quick move. However, the follow-up problem of rationalization was, and remains acute, because the old, interior coalfield locations of the industry are widely spaced, and many of these are small and antiquated. Their closing would create intense socio-economic dislocations. This is undoubtedly one of the most confounding problems associated with the rationalization process, and a most serious impediment to regional restructuring of the industry, not only in Britain, but on the continent as well, i.e. in Lorraine and in the Franco-Belgian coalfields.

Nevertheless, by the end of 1972, the BSC embarked on a strategy similar to that pursued by continental enterprises. That is, to close small uneconomic works, such as those at Irlam, Shelton, Bilston,² and open hearth steelworks in Scotland; to concentrate capital investment and expansion on the south Wales' coast and south Teeside complexes where it is possible to take vessels of up to 150,000 tons; and to maintain and modernize certain interior plants for finishing and re-rolling, such as those at Ebbw Vale, Shotton

and Corby. Thus the south Wales steelworks at Port Talbot and Llanwern are to be expanded to a total capacity of 10 million tons; and on the northeast coast, Appleby-Frodingham works at Scunthorpe and south Teeside, are to be expanded to a capacity of 7 and 12 million tons steel capacity respectively, while the Ravenscraig works at Lackenby will be increased to 3.2 million tons capacity.

British strategy has not, in general, envisioned any corporate linkages with the continent. In fact, BSC has maintained a very antagonistic attitude to continental producers, due to the fierce competitive pressure such producers have put on the British market since the country joined the EC. Yet several interesting cases do illustrate that, not only is the BSC gradually realizing that it must be just as aggressive, but also that a number of Britain's smaller, private, specialized steel enterprises are now perceiving the potential of TBCs for improving their own financial stability and growth in the new regional market that is evolving. The data on TBCs in the preceding chapter revealed that British enterprises had and were continuing to increase the degree of transnational collaboration with continental firms.

Recently, the BSC acquired majority control of Blume GmbH in Stuttgart West Germany (1976), for the precise purpose of using its distribution network in the Ruhr as the British corporation's first major outlet for its products on the key northern market of the corridor.⁷⁶ However, specialized steel enterprises in Britain have been more active than the government controlled BSC in securing continental linkages. A British and Belgian firm recently formed

a joint venture, Queensborough Steel (1975), to buy and process iron and steel products on both the British and continental markets⁷⁷. More interesting is the example of the GKN holding company, which has actively pursued the transnational expansion of its operations within the Community.

Guest, Keen and Nettlefolds (GKN) is a large British based holding company with interests in over two hundred firms, whose activities range from mechanical engineering to the production and distribution of finished steel products. In 1973, GKN acquired Miles Druce Ltd., and this merger effectively made the new group one of the largest steel distributors in Britain. However, GKN then used this firm national basis, much like the integrated iron and steel concerns to launch a well devised international strategy. In 1974, GKN acquired controlling interest in the Cassart group of Belgian firms, which was a major buyer of steel products on the Belgian market: "the Commission decided that, as a purchaser of steel products, the Cassart group would provide GKN with a possible new outlet for its rolled products, thus giving GKN a bridgehead on the continent"⁷⁸. Since then GKN has tried to expand that "bridgehead", but it has come up against the same obstacles to transnational collaborations that all too often appear. In pursuing its continental strategy, GKN in December, 1976, attempted to takeover 75% of Sachs AG, a major West German clutch manufacturer, but the bid has so far been held up by the West German cartel bureau at the instigation of Sachs itself.⁷⁹ Nevertheless, the case is illustrative of the regional perspective which even the smaller steel producer-

distributors are adopting in attempting to establish transnationally based business organizations.

The circumstances of the steel industry in Italy are quite different from those in Britain, for two reasons: first, Italy's steel industry lacks indigenous sources of either iron or coal, and therefore production is based on the heavy use of scrap and imported ore and coal to large integrated coastal steelworks (see Figure 11, p. 211); and secondly; the great majority of steel production is used within the country because the principal steel enterprises are highly integrated with metal-using industries. Like Britain, national consolidation of the industry was achieved by government intervention, but with a difference. Italsider, the leading steel producer⁸⁰, is itself part of the state-owned Finsider group which is the iron and steel holding company of IRI, the state industrial development corporation. In Italy these public corporations have been used as a means of regional planning and development. They differ from nationalization in other countries in that they enter wide ranges of manufacturing and related services,⁸¹ but usually do not control the whole sector. Therefore, Italsider displays a higher degree of integration with the metal-using industries than does BSC, and although the two other major steel firms, Falck and Fiat, are quite small in comparison to Italsider, they too have close corporate links to the mechanical engineering and motor-vehicle sectors, respectively.

It should be noted that despite Italsider's southern coastal

steelworks, at Bagnoli and Taranto, and their associated industrial plans for metal-fabricating industries to stimulate southern Italy's economic development, the north continues to be the major steel market and producer of steel products. This is especially true of the Milan-Turin industrial region, which has close communications with the corridor through the Alpine routeways, with the Rhône-Saône routeway in France being an important branch to the southern end of the corridor as well. The concentration of primary production at Fps-sur-Mer, Cornigliano and Piombino will serve the southern end of the European corridor in much the same way as the North Sea integrated steelworks in the north, especially as industrial development proceeds in the upper Rhinelands and Alpine forelands.

At present, the degree of transnational collaborations between either Italian and British state steel enterprises, with the more centrally located firms, is far less significant.

F) Assessment :

From this discussion it is obvious that the European Community's iron and steel industry has undergone major changes in its organizational and operational structure during the period under review. Transnational collaborations are, and will continue in the future to be an integral part of both. Although the domestic-merger trend of the the 1960s has created a few large national integrated iron and steel enterprises that produce a full range of products, the necessity for very large scale economies in primary

production and for economic stability through diversification has been increasingly met by transnational equity acquisitions and joint ventures leading to specialization on a regional scale. In fact, the process seems to occur in stages, as enterprises moved from horizontal integration for reduced costs and efficiency, to forward, vertical integration for profits and stability.

By the end of the period under review, 1975, there were four major transnational collaborations within the EC's steel industry: Solmer (French-West German), Sidmar (Luxembourg-Belgian-Italian-French), ESTEL (Dutch-West German), and Röchling-Burbach (Luxembourg-West German). The former two are joint ventures, principally in primary production, and the latter two represent international economic mergers which may be defined as the Eurocompany-type.

However, the use of TBCs has permitted the other European steel enterprises to maintain their "national profile", while at the same time adapting to the new conditions existing within the industry. Steel producers have employed joint ventures and equity acquisitions to achieve economies of scale in primary production (i.e. Lorcoke, Solmer, Sidmar), to rationalize production facilities (i.e. Villerupt, Dillingen), and to market products throughout the Community (i.e. Blume, Cassart, Cockerill Stahl). The pattern holds both for the large integrated steel works, in their efforts to diversify, and for the smaller and medium-sized producers, who have concentrated more on the production of semi-finished and finished steel products.

This study of the steel industry, therefore, indicates the

significance and viability of TBCs as mechanisms of industrial integration. Also it supports the results of Chapter Three. In the analysis of TBCs, it was found that West German, French and Benelux enterprises were the most transnationally active during the study period. In the steel industry, it has been firms in these countries which have formed the most numerous trans-frontier business linkages to process steel, and manufacture and distribute steel products within the Community. Such firms are responding to new economic realities in the EC that are breaking down the former dominance of nationally separated markets, and stimulating firms to take advantage of the developing regional centre of the corridor through TBC linkages.

The transnational restructuring of the industry is most extensive in this central area of the corridor. Here is found the EC's greatest concentration of capital and markets, where a dense communication network can link the primary production of the coastal ends of the corridor with the dispersed metropolitan markets for a variety of end-product uses that exist along the corridor's extent. The location of iron and steel enterprises and their TBCs reflect this inter-relationship (Figure 15). In comparison, British firms have proceeded more cautiously in establishing transnational linkages with continental steel companies, due in part to the inhibiting effect of the government controlled BSC; while the Italian steel firms mirror the low level of Italian involvement in TBCs in general.

The readjustment of the steel industry from national markets

THE EUROPEAN CORRIDOR

FIGURE 15 : Location of Iron and Steel Enterprises (discussed in text)

based on interior locations, to a regional market based on imported raw materials and a new central axis of economic activity, has had the effect of stimulating or drawing enterprises into transnational collaborations. Although the initial adjustments of any domestic enterprise are usually with other near-by national firms, sooner or later the new units must deal with the reality of the evolving economic centre of the Community along the corridor, and for the steel industry the new conditions of production. Transnational interpenetration of the steel industry is most common at the primary stages of production, in which major integrated steelworks at both ends of the European corridor are concentrated. The number of cases studied here also illustrates the importance of forward integration into metal-fabricating industries whose locational determinants rest with market factors found within the transnational zone of the corridor. Thus transnational business collaborations both result from, and contribute to the development of the European corridor.

5. Recent Transnational Cooperation and EC Programmes for European Steel Producers

This final section on the European steel industry will attempt to show how the transnational restructuring, described in the previous sections, relates to general economic conditions, EC policy, and individual steelmakers attempts to "control" the circumstances for their survival in a very dramatically changing environment. Basically, this section is one of summation, speculation

and addition. Several particular areas will be discussed that have special relevance for TEC activity and the steel industry in Europe. The immediate problem of restructuring and the effects of the prolonged recession in steel will be examined; EC programmes to aid the industry will be outlined, including the new producer organization, Eurofer; and an evaluation will be made of the solutions and actions taken which will consider the complexity of the goals and the immediate obstacles that must be contended with.

Within the EC steel industry two critical problems remain, despite the many changes wrought in recent years. First, steel enterprises are still not efficient enough to compete successfully on world markets; and secondly, the continued national bias with regard to the industry, whether in the form of non-tariff barriers, ad hoc governmental interventions or parochial attitudes retained by the steel firms themselves, represents a serious impediment to essential industrial restructuring. That this restructuring must continue to occur has been dramatically made apparent during the recession, the worst the steel industry has faced in the postwar years. In 1974, the Community's steelmills were working at 85% capacity; in 1975, it had fallen to 75%; in 1976, 65%, and in the first half of 1977, the industry was working at only 60% of its capacity.⁸²

One of the most unfortunate results of the merger of steel enterprises on a predominantly national basis has been to create a capacity in crude steel production too large for the immediate

EC market and too inefficiently produced to sell on world markets. European enterprises have the option of becoming multinational enterprises with diverse interests, like Thyssen or Krupp, or achieving the same results through transnational mergers, like BSTEL, or even becoming part of industrial conglomerates, like CEN. But regardless of the means, the industry must contract and reorganize itself even further along transnational lines. It is ironical that the proliferation of TBCs, by predominantly national firms, is no doubt partly responsible for this over-capacity and inefficiency. Despite the industry's concentration and rationalization over the past decade, it lags in competitiveness behind the Japanese and other new international producers.⁸³ In the early 1970s, Japan was selling steel to European non-member-countries at \$10 to \$12 a ton below the cost of production in West Germany.⁸⁴

In their present organizational state, the community steel enterprises cannot compete with such new, world producers as Japan, Korea, Australia, South Africa and the CMEA countries of Eastern Europe. These countries have taken advantage of lower labour costs, scale economies, and the revolutions in steel technology and transportation to outstrip Western European steelmakers. The dominance of Japan and other world producers is brought home by the fact that despite the current world recession in steel demand, Japan has continued to increase production and sales. Japan increased exports in the depressed year 1976 by no less than 23%,⁸⁵ equivalent to 42 million tons of crude steel. This illustrates to some degree that it is not just the present cyclical recession in steel that lies at the heart of the European steel problems, but

that it is major changes in the industry's organization, supply-demand structure and technology. And it is these that Japan and other world producers have learned, incorporated and benefitted from.

It should also be pointed out that TBCs, although they were used for the successful restructuring of the industry on an international basis (i.e. Sidmar, Solmer, etc), may in fact be used to preserve the inefficient existence of predominantly national-based parent companies. Often EC steel firms have established foreign subsidiaries to get around non-tariff barriers of protective governments, and to act as insurance against "profit margin squeezes resulting from rising labour costs, revaluations and the like in the EEC countries"⁸⁶. Therefore, one must qualify remarks about the success the EC has had in establishing an integrated industrial structure for steel. They have not promoted the most efficient regional restructuring of the industry, but rather have acted as a means by which industrialists of the steel companies and governments have established a modus vivendi for the preservation of their own self-interests.⁸⁷ And in doing so, perhaps too many TBCs have been established, instead of concentrating production on a regional scale for optimum economies which would produce more international specialization and intra-EC trade in steel and steel products.⁸⁸ In these rather "imperfect circumstances" the restructuring of the industry has proceeded, with perhaps the major catalyst for the most efficient organizational structure being the introduction of new technology and the competition from foreign producers.

What has been the EC's response to these problems and new circumstances? The Commission has been very hesitant to adopt even short-term remedies to the problem of foreign competition, despite possessing far-reaching powers under the terms of the Paris Treaty. It has the power to impose production quotas (Article 58), to set minimum prices (Article 61), and to establish import restrictions (Article 74). The distance that separates the Commission's powers in theory, from those exercised in practice, stem from several sources. Chief among these is that action under any of the above mentioned articles requires member-countries to agree to the existence of a "manifest crisis". In addition, Article 57 requires that the Commission try all "alternative options" first.

Therefore, during 1975, effective action to blunt the worst effects of the recession floundered because the steel producers from the different member-countries were at odds as to what action was necessary and what role Brussels should play. Belgium, Luxembourg and Italy wanted to have minimum prices and quotas introduced; the free-trading Dutch and West Germans were against this; and the British and French were undecided. A year later, with no improvement in the economic situation for steel, even the Germans were supporting minimum price controls. By 1977, the German, Dutch, French, Belgian and Luxembourg steelmakers had accepted the need

for more controls by Brussels over prices and sales targets, while the British and Italians persist in "going their own way". Significantly, it is the central, continental steel enterprises, the ones that have established the strongest transnational linkages, that are turning to Brussels for assistance. And it was this group of enterprises that set-up in the crisis year 1976, what is in fact a European steel cartel, called Eurofer.

Eurofer is a legal steel cartel, officially established on December 9, 1976, in Amsterdam, although its main secretariat is in Luxembourg. Eurofer was originally launched as a "club"⁸⁹ by West German, Dutch, Luxembourg and Flemish steel enterprises in February 1976, in order to "defend joint interests (especially before the Commission), to consult on energy and raw material supplies, and to encourage the exchange of information on output, employment and other subjects"⁹⁰. Brussels was at first very suspicious of Eurofer's intentions, especially since the Commission's first reaction has always been to espouse free competition and eliminate monopoly practices. Now, however, the Commission has legalized Eurofer and works freely with it; and all community steel producers now belong. The paradox between the Commission's stated policy and actual action is an excellent example of practical politics. The Commission realizes that the European steel industry must contract and rationalize still further, but a rapid run-down would produce great social distress, especially in areas like Lorraine, southern Belgium, and parts of Britain, areas which already have

high unemployment. Therefore, the Commission wants, and is willing to work with an organization that represents all major steel producers so that its short-term market-sharing plan and its new long-term programme, called "restructurization", can improve the condition of the industry without resorting to outright protectionism.

The Simonet market-sharing plan was introduced at the end of 1976 (Mr. Henri Simonet was the Belgian vice-president of the EC, who also had responsibility for steel policy until he left in 1977 to return to Belgian politics). According to the plan, production quotas are assessed on individual steel enterprises, not just for each country, in order to boost prices and profits; and better statistical information on the industry is made available to facilitate forecasting and quick decision-making, to be followed by crisis measures if the situation warrants. In carrying out this market-sharing plan, the Commission consults Eurofer, which prepares market forecasts and then hands out quarterly delivery targets to steel enterprises in order to bring supply and demand into balance. The targets, or quotas, are administered directly by Eurofer, but how effective these quotas are is another question! They are still voluntary and many firms do not fully agree with such production regulation. The BSC has been especially obstinate, and has steadfastly pursued its own interests to the extent of cutting prices and continuing expansion of its steel capacity in order to improve its own market position. What has occurred, therefore, is close collaboration between Community technocrats and the corporate interests

of the steel enterprises, at least among those located in the central area of the corridor.

At the beginning of 1977, the EC's new commissioner for steel policy, Viscount Etienne Davignon, took office and soon introduced his new, long-term programme for the "restructuring of the European steel industry". What this programme seems to entail is a further rationalization through contraction as the best option to overcome the present crisis and put the industry on a sound basis for future growth. The alternative is nationalization, which has been proposed by several member-countries. The Davignon programme contains four main points: first, EC financial loans to facilitate contraction and modernization of the industry; second, compulsory minimum prices be introduced, especially for specific depressed products; third, external suppliers of steel are asked to restrict temporarily their exports to Europe; and fourth, the system of licencing of importers is being strengthened in order to keep a close watch against dumping.

What do these developments and programmes mean for transnational business collaboration and the further development of the European corridor? Undoubtedly, the steel industry is experiencing very difficult problems of adjustment associated with new technologies, new markets, and new conditions of production. In Western European society today solutions are never singular and straight-forward, given the dilemma of conflicting goals, whether social, political or economic, given the number of relevant actors involved, often competing in each decision-making centre, and the many obstacles to

any programme stemming from the still-dominant national governments⁹² within the regional system or individual "rebel" steelmakers.

The reorganization of the steel industry is therefore imperfectly solved through the collaboration between technocrats and producers through Eurofer on the one hand, and between producers through transnational business collaborations on the other. The latter permits the allocations of resources on a regional basis without seriously jeopardizing the precarious balance of social, political and economic forces, because business-oriented mechanisms and philosophy is well-entrenched within the system itself. The former stabilizes the status quo of elites, given a world economic situation caught in the double grips of unemployment and inflation, in which authoritative political systems, whether national or international (i.e. Brussels), must increasingly intervene in situations that have immense socio-political repercussions.

6. Retrospect

The new economic conditions of the steel industry led to a series of (typically national) mergers that created larger production units centred on the European corridor. These have enabled steel firms to introduce costly new processes: the oxygen converter, wide-strip mills and huge integrated coastal facilities. "The provision of raw materials, fuel, capital and labour are now for the first time being planned on a continental scale, and the new plants are intended in turn to supply a continental-sized market"⁹³ In this

process, most EC steel enterprises are turning increasingly to transnational business collaborations. The exceptions tend to be found in Britain and Italy, where national firms predominate, and are inclined to seek independent action for their economic survival.

Eurofer has emerged as an umbrella organization, primarily for private, continental producers who are already linked through mergers, joint ventures and holding companies, through which collaboration with administrative officials will ensure their continued restructuring and survival. The present steel crisis has made it clear that the industry must contract its capacity below the size that the steel producers themselves had originally envisioned. European steel enterprises can compete internationally if they concentrate primary production at the ends of the corridor, specialize in certain products and alloys, and attempt to sell to both home and export markets. They have one of the largest consuming steel markets forming along the corridor, but to realize that potential they must continue the process of transnational reorganization. Although changes in the legal environment to permit the existence of SEs would facilitate these adjustments, the record suggests that TBCs can be just as effective.

This study of the steel industry has revealed that consolidation of enterprises has occurred first at the national level, but as firms have sought continued stability and growth in the contemporary world setting, the process has assumed a transnational dimension. In the case of steel, national mergers of steelmakers has been fol-

lowed by a series of joint ventures and cross-holdings of varying complexity between the fifteen or so major enterprises, with those firms situated in or adjacent to the central part of the European corridor being the principal transnational actors. Smaller, medium-sized steel firms are also gravitating towards the corridor through transnational collaboration, concentrating on specialized steel products and metal-fabrication for the regional market.

The basic trends in the Western European steel industry point to the continued development of larger production units and the further diversification of transnational firms in the most favoured geographic locations of the Community. This reorganizational process, in both structure and location, is geared to both the regional and global scale. In the face of the corresponding industrial concentration, the EC Commission has claimed a more critical posture for itself. In certain respects, however, it has been forced by circumstances to support such trends and attempt to control them, and the continued rhetoric of perfect competition seems increasingly irrelevant to the realities of contemporary Europe. ✓

Chapter Four : Steel

References and Notes

- 1 The European Coal and Steel Community was established by a Joint Declaration of the Treaty of Paris, April 18th, 1951, and came into force July 25th, 1952.
- 2 Anthony Cockerill & Aubray Silberston, The Steel Industry: International Comparisons of Industrial Structure and Performance (London: Cambridge University Press, 1974), p. 50.
- 3 EC Commission, Third Report on Competition Policy (Brussels: 1974), p. 63.
- 4 High Authority Memorandum on the General Objectives for Steel (Luxembourg: 1970).
- 5 EC Commission, Fourth Report on Competition Policy (Brussels: 1975), p. 71.
- 6 Kenneth Warren, World Steel: An Economic Geography (New York: Crane, Russak & Co, Inc, 1975), p. 19.
- 7 Modern, technologically advanced industries, such as aerospace, petrochemicals, electronics, consumer durables, and now even motor vehicles, which have grown-up with the development of multinational enterprises and the establishment of regional trading blocs, are more attuned to the new economic circumstances of the last half of the 20th century, both in terms of industrial organization and geographic distribution.
- 8 R.C. Estall & R. Ogilvie Buchanan, Industrial Activity and Economic Geography (London: Hutchinson University Library, 1973), p. 178.
- 9 R.C. Riley, Industrial Geography (London: Chatto & Winders, 1973), p. 92.
- 10 As late as 1964, 33% of West Germany's, 54% of France's and 83% of Belgium's steel came from Thomas converters. (Warren, World Steel, p. 57)

- 11 Warren, World Steel, p. 60.
- 12 Estall and Buchanan, Industrial Activity and Economic Geography, p. 193.
- 13 Geoffrey Parker, The Logic of Unity (London: Longman Group Limited, 1975), pp. 76-77.
- 14 A late sixties recession in steel was instrumental in setting-off a wave of national mergers in the industry; in addition, in West Germany four syndicates replaced some thirty-one sales organizations for regulating production and sales of steelmakers. The mid-1970s recession has seen the EC's major steel producers set-up a cartel-like organization, Eurofer, to establish stability in production and prices; this will be discussed in depth later in this chapter.
- 15 By the end of the sixties, the cost of production of one ton of Ruhr coal, including subsidies, was \$16, compared with \$6 a ton at American mines. (Warren, World Steel, p. 161)
- 17 In 1972, 102.2 million tons of iron ore and scrap came from third countries, while 19.9 million tons came from member-countries of the Nine. (Parker, Logic of Unity, p. 83)
- 16 R.C. Riley & G.J. Ashworth, Benelux: An Economic Geography of Belgium, the Netherlands and Luxembourg (London: Chatto & Windus, 1975), p. 129.
- 18 In order to economize in fuel and to improve the efficiency of the blast furnaces all the ore may undergo a preliminary treatment before being fed into the furnace. It is crushed and mixed, and then screened to an optimum size. Material above this size is returned to the crusher, while smaller fragments are sintered - that is, they are heated by coke-oven and blast furnace gases so that they fuse to form a clinker suitable for charging the blast furnaces. (Rees, The Industries of Britain, p. 64)
- 19 Warren, World Steel, p. 162; and Parker, Logic of Unity, p. 81.
- 20 Parker, Logic of Unity, p. 74.
- 21 Estall and Buchanan, Industrial Activity and Economic Geography, p. 188.

- 22 Parker, Logic of Unity, p. 81.
- 23 D. Burtenshaw, Economic Geography of West Germany (London: MacMillan Educational Ltd, 1974), p. 102; Cockerill & Silberston, Steel Industry, p. 85; and Estall & Buchanan, Industrial Activity and Economic Geography, p. 190.
- 24 The two French steel enterprises, Usinor (Nord) and Sacilor (Lorraine), collaborated in the development of a major new integrated plant at Fos on the Mediterranean coast. However, as costs escalated in the building of this "greenfield site", they were forced to admit the West German steelmaker, Thyssen-Hutte, as a partner.
- 25 The French government has taken an active part in preserving the steel industry in Lorraine, whose economic viability is very tenuous. Its financial contributions helped preserve the remote and small Neuves-Maison integrated works southwest of Nancy, and it also played a significant role in building the \$72 million, 1.6 mill. ton oxygen steel plant at Grandrange, in the centre of the Lorraine district.
- 26 EC Commission, General Objectives Steel 1980 to 1985, Official Journal of the European Communities, Vol. 19, No. C232 (Brussels: 4 October, 1976), p. 21.
- 27 Thyssen Hutte accounts for 10% of the Community's crude steel output, Sacilor 8.3%, and ESTEL 7.7%. (Bulletin of the European Communities, Vol. 12, 1976, p. 36)
- 28 EC Commission, General Outlines of a Competition Policy Relating to the Structure of the Iron and Steel Industry, Official Journal of the European Communities, No. C12 (Brussels: 30 January, 1970).
- 29 Supra footnote #23.
- 30 EC Commission, General Objectives Steel 1980 to 1985, p. 21.
- 31 Cockerill et al., The Steel Industry, p. 46.
- 32 Riley & Ashworth, Benelux, p. 130.
- 33 ESTEL did plan major new steelworks at Maasvlakie at the mouth of the Rhine, but it was rejected by the Dutch government because of pollution dangers and labour disagreements. By 1973 it was decided that most of ESTEL's expansion in the seventies would be at IJmuiden with up to a million tons of slabs a year transferred from IJmuiden for finishing in Dortmund.

- 34 Burtenshaw, Economic Geography of West Germany, p. 98.
- 35 Warren, World Steel, p. 179.
- 36 Ibid.
- 37 Supra footnote #18.
- 38 Burtenshaw, Economic Geography of West Germany, p. 99.
- 39 EC Commission, Fourth Report on Competition Policy (Brussels: 1975), p. 78.
- 40 Warren, World Steel, pp. 181-2.
- 41 In 1977, Thyssen was engaged in efforts to gain control of Canadian steel firms in Quebec through equity participation.
- 42 Anthony Sampson, The New Europeans (London: Hodder and Stoughton, 1968), pp. 101-2.
- 43 Cockerill et al., The Steel Industry, p. 46; and Burtenshaw, Economic Geography of West Germany, p. 102.
- 44 EC Commission, Bulletin of the European Communities (Brussels: Vol. 4, 1972), p. 56-7.
- 45 EC Commission, Third Report on Competition Policy (Brussels: 1974), pp. 63-4 and 65-7.
- 46 EC Commission, Bulletin of the European Communities (Brussels: Vol. 6, 1973, p. 32 (MonterEAU SA) and Vol. 6, 1975, p. 28 (Rhin SA)).
- 47 The rationalization of steel production between West German firms has been greatly facilitated by the division of the country into groups of enterprises which are permitted to engage in product specialization (i.e. this may include joint production in a variety of steel products and processes, such as agreements in joint galvanization, coated sheet, or in deliveries of primary products); however it is not to include cooperation in production quotas or sales strategies. From 1971 to 1976 there were four of these "rationalization groups" based on a geographic division and included all the major steel enterprises (see Burtenshaw, Economic Geography of West Germany, pp. 94-96). In 1977 these were dissolved by the EC Commission and replaced by only two groups, this time excluding the major steel enterprises: the Nord group (Krupp, Klockner, Peine-Salzgitter and other smaller firms) and the Southern group consisting of Saar producers) (see Bulletin of the European Communities, Vol. 12, 1976, pp. 35-36).

- 48 Cockerill et al, The Steel Industry, p. 44.
- 49 D. Ian Scargill, Economic Geography of France (London: MacMillan & Co Ltd, 1968), p. 81.
- 50 EC Commission, Bulletin of the European Communities (Brussels: Vol. 7/8, 1975), p. 29.
- 51 Between 1968 and 1971, the Sacilor group closed 16 blast furnaces out of 49, two Thomas shops out of eight, two open hearth works out of five, and 21 rolling mills out of 64, without reducing output. This trend has continued in the 1970s with the decline of 10,000 jobs to 50,000, but capacity in Lorraine is slightly up and productivity up from 13 man-hours per ton of steel to just over 8. (Warren, World Steel, pp. 185-186)
- 52 While French crude steel production in Lorraine has increased from 11.3 million tons (1960) to 14.4 million tons (1974), in Nord it has dramatically increased from 4.0 million tons (1960) to 9.0 million tons (1974). In addition, capital investment in Nord, in the three years 1972-74, was more than double that of Lorraine, 774.23 million u.a. to 330.50 million u.a. (ECSC Commission, Investments in the Community Coalmining and Iron and Steel Industry: Report on 1975 Survey)
- 53 By 1975 Fos had a steel capacity of 3.5 million tons, with plans for expansion to 7 million tons by 1980.
- 54 In addition to its crude steel capacity, the Solmer complex also produces 3 million metric tons of coils, 1.1 million metric tons of plate and 0.5 million tons of sheet, bringing its total capacity with crude steel production to around 8 million metric tons. A second stage of development after 1978 plans to double these figures.
- 55 EC Commission, Fourth Report on Competition Policy (Brussels: 1975), pp. 69-70.
- 56 EC Commission, Bulletin of the European Communities (Brussels: Vol. 1, 1972), p. 54.
- 57 EC Commission, Bulletin of the European Communities (Brussels: Vol. 3, 1975), pp. 31-32.
- 58 EC Commission, Bulletin of the European Communities (Brussels: Vol. 6, 1975), p. 28.

- 59 EC Commission, Bulletin of the European Communities (Brussels: Vol. 9, 1974), p. 32.
- 60 Warren, World Steel, p. 183.
- 61 Compagnie Lorraine Industrielle et Financiere; major Lorraine based holding company which controls the De Wendel group and through it, Sacilor.
- 62 EC Commission, Fourth and Fifth Reports on Competition Policy (Brussels: 1975 and 1976), pp. 78-9, and pp. 62-63, respectively.
- 63 P.H. Painton, "A Belgian Baron fights for his corporate domain in France," Fortune (August, 1975), pp. 170-180.
- 64 Riley and Ashworth, Benelux, p. 129. -
- 65 Raymond Riley, Belgium (Folkestone, Eng.: Dawson & Sons Ltd, 1976), pp. 75-6.
- 66 EC Commission, Bulletin of the European Communities (Brussels: Vol. 2, 1972), p. 64.
- 67 Riley and Ashworth, Benelux, p. 130.
- 68 Ibid., p. 130; and Cockerill et al, The Steel Industry, p. 40.
- 69 Warren, World Steel, p. 169.
- 70 EC Commission, Bulletin of the European Communities (Brussels: Vol. 4, 1971), p. 38.
- 72 EC Commission, Bulletin of the European Communities (Brussels: Vol. 1, 1972), p. 54.
- 71 Burtenshaw, Economic Geography of West Germany, pp. 217-8.
- 73 EC Commission, Bulletin of the European Communities (Brussels: Vol. 9, 1974), p. 32.
- 74 Ibid.
- 75 Cockerill, The Steel Industry, p. 55; and Warren, World Steel, 195.
- 76 EC Commission, Bulletin of the European Communities (Brussels: Vol. 3, 1976), p. 25.
- 77 EC Commission, Bulletin of the European Communities (Brussels: Vol. 7/8, 1975), p. 28-9.

- 79 EC Commission, Fourth Report on Competition Policy (Brussels: 1975), p. 78.
- 79 Economist, 4 December, 1976, p. 118.
- 80 In 1969, Italsider had a steel capacity of 9.4 million tons a year, compared to Falck's 1.14 million and Fiat's 1.10 million tons.
- 81 Gisele Podbielski, Italy: Development and Crisis in the Post-War Economy (London: Oxford University Press, 1974), p. 146.
- 82 Economist, "Open Hearth Surgery," April 12, 1975, p. 35; "The Forgotten Communities," September 4, 1976; and "The Crisis in World Steel," February 12, 1977, p. 85.
- 83 Economist, "The Crisis in World Steel," February 12, 1977, p. 82.
- 84 Warren, World Steel, p. 198.
- 85 Economist, "The Crisis in World Steel," February 12, 1977, p. 81.
- 86 Lawrence G. Franko, The European Multinationals (Stamford, Conn. : Greylock Publishers, 1976), p. 145.
- 87 J.E.S. Hayward, "Steel", in Big Business and the State: Changing Relations in Western Europe, Raymond Vernon (ed.) (Cambridge: Harvard University Press, 1974).
- 88 Franko, The European Multinationals, pp. 145-146.
- 89 This club was at first referred to as the "elephant", since it originally embraced steel producers who accounted for 40% of the Community's steel production; steel enterprises in West Germany, Netherlands, and northern Belgium (Flemish).
- 90 Economist, "The Forgotten Communities," September 4, 1976, p. 54.
- 91 Economist, "Another Shiny Plan," March 26, 1977, pp. 93-94.

92 There is the recent case of the small, private steel mills near Brescia, northern Italy. They are extremely efficient and competitive (profitable), using scrap in electric-arc furnaces to produce 4.5 million tonnes annually-- especially steel rods for export throughout the EC. But Davignon has set a limit to these exports and established a minimum price they can sell their product, far above that which they were charging, in order to give some protection to the major French and West German steel enterprises. The Bresciani "ignore" Brussels as best they can, finding ways to get around the EC regulations (i.e. late-delivery fines on themselves, or "bonuses" to clients, to keep their prices low). Evasion of the Davignon plan can be quite sophisticated: a West German firm opened an affiliate in Brescia, buys steel from this "Italian company" at the low, competitive prices charged by the Bresciani, ships it to Germany where the parent company turns around and sells it as German steel at EC established prices. It is not illegal for the Germans, it is for the Bresciani to sell below the EC price - but as seen they have evolved elaborate means to get around this. And since it benefits both buyers and sellers, it is very difficult to control. (Economist, "Brescia vs Brussels," December 17, 1977, p. 117)

93 Parker, The Logic of Unity, p. 89.

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Source Material for Tables and Figures

Table 10 : ECSC Commission, Investments in the Community's Coalmining and Iron and Steel Industries, Report on 1975 Survey (Brussels: September, 1975).

11 : UN Statistical Yearbook 1975.

Figure 11 : Parker, Logic of Unity.
Faber Atlas
EC in Maps

12 :

13 : Compiled by the author from a wide range of sources noted in text and/or bibliography.

14 :

15 : Faber Atlas (base-map), and data from research done by the author, the source of which are noted in the text and/or bibliography.

CONCLUSION

The basic thesis presented in this paper is that transnational business collaborations in the EC are on the increase, that they are becoming more significant mechanisms of enterprise restructuring on the regional scale, and that in so doing they are affecting a new industrial structure in the Community. The approach taken has been very comprehensive in order to stress the complexity of the topic and to ensure proper evaluation of industrial trends. Although each chapter represents a further development of the thesis' arguments concerning TBC activity, each is also capable of standing on its own. Therefore, their conclusions in detail will not be repeated here. Instead this writer's concluding remarks will be presented in two parts: first, on immediate observations about industrial transnationalism that follow from the preceding chapters and relate to commonly held beliefs and ideas; and second, on several thematic topics which hold special interest for this writer and which are intrinsic to the overall paper.

The early pan-European view of enterprises in the European Community "coming-together" to form regional companies on the scale of American multinationals, has not occurred. One of the prime factors for this has been the policies of the member-country governments who have intervened to protect national industries even against member-country firms. Therefore, there have occurred national industrial concentrations within sectors. This result

contrasts with the intent of the EC Commission's policy, to favour the formation of European-wide corporate industrial structures, as the customs union "evolved" into some sort of new supranational body. This evolution has not occurred. The success of the EC has been mainly in terms of an improved continental infrastructure and freedom of productive factors, which together underlie the gravitation of industrial activity towards a regional core area.

Although the common market did create a new geo-economic environment for business enterprises, this paper has shown that its results were two fold. It created the conditions for the gradual formation of a new European growth axis along the corridor zone of the Rhinelands; and it acted as a stimulus for increasing transnational activity, primarily by national-based firms, seeking to exploit the economic advantages offered by the corridor in the face of numerous national obstacles and world economic conditions that favoured the internationalization of production and capital. What has not occurred, therefore, has been the cross-frontier restructuring of industries to form European companies. What has occurred is transnational cooperation and equity participation by national business entities that preserve their national identity, and at the same time, allows them to adapt to the continental market. In this way they are able to achieve economies of scale, rationalize productive facilities on a regional basis, and to market goods throughout the Community. Since there is a tendency for capital and labour to concentrate at the centre of the larger, continental

market, and since this is focused on the transnational zone of the European corridor, the corridor is both a result of and a force promoting TEC activity. Such spatial developments are a basic characteristic of the capitalist mode of production. The evolution of the contemporary mode of production to where it is dominated by transnational enterprises, signifies important changes in the pattern of European industry by virtue of their organizational structure and their regional/global activities.

The European corridor has always possessed economic advantages in energy, communications and labour which favoured its initial primacy in the industrialization in each of the peripheral nation-states. To these inherited advantages have been added the following conditions: the continental market of the EC replacing the smaller, divided national markets; governmental assistance to improve the transportation facilities of the corridor and regional development funds to industries located in areas of the corridor to aid in readjustment and modernization; and the contemporary consumer revolution in secondary manufacturing and service industries, whose prime locational factor is a central site for assembly and distribution to the community market. At present, the Community is in a very transitional period in which old forms and new patterns exist side by side. But the evidence from this study indicates that the structure of European industry, both in organization and location, is being drastically altered from the old patterns of national industry and commerce.

Most areas along the corridor are experiencing restructuring processes in traditional industries. This was most apparent in the case-study of the iron and steel industry, but similar changes are occurring in textiles, motor vehicles and energy, based on the organization of transnational enterprises and a continental system of supply, production and distribution. At the same time, the developing infrastructure and external linkages are encouraging new industries, such as service and assembly, metal-working and engineering, or petro-chemicals, to locate along the corridor. Although the majority of EC firms are small, national entities, many of the above mentioned sectors are actively engaged in TBC formations. Their business strategies embrace the corridor in an increasing web of transnational linkages which only serve to draw other firms, by participation or imitation, into transnational activity.

However, one of the greatest single factors negating industrial integration among European enterprises, by whatever form, has been the intervention of the member-country governments in the business sector. Ironically, in some ways, it did lead to the proliferation of TBCs as national firms used them to "jump" national frontiers. And paradoxically, the two trends - increased state intervention and control, and increased transnational business activity - are closely related. Although national intervention, national non-tariff barriers, national biases, etc, continue to be major impediments to the formation of transnational business structures, the fact is that national state governments have done

far more to promote transnational activity than to hinder it. This is seen in: the creation of the EEC; the promotion of an international, liberal, economic environment; by increased internal control by the state to provide stable business conditions, to provide social and physical services, to support higher education among the populace and to support research and development of industry. All of these are essential for the transnational enterprise. Therefore, although there may be many points of conflict, political formation in the guise of the nation-states has always played an important role in capitalist production. Therefore, there is this confusing combination of the resilience and obsolescence of national governments, although contemporary pressures seem to indicate that the latter condition will prevail. At any rate the two trends of increased state intervention and increased transnational business activity are not contradictory, since both are extremely utilitarian for the functioning of post-capitalist societies in this very transitional age.

Despite differences towards competition and public ownership, all European countries have embarked on massive state intervention, as witnessed in the adoption of national economic plans, the creation of public enterprises and/or regulation of the private sector through a variety of means. This intervention was encouraged by the acceptance of national planning to satisfy national demand, by sectoral and regional problems, and a new emphasis on competitive efficiency in the face of greater world competition. This

paper discussed how nationalization of the iron and steel industry was adopted in Britain and Italy to protect, to modernize and to expand on a more "nationally efficient" basis. In France, the government was the most aggressive in promoting national mergers and making available massive funds for structural adjustments. And even in West Germany, supposedly the most laissez-faire economy, the government indirectly intervened through the banks and financial community to give tacit approval to the major national mergers. Thus governmental intervention has become common-place in many industrial sectors, and the state uses its growing powers to promote further national concentration of industry.

This is the point where most analysis of European industry ends, although many writers have outlined cases where this national concentration proved inefficient and unsuccessful. What this study highlights is that national consolidation operates in conjunction with a more pervasive trend towards international concentration; thus national consolidation is often followed by rationalization and foreign expansion through TBC-type options. And since the mid-1960s European firms have significantly increased the degree of transnational linkages with other community enterprises. During the period studied, 1966-1975, joint ventures and equity acquisitions increased by as much as 75% over 1966 levels; evidence indicates that subsidiary formation dramatically increased as well. In addition, the various TBC options are increasingly multilateral in character, and the majority are now between community enterprises.

By 1975, the majority of TBCs formed each year were between firms based in the Community (54%), while in 1966 only 35% of all TBCs contracted were between solely EC firms. The number of EC firms involved each year in TBC activity as opposed to non-member-country firms, has risen from 58% in 1966 to 77% in 1975.

Judging from these results and the number of case examples outlined, it is evident that TBCs are becoming increasingly significant mechanisms for enterprise restructuring on a regional scale. In fact, they are the preferred means EC firms are adopting, rather than any sort of elaborate, international merger of corporate entities, and have proved to be a very efficient way enterprises may integrate any or all of their operations to take advantage of continental opportunities. Although little can be said about the economic significance of such TBC linkages, there is little doubt that they are increasingly perceived as a viable alternative to national solutions.

What seems to have occurred is that enterprises first consolidate nationally (due to locational proximity, governmental pressure and the ease of procedure), and then expand into the rest of the EC through a variety of TBC arrangements to take advantage of the enlarged market and to improve their competitive position. There are thus an increasingly number of large, as well as small and medium-sized, domestic firms that organize production and distribution throughout the Community as though it was a single, continental business milieu. The statistical and case study

evidence presented in this paper shows that there is a definite preference for such TBCs as contractual agreements and equity participation in order to achieve similar benefits that would result from international de jure mergers of corporate entities. Even the successful "international mergers", as seen in the Eurocompanies, were achieved through complex holding company arrangements which attempt to minimize the shock effects of rationalization and specialization on such relevant actors as managers, government officials and shareholders.

Although for the most part, TBCs have proven effective for European enterprises in terms of profits, competition and efficiency, they should not be considered an overall panacea for European industry. Their significance in terms of individual national economies is still relatively small, and they can restrict enterprise concentration on an EC-wide scale by perpetuating the existence of small and medium-sized enterprises. This last point is especially true for high cost and very large market-oriented industries like computers or aircraft, where TBCs may in fact negate any long-term advantages from the collaboration by impeding the development of a viable industry on a sufficient scale. This is why it is so essential that the EC Commission and other actors with political influence press forward other programmes promoting greater industrial integration, such as the merger control legislation, the legislation permitting

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the establishment of SEs, and the continued removal of non-tariff barriers. Private enterprises have generally taken the initiative in establishing transnational business linkages with other community firms in effort to respond competitively and efficiently to the new market conditions of the Community. But it will require support from other relevant actors if this base, established by TBC activity and the formation of the corridor, is to broaden the level of industrial integration in Europe.

With that said this writer wishes to point out and recognize the several shortcomings that result from such a comprehensive and interdisciplinary approach to the analysis of transnational business activity. These shortcomings are centred on the areas where the author had the most difficulty: with regard to problems with the statistics in compilation, validity and other limitations noted in the text; and with regard to employing ideas and formulations from several different disciplines and perhaps thereby not doing full justice to them. This writer recognizes and apologizes for these shortcomings.

At the same time however, it is felt that an interdisciplinary approach that seeks to come to grips with a very dynamic, very complex real-world phenomena, whose dimensions and significance have been too little appreciated because of that very specialization of professional analysis, far outweigh any handicaps. The real value of this analysis of transnational behaviour of business enterprises is in emphasizing the role that transnational behaviour

is having on new industrial structures in Europe, and in pinpointing several areas where continued research is obviously needed. With regard to the latter point several areas may be mentioned. For more intensive statistical analysis is needed, not only more thorough and complete data on TBCs, but also on the magnitude and composition of each operation. There is still a great deal that is not known about industrial behaviour in the EC, given its very complex milieu. More detailed in-depth studies are needed on product and industrial sectors, and industrial interpenetration within each member-country. There seem to be too few case-studies being undertaken in these areas, or on individual enterprises which would stress business perceptions, threshold conditions and decision-making. This would also entail further investigation of several of the findings put forward in this paper, which need to be tested and evaluated further. They included :

1. There is a scheme of development from horizontal integration and rationalization (national scale), followed by vertical integration often entailing cross-frontier operations for growth and economic stability.
2. The type of TBC option chosen is a function of the type, size and sophistication of the enterprises involved, and the level of previous TBC experience is also an important factor.
3. The most common form of TBC activity, especially for the larger European enterprises, is subsidiary formation, however, for the majority of the EC's medium and smaller-sized enterprises cooperation agreements and joint ventures are preferred (only in 1974 and 1975 did equity acquisitions replace joint ventures, but through the study period both have been quite close in total numbers each year).

4. Economic recession produces a down-turn in general TEC activity, however, if it is prolonged it may then force firms into TEC restructuring.
5. The principal motive underlying TEC activity is some form of rationalization scheme to operate on a larger scale and to serve larger markets more efficiently; in this process the geography of the continent is playing a more significant role than ever before. However, the many imperfections that exist in the regional system of the Community mean that there are many anomalies.
6. Location/restructuring decisions by firms employing TEC options, is as much a perceptual problem as an economic one.

It is hoped that this paper has shed new light on industrial transnationalism in the Community, in the overall analysis presented.

This writer now wishes to turn to the second part of the conclusion: to make some general observations about several thematic topics which were not the prime concern of interest, but which were inherent throughout the paper.

In the course of researching and writing this paper, three themes stood out as being especially significant. They are really observations with regard to the process of integration in Europe, the merging of business and political elites, and the dynamics of spatial-regional trends.

Although the EC Commission is the principal body promoting

integration policy in Europe, its actual powers with regard to industry are relatively limited. For the most part, industrial policy is still very much equated with the nine individual national economic policies which are geared to strengthen domestic industry for reasons of prestige, strategy or national self-interest.

However, a second factor impeding the progress of industry to undertake more serious regional linkages, lies in the still imperfect customs union. This is seen in the still existing obstacles to factor movements, the continued delays for harmonization of company laws and the creation of an European company statute, and the persistent technological, managerial and bureaucratic barriers. In the company law field, most member-country governments fear the passage of the SE legislation because it would considerably weaken their control over the business community.

The disappointment of integrationists over creating European-wide industrial establishments may also be attributed to their own failure to consider the dictates of political economy and the processes of historical evolution. European integration has been seen in rather antiseptic terms of customs union theory, which deals only with the competitive responses of individual firms in a liberal market. Thus the role of the state and the organization of production in advanced, technological societies has often been ignored in the evaluation of integrative processes.

In addition, the dynamics of a multinational regional association are quite different from federations of the Canadian or

American model. It is no use talking about supranational institutions, new responsibilities, or new divisions of powers between member-countries and Brussels in a federal or confederal Europe, because in the immediate future they would lack political and moral force. Perhaps, direct elections to the European Parliament and progress towards economic and monetary union are the first really major steps towards a unified Europe since the 1950s.

Since the EC will remain a multinational regional association for the immediate future, industrial development and cooperation will continue to be dominated by national-based enterprises, by national economic and regional policies but with increasing coordination with Brussels, and by the increased need for international-oriented production in a very competitive world. In these circumstances, TECs will continue to be the most important vehicle by which business firms will exploit the evolving economic regional system of the EC, centred on the corridor zone of the Rhineland. The key for industrial integration is not so much incremental progress moving to establish regional institutions, which has been the formula for integration theory to date, rather it is a number of different actors, with different perspectives pursuing self-interest strategies which push the system forward and back in a series of disjointed adjustments, yet each interlinked by the network interdependencies between them. This view highlights a basic difference between the gradualist approach to integration, versus a process in which numerous problems and issues crystallize

actor orientation-behaviour and the resultant decisions open new avenues for international collaboration. In industry, for example to achieve some goals industrialists must collaborate in whatever form possible (i.e. TBCs), and to handle the numerous and complex issues of modern industrialization they must tackle each area of concern separately (i.e. SEs, merger control, regionalism, industrial modernization and adjustments, etc). This paper illustrates the complexity of this milieu, and identified private business enterprises, the financial community and certain politicians-technocrats as the main source of integrative support, for reasons of more productive and efficient business structures operating on the scale of the regional system.

A second theme which came out especially in the analysis of the iron and steel industry is the merging of business and political elites. The ruling elites in all countries have come to belong to the same class of politicians-managers-technocrats, who move freely back and forth between business and government ministries. Coupled with the trend towards the internationalization of production and capital, this is creating a united group of bankers and financiers, wealthy citizens and politicians who have powerful instruments at their disposal to lobby at both national governments and in Brussels. Increasingly authoritative decision-making is being done by administrative bodies created through the collaboration of the state and various interest groups, especially big business, and being reflected in a corresponding decline in parliamentary processes.

This was most in evidence in the plans for the restructuring of the steel industry on a more competitive, continental basis.

Eurofer and the Davignon plan represent this close collaboration of politicians, Community technocrats and corporate interests.

In this paper it was noted that the concentration of money capital in Europe has proceeded faster than enterprise integration on a regional scale. What illustrates this fact is the complex holding company arrangements that may underlie TBC activity. This was most obvious in the cases of Schneider, GKN, and Röchling-Burbach. Such behind-the-scenes capital inter-relations, coupled with infrastructural improvements in the corridor have certainly eased the interpenetration of industry by the only readily available means possible, TBCs. However, it is important to note that the formation of an "internationalist group" with increased powers in both politics and business can lead to abuses, as well as facilitate cooperative solutions to problems facing post-capitalist societies. Some writers have pointed out that the rhetoric behind increased governmental intervention and the adoption of regional and national planning, has masked a collusion between administrative bodies and industry for the control of labour in order to reproduce the conditions for capital accumulation and overcome the instabilities of liberal democracies. This may be a harsh assessment, but no one can deny the corporatist tendencies in Europe today. Finance capital in cooperation with other elites is undoubtedly one of the major supports for transnational business activity in the Community.

A third theme apparent throughout the paper is the dynamics of new spatial-regional trends. A new locational dimension has been created in Europe between continental concentration, as seen in the formation of the corridor, and the individual, national economic core regions. Although it would be wrong to suggest that the strength of the latter have been seriously weakened in any way, what this paper suggests is that there is a new principal growth axis developing and that national-based firms are gradually adopting a variety of TBC arrangements to integrate their operations to the EC-wide scale. It is surprising how little attention has been given these new spatial and organizational patterns of industry by writers on European integration. Entirely new patterns of industry are evolving in Europe today, in response to the conditions of advanced capitalism, which are reflected in the development of new spatial relationships through the agency of transnational enterprises.

The new framework for industry in Europe consists of a number of multi-focal urban growth centres, interconnected by new motorways, canals and electrified railways, and centred on the growth axis of the corridor. Since patterns and structures reflect the predominate modes of economic organization, this evolving urban-industrial network represents the incipient foundations of an integrated, transnational market system for Europe. However, the concentration of economic activity along the corridor should not obscure the very real and important centres lying outside it. These include the Lower Seine-Paris region, Rhône-alpes and Hamburg-Copenhagen. What we

are really dealing with, therefore, is not nine member-countries, but with an intradependent, continental urban-industrial system in which transnational enterprises are the most significant economic actors.

This system is focused on the corridor where the density of centres and linkages is the most concentrated, but it reaches out to include a number of other metropolitan centres, each possessing their own economic dynamic based on unique advantages within their own regional settings.

This development is a somewhat different perspective of the European integrative experience, but one that this paper has shown has much validity - an integration of the European urban-industrial network, propelled in large part by an increasingly international business community. Some have suggested that the integration of the great metropolitan centres of the corridor region has accounted for the wealth and prosperity enjoyed by Europe in the past three decades, as business enterprises increasingly operated in all markets, and today are increasingly linked by transnational corporate arrangements. Transnational enterprises are literally welding together a new industrial structure that will carry Europe into the 21st century.

The scenario this writer sees is a regional entity embracing the nine member-countries, as well as Scandinavia, Iberia, the Maghreb of North Africa, and with increased economic relations with Eastern Europe. The peripheral regions around the corridor;

may or may not conform to national boundaries, but each will be centred on its own urban-industrial growth pole centre (i.e. Hamburg-Copenhagen, Alpes-Barcelona, Taranto, Algiers, Dublin-Liverpool), and be intradependent with the principal "integration axis" of the corridor. The corridor will be the most highly developed part of the new entity - its economic and cultural "heartland", where enterprises are likely to be the most sophisticated and producing for the regional and global markets. The peripheral regions, focused on their own urban-industrial growth centres, will be based on linkages with the corridor and on their own unique advantages, both natural and man-made. The sustained economic viability of the peripheral regions, as opposed to heightened regional disparities due to concentration of economic activity in the corridor, will be aided by the natural tendency for decentralization to occur once a certain size of concentration is reached, and by the "decentralizing effect" of new technology. In addition, the rising standards of living in all such regions will make the peripheral centres better markets for their own internal production and consumption.

The development of this continental, regional structure is occurring in Europe today. Industrial trends indicate that it has been business enterprises that have been one of the first to perceive and act upon the new conditions of development, and thereby are adding their weight to the establishment of this new European, urban-industrial system. Since transnational enterprises are

trans-frontier organizations with tremendous allocative powers, both of human and physical resources, their intra-firm patterns of organization are closely related to the evolving urban-industrial structure in the integrating area of the Community. They are thus seriously weakening the ability of the individual member-countries to take decisive action concerning their own economic future, since that intra-firm regional pattern has little to do with the reality of a single, national market.

This raises a very basic and difficult question concerning the nature of industrial integration as it is occurring. Will it be exploitive, heightening regional imbalances, or will it be more egalitarian, with benefits and potential for growth and development spread throughout? Generally in the past, the concentration of patterns and structures of economic organizations within an integrating area (i.e. first in nation-states, and now in the formation of the corridor), has proven to be exploitive and unbalanced. In addition, it was noted that many European transnational enterprises have a tendency to be ethnocentric, due to the continued strength of national biases and prejudices, and despite their great support for full European economic integration. Therefore, there is a very real danger that this "evolving regional system" could be imbalanced and economically exploitive.

Therefore, there is a paradoxical aspect about the formation of the corridor and a European industrial system. Industrial integration may be proceeding by means of TBCs, but at the same

as interdependence increases across national boundaries, there can also be increased disintegration, based on disadvantaged regions and ethnic subnationalism. The latter is increasingly a world phenomenon and in Europe it is seen in the national movements of the Welsh and Scots, Alsatians, Bretons and Basques. Regionalism and industrial transnationalism, disintegration - integration, are closely inter-related because as the conditions of an individual's life are increasingly dictated by forces beyond one's control (i.e. world interdependence and regional disparities, increased bureaucracy and the impersonalization of many facets of modern life), there seems to be an increased social necessity for local cohesion, support and identity. Industrial transnationalism requires greater international collaboration, while regionalism demands more direct control over local affairs.

There is undoubtedly a need for greater integration of industry in Europe by means of transnational collaboration, so that efficient and productive enterprises may compete successfully on regional and global markets; but the lasting viability of the European integrative experience will only come about if perceived benefits accrue to all peoples, and all regions embraced by the Community. Thus between these two dynamic forces, ethnic regionalism and industrial transnationalism, the legitimacy of the individual member-countries as the principal focus of political aspirations is seriously undermined, and their external sovereignty as the pre-eminent actors in the international arena is seriously restricted.

Appendix I

Transnational Business Collaborations
in the European Steel Sector

Cooperation Agreements

Equity Acquisitions

Joint Ventures

International Mergers

Abbr. Used

B Belgium

F France

I Italy

N Netherlands

UK United Kingdom

WG West Germany

S Switzerland

cap. capacity

plan exp. planned expansion

m. million

Transnational Business Collaborations : Cooperation Agreements

Collaborating Enterprises	Purpose of Collaboration	Year
<p>Thyssen Stahlunion-Export (Dusseldorf WG) Et. Joutet Fer et Metaux (Pont-a-Celles B) Et. DLC SA (Jemeppe-sur-Meuse F)</p>	<p>Coordinating production of re- inforcing bars, merchant steel, heavy and medium sheets and sections.</p>	<p>1972</p>
<p>Walker & Sons Ltd (Blackburn UK) Ets. J. Champion SA (Nanterre F) NV Algemene (Schoten N)</p>	<p>Joint buying agreement for finished rolled steel products between three steel distributors.</p>	<p>1976</p>

Transnational Business Collaborations : Equity Acquisitions

Acquired Firm	Majority Interest Acquired By	Purpose of Acquisition	Year	Location
Aciéries de Pompey	French and West German iron and steel interests	Rationalization of production facilities.	1970	Pompey (F)
Robur	Mannesmann Rohrewerke (Mannesmann WG)	To allow two firms specialize in weldless tubing; reduce costs & increase prod. runs.	1972	Helmond (N)
Howard E. Perry	Klockner (WG)	To allow Klockner to penetrate British mkt.	1974	Willenhall (UK)
Cassart Group	GKN (UK)	To provide GKN with continental outlet for its steel products.	1974	Belgium
Dillingen	Marine-Firminy Paris (CLIF-Marine Group) (F)	To allow Dillingen integrate its works with Sacilor's Lorraine operations.	1975	Saarland (WG)
Blume GmbH	BSC (UK)	To give BSC distribution network in WG for its products.	1975	Stuttgart (WG)
Sachs	GKN (UK) - attempted -	To expand GKN's continental operations.	1976	W. Germany

Transnational Business Collaborations : Joint Ventures

Joint Venture	Partners	Share- holding	Purpose of Collaboration	Year Est.	Location
Sidmar	Arbed (L) Cockerill (B) Falck (I) Schneider (F) Knutange (F)	55% 30 15	Sidmar is a coastal iron and steel complex supplying partners with basic steel. (Cap. 2.4 m. tons; plan exp. 8 m. tons)	1966	Zelzate (B)
Solmer	Usinor (F) Sacilor (F) Thyssen (WG)	37.5% 37.5 25.0	Production cooperative, supplying partners with basic steel. (Plan exp. to 8 m. tons cap.)	1972	Fos (F)
Lorecoke	Usinor (F) Sacilor & most other Lorraine producers (F) Cockerill (B) Rodange (L)		Joint coking plant supplying partners with coking coal.	1972	Thionville (F)
Cockerill Stahl GmbH	Cockerill (B) Hugo Stinnes (WG)		Sale of Cockerill's iron and steel products on the West German market.	1972	Mullheim (WG)
Montereau SA	Normandie (F) Korf (WG)	50% 50	Manufacture, processing and sale of rolled steel and rolled steel products.	1973	Montereau (F)
Villerupt	Sacilor (F) Rodange-Athus (L)		Produces steel rails for both partners at cost price.	1974	Micheville (F)

(cont.)

Joint Ventures (cont.)

Joint Venture	Partners	Share- holding	Purpose of Collaboration	Year Est.	Location
Rhôneacier	Usinor (F) Experton (F) BEST (WG)	50% 25 25	Construction and operation of steelworks and rolling mill. (Cap. 150,000 tons; Plan exp. 300,000 tons)	1975	Salaise-sur-Sanne (F)
Queensborough Steel	Boel SA (B) Helical (UK)	50% 50	To buy, sell and process iron and steel products.	1975	London (UK)
Rhin SA	Korf (WG) Acier SA (S) Saciilor (F)		Foundry and rolling mill. (Cap. 400,000 tons)	1975	Ottmarsheim (F)

Transnational Business Collaborations : International Mergers

Transnational Firm	Participating Firms	Purpose of Merger	Year	Location
Rochling-Burbach GmbH	Rochling (WG) Arbed, thru its Saar plant, Burbach (L)	Rationalization of Saar iron and steel operations and coordination with Arbed's activities in Saar, Lorraine and Luxembourg.	1971	Saar (WG)
ESTEL NV	Hoesch (WG) Hoogovens (N)	Jointly controlled by partners for manufacture and distribution of full range of steel and steel products.	1972	Dortmund (WG) Ijmuiden (N)

List of Abbreviations Used

EC	European Community
EEC	European Economic Community
ECSC	European Coal and Steel Community
Euratom	European Atomic Energy Community
BCC	Business Cooperation Centre

In the forth chapter a number of steel enterprises are discussed under their most common abbreviated names by which they are known. Listed below are their full company names.

Acier SA	Von Moos Acier SA (Lucerne, Swit.)
Arbed	Aciéries Réunies de Burbach-Eich-Dudelange (Lux)
ATH	August Thyssen Hütte AG (Duisburg, WG)
BEST	Bayerische Elektro-Stahlwerke GmbH (Meitingen WG)
Boël	Usines Gustave Boël (Belg.)
Blume	Walter Blume GmbH (Stuttgart, WG)
BSC	British Steel Corporation (UK)
Cockerill	SA John Cockerill (Belg.)
CLIF	Compagnie Lorraine industrielle et financière (Fr.)
Dillingen	AG der Dillingen Hüttenwerke (WG)
Experton	Ets. P. Experton Revollier SA Renage (Fr.)
GKN	Guest, Keen and Nettlefords Ltd (Smethwick UK)
HOAG	Hüttenwerke Oberhausen (Dortmund, WG)
Helical	Helical Bar Ltd (UK)
Hoogovens	Koninklyke Nederlandsche Hoogovens (Ijmuiden, N.)
Hoesch	Hoesch Werke Hohenlimburg-Schwerte AG (WG)
Klöckner	Klöckner-Werke AG (Bremen, WG)
Korf	Korf Industrie und Handel GmbH & Co KG (WG)
Krupp	Fried. Krupp GmbH (Essen, WG)
Lorcoke	Société Lorraine de Cokéfaction (Fr.)
Montereau	Société des Aciéries de Montereau SA (Montereau, Fr)
Normandie	Société Metallurgique de Normandie SA (Paris, Fr.)

MMRA	Société Metallurgique et Minière de Rodange-Athus (Lux.)
Perry	Howard E. Perry & Co Ltd (Willenhall, UK)
Pompey	Société Nouvelle des Aciéries de Pompey SA (Fr.)
Queensborough	Queensborough Steel Co Ltd (London, UK)
Rhin SA	Aciéries et Laminaires du Rhin SA, or ALR (Ottmarsheim, Fr.)
Rhôneacier	Aciéries et Laminaires du Rhône et de l'Isère (Salaise-sur-Sanne, Fr.)
Rodange-Athus	Société Metallurgique et Minière de Rodange-Athus (Lux.)
Salzgitter	Peine-Salzgitter AG (WG)
Sacilor	Aciéries et Laminaires de Lorraine SA (Hayange, Fr.)
Sidmar	Sidérurgie Maritime (Zelzate, Belg.),
Sollac	Société Lorraine de Laminage Continu SA (Fr.)
Solmer	Société Lorraine et Méridionale de Laminage Continu SA (Fos-sur-Mer, Fr.)
SNAP	Société Nouvelle des Aciéries de Pompey SA (Fr.)
Thyssen	August Thyssen Hütte AG (Duisburg, WG)
Usinor	Union Sidérurgique du Nord et de l'Est de la France (Fr.)
Villerupt	Société des Laminaires de Villerupt (Micheville, Fr.)

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