

## A THEORETICAL RATIONALE FOR JOINT VENTURES WITHIN INTEGRATED MARKETS: THE CASE OF EUROPEAN COMMUNITY

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### A Theoretical Rationale For Joint Ventures Within Integrated Markets:

Rapid rate of technological developments in certain fields make old plants obsolete and uncompetitive. Technological improvements force the firm to produce at the lowest per unit cost. As a result, the utilization of relatively more capital stock is needed. As capital, investments in machinery, etc., is mainly a fixed cost, especially in the short run, as compared to the variable cost of labor, a greater part of the total cost is fixed cost. This means that the optimum plant and optimum scale of production increases. In terms of finance, it implies more burden to be undertaken for the construction of economic size plant. It means that it would be beyond the capability of a small country with a limited market and balance of payments problems to finance and constrict it. However, countries within regional scheme could devise ways and means to build industrial plants jointly, export and share the product jointly\*\*.

As technology improves, the market has to be extended in order to justify the investment in capital stock. For the simple reason, the major considerations in determining competitive and efficient plants with least-cost techniques are scale, factor prices, export prices and factor proficiencies\*\*\*.

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(\*) *The author is solely responsible for the contents.*

(\*\*) *Thomas F. Dernburg and Duncan M. McDougall, Macroeconomics, 3rd ed., (New York; McGraw-Hill, 1968), pp. 284-289 and 426-431.*

(\*\*\*) *Jack Baranson, Industrial Technologies for Developing Economics, P. 5-10.*

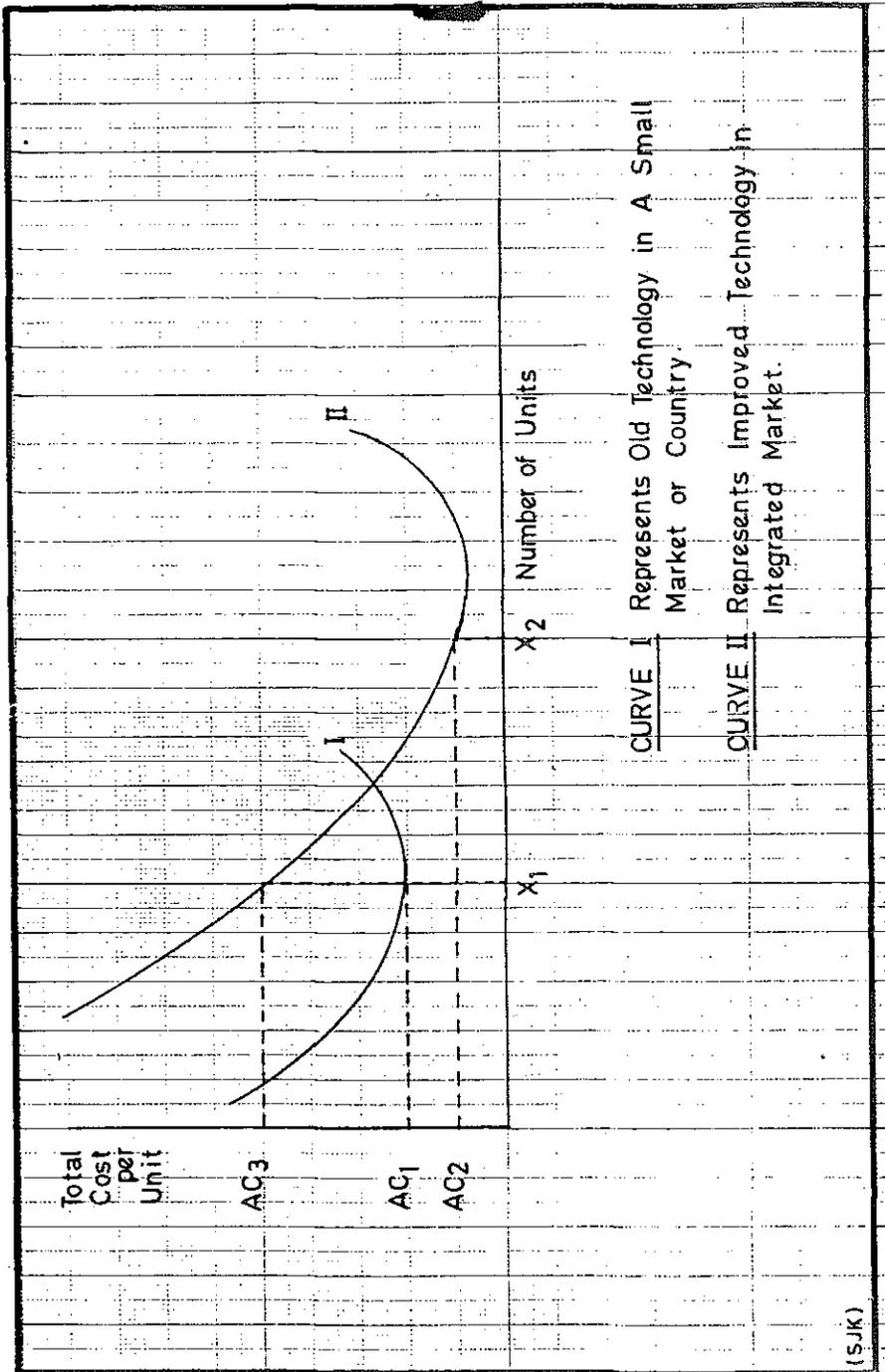
This follows directly from the theory of rationalization of production function and the economies of scale. This can be illustrated graphically. Curve-I represents old technology in an individual market. Curve-II represents improved technology within regional scheme. If the market in a country for a particular product is of size  $X_1$ , the lowest possible cost per unit is  $AC_1$ . The new and advanced technology has the potential of lowering the cost to  $AC_2$  of the product of joint venture within the large integrated market. However, if the investment was made and the market remained of the same size, the cost per unit would increase to  $AC_3$ . Clearly, such an investment on economic and resource grounds should not be made. This is a very simplified example, however, it illustrates the problem; countries with limited domestic markets will increasingly find themselves in a position where they are unable to benefit from technical progress. Furthermore, research in technology and technological progress in developed countries have increased the minimum internationally competitive plant size in many sectors of manufacturing process\*.

It is true and financially feasible that some small countries can build and develop large units, based on free foreign trade. There are several examples where the small countries enjoy the benefits from operations on a large scale, such as the Swiss watch industry and Norwegian shipping. However, they have been facing severe competition from large electronic and mechanized firms in Japan. However, Swiss and Norwegian cases are isolated incidents. There is no doubt free trade benefits many competitive industries. However, with protectionist trend in force, foreign trade remains a rather insecure base for industrial expansion. A simple legislation and quota would prevent the importation of textiles and consumer products of less developed country to EEC or other countries and the market for the product would collapse, thus hinder its expansion and industrialization. Unfortunately, artificial constraints and colonial heritage does prevent the movement of goods and services, labor and capital between Islamic countries. Nevertheless, steps to remove artificial barriers and constraints between the Muslim countries within regional schemes can provide an environment in which industry can grow, and maximum benefit from the rationalization of production and economies of scale would be realized.

### European Giants, Economies of Scale and Joint Ventures

Many sectors of manufacturing processes in Europe have been integrated. Nevertheless, they face a heavy competition from Japanese manufacturing industries. In order to survive and to compete for a firm under pressure, it has to change its scale of process, choice of process, equipment and plant location which is dependent on the size of demand and the relative prices of the factor of production. In a large market for a product, underpressure of competitive rivalry, and in the apparent absence of effective barriers to entry, the concentration

(\*) See, for example, R A. Batchelor and M.L. Major and A.D. Mursan, *Industrialization and the Basis for Trade*, pp. 1-90; Also see Per Andersson and Selim Cafer Karataş, *Regional Integration in the Less Developed Countries*, (Seattle, Univ. of Washington, 1971), pp. 1-28.



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of an industry's output in a few firms would be observed\*. The firms with superior production and marketing power would enhance their operations in order to maximize their profits and compete effectively. To compete with Japanese and U.S. Industries, for instance, the following changes have been taking place in Europe :

1. **Automobile Industry** - Europe's automobile manufacturers have been forced to seek a new type of arrangement and collaboration with each other. To stay alive, to survive and remain competitive, the giants of Europe such as Fiat, Peugeot, BL, Volvo, and Alfa Romeo have been seeking new arrangements to reorganize their production, scale of process, equipment and plant location through joint ventures "to develop entirely new car models, to produce standard components with economies of scale, such as engines and other parts and to merge with foreign operations in order to rationalize production process." The European companies even join the Japanese "enemy" for their new arrangements. As one of the Renault executive indicated the fact that "there will be more and more of these industrial agreements in Europe. It is the quickest and most economical way to reach a level of production where you can benefit from economies of scale". Some of the most significant joint ventures in the European Auto industry are :

- \* Fiat and Peugeot joint set up, a \$400 million to \$500 million joint venture in September 1980 to design and build 1 million electronically controlled, fuel efficient, low polluting engines;
- \* Saab-Scania and Lancia joint venture was concluded in 1979 to build up mid-size family sedans;
- \* Renault & Volvo joint venture aims rationalization of production line of Volvo and Renault and standardization of components and light-weight engines.
- \* BL and Honda Motor Co., have established a joint venture to produce in Britain a new model for European market;
- \* Alfa Romeo and Nissan Motor Co., have set up a joint venture to produce economy size cars and components in order to "reduce our general costs".

Furthermore, massive investments in new models aim in increasing plant efficiency and obtain maximum benefit from economies of scale through joint ventures\*\*.

2. **High-technology Industries**- High technology industries of Europe have come to the point in realizing their inability to stand up to world competition in the application of advanced technology. As a result, new strategies have been sought and significant changes are expected in management thinking, research and development in order "to catch up in basic technology." It is not strange to see the giants of Europe working hard to form ventures and

(\*) Harold Demsetz, "Industry Structure, Market Rivalry, and Public Policy", *Journal of Law and Economics*, Ap. 1973., pp. 1-9.

(\*\*) For the above information, See "Auto Makers remodel their troubled Industry", *Business Week*, November 10, 1980.

provide incentives to bring in new technology from the United States and Japan through joint ventures in order to share technical know-how, production and markets. Chief executive of AEG, who has just completed four-way venture in telecommunications, has stated the fact that "without cooperation we can't reach the break-even point for many products". Many of the advanced technology oriented companies in Europe such as Sweden's ASEA, Britain's ICL, West Germany's Siemens and AEG-Telefunken, and Italy's Olivetti and semiconductor maker SGS-Ates and other companies have been reorganizing their operations through joint ventures and rationalization of their production process in order to compete internationally for the simple reason European markets "are no longer big enough". The European governments have been cooperating to create business climate in which the giants can establish competitive internationally oriented large size plants. Even socialist Government in France does not hinder joint venture developments and looks favorably to the investment of France's Compagnie de Saint-Gobain, computer maker in France in Olivetti - which is expected to generate de facto Pan European information industry. Governments push them for Pan European Corporation in high-technology areas.

The latest child of such co-operation is JESSI (Joint European Silicon Structure Industry Initiative), a \$ 4 billion research and development program to counter Japanese dominance in semiconductors involving Siemens AG of West Germany, N V Philips Gloeilampenfabrieken of the Netherlands and the Franco - Italian Group SGS - Thomson. European Community is poised to propose paying for up to a quarter of the expense for Jessi (Joint European Silicon Structure Industry initiative), an eight - year project due to start next year.

In 1987, the EC set up a five year framework program with a budget of 5.4 billion ECVS (\$ 6.2 billion) for basic research ranging from telecommunications transmitting sound, text, and image simultaneously to biotechnology.

The size of the firm is a function of the plant size, technology and research with a given market. Investment in technology and research changes the fixed variables and forces the firms to compete in order to survive. The companies in Europe have felt the need to devise ways and means through joint ventures to compete with others not only in their own markets but also challenge them world wide. This is the economic side of the batde in which the political muscles of their states play supportive role.

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(\*) "A Search for Ways to Close the Technology Gap," *Business Week*, December 21, 1981, pp. 26-28.

