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European Economic and Monetary Union and Foreign Direct  
Investment: a Survey of the Theoretical and Impirical  
Literature.

by

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**DISCUSSION  
PAPER**

# **European Economic and Monetary Union and Foreign Direct Investment: A Survey of the Theoretical and Empirical Literature**

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## 1 Introduction

Although the theoretical and empirical literature on foreign direct investment (FDI) and multinational corporations<sup>1</sup> is relatively abundant, it still fails to provide an adequate explication of these phenomena. The very complexity of the issue has produced a multitude of research efforts suggesting various explanatory hypotheses and models. This vast literature has been surveyed several times<sup>2</sup>. Within the context of the literature on FDI, we will focus on studies that analyse possible links between FDI and the European Economic and Monetary Union.

Since 1980 the importance of FDI stocks to the EU as a share of GDP has risen significantly. Moreover, FDI appears to be more relevant in the EU economy than in other economies around the world, especially developed countries. In general, the past decade has seen a remarkable transformation in trade and direct investment flows. This transformation has been characterised by a particularly rapid growth of FDI. Over the period 1983-89, the outflows of FDI grew at an annual rate of approximately 2 percent, more than twice as fast as the previous decade and three times faster than the growth of world exports and the growth of world output. There is an intensified effort on the part of most countries to attract this investment. Multinational companies are emerging from the developing countries as well as the developed economies. This implies that FDI is likely to become the dominant method for international economic integration and that multinational firms will produce an increasing share of world output. It might be felt that this is of little consequence since, in a Heckscher-Ohlin-Samuelson context, trade in factors of production can be treated as a substitute for trade in goods, but the generality of this proposition can be questioned. In an imperfectly competitive international economic

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<sup>1</sup> Foreign direct investment indicates both cross-border mergers and acquisitions of existing firms and a greenfield investment. Multinational corporations are the main source of FDI. The two expressions will be used indifferently.

environment, the relationship between trade in goods and trade in factors is at best ambiguous. It is possible, and indeed likely as in particular Markusen (1984, 1995, 1997) has suggested, that international factor flows are complementary to trade in goods in both welfare and in volume-of-trade sense. Parallel work in 1980's focused, on the contrary, mainly on how the operations of multinational companies differed from portfolio capital flows in a traditional neoclassical general-equilibrium model. According to Markusen (1997), trade theory continues indeed to be heavily influenced by the ideas first put forward by Mundell (1957), that international trade in goods and trade in factors are substitutes. However, the main conclusion of recent works is that trade and FDI are complementary flows.

In order to understand how economic and monetary integration may exert an impact on multinational activities and FDI, it is necessary to understand the underlying forces affecting the decisions of multinational firms. A brief review of the theoretical framework developed by the literature focusing on multinational enterprises is therefore presented in Sections 2. Sections 3 and 4 are dedicated to review the literature on FDI related with the themes of European economic integration and European Monetary Union. Section 5 concludes.

## **2 Theoretical framework**

The theoretical framework developed by the literature on FDI can be divided in two successive approaches. The traditional theory of multinational enterprises has been the most important framework for research on this field, until the recent development of the so-called new trade theory. A brief review of the traditional theory of multinationals and of the more recent models of the new trade theory is presented in the next two sections.

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<sup>2</sup> Among others, see Rugman (1986) for the early literature and Markusen (1995) for the more recent developments.

## **Theory of multinationals**

The theory of multinational firms has a long history. The work most often cited as seminal is the 1959 doctoral dissertation of Stephen Hymer, published posthumously in 1976. Hymer first articulated the now widely accepted notion that a firm whose operations cross national and cultural boundaries faces costs that a firm whose operations are limited to one nation does not. For a firm to overcome the presumed penalties posed by these extra-costs, it must possess internal, firm-specific advantages over its rivals. He considered that such advantages are mainly represented by economies of scale or of superior production technology. A second very influential early work was that of John Dunning (1958). By an empirical analysis of the manufacturing operations in the United Kingdom controlled by US-based firms, Dunning seemed to confirm many of Hymer's speculations, although the work by Dunning was done quite independently of Hymer's work. The author found that these operations generally paid higher wages and were characterised by higher rates of labour productivity and new product innovation than their UK-controlled rivals.

Many of the works since Hymer (1976) and Dunning (1958) have attempted to identify the firm-specific advantages that drive FDI. The interpretation of the motivation for FDI suggested by Buckley and Casson (1976), has since become in general the standard point of departure. The authors observed that when multinational enterprises decide to service non-home-nation markets via direct investment there must exist some "internalisation" advantage over other alternative modes of doing business, as exporting or licensing. There must be economies associated with a firm exploiting a market opportunity through internal operations. These economies might be associated with costs of contract enforcement or of maintenance of quality or other standards. Dunning (1988) has emphasised that the advantages of

internalisation must interact with both firm-specific and locational advantages to explain FDI. In his works, in order to combine the available evidence, the author developed what is known in the literature as “OLI paradigm”. The OLI framework, or “eclectic theory” as John Dunning has dubbed it, has been widely considered, so that theoretical and empirical investigations of the multinational enterprise are very often conducted with reference to this framework.

According to Dunning (1988), the principal hypothesis on which the OLI paradigm of international production is based is that a firm will engage in foreign value-adding activities if and when three conditions are satisfied. First, the firm should possess net *ownership* (O) advantages vis-à-vis a firm of other nationalities in serving particular markets. These ownership advantages largely take the form of possession of intangible assets or of the advantages of common governance which are exclusive or specific to the firm possessing them. Second, it must be more beneficial to the enterprise possessing these advantages to use them or their output itself, rather than to sell or lease them to foreign firm. These advantages are called *internalisation* (I) advantages. Assuming the first two conditions are satisfied, it must be in the global interests of the enterprise to utilise these advantages in conjunction with at least some factor inputs (including natural resources) outside its home country. These advantages are termed the *locational* (L) advantages of countries. Locational considerations should mandate that the firm not concentrate all operations in one country serving foreign markets entirely by exports and domestic markets by domestic production.

A more recent development has been the attempt to embed theories of FDI in formal models of international trade, as it will be presented in the next section.

## **2.2 New trade theory**

The theory of the multinational enterprise has tended to be a branch of a more general theory of the firm, focusing on individual firms and their incentives to internally integrate activities across geographic space. The theory of the multinational enterprise has traditionally been rather disjoint from the theory of international trade. International trade theory developed from a general-equilibrium tradition usually relies on the twin assumption of constant return to scale and perfect competition.

During the last fifteen years, the theory of international trade has broadened considerably. The result of this is the so-called new trade theory, which indicates the industrial-organisation approach to trade. This approach has enriched the understanding of the causes and consequences of trade by adding elements of increasing returns to scale, imperfect competition, and product differentiation to the more traditional comparative-advantage models of international trade. According to the widely quoted Markusen (1995) review article, trade and gains from trade arise independently of any pattern of comparative advantage because firms achieve scale economies and pursue strategies of product differentiation in an imperfect competitive market.

The early attempts to reconcile the theory of multinational firms with trade theory include the works of Helpman (1984) and of Markusen (1984) about multinational enterprises generated by multiplant scale economies. The models proposed by the authors are general equilibrium models built in order to introduce explicitly multinational corporations in the general equilibrium theories of international trade. A general equilibrium theory appears indeed to be essential in order to connect systematically direct investment to its fundamental determinants and so understand the relation between standard international trade theory and the multinational firm.



Helpman (1984) and Markusen (1984) are both primarily concerned to link their treatments of direct investment to the theory of international trade, not to the OLI framework. The former focuses on vertical investments in which the production process is decomposed by stages according to the factor intensities, and doesn't consider investment to take place between similar countries. This characteristic of the Helpman's model is, however, counter to empirical evidence. The latter focuses on horizontal investments describing, in a general equilibrium system, the conditions under which firms choose to become multinational, but eliminates any consideration of vertical specialisation. In both cases, firms are supposed to export the services of firm-specific assets to foreign production facilities, and it is not very clear from this early work how such flows differ from the flow of physical factors of production.

More recently, a large literature has been focusing on the attempt to endogenize multinational enterprises into general equilibrium trade models. Firm-level characteristics have been combined with country-level characteristics and trade costs to determine what types of firms exist in equilibrium. According to Markusen et al. (1996), two branches of literature principally remain separate, one extending the model of horizontal multinationals first developed by Markusen (1984) and the other extending the vertical model first developed by Helpman (1984). Following Brainard (1993a), it is possible to classify the same literature looking at the extent to which multinational production-location decisions can be explained by the trade-off between maximising proximity to customers and concentrating production to exploit economies of scale.

### **2.2.1 Horizontal multinational models**

In the first branch considered by Markusen et al. (1996), multinationals are multiplant firms producing approximately identical products in different locations and substituting international production for trade as in the

horizontal model of Markusen (1984). In particular, Markusen (1984) focuses on a multinational monopoly with one plant in each of two countries versus a duopoly between two single-plant firms, but no attempt is made to establish which is the equilibrium market structure. A first generalisation with partially endogenized market structure is presented by Horstmann and Markusen (1987). A model in which market structure is determined fully endogenously as the outcome of plant location decision by firms, is developed by the same authors in Horstmann and Markusen (1992). Other generalisations are proposed by Brainard (1993a) and in the recent works by Markusen and Venables (1996, 1998). Brainard (1993a) formalises a model that provides a rationale for two-way horizontal expansion across border, which is distinct from the traditional rationale for vertical expansion based on factor endowment differential. The model introduces a trade-off between proximity and concentration advantages as the basic strategic consideration for the decision of a firm to go multinational, even in the absence of factor price differentials. The equilibrium depicted by Brainard's model is that overseas production is more likely to occur the stronger are returns to scale at the firm level relative to the plant-specific ones, the higher are transport costs, the greater is expenditure on differentiated goods in the foreign market, and the higher is the elasticity of substitution between varieties. Moreover, Brainard (1993b, 1997), on the basis of a 1989 cross-section of data for US bilateral activity, demonstrates that affiliate production rises as a share of the sum of exports and affiliate sales the greater are transport costs and trade barriers and the lower are plant-level scale economies. The paper by Markusen and Venables (1998) move beyond Horstmann and Markusen (1992) and Brainard (1993a) in important respects. These papers focus almost entirely on symmetric economies, in term of country size, factor endowments, and technologies. On the contrary, Markusen and Venables (1998) concentrate on asymmetries among countries, in particular analysing why direct investment is more important among countries that are similar. The general finding of this paper is labelled by the authors themselves "convergence hypothesis". Multinationals become more

important relative to trade as countries become more similar in size, relative endowments and technologies. A very similar conclusion is reached in the model developed by Ethier (1986), but in a substantially different framework, as it will be illustrated below. Again in the same direction, Markusen and Venables (1996) develop a model that suggests that convergence of country size may not be associated with growing volumes of intra-industry trade as indicated in previous literature, depending on the amount of this trade possibly being displaced by multinational production. As a consequence, the authors conclude that the world in general can benefit from the presence of multinational and that the gains rise particularly in countries whose factor endowment is such that, in the absence of multinationals, they would have few national companies. Moreover, Markusen and Venables (1996) show how the presence of multinational firms tends to be a stabilising force, reducing the region of endowment space from which factor mobility would induce agglomeration. All the models of horizontal multinationals appear to be empirically particularly relevant for investment among developed countries.

### **2.2.2 Vertical multinational models**

In the second branch indicated by Markusen et al. (1996), multinationals are firms that undertake geographically separate production with investment leading to intra-firm trade as in the vertical model of Helpman (1984). Direct extensions of the Helpman approach are developed by Helpman and Krugman (1985), Konan (1996), and Zhang (1996). This traditional explanation of multinational activity, that following Brainard (1997) can be indicated as factor-proportions hypothesis, holds that firms integrate production vertically across borders to take advantage of factor price differences associated with different relative factor supplies. The Helpman (1984) model uses a differentiated-products framework with multiplant economies of scale to examine the effect of differences in relative factor suppliers on production-location decisions. The model predicts that

multinational firms with corporate headquarters located in one market and a single production plant located in another market will arise to exploit potential factor cost differentials, as long as corporate and production activities have different factor intensities. Assuming that corporate activities are relatively more capital intensive than production activities, when relative factor endowments are sufficiently similar across countries that factor prices are equalised through trade, there is no incentive for cross-border investment, and there is two-way trade in differentiated products and one-way trade in homogeneous products reflecting factor-proportion differences. When relative factor supplies differ sufficiently that factor prices are not equalised through trade, some of the firms in the differentiated sector locate their corporate headquarters in the relatively capital-abundant economy and their production in the relatively labour-abundant economy, and export back to the headquarters market. Thus, with cross-border investment motivated solely by factor-proportions differences, multinational activities only arise in a single direction within an industry, in single-plant firms and between economies with large factor-proportions differences. With two stages in the production process, multinationals generate inter-industry trade and final goods. With additional stages, multinationals may generate inter-industry trade for both final goods and intermediates, but again flowing across border is only one direction at each vertical stage. These models of vertical direct investment seem more relevant in order to explain investment into developing economies.

It is important to underline that the two explanations of multinational activity proposed by the two branches of the literature are wholly compatible. When both factor-proportion differences and a proximity-concentration trade-off are combined, firms make the decision whether to produce abroad or export, based on the relative importance of these two considerations. The paper by Markusen et al. (1996) provides a formally integrated treatment of the horizontal and vertical models, so that various combinations of horizontal multinationals, vertical multinationals and

strictly national firms can arise endogenously as a function of parameter values. Such parameters are trade costs, differences between countries in relative and absolute factor endowments, and investment barriers. The authors show that vertical multinationals dominate production when the countries differ significantly in relative endowments, but are somewhat similar in size. Horizontal multinationals dominate when the countries are similar in both size and in relative endowments, and when trade costs are moderate to high. National firms dominate when trade cost are low and relative endowments are similar, or when trade cost are moderate, relative endowments are similar, and the countries differ significantly in size.

### **2.2.3 Other models**

Some recent imperfect-competition models of multinationals presume that multinational firms possess proprietary advantages, which are most profitably exploited internally for reasons such as asymmetric information and control over quality or technology diffusion. Main contributions in this area are the papers by Ethier (1986), Horstmann and Markusen (1987), and Dunning (1988). In particular, the paper by Ethier (1986) first indicates that the question critical for understanding direct investment in the context of trade theory is the nature of internalisation, and that the essential aspect of the latter usually involves the exchange of information between agents. The central informational issues are the public good nature of information and the size and diversity of the information flows with which agents must contend. In order to examine these concerns the author constructs a model containing two variables, research effort and product quality, respectively, associated with the two central informational issues. The basic parameters of the model are the relative factor endowments and the degree of intrinsic uncertainty facing agents<sup>3</sup>. The implications of the model are extremely different from those of the Markusen-Helpman-type of models, which took internalisation for granted. In the model developed by Ethier (1986) the

presence of multinational firms is positively related to the size of the dispersion and to the degree of similarity in relative factor endowments. Sufficient endowments similarity and the presence of a large enough dispersion cause two-way direct investment, making intra-industry trade and intrafirm trade large relative to inter-industry trade. Since it is unclear how robust the set of results is, the important consideration that it is possible to derive from the approach developed by the author is the inherent importance of explicitly modelling the internalisation decision. In the spirit of the model by Horstmann and Markusen (1987), developed making explicit use of game theory, the papers by Smith (1987) and Motta (1992) consider the strategic role played by FDI in oligopolistic competition. The strategic interaction between the subsidiary of a multinational and a potential local firm is investigated. In particular, the paper by Motta (1992), that can be considered an extension of Smith (1987), goes beyond the standard results of the multinationals theories in explaining the influence of the market size and of the cost variables on the choice between FDI and export. Interactions in rival firms' decision are shown to be a possible criticism to the usual conclusion that increases in the size of the host market and exporting costs and decreases in plant-specific costs and information costs induce a shift from export to investment. Moreover, the author indicates that the traditional result of increasing FDI as a consequence of tariffs imposed by the host country may also be the opposite. A tariff may induce a shift away from the foreign investment decision.

According to Markusen (1997), the accumulation of evidence from the last fifteen years suggests that it is important to examine more closely the relationship between trade and direct investment, especially with respect to the substitutes vs. complements issue. Stylised facts suggest that FDI is not motivated primarily by trade-barrier-avoidance, and not motivated primarily by factor-endowment/price differences. On the contrary, the basic models previously analysed consider trade and FDI substitutes because the key

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<sup>3</sup> The degree of intrinsic uncertainty facing agents is indicated in the paper with the term

choice is to supply a market either through exports or through local production. In this direction, Baldwin and Ottaviano (1998) develop a model in which two-way FDI arises due to imperfect competition and in which intra-industry trade and intra-industry investment go hand in hand. The model is designed thinking on an archetypal European consumer-goods multinational producing a wide range of consumer goods<sup>4</sup>. The decision of the number of varieties to produce faces a trade-off between a direct effect and a revenue-depressing effect. The direct effect indicates the operating profit of the new variety and the revenue-depressing effect reflects the fact that each new variety competes with the firm's existing variety. The reasoning proposed by the authors is based on the assumption that firms are willing to accept a lower rate of return on new variety produced abroad, if producing the variety abroad reduces the revenue-depressing effect. Specifically, firms are supposed to find it optimal to produce some of their variety abroad since trade barriers<sup>5</sup> partially shield home-produced varieties from the revenue-depressing effect of foreign produced varieties, and vice versa. Thus placing a factory abroad has a trade enhancing effect in the form of re-imports in addition to the usual displacement of exports with local sales of foreign affiliates. In this terms the authors provide a model in which trade and direct investment are not substitutes.

### **3 FDI and European Economic Union**

In the next sections, the literature on FDI related to the process of European economic integration is analysed. Theoretical and empirical early works built on the extension of the neoclassical theory of the international trade and more recent works on the subject are reviewed. In particular, four

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dispersion.

<sup>4</sup> The authors have in mind multinational corporations such as Nestle or Procter & Gamble

<sup>5</sup> Clearly this only works when trade in goods is restricted. When trade is almost free, almost any barrier to FDI will make intra-industry FDI unprofitable. However, the authors notice that even natural trade barriers such as transport costs and language are sufficient for creating FDI.

generic hypotheses suggested by Dunning (1997a) are used as basic framework in order to introduce the major contributions of the recent literature about the economic consequences of IMP. Before the review, some important stylised facts are presented.

### **3.1 Stylised facts**

Creating a unified European market has been a fundamental objective of the Community since its very beginning in the 1950s. By the end of the 1960s, much had already been achieved. Tariffs and quotas on intra-European trade had been abolished, a common external tariff on imports from third countries introduced and, in 1969, a programme introduced to remove intra-European technical barriers<sup>6</sup>. Following Dunning (1988), before the constitution of the EEC, foreign direct investment was driven mainly by defensive import substitution reasons, in order to overcome government induced market distortions. Nevertheless, a portion of foreign investment in Europe was already undertaken for more aggressive reasons, principally to take advantage of lower costs and to locate nearer to the markets. After the constitution of EEC, the consequent lowering of costs of exporting from the home country encouraged a rationalisation of productive facilities by European multinationals. Some intra-European direct investments were withdrawn. At the same time, however, the reduction of transaction costs within member states allowed others foreign firms to take advantage of product and process specialisation by co-ordinating their activities in separate European plants and serve a much wider market. As a consequence, the effect on intra-European direct investment was the opposite of the first underlined. The general effect on inward direct investment from non-EEC countries was a diffuse promotion of the growth of such investment.



Empirical evidence suggests that the net effect of European economic integration has been to increase the flow of foreign investment to individual member countries (Dunning, 1988). Following Dunning (1997a), an examination of the FDI investment data for the period 1957-85 reveals that foreign investment inflows in European member countries rose quite substantially, and that investment from non-EEC countries – particularly from the United States - represented the majority of the FDI in EEC. Moreover, prior to 1985, around 90 percent of foreign investment inflows in European member countries concentrated in the core countries, namely Belgium, Luxembourg, France, Germany, Italy, Netherlands and United Kingdom.

Despite the formation of EEC, capital flows, intra-European trade in both goods and services, and free movement of person around the Community for work or leisure purpose continued to be restricted by numerous non-tariff barriers. In 1985, the Internal Market Programme (IMP) was initiated by the European Commission with the intention of eliminate all remaining non-tariff barriers between the Member States by the mid-1990s. According to the study by UNCTC (1993) on the effect of European integration on transnational corporations, the programme to complete IMP carries important implications both for the Union itself and for countries located outside the Union producing a very complex relationship between economic integration and multinationals. The main elements influencing this relationship are the form of market integration undertaken, the industry considered, and the nationality of the multinational enterprise. The impact of European economic integration on multinationals behaviour appears, indeed, to be in part a result of country-specific factors. Moreover, as pointed out by Dunning (1997a), the evaluation of the impact of market integration was strongly conditional also on the time frame of the analysis considered.

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<sup>6</sup> Often it has been referred to this period that began in 1957 and extended until the mid-1980s as Mark I integration. The '1992' programme is often known as Mark II integration and is reckoned from 1985 onwards.

Consequently, the study by UNCTC (1993) concentrates on three groups of transnational corporation making investments in the EU. First, those of one EU country investing in another country within the union, that is intra-EU FDI; second, those of non-EU developed-country multinationals investing in the EU, mainly those from United States and Japan; and third, those developing-country multinationals investing in the EU. One of the main findings is that the rate of growth of non-EU direct investment in EU countries has consistently outpaced that of investment by other EU countries. During the Mark I period, United States FDI dominated inward and intra-EU flows, and in the years leading up the Mark II period, Japanese multinationals undertook an increasing share of non-EU investment. Some of the reasons for these facts are identified in terms of the changing in multinationals strategy and structure related to industry- and firm-specific variables. The presence of economies of scale is individuated among the more important industry-specific variables determining the extent of corporate reorganisation in response to regional integration. Following the data commented by European Commission (1996), an increase in the importance of FDI stocks to the EU as a share of GDP is noticeable. While the ratio of FDI inward stock to GDP since 1980 has generally grown world-wide, the European Union's has grown even faster, most markedly in the period 1985 to 1990, and remained higher than for most developed countries. This reflects the important role played by FDI in the EU economy, in contrast to both the United States and, in particular, Japan, and means that FDI is likely to have a more pronounced impact on the EU economy than on other economies around the world, especially developed countries. According to Norman (1995), the 1992 programme and the general process of regional integration in the EU have been reflected in a rapid growth in intra-EU FDI. The intra-EU FDI increased from 25 percent of the total inward stock in 1980 to 40 percent by 1988. The study by UNCTAD (1996) estimates that the proportion of the aggregate stock of world FDI located in the EU – both deriving from non-EU investing firms

and from European investing firms - have risen from 31 percent in 1985 to 39 percent by 1995. The evidence presented by Clegg (1996) is that, over the 40-year period to the early 1990s, the phases of EU market integration have caused the responsiveness of US FDI to market growth to be greater for EU countries than for non-EU countries. However, statistics on new capital outflows for 1984-91 suggest that the relative importance of US FDI has been diminishing. There has been an overall decline in the US share from 28 percent of EU inflows to 10 percent in 1991, passing through the level of just 3 percent in 1988<sup>7</sup>. In general, according to the study by OECD (1992), FDI from OECD countries increased fourfold in the 1980s and grew much more rapidly than domestic capital formation, GDP, or world trade. Rugman and Verbeke (1991) point out another important feature characterising FDI. Over half of the world's traded output derives from the 500 world's largest multinational enterprises, and nearly all of these are based in the triad economies of Japan, the United states, and the European Union.

Given to the powerful empirical relevance of the phenomenon of FDI, a widening stream of the literature is pointing out the importance of including multinational corporate in the analysis of economic integration. Although capital and intermediate product flows have been incorporated into integration analysis since early work on the subject, Dunning and Robson (1987) underline that the manner in which they are transferred was largely ignored by the literature of 1960s and 1970s. This reflected the predominance of neoclassical analysis of integration assuming that firms produce a single homogeneous good in a competitive industry and sustain

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<sup>7</sup> The author notices that some caution is necessary in interpreting the figure depicted because the data exclude the computation of reinvested earnings, and it is likely that the longer-established US affiliates in the EU have been growing through reinvested earnings. On this aspect, in particular Mayes (1985) points out the fact that with the implementation of the IMP, although a foreign subsidiary, like all domestic companies in the foreign country, faces increased competition from companies established in other EU countries as tariffs are eliminated, it is likely to continue to make profit and to invest. Therefore, even if no transfer of funds takes place with the parent company, an increase in assets of this kind has to be considered a component of FDI and therefore as part of the effect of the IMP on FDI.

few or no transaction cost. In this framework, economic integration was expected to influence the location of investment and not its ownership. Only during the last fifteen years, economists have taken interest in providing a serviceable framework of analysis for the explanation of the activities by multinational with the development of the new trade theory. The industrial-organisation approach to trade has entailed a switch of the focus of attention away from discrete acts of trade and investment to an analysis of the reason why firms become multinational and what determines the spatial pattern of their growth.

### **3.2 Limits of the early literature**

The initial widespread neglect of the effect of multinational enterprises within theoretical studies on economic integration was not paralleled in the studies of empirical evidence and in the political economy analysis of the issue. By the late 1960s and the early 1970s, the practical importance of the subject was already evident, as it emerges from the literature surveyed by Dunning and Robson (1987). The authors study the interface between multinational enterprises and regional integration distinguishing four principal issues that have been covered by the literature. The impact of the formation of a grouping on the rate of inflow of FDI, the impact of integration on the location of FDI within the region, the validity of the orthodox integration analysis in presence of multinational enterprises, and the policy implications of multinational corporations in regional groupings. The article by Yannopoulos (1990a) reviews the empirical evidence of the impact of economic integration in Europe on the size and structure of the activities of multinational corporations in the European Union during its formative years. More specifically it looks at the period when the original six Member States of the European Community achieved the first stage of

their customs union<sup>8</sup> by removing tariffs and quotas on their internal trade and establishing a common external tariff on their trade with the rest of the world. The review is then used by the author to draw some hypotheses about the expected impact of the completion of the European customs union with the elimination of the non-tariff barriers to intra-EU trade by 1992 on the level and pattern of foreign direct investment in the EU. Much of the earlier work on the impact of economic integration on FDI was concerned with an assessment of the trend in the flows of US direct investment to the European Community and in particular in finding out whether these trends demonstrate any upwards deflection. This period coincided indeed with a considerable inflows of FDI into the EC, especially from the United States: in 1964 the value of US direct investment in the EC had more than trebled in comparison to the year of the establishment of the Community. According to Yannopoulos (1990a), however, it is hazardous to interpret this trend as indicating the certain presence of a direct effect arising from the process of European integration. It is not evident whether the constitution of the European customs union led to a distinct alteration of the trends that were already under way since 1950. Moreover the process of integration coincided with several other developments that were raising the locational advantages of the Member states, like for instance the follow-up of German reconstruction, intensifying the ownership specific advantages in terms of technological progress and innovative activity of the US firms, and made possible the achievement of the indispensable internalisation advantages represented by progress in air transport and communications in general. The analysis by Scaperlanda and Balough (1983) provided a widely recognised strong empirical support for the hypothesis that the formation of the European Community and the process of economic integration had a definite influence on the changes that occurred during the 1960s in the locational patterns of US investment abroad.

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<sup>8</sup> The first stage of the customs union of the EC was accomplished during the period 1957-67.

The empirical work paid only limited attention to EU non-domestic direct investment of European firms. According to Cantwell (1987) and Yannopoulos (1990a), serious analysis of the determinants of European direct investment in the EU has been constrained by the lack of a reliable set of data available<sup>9</sup>. Moreover, Dunning and Robson (1987) pointed out that on the basis of purely *ex post* statistical studies it is impossible to disentangle the effects of economical integration from other factors. For this reason the authors conclude that it remains essentially a matter of judgement as to what has been the impact of integration on multinational corporations. Cantwell (1987) suggested that an industrial case study approach seems to be more fruitful than cross-country statistical analysis. This is indeed the approach adopted by the author in his article focusing on the restructuring of European industries by the multinational enterprises that operate within the Community. The pharmaceuticals and motor vehicles sector have been chosen in order to illustrate patterns of cumulative causation in the location of technological activity by multinational enterprises in the United Kingdom, as part of their European operations and strengthened by the existence of the EC. The analysis presented reflects the view that in any international industry there is a long-run process of cumulative advantage at work. That is, in locations where innovation is strong, success breeds success in the form of a virtuous circle, while countries whose firms have a lower capacity for innovation fall further and further behind and are gradually driven out of world markets in a vicious circle of cumulative decline. Thus an internationally trading industry will become increasingly divided into some dynamic and some stagnant production locations.

The work of Molle and Morsink (1991a) represents an attempt to overcome the problem of the constraint on data availability by building up a matrix of direct investment flows between Member States of the EU covering the period 1975-83. Nevertheless, such data base is not useful in studying the

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<sup>9</sup> Specifically on the problem of the weakness of national data on FDI is the article by Vukmanic, Czinkota and Ricks (1985). In general, however, is well known in the literature

impact of integration on FDI, being the starting data rather remote from the date of the establishment of the European Community. One can argue, however, that the process of integration in Europe has been an on-going phenomenon and thus it is possible to capture the effect of this process on FDI with the use of this data base. In fact, Molle and Morsink (1991a) used the matrix in the framework of gravity-type models adapted from the international trade literature. The authors combine push, pull, stimulus and friction factors in order to offer an explanation for international flows. The main findings of the study by Molle and Morsink are that trade results to be an important stimulus factor for FDI within Europe and that the relation between trade and FDI seems to be non-linear. Therefore, above a certain level of trade intensity, intra-EC trade and intra-EC investment appear to be complementary flows.

### **3.3 Improvements of the recent literature**

The conclusion that trade and investment are complementary flows differs widely from the ideas supporting the earlier work of the 1970s. This literature was built on the extension of the neoclassical theory of the international trade to situations involving factor mobility and trade, where investment were implicitly considered always substitutes. A weak interlinking between the theory of international economic integration and the theory of international production seems to be the main cause of this assumption, contradicted by the very fact that, despite the disappearance of internal tariffs, FDI by European multinational firms themselves also expanded rapidly within the Community. This is the common opinion of many authors, expressed with particular emphasis by Dunning and Robson (1987) and Yannopoulos (1990a). The focus of much of the earlier research on direct investment abroad led to a one-sided orientation towards the

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the problem arising from inconsistencies in national definitions of foreign direct investment.

locational implications of the trade-diverting effects of custom unions ignoring the consequences of integration on the ownership and organisation of economic activity - a question which is central to the theory of international production. Combining the framework of the OLI paradigm with the theory of international integration, Yannopoulos (1990a,b) proposes an accurate classification of multinational activity in the European Union. The author distinguishes<sup>10</sup> four types of investment responses by international firms identifying the static and dynamic effects of economic integration with the likely strategic responses of firms engaged in international production. The first type is the defensive import-substituting investment that derives from the trade diversion effects<sup>11</sup> of economic integration. It results from locational advantage generated by tariff realignment and represents a firm's response to maintain its market share. The second type is the offensive import-substituting investment to take advantage of the opening up of the new markets and the expected expansion in their size, and thus of the growing demand. The third type is the reorganisation investment that results from the pressure generated by the trade creation effects<sup>12</sup>. It will encourage multinational firms to redistribute production already established inside the Community towards locations with more advantageous cost conditions in the unified European market. The last type is the rationalised investment. It refers to investment undertaken in order to take advantage of the effect of improved efficiency – that is mainly the resulting new international distribution of advantageous production costs - following the removal of intra-EC non-tariff barriers to trade. According to the author, the deepening of the European economic integration leads to more opportunities for reorganisation and rationalised investment. Also offensive import-substituting investment is expected to be relatively higher.

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<sup>10</sup> It is interesting to notice that the taxonomic scheme proposed by Yannopoulos (1990a,b) does not depend on any prior view about the issue of substitutability or complementarity between trade and foreign direct investment.

<sup>11</sup> The trade diversion effect refers to the shift of the source of supply from more efficient third countries to less efficient domestic producers and results from the relative tariff discrimination - caused by the realignment of tariffs - versus third country exporters.



On the contrary, defensive import-substituting investment is expected to be relatively lower.

The conclusions reached by Yannopoulos (1990a,b) have to be regarded within the extensive study conducted by Dunning (1997a,b) in order to describe the specific impact of the IMP on the level and pattern of FDI in the EU. Although the investigation of this topic, using the author's words, is "like doing a difficult jigsaw puzzle with many pieces missing" (Dunning, 1997b, p. 208), the two-part review article by Dunning (1997a,b) is a complete and clarifying reference. In particular, Dunning underlines that an analysis aiming at delineating the main economic consequences of the IMP for extra- and intra-FDI in the EU has to be explicitly based on the combination of trade and FDI theories. According to this, the author identifies four generic hypotheses regarding the effects of the IMP on FDI. On the basis of this classification, we will highlight some of the main contributions developed by the recent literature focusing on the relation between the IMP and FDI.

### **3.3.1 Intensity and direction of the effects on FDI**

The first hypothesis proposed by Dunning (1997a,b) is that the IMP will have a positive effect on intra-EU trade as a consequence of the increased efficiency of resource allocation within the Union, and that the IMP will have an ambivalent effect on intra-EU FDI. On the other hand, looking at extra-EU flows, a positive effect on inward FDI and an ambivalent effect on extra-EU trade are expected. The ratio between export and FDI flows calculated by Dunning (1997b) is higher in intra- than in extra-EU transactions. In the study by Buigues and Jacquemin (1994), US and Japanese trade and FDI flows towards the EU result to be significantly complementary to each others. Expressly about extra-EU FDI inflows after

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<sup>12</sup> The trade creation effect refers to the increase of intra-EU trade flows as a consequence of more efficient resource allocation within the EU, in accordance with the partner country's comparative advantage.

1992, is the article by Rugman and Verbeke (1991). The authors suggest that the competitive strategies for non-EU multinational enterprises will partly follow the strategies already underway by their current European rivals. Moreover the authors expect that non-EU companies will establish themselves in the Union before 1992 in order to avoid potential barriers to entry and forced alteration of their designed strategies. Pain and Lansbury (1997) underline that, even if decline in barriers to trade is expected to lead to greater concentration of production in line with comparative advantage, the initial stage of liberalisation could generate increased investment flows as firms relocate in order to exploit the new opportunities.

Acocella (1992) analyses the relation between trade and FDI effects of IMP within a game-theory approach. The main conclusion of author is that the lowering of barriers threatens the monopoly positions of firms in the countries<sup>13</sup> and each one of them has the incentive to remove the danger of profits' reduction in relation to trade by eliminating his opponent. Norman (1995) observes that in a number of industries, in particular the technology-intensive industries, EU multinationals and US long-established affiliates are becoming increasingly regionalised within the Union. EU companies appear to consider the home markets the EU as a whole, rather than their country of origin within the EU, and many US companies<sup>14</sup>, adopted a pan-European view, with predominant local sourcing and highly devolved local management structures to such an extent that it is difficult to consider them as being other than EU firms. Given their relative youth, few of Japanese affiliates established in the EU can be characterised by similar observations. However, in general, the improved market accessibility resulting from the implementation of the IMP is increasingly encouraging companies, no matter what their original nationalities, to adopt a pan-European view. Moreover, the author underlines the fact that the improvement in market accessibility is an additional factor respect to any expansion of the market.

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<sup>13</sup> The game developed by Acocella (1992) is based on the restrictive assumption – as it is underlined by the author himself – that there are only two firms, each in one country, and two markets. The firms earn monopoly profits before the abolition of barriers.

Therefore, it leads to more investment in the EU than would have occurred as a consequence solely of market growth so that the volume of investment results greater than would have been the case without regional integration. Following the study by OECD (1992), the observed increase of FDI flows into European countries during the last decade, while undoubtedly related to investors' concern about trade barriers which might result from the IMP, was also due to economic recovery and the new possibilities arising from the single market. Investors were attracted by the prospect of a large unified market, with stable exchange rates, monetary discipline, and lower costs. This seems, in particular, the situation experienced by Spain and Portugal.

### **3.3.2 Effects on the geographical distribution of FDI**

The second hypothesis identified by Dunning (1997a,b) is that IMP will have an ambivalent effect on the geographical distribution of FDI within the EU, both by EU and non-EU multinationals. Dunning (1997b) underlines that there is little evidence of any general increase in the concentration of FDI within the EU, even if the share of FDI inflows in the EU from the major EU economies has increased in almost all manufacturing and service sectors between the mid-1980s and the early 1990s. Barrell and Pain (1997) provide empirical evidence that between 1976 and 1995 the leading investing countries - the United Kingdom, the United States, France, Germany and Japan - tended to invest in other OECD countries rather than in the more capital scarce ones, as predicted by the classical explanation of FDI in terms of relative factor endowments. The observation that key destinations for inward investment in recent years have been countries such as the United Kingdom, the United States, France and Belgium, characterised by relatively high cost and relatively capital abundance, supports the conclusion that not only poor economies in term of both capital and income attract capital flows. Investigating the effects European economic integration on US FDI, Clegg (1996) points out that a wide range

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<sup>14</sup> Typical examples are Ford and General Motors.

of applied studies of FDI flows into the EU considers the role of demand as the leading hypotheses of such flows. In particular, the role of demand conditions in determining the location of production is analysed by looking at the absolute size of foreign markets. The general framework behind this approach is the idea that a large size of the market lead to transaction cost reduction in conjunction with foreign location, and therefore that it exist a theoretically positive relation with the level of FDI. On the contrary, Culem (1988) demonstrate that EU market size did not attract US inward FDI - while US market size is important for EU FDI into the United States. However, the hypothesis on market growth overall receives qualified support and the literature seems to conclude essentially concordant that the enlarged market opportunities the European Union offered appear to be a much more effective incentive than barriers to trade. It seems now evident that market size has been leading in encouraging new entry, particularly during the initial phase of European integration. Subsequently, market growth has become the principal determinant of the later increase of FDI, once most foreign subsidiary where established. For instance, Balasubramanyam and Greenaway (1992) point out as the data on trends in Japanese FDI strongly indicate that its level has been positively influenced by the 1992 programme. Moreover, the role of market concentration considerations is indicated to be particularly important. This conclusion reflects the thesis - based especially on the industrial organisation approach - that FDI follows trade between trade blocs in order to resolve conflict between producers. Culem (1988) invoke the same idea to rationalise his unexpected finding that the EU market size does not attract US inward direct investment, although in this case the result is probably an outcome of the maturing of foreign affiliates. In the context of the EU, indeed, there are clear sources of instability along each of the following lines: the enlargement of the EU; the breakdown of stability in industries arising from over-capacity during recession; the internal de-regulation and market liberalisation; and the external growth of non-tariff barriers. For this reason,

the explanatory power of the hypothesis is likely to be periodic, peaking in moments of instability, and then declining over time.

The geographical distribution of industrial activities predicted according to the Krugman's view (Krugman 1991, 1993) - based on the experience and the theory of the United States - suggests that increased market integration leads to more specialisation of economic activities. Greater industrial specialisation results, as well, from the approach developed by Venables (1996, 1998) based on agglomeration and cumulative causation concepts. European integration is considered by the author to lead to a process of agglomeration of industries because firms are likely to locate close to each other, and no more close to the consumers. On this respect, as previously explained, Markusen and Venables (1995, 1998) develop the "convergence hypothesis" demonstrating that direct investment is more important among countries that are similar in size, relative endowments and technologies. Moreover, following Brainard (1993a) overseas production is more likely to occur mainly the stronger are returns to scale at the firm level relative to the plant-specific ones and the higher are transport costs. According to this, economic integration is expected to lead to a more concentrated geographical distribution of industries in the EU in intensive technology sectors in which plant economies of scale relative to transport costs are dominant. On this respect, Dunning (1997b) underlines that there is little suggestion of any general increase in the geographical concentration of FDI within the EU. Baldwin et al. (1995) underline the possibility that the IMP may have served to divert investment into the EU at the expense of other locations.

### **3.3.3 Country and sector specificity of the effects on FDI**

The third hypothesis indicated by Dunning (1997a,b) suggests that, depending on both country and sector specific factors, the IMP will have an ambivalent effect on foreign ownership of activities in the EU. In particular,

the author considers likely an increase in the foreign ownership of production in the sectors where firm level economies of scale prevail over plant level economies of scale. In those sectors, the IMP is likely to enable firms to spread better the extra-plant fixed costs and to reduce the costs of co-ordinating foreign production. This is, indeed, again the prediction of the model developed by Brainard (1993a).

The last hypothesis, following naturally from the third one, considers the fact that some sectors are likely to be affected more by the IMP than others. Therefore the effects of the single market on trade and FDI will, at list to some extent, be sector specific. Similar observations can be found in a large number of recent works investigating the effects of European integration on FDI, as it is expressed, among others, in the articles by Pain and Lansbury (1997), by Yannopoulos (1990a,b), by Young (1992), and by Young et al. (1991). Moreover, Young et al. (1991) underline that it is important to distinguish between first-comers<sup>15</sup> and late-comers firms - typically the Japanese ones - where the latter have the possibility to organise the expansion of facilities from the beginning on an optimal European basis. In a similar spirit, the paper by Buigues and Jacquemin (1989) illustrates that the strategic interaction between firms in the EU after the launching of the 1992 programme has to be analysed by referring to different typologies of sectors. The main criteria used by the authors to define the different typologies are the advantages of being a leading firm and the opportunities for differentiation of activity of the firm. Similarly, Clegg (1996) underlines that firms followed different strategy in response to IMP mainly in relation to their specific characteristic. In particular, the ownership of the firm, the different length of time the firm had been established in the EU, and the particular competitive position covered within the EU and globally are identified by the author as the main elements of evaluation. Strategies pursued by US firms under Mark I integration were initially characterised

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<sup>15</sup> The authors indicate as first-comers those companies that first established in the European Union twenty or more years ago.

by defensive import-substituting FDI undertaken to preserve market shares already acquired through trade servicing of EU markets. The result was an increase in the degree of corporate integration by US firms. During the Mark II integration, restructuring of marketing and distribution activities were predominant. By the end of the 80's most EU firms - including US affiliates - had adopted a single market in their strategic plans undertaking large corporate restructuring. In general, unlike the case of more recent US FDI, much intra-EU FDI represented new entry rather than expansionary investment. Moreover the author notices that cross-border restructuring by large firms preceded that by small and medium sized manufacturing and by service firms. A specific pattern is displayed by FDI in the service sector, which represents an increasing component of total FDI inflows. In this sector, FDI follows market opportunities particularly promptly reflecting the fact that the main characteristic of production processes in service are often highly specific to the location of the market.

### **3.3.4 Other important factors behind the effects on FDI**

Some other specific factors are important elements to be considered regarding the effects of the IMP on FDI. The role of wage and other cost factor is frequently distinguished among the key determinants of FDI. Theory suggests that wage costs should exert a discernible effect on the location of production<sup>16</sup>, even if, between developed countries, other factors can dominate in the location decision. In particular, Culem (1988) find that intra-EU FDI is attracted to locations with higher unit labour costs than the home countries. Moreover, in the same study, both the absolute and the host-home differential labour cost variables result insignificant for FDI flows in the EU from the United States as well as for EU FDI in the United States. This could be explained by the fact that high transport costs from the United States to the EU could dominate investment decisions, independently

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<sup>16</sup> The conclusions reached in studies on the role of labour costs are in general weakened by the common problem that relative cost variables are often based on the invalid assumption that industrial cost structures are comparable across countries.

from the relative advantage of labour costs. Following Clegg (1996), the general conclusion that horizontal market-oriented FDI between developed economies is not significantly driven by wage costs has to be completely accepted, the location of production being mainly related to transport costs and the proximity to the market, including non-tariff barriers. However, the author specifies that, within an economically integrated area, rationalised investment is attracted to those locations characterised by the presence of specific skills at the best value. Another important factor for the location of FDI is linked to the effects of differing tax regimes. The impact of tax on FDI is widely debated in the literature. However, a typical example is generally considered by looking at the case of Ireland; a small country where fiscal incentives had relevant effects in attracting inbound direct investment. Sleuwaegen (1987) and Stopford (1987) underline the general implications of European industrial practices and policies towards foreign firms.

Among others, Rugman (1985) and Cantwell and Sanna Randaccio (1992) shift the attention to another important aspect of international production arising from the activity of multinational companies concentrating their focus on intra-industry FDI. The analysis by Rugman (1985) is aimed at specifying the determinants of intra-industry FDI and the relation between this and intra-industry trade. The conclusion is that market imperfections, such as economies of scale and product differentiation, drive both intra-industry FDI and intra-industry trade, most intra-industry trade being undertaken by multinational companies. On the same direction, the analysis by Cantwell and Sanna Randaccio (1992) specifies that the precondition for cross investment flows to take place is that the industry be an international oligopoly. Moreover, the market size plays a significant role in the sense that an expansion of two identical domestic markets leads to an increase in the volume of intra-industry FDI.



According to the analysis of OECD (1992), behind FDI in the 1980s a particular combination of various factors had specific relevance. To begin with, economic output in the OECD was generally strong after a long and difficult period of slow growth and structural adjustments. FDI was strongly pro-cyclical during this period, affected by macroeconomic swings and responding during recovery with greater vigour than either domestic investment or world trade. Also, trade and investment linkages became more important as more firms decided to invest and then sell in foreign markets, rather than simply export from their home base. Another factor behind the increase in FDI during the 1980s was that more businesses in OECD countries went international, developing links with foreign markets and adopting global approaches in outlook, strategies, and operations. Although this was already happening in the 1960s and 1970s, the process accelerated during the 80s as companies were forced to look beyond their national borders for new products, customers, and inputs. Improved communications and transportation tied economies closer together and enabled smaller companies to invest abroad. In addition, the massive development of financial markets facilitated the investment process, and the financial sector itself became the object of extensive investment activity. Moreover, broad improvements in macroeconomic performance and structural reforms in OECD countries created an attractive environment for international investors to plan and invest in the 1980s. The financial discipline associated with the removal of exchange controls in the OECD countries increased predictability and enhanced investor confidence. Exchange liberalisation was part of the structural reform OECD countries went through in the 1980s, and was fundamental to boosting capital flows between countries. The observation by Dunning (1995) that the activity of multinational enterprises go hand in hand with globalisation and deep economic integration reflects, indeed, one of the most important issue concerning the role of FDI at the end of twentieth century.

## **4 FDI and European Monetary Union**

The possibility of negative consequences of variable exchange rates was one motivating theme in developing the Exchange Rate Mechanism within the European Monetary System. In particular, the role of exchange rate variability appears to be important in determining domestic and foreign investment flows. The impact on FDI of exchange rate stability, that follows from the creation of the European Monetary Union is, therefore, an interesting element to be considered in the analysis of the effects of economic integration on foreign investment. The literature on this subject is, however, still quite scarce. On the contrary, a great deal of literature concentrated on the impact of exchange rate variability on trade flows, and in particular on trade flows within the European Union.

### **4.1 The literature on FDI and monetary union**

The effect of monetary union on FDI flows is the main hypothesis tested by Molle and Morsink (1991b). However this seems to be the only study that specifically considers the relation between foreign investment and monetary union. In a previous empirical analysis of the same issue (Molle and Morsink, 1991a), the authors concluded that exchange rate risk discourages direct investment abroad. Moreover, the EMU, by reducing the variability of exchange rates, was expected to increase the flows from the richer northern Member States to those in the south. The subsequent study by Molle and Morsink (1991b) analyses more in detail the empirical relation between FDI within the European Union and the variability in exchange rates. For the analysis, alike in the previous article, a gravity-model is used that takes up as explanatory variables a number of push, pull, stimulus and friction factors. The exchange rate variability is considered among the last group. The results of the estimation procedures, for the years covering the period from 1975 to 1984, show the importance of three variables for explaining

FDI flows. Research and development in the country of origin is identified as the most significant push factor. Trade is identified as an important stimulus for direct investment, indicating a considerable complementary relation between trade and FDI. The variability in the average monthly real bilateral exchange rates appears to be the most important friction factor, and distance and cultural difference result as additional frictions. The conclusion reached by the authors is again that variability in exchange rates is of significant importance for direct investment flows. Consequently, monetary integration is likely to stimulate FDI between the countries joining the EMU. Aizenman (1992) analyses the implications of different exchange rate regimes on the patterns of domestic investment and foreign direct investment. The author demonstrates that a fixed exchange rate regime is more conducive to FDI than a flexible exchange rate. The conclusion reached by the author is based on the analysis of the incidence of real and nominal shocks, both being associated with higher domestic and foreign investment in a fixed exchange rate regime. On the contrary, Goldberg and Kolstad (1995) argue that exchange rate volatility stimulates the share of investment activity located abroad when there is risk aversion among producers. The authors support the theoretical result analysing two-way US bilateral FDI flows for the period 1978-1991.

Unlike the limited attention paid by the theoretical and empirical literature on the effect of exchange rate variability on FDI flows, a great deal of literature investigated the impact of exchange rate variability on trade. Exchange rate variability has generally been considered a remarkable limitation of the flexible exchange rate regime, since it increases the uncertainty underlying international trade and financial transactions<sup>17</sup>. However, both in the short and long run, the empirical literature found very little evidence of a negative impact of short term volatility on international trade. On the contrary, in the empirical literature there seems to be a consensus on the presence of a negative effect of long term movements on

trade. According to Bini-Smaghi (1991), the empirical results obtained in the literature appear to be contradictory and tend to highlight that there is no systematic significant relationship between exchange rate variability and trade flows. However, within this literature the studies that concentrated the analysis on EU trade flows<sup>18</sup>, found, on the whole, evidence that exchange rate variability negatively affects bilateral flows.

#### **4.2 The literature on FDI and exchange rate**

On the general connection between FDI and exchange rate is the paper by Froot and Stein (1991). Froot and Stein analyse the empirical evidence of the striking inverse relationship between detrended inflows of FDI into the United States in the period 1973-88 and the real value of the dollar, arguing that exchange rate effects appear to be pervasive. This observation, however, diverges quite substantially from the conclusion reached by most international economists dismissing the possibility of a relationship between foreign acquisitions and exchange rate on the basis that, with highly mobile capital, risk-adjusted expected returns on all international assets will be equalised. A model with perfect capital mobility implies that the individual components of the capital account are not linked to the exchange rate, even if, obviously, total net foreign investment is strictly connected with the current balance. It is in fact necessary to import exactly enough capital to compensate a current account deficit. However, the specific composition of the capital account surplus is not affected by the exchange rate. In keeping with this view, the consensus in the academic literature on FDI since the seminal early work of Hymer (1976) has been that industrial-organisation considerations rather than costs of capital explain most. FDI is undertaken not because of cost-of-capital differences, but because particular domestic assets are worth more under foreign control. Both domestic and foreign

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<sup>17</sup> See, for example, De Grauwe (1994) and European Commission (1995) for an overview on exchange rate uncertainty and trade in the process of European integration.

investors, having access to the same international capital market, finance their acquisition under the same conditions. Therefore there is no role for the exchange rate. Accordingly, Graham and Krugman (1989) argue that FDI is essentially a means to extend control for reasons of corporate strategy, rather than a channel for shifting resources from one country to another. In this sense, the “investment” component of FDI is actually the least important part of this issue. Investors simply pursuing higher returns can concentrate on portfolio investments in securities rather than on the more complex route of direct investment, so that the cost-of-capital view fails to explain why the direct rather than the portfolio strategy should be chosen. Moreover, FDI among advanced countries proceeds in both directions, sometimes in the same industry. This is difficult to account for if differences in the cost of capital are the reason for FDI.

Nevertheless, the experience of the United States during 1980s had given new life to the cost-of-capital approach, given the natural suspicion that the growth of FDI in the United States is tied to the same factors that have led to a growth in US indebtedness. Following again Graham and Krugman (1989), the cost-of-capital view offers a possible link between the United States’ shift to debtor status and the rise of FDI. A decline in savings and a perceived rise in investment opportunities generally lead to an increase in the cost of capital relative to that abroad. The same divergence would presumably occur in the firm-specific cost of capital between domestic and foreign firms. Thus foreign firms would be willing to bid more for US assets, and the rise in foreign participation would be linked to the US current account. However the author argues that the evidence, when looked carefully, suggests that the industrial-organisation motivation dominate the cost-of-capital motive. This implies that the apparent coincidence of rising FDI and growing debt in the 1980s can be considered simply a coincidence, and that the future growth of FDI may have little to do with the US balance of payments.

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<sup>18</sup> See Bini-Smaghi (1991), De Grauwe and Verfaillie (1988), De Grauwe (1987) and Sapir,

Froot and Stein (1991) develop a formal model of FDI in order to explain the importance of exchange rate for direct investment. The model is based on the presence of informational asymmetries about an asset's payoff; hence it is related to the nature of the asset being purchased. By considering that there is a link between wealth positions and investment, the relationship between exchange rates and FDI follows immediately given that foreigners hold more of their wealth in non-domestic denominated form. Therefore, a depreciation of the domestic currency increases the relative wealth position of foreigners and hence lowers their relative cost of capital allowing them to bid more aggressively for assets. The conclusions of the authors are that exchange rate effects on US FDI appear to be pervasive, even when disaggregated to the level of individual industries and types of direct investments. Moreover, the correlation of FDI with exchange rate results very different from that observed for other forms of capital inflows, including passive portfolio investment. The model developed by Froot and Stein supports popular claims that a depreciated currency can induce foreigners to take the control of domestic productive corporate assets. Moreover, the model formally and empirically demonstrates that the exchange rate adds some explanatory power to the experience of FDI inflows into the United States. More recently, Blonigen (1997) develops a theoretical connection between exchange rate movements and acquisition FDI, provided that acquisitions involve firm-specific assets and good-market imperfections prevent investors from having equal access to all markets. The empirical evidence investigated by the author considering the Japanese acquisitions in the United States from 1975 to 1992, shows a strong correlation between periods of a weaker dollar and higher levels of Japanese acquisition FDI in the United States for industries which more likely involve firm-specific assets. However, Klein and Rosengreen (1992) observe that the conclusions proposed by Froot and Stein (1991) that there is a significant correlation between currency movement and US FDI can be

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Sekkat and Weber (1994).

questioned because the correlations calculated are also consistent with the role that relative labour cost may play in determining FDI. At the same time, however the authors underline that the use of the wage variable for the determination of FDI can represent a proxy for relative wealth. In fact, exchange rate movements have been largely responsible for both relative wage and relative wealth movement between the United States and other industrial countries over the floating exchange rate period. The focus of the paper by Klein and Rosengreen (1992) is an investigation of the relationship between United States FDI from seven industrial countries between 1979 and 1991 and the respective bilateral dollar exchange rate. The central hypothesis is whether relative wage cost and relative wealth have had a significant effect on US FDI. The empirical results support the significance of the relative wealth hypothesis and fail to support the cost-of-labour hypothesis. It is important to notice that the evidence presented by the authors does not, by itself, support a particular theory of the manner in which relative wealth determines FDI. Relative wealth may matter because of the presence of imperfect capital markets, as in the theoretical model of Froot and Stein (1991), but it is also consistent with country-specific productivity shocks that affect both the relative wealth of a country and the amount of FDI undertaken by its investors. The hypothesis that a weaker real exchange rate leads to an increase in the inflow of foreign investment and, conversely, a stronger real exchange rate diminishes FDI inflows is consistent with both theories. Another possible source of the relationship between the real exchange rate and foreign investment is that FDI represents tariff-jumping and that the threat of protectionism rises with a stronger currency. This predicts, however, a decrease in the amount of inward direct investment in the face of a weaker real exchange rate. A reflection on the position of the Euro as new currency in the world economy seems, for these reasons, an important element to evaluate the effect of monetary union on FDI in Europe.

## 5 Conclusion

The economic literature on FDI and multinational corporations is very diffuse. Within the context of this vast literature, this paper focuses on early and recent studies that analyse possible links between FDI and the European Economic and Monetary Union.

The OLI paradigm and the new trade theory are the general framework for most of the theoretical and empirical literature on multinational firms. The main finding of the recent works on the subject is that trade and investment are complementary flows. Two branches of the literature can be principally identified, one extending the model of horizontal multinational corporations first developed by Markusen (1984) and the other extending the vertical model first developed by Helpman (1984).

The conclusion that trade and investment are complementary flows is particularly important also in the literature on FDI related to the process of European economic integration. The evidence for EU FDI flows is indeed strong. The main stylised fact is that, despite the disappearance of internal tariffs and the consequent increase in trade, FDI by European transnational enterprises expanded rapidly within the Union. Combining the framework of the OLI paradigm with the theory of international integration, Yannopoulos (1990a,b) proposes a useful classification of the effects of economic integration on multinational activity. Defensive import-substituting investment and offensive import-substituting investment are likely to be the strategic responses of firms engaged in international production in the EU. Furthermore, reorganisation investment and rationalised investment are as well likely to arise. Moreover, four generic hypotheses suggested by trade and FDI literature are identified by Dunning (1997a,b) in order to analyse the effects of the IMP on extra- and intra-FDI in the EU. The intensity and the direction of the effects of the IMP on FDI flows are the first concepts analysed. On this issue, the literature develops



different approaches, but the common conclusion is that the IMP will have a positive effect on FDI inflows in the EU. Second, the IMP is in general expected to have an ambivalent effect on the geographical distribution of international production, mainly depending on the importance of plant economies of scale in relation to the level of transport costs in the industries. Finally, the effect of the IMP on FDI in the EU is likely to be country and sector specific.

The creation of the European Monetary Union and the consequent exchange rate stability are important factors behind FDI flows. However, within the literature on the general connection between FDI and exchange rate, the works by Molle and Morsink (1991a,b) are the only studies that specifically consider the relation between foreign investment and European Monetary Union. The authors conclude that monetary integration is likely to stimulate FDI between countries joining the EMU.

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