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ABSTRACT

Stressing that the liberalisation of international trade and investment may lead to a geographical concentration of economic activity, this paper discusses the scope for FDI as an instrument of regional policy aimed at offsetting the centripetal forces unleashed by liberalisation. Focusing on Sweden, the paper finds no signs that FDI has contributed to reducing income and development gaps in this country. More specifically, remote provinces that qualify for EU regional support – including support for FDI – have not performed better in terms of employment, labour productivity, and education levels than remote provinces that do not qualify for such support. An exception concerns the R&D intensity of firms (both foreign and indigenous), which tends to be higher in supported than unsupported remote regions.

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Regional integration, foreign direct investment, and regional development

1. Introduction

Regional integration was not a major issue in the international economics debate as long as neoclassical theory dominated academic thinking and policy making about international trade. The economic arguments for regional integration were relatively weak, since economies of scale and markets with imperfect competition were unimportant at an international level. Most of the existing regional integration agreements involved small countries or developing economies that were too weak to bargain successfully with larger and more advanced economies. The European Economic Community (EEC) was an exception, but it was clear that its existence was motivated by political rather than economic reasons. Avoiding future wars in Europe was arguably more important than improving the efficiency of European industry.

The discussion about regional integration changed markedly with the emergence of “new trade theory” in the late 1970s. Although there is no consensus about the exact delimitations of this theory, it is fair to say that one of its most important characteristics is an explicit emphasis on economies of scale. This results in imperfect competition at the national level and cross-country differences in the international competitiveness of national firms. Put simply, firms in small countries will tend to have relatively high average costs, whereas firms in large countries can grow larger and achieve lower average costs. When international trade is established, large-country firms will dominate exports in industries with significant scale economies. Unlike neoclassical models, where changing factor prices tend to reduce the advantages of the first-comers, there is not necessarily any such effect in the new trade models. Various agglomeration benefits – or alternatively, external economies of scale – may instead cement the advantages that large countries have at the outset.

For a brief period, strategic trade policy seemed like a feasible policy option for small countries and industries trying to compete in a world with significant economies of scale. This concept refers to the various subsidies and other forms of support that can be used by governments to reduce the production costs of domestic firms relative to their foreign competitors, allowing them to capture larger market shares both at home and abroad. However, it soon became clear that it would be very difficult to conduct strategic trade policy in practice. In addition to the difficulties in identifying those industries that would be able to meet international competition after an initial dose of strategic support, the success of the policy has also been tempered by the responses from competing firms and nations. Every discovery of attempts to provide strategic support for domestic firms is likely to result in severe complaints from other countries, leading, in the worst cases, to formal trade disputes and retaliation.

Instead, regional integration has emerged as a major national policy alternative for countries trying to overcome the handicap of a small domestic market. By joining a regional integration agreement, they gain access to a regional market where firms may grow large enough to face the competition from countries like Japan and the United States.



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However, while regional integration opens up opportunities, it also introduces new challenges. Most importantly, not all firms will be able to qualify as “regional champions”. The process of regional integration is instead likely to bring about substantial restructuring at the micro level: many firms must disappear so that the remaining ones can grow larger. A substantial share of this restructuring will occur through mergers and acquisitions (M&As), as relatively strong companies devour their weaker competitors. Many M&As will involve companies from different countries, introducing foreign direct investment (FDI) as an important element of the process.

This new kind of regional integration obviously introduces a new set of questions for policy makers and private actors alike. Which firms will survive the restructuring process? What countries will be home to the new regional champions? How should the regional integration agreement be designed to give equal opportunities to all member countries? What opportunities do policy makers have to influence the outcome of the restructuring process? Could it even be possible to use the restructuring process to achieve regional development policy objectives?

The present paper addresses some of these questions. Section 2 discusses the expected benefits of regional integration, and stresses the restructuring needed to improve the scale efficiency of production in the integrating region. Section 3 looks at the consequences of modern trade theory for how regional integration should be organised. Section 4 provides an overview of the relation between FDI and regional integration. Section 5 discusses FDI incentives and examines whether the types of investment incentives allowed in the EU can be used to influence FDI flows and the pattern of development in the EU. Section 6 offers a summary and some concluding comments. The overall conclusion is that while FDI is an important channel for the productivity and growth effects from regional integration, it is not likely that it can be a major instrument to promote development in remote and disadvantaged parts of the integrating region.

2. Effects of regional integration

2.1 Neoclassical views

The neoclassical approach to regional integration focussed on trade creation and diversion...

The neoclassical analysis of the effects of regional integration (or preferential trade agreements) focussed on two phenomena: trade creation and trade diversion (Viner 1953, Lipsey 1961). Trade creation was said to occur when the introduction of regional trade preferences allowed firms in one of the partner countries to capture market shares held by local firms in another partner country. Since this replaced a relatively inefficient producer (that had benefited from import protection) with a more efficient producer, it was expected that it would on balance improve welfare, both regionally and globally. Regional consumers would benefit from lower prices, and the producer surplus gained in the expanding industry would exceed the producer surplus lost in the contracting industry; at the same time, the rest of the world would not be affected.

Trade diversion, by contrast, was often expected to reduce both regional and global welfare. Trade diversion occurs when regional trade preferences allow firms from one of the partner countries to capture regional market shares that were earlier held by outside

producers. The reason for expecting negative welfare effects in this case is that more efficient producers are displaced by less efficient ones. To get into the market in the first place, when all foreign producers faced the same trade barriers, the outsiders must have been relatively efficient. Hence, outsiders lose when their market shares diminish, and welfare losses in the integrating region itself are also likely, in spite of lower consumer prices and increased regional production: tariff revenues shrink when imports from the rest of the world fall, offsetting the gains in consumer and producer surplus. However, over time, it has been recognised that the welfare impact of trade diversion may in some cases be beneficial to the integrating region. These situations occur when the substitution possibilities in consumption and/or production are relatively large, and the cost disadvantages of regional producers (as compared to the most efficient outsiders) are relatively small. If the establishment of a regional integration agreement improves the terms-of-trade of the integrating region, it is even possible that a trade distorting customs union could raise the welfare of the integrating region above that in free trade (Markusen *et al.* 1995). Moreover, as pointed out by Kemp and Wan (1976), it is always possible to define a set of tariffs and subsidies to compensate outsiders, so that the global welfare effects of any customs union – even one with trade diversion – are positive.

However, whether the main impact of regional integration was thought to be trade creation or trade diversion, the welfare effects found in quantitative assessments were typically very small – often less than one percent of GDP. One reason for the limited quantitative impact of this kind of “neoclassical” integration is that most regional agreements were between similar countries, where the potential gains from trade creation are relatively small. The members in most regional agreements exhibited similar factor price ratios and industry structures, whereas theory predicted large effects mainly when the agreement included countries with widely different comparative advantages.

The neoclassical literature on regional integration rarely focused explicitly on investment effects. To the extent that investment was discussed, the underlying assumption was largely that trade and capital movements were substitutable modes of serving foreign markets.¹ If anything, this suggested that tariff barriers could motivate import-substituting FDI, and that general tariff reductions, e.g. in the context of a regional integration agreements, would reduce foreign direct investment flows between the member countries or even stimulate a repatriation of foreign-owned assets to the home countries of transnational corporations (TNCs). An exception to this simplistic view was provided by Kindleberger (1966), who noted that when regional integration agreements result in trade creation, then intra-regional FDI in some member countries might increase in response to changes in the regional production structure. This potential impact on intra-regional FDI flows was termed investment diversion.

... but rarely examined explicitly the effects of regional integration on foreign direct investment.

At the same time, it was clear that inflows of FDI from outside the integrating region might be stimulated. This would obviously occur if the average level of protection increased as a result of regional integration agreements, or if the establishment of such agreements raised fears about future protection. The inflows of foreign capital could also

¹ See, for instance, Mundell (1957), Corden (1967), Johnson (1967), Brecher and Diaz-Alejandro (1977), Bhagwati and Brecher (1980), and Bhagwati and Tironi (1980).

increase if the volume of incoming FDI was initially restricted by the limited size of the individual national markets. Contrary to the national markets, the integrated common market might be large enough to bear the fixed costs for the establishment of new foreign affiliates. In addition, Kindleberger (1966) identified investment creation as a likely response to the trade diversion brought about by regional integration agreements. The term refers to the strategic investment responses by outside firms who lose export markets when their former customers turn to suppliers based in the region.

With the exception of tariff-jumping FDI, these investment responses were typically seen as adjustments to temporary imbalances in relative cost conditions. Most neoclassical authors seldom distinguished between flows of foreign direct investment and flows of portfolio capital, and it was expected that the investment flows would gradually diminish: the inflow of foreign investment was expected to reduce the marginal return to capital in the recipient country until the expected risk-adjusted return was equal to that in the investor country. Consequently, the investment effects of regional integration agreements were not considered to be of great quantitative importance. This view did not change until scale economies and imperfect competition entered the picture, and it was recognised that FDI is mainly driven by the exploitation of firm-specific intangible assets rather than cross-country differences in the price of capital. In order to compete successfully in a foreign market – where local firms have superior knowledge of the local market, consumer preferences, and business practices – the internationally-oriented firm must possess some firm-specific intangible assets, such as technological and marketing expertise, that give it a competitive edge. The effective exploitation of these assets sometimes requires firms to internalise their international operations by establishing foreign affiliates, since other modes of international business, including exports and licensing of technology to foreign firms, carry relatively high transactions costs (Buckley and Casson 1976, Dunning 1977). FDI may therefore occur even when there are no trade barriers or substantial cross-country differences in interest rates, and the effects of FDI on home and host economies can be expected to reach far beyond the impacts on capital returns. In particular, both home and host countries are likely to benefit from economies of scale as well as various externalities stemming from the closer international contacts that necessarily accompany foreign direct investment.

Scale economies and imperfect competition help explain FDI flows even in the absence of substantial trade barriers or cross-country differences in interest rates.

2.1 Modern views

Some of the expected effects of more advanced forms of regional integration can be illustrated with the discussions in the mid-1980s about the establishment of the European Single Market. It was recognised at that time that European integration had brought significant benefits to the region, but arguments were also raised that a deepening of the integration process was needed to realise the full potential of the integration project. The case in favour of further integration was laid out in the so-called Cecchini report (Cecchini 1988), which specified the foregone benefits if the European Single Market was not realised. These benefits were related to harmonisation of technical standards, removal of border controls for intra-EC trade, more efficient public procurement, tougher competition, and improved opportunities to benefit from scale economies.

While the formal tariff barriers between EC countries had already been abolished with the Treaty of Rome in 1957, the regional market was still segmented by various national

technical standards that effectively protected domestic producers in each country. The Single Market project addressed the plethora of technical standards in two ways. For areas concerning health and safety, the aim was to harmonise national regulations. In all other areas, the key words were mutual recognition: a product or service that fulfilled the requirements in one member country should automatically get access to other member countries.

With both tariff barriers and country-specific technical standards out of the way, it would also be possible to remove border controls altogether. This measure was considered to be important especially for smaller firms. Given that the costs for border formalities do not vary directly with the volume of foreign sales, but are fixed in the sense that some expenses have to be incurred as soon as a firm decides to engage in exports, they may discourage smaller firms from exporting.

While public purchasing accounted for about 15 percent of the Community's GDP, most of this was reserved for domestic suppliers until the mid-1980s. The creation of EC-wide competition for publicly procured goods and services was envisaged to contribute to restructuring in sectors where public procurement accounts for an important share of total purchasing. The competition between suppliers would force them to restructure in order to seek economies of scale.

Competition and better opportunities to exploit scale economies more generally were the two main expected gains from the Single Market programme. The various non-tariff barriers that maintained the fragmented market structure in the region also provided each national producer some degree of market power. This resulted in a lower output volume and higher price level than what would have occurred in perfect competition. By opening up the regional market, the number of firms competing with each other would increase, and the increase in competition would in a first round reduce the mark-ups for each firm. This would force firms to reduce average costs, which could result from a stronger emphasis on efficiency and, probably more important, from an increase in the volume of production in order to reap economies of scale. However, the enlarged market would not be able to support a constant number of firms producing larger quantities of output. In a second round, the number of firms would thus have to fall, leaving fewer but larger and more competitive firms in the market.

Combined, these improvements in the European market structure were expected to yield significant efficiency and welfare benefits in the medium term. The estimates from the Cecchini report put the aggregate gains in the region of 4-6 percent of total GDP in the EC-12 countries; more than half of this was expected to result from increased competition and economies of scale. It is clear that these estimates are only very rough approximations of the economic effects of European integration, and they have been criticised both by those who argue that the report is unduly positive and those that believe that the relatively static approach of the Cecchini report underestimates the true effects of deep regional integration. For instance, Baldwin (1989) argues that integration is not just a temporary shock to the system, but that it may instead have permanent growth effects. As productivity and output rise for the reasons discussed above, both savings and investment – and hence the long-run capital-labour ratio – are also likely to increase.

Enhanced competition and better opportunities to exploit scale economies are the main gains expected from the Single Market.

Another reason to expect even stronger growth effects is the prominent role of FDI in the restructuring process. The process whereby the structure of the regional industry changes from one where every country has its “national champions” to one where only a smaller number of “regional champions” survive will largely take place through FDI. The strongest firms will try to achieve the coveted scale economies by acquiring existing plants and companies throughout the region, or by seeking strategic alliances and mergers with their former competitors. Simultaneously, foreign transnational corporations may be attracted to enter the region with new FDI, in line with Kindleberger’s (1966) investment creation hypothesis. This increase in international production will not only raise competition, but also speed up technology transfer and information flows between the countries involved. It is even possible that the increase in FDI will benefit domestic industry through various external effects, such as technology or productivity spillovers (Blomström and Kokko 1998). These phenomena could obviously contribute to strengthening the dynamic growth effects in the regional market.

Modern views on regional integration recognise the role of FDI in exploiting scale economies.

One important difference between the neoclassical and modern types of regional integration concerns the optimal integration area. As noted above, neoclassical integration was expected to yield the strongest positive impact when it included countries with widely different factor price ratios and industry structures. This increased the likelihood that the regional integration agreements would result in trade creation rather than trade diversion. By contrast, a modern integration agreement can be expected to yield the strongest effects when it comprises countries with similar factor price ratios and industry structures, since the potential for industrial rationalisation to exploit scale economies is the largest in these cases. Furthermore, it should be noted that modern regional integration is expected to influence the international competitiveness of the region’s firms, whereas neoclassical integration focused on the static efficiency of the region’s resource allocation. If integration agreements actually improve competitiveness in third-country markets, then it is clear that the benefits from integration are larger than those estimated in the Cecchini report.

3. Forms of regional integration

Whether the focus is on old or new forms of regional integration (or on the static or dynamic effects of regional integration), it is clear that some degree of restructuring is essential to realise the potential benefits of integration. In cases of neoclassical integration, trade creation and trade diversion will result in expansion in some parts of the integrating region and contraction in other parts, but the determinants of this restructuring process are not very complicated. In the neoclassical world, the pattern of comparative advantages is largely given by the factor endowments of each economy, and these cannot be manipulated in the short term. Hence, when regional trade barriers are removed, factor price differences will automatically direct investments to the appropriate part of the region.

In modern integration, the restructuring needs are driven by the objective to establish a larger market with better opportunities to exploit economies of scale. Not all firms will be able to grow larger at the same time: instead, some firms will manage to exploit the new opportunities, while others will shrink, go out of business, or be acquired by their

stronger competitors. One of the main policy concerns in connection with this kind of restructuring is the concept of fairness, since there is an awareness that competitiveness at the firm level is not only related to factor endowments of the home economy: instead, various policy interventions may play a major role in determining competitive strength. In Europe, it has largely been accepted that this process will yield mixed results, where gains in some areas are to some extent tempered by losses in other fields. However, to muster general support for the restructuring process, which is certain to meet political opposition from those groups that are unable to respond to tougher competition, it has been necessary to establish institutions that define fair rules for regional trade and production: all member countries should in principle feel that their firms have a fair chance to survive and become a regional champion. These concerns have resulted in a tendency towards a gradual deepening and broadening of the integration process. In fact, the development of different forms of regional integration may, to some extent, be seen as a response to the need to create an increasingly fair environment for regional business.

Box 1 describes how different forms of regional integration gradually create such an environment. Suffice to note here that with the creation of the Single Market, EU firms operate on a level playing field where most policy-related features of the competitive environment have been harmonised. There are no tariffs or non-tariff barriers to trade goods, services, and capital, and labour can move freely between EU countries. In addition, for firms in countries that have joined the European Economic and Monetary Union (EMU), a common inflation target is implemented and currency risk affecting activities in the monetary union has been eliminated.

Deeper integration – such as the Single Market and EMU – is obviously more difficult and more costly than shallow integration in the form of free trade areas and customs unions. The harmonisation of national legislation is a slow and complicated process, and it may be difficult to agree on common macroeconomic objectives. At the same time, it should be recalled that modern integration promises more substantial benefits than what neoclassical integration did. Hence, there is a correspondence between the size of expected benefits and the investments countries have been willing to undertake to foster integration. Modern integration did not emerge until arguments related to scale economies and imperfect competition suggested that it might be meaningful.

It is possible that future developments will reveal further stages in the regional integration process, focusing more on political harmonisation and union. However, it is unlikely that the harmonisation process will eliminate all policy differences within the regional integration agreements, since the competitive conditions of each location will to some extent be determined by exogenous factors, like geography and natural resource endowments. Peripheral regions will protect their right to maintain more favourable policies (e.g. lower corporate taxes) to balance the natural advantages enjoyed by countries that are located closer to core markets, and locations with unfavourable climatic conditions (e.g. northern Sweden and Finland) will look for ways to compensate for the handicap of long, cold, and dark winters.

Although regional integration results in a harmonisation of policies, peripheral regions will strive to maintain policies to offset natural advantages enjoyed by other regions.

Box 1. From shallow to deep integration

The simplest integration agreements are so-called preferential trade areas (PTAs), where the member countries grant preferential access – lower tariffs – to goods produced in the integrating region. PTAs are simple constructs, but they are also relatively ineffective in bringing about the desired restructuring of regional industry. The main reason is that substantial trade barriers, both in the form of tariffs and non-tariff barriers, may still exist within the PTA, so that national markets remain segmented.

A more comprehensive solution is the establishment of a free trade area (FTA), where all tariff barriers between the participating countries are removed. However, in spite of its name, a FTA may still include substantial barriers to regional trade and competition. Remaining non-tariff barriers may limit market access, and differences in external trade policy are likely to affect competitiveness in the regional market. The member countries in FTAs retain their individual trade policies with respect to third countries, and the differences in import tariffs from the rest of the world – and the resulting differences in production costs – can create a serious obstacle to competition on equal terms.

Further progress towards integration is made with the creation of customs unions, where external tariffs are harmonised. Looking only at formal tariffs, customs unions provide a level playing field for all firms in the integrating region. However, other differences remain to segment markets. First and foremost, it is clear that various forms of non-tariff barriers may still create substantial obstacles to regional trade. There will also be cross-country differences in the availability and prices of production factors, which naturally will affect relative competitiveness and trade flows.

The next step in regional integration, the establishment of a common market, addresses these cross-country differences. By removing all non-tariff barriers, such as technical standards, a common market can guarantee the free flow of goods between member countries. In the case of the European Single Market, the solution has been to combine some harmonisation with mutual recognition, so that products fulfilling the legal requirements in one of the national markets must also be allowed in the other national markets. By guaranteeing free mobility of services, capital, and labour, a common market can also remove some of the cross-country differences in factor prices and contribute to the harmonisation of the overall business environment.

While the creation of a common market is an important milestone on the road to deeper integration, the existence of national currencies hinders price transparency and thus competition. Against this background, the harmonisation of exchange rates and monetary policies of member countries can be expected to further stimulate competition and, by extension, economic welfare. In a first phase, this may entail establishing a system of fixed exchange rates between the national currencies in the region. To maintain this system of fixed rates, it is also necessary to coordinate monetary policy. However, as the experiences of Europe up to the early 1990s suggest, it is difficult to combine fixed exchange rates and full capital mobility even in the most ambitious integration agreements. It can even be argued that a common market with fixed exchange rates and completely free capital mobility is inherently unstable in some circumstances.

The solution to this problem is the introduction of a common currency, which necessitates the establishment of an economic and monetary union. In such a union, the different national currencies are replaced by a common currency, and the national central banks are replaced by a common central bank that determines the union's common monetary policy. For this to be sustainable, there is a stronger need for policy harmonisation, not only concerning inflation targeting, but possibly also fiscal policy (e.g. profit taxes).

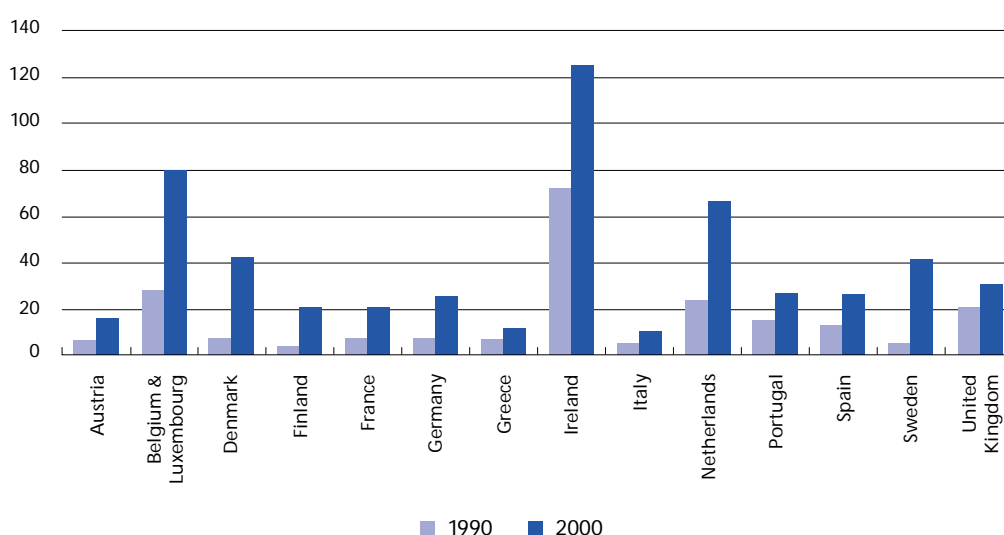
4. Regional Integration and FDI

Some of the restructuring that is expected to result from regional integration will occur as new firms enter the market, relatively efficient pre-existing firms expand their operations, and less efficient firms shrink or go out of business altogether. However, this kind of “organic” change is slow, and much of the restructuring therefore takes place through ownership changes. M&As can rapidly reduce the number of firms in the market, and allow the surviving ones to grow large enough to exploit economies of scale. The recent stages of European integration have clearly been characterised by this kind of restructuring. Baldwin and Wyplosz (2004) report that the average annual number of M&As in the EU-15 between 1991 and 2001 exceeded 10,000. Most of these were domestic, but some 45 percent of the M&A cases – and a substantially larger share of the total capital involved – included firms from more than one country.

Most of the industrial restructuring resulting from regional integration takes place through M&As.

Cross-border M&As make up at least half of the foreign direct investment in the EU. However, the investment inflows have not been equally distributed across the EU. Figure 1 shows EU countries’ stock of inward FDI as a share of GDP in the EU in 1990 and 2000. It illustrates some of the cross-country differences in the importance of inward FDI. Ireland, where the inward FDI stock corresponded to more than 120 percent of GDP, Belgium/Luxembourg (60 percent), and the Netherlands (80 percent) were the EU’s most prominent host countries in relative terms. In most other EU countries, FDI stocks were well below 30 percent of GDP. In terms of the absolute value of inward FDI stocks, however, the picture is dominated by the largest EU countries: the stocks of FDI in the United Kingdom, Germany, and France all exceeded USD 450 billion, while Ireland barely reached USD 160 billion (UNCTAD 2003 and Zimny, this volume).

Figure 1. Inward FDI stock in the EU, in % of GDP (1990 and 2000)



Source: UNCTAD (2003)

These cross-country differences bring up questions concerning the determinants of FDI inflows, and how these inflows are distributed across the integrating region. Which parts of the region are likely to be the main beneficiaries of the FDI inflows that may be triggered by the integration process?

Until recently, there was a strong consensus in the literature on why transnational corporations (TNCs) invest in specific locations (see e.g. Dunning 1993, Globerman and Shapiro 2003, Uppenberg and Riess, this volume). The view was that TNCs are mainly attracted by strong economic fundamentals in the host economies. The most important of these are market size and the level of real income, with skill levels in the host economy, the availability of infrastructure and other resources that facilitate efficient specialisation of production, trade policies, and political and macroeconomic stability as other central determinants. This hierarchy of host country characteristics largely assumed that FDI was market seeking although it was recognised that foreign investors seeking an export base would be less focused on local market size and more concerned about the relative cost of production. However, with an integrated regional market, many of these determinants do not distinguish effectively between alternative locations within the region. With deep integration, national market size does not matter much, the free mobility of labour and capital will to some extent temper the impact of national resource endowments, and the policy convergence that typically accompanies regional agreements also tends to reduce differences in institutions and macroeconomic stability. What are then the remaining cross-country differences that explain the wide variation in the importance of FDI at the national level?

Regional integration reduces the relevance of FDI determinants that were of importance prior to integration, but geographical proximity and factor endowments still matter.

Notwithstanding the price and policy convergence that takes place as a result of regional integration, there are still differences in the locational advantages of the countries and regions participating in any integration agreement. The most obvious differences are related to geographical location – where proximity to the market remains a strong determinant of FDI – but factor conditions are also likely to vary. In particular, different locations will offer different mixes of production factors: the best examples may be related to different kinds of labour skills. Some of these differences are related to history, in the sense that previous production experience has led to the accumulation of specialised skills used by the industries that have clustered in the specific location. In these cases, it is also possible that national policies have evolved to support the specific industries that have established a base in the location: higher education may have some emphasis on research training in locations where industries intensive in research and development (R&D) are important; energy taxes may be relatively low in areas where energy-intensive industries dominate; and so forth. Some of these locational factors may even take on more importance after a regional integration agreement because some other determinants of investment location decisions, such as trade barriers, are likely to disappear.

History matters also because the character and degree of change brought about by regional integration differ between countries. For instance, countries that have traditionally implemented free-trade-oriented policies are not likely to see any surge of imports after joining an integration area, whereas countries with a more protectionist history will meet significantly tougher competition. In the former case, it is likely that the effects on foreign as well as domestic investment will be unambiguously positive, since the effects from increased regional market access dominate; in the latter case, it is even

possible that the country is host to import-substituting foreign investment that might be withdrawn or diverted to other locations as a result of regional integration. In general, it can be argued that the *ex ante* structure of trade and investment flows will be one of the determinants of the country and industry specific responses to regional integration agreements. Countries and industries that were already closely linked to their partners before the formal agreements – due to geography, historical conditions, or other reasons – are likely to face smaller changes than countries and industries with limited initial contacts with the other participants in the integration agreement.

Given these various determinants of the pattern of FDI within the integrating region, it is useful to specify a summary framework relating the expected effects of regional integration to country and industry characteristics. Figure 2 provides an organisational template for thinking about the FDI process in the context of regional integration. The attribute labelled environmental change summarises the degree to which trade and investment flows are liberalised by the integration agreements in question. This depends both on the nature of the specific agreement and the initial institutional environment in the region. As one moves down the rows of Figure 2, the degree of liberalisation is considered to be “weaker”. The attribute labelled locational advantage summarises the degree to which it is advantageous from a profitability standpoint to locate an economic activity in a particular location. This characteristic refers to the availability and cost of various production factors as well as the country’s geographic location with respect to major consumer markets and the general macroeconomic environment. As one moves across the columns (from left to right) in Figure 2, the locational advantages of a particular country – in relation to other members of the integrating area and the rest of the world – are presumed to be weaker. Identifying the position of a specific country or industry in Figure 2 will provide a starting hypothesis for the investment impact of regional integration. More detailed predictions regarding FDI flows must, of course, also take into account trade and investment patterns prior to integration, the motives for pre-existing FDI, the competitive strength of domestic versus foreign firms, and so forth.

The degree of trade and investment liberalisation and locational advantages at the outset of deeper integration shape the pattern of FDI once deeper integration unfolds.

Figure 2. Stylised country/industry characteristics that shape the pattern of FDI in an integrating region

	Locational advantages (positive to negative ⇔)	
Environmental change (strong to weak ↓)	1	2
	3	4

Source: Blomström *et al.* (2000).

The most pronounced positive impact on investment would presumably be experienced by those economic sectors falling into area 1. These activities experience the strongest degree of integration, and the country in question enjoys a strong locational advantage.

Hence, for reasons noted earlier, one would anticipate relatively strong, positive capital flows from both foreign and domestic investors to these sectors. For example, labour-intensive industries in low-wage countries entering integration agreements with high-wage countries (North-South integration) could be expected to fall in this area. In area 3, the hypothesised impact on domestic investment is weaker, albeit still positive. Area 3 contains those economic activities for which the country in question has a strong locational advantage, but for which the impact of the integration agreement is relatively weak. Economic integration between OECD countries, where the formal and informal barriers to trade and investment are relatively low at the outset (North-North integration), can be expected to provide many examples of existing industry clusters that fall in this category.

Moving to area 2, the expected impact on inward FDI is negative and the potential for actual disinvestment increases. Specifically, the activities in area 2 are strongly affected by the integration agreement, but the country or region in question suffers locational disadvantages in these sectors. Many countries and industries where the bulk of existing FDI has been established in order to avoid trade barriers would be classified in this area: labour-intensive industries located in high-wage countries entering into North-South agreements would fall in this category. Finally, the impact of integration on activities in area 4 is likely to be small. While the country or industry in question suffers a locational disadvantage, the impacts of the integration agreement on the overall economic environment are also quite weak. Area 4 could, for example, include activities in relatively remote or weakly developed parts of North-North integration agreements.

Deeper integration is likely to result in a pattern of FDI that exacerbates regional imbalances.

In summary, there is reason to expect that the main beneficiaries of the FDI flows triggered by regional integration are likely to be geographically central locations and existing clusters: proximity to markets and agglomeration effects are likely to be important determinants of investment location. This is a worrying conclusion from the point of view of regional development policy: to the extent that FDI affects regional development, it is likely to cement the development gaps already existing between central and remote regions. However, these predictions do not take into account the possible policy responses of national and regional authorities. Yet, it is clear that the increasing competition for investment may well motivate authorities at different levels to introduce various policies to influence the pattern of FDI. While the countries and industries located in area 1 have a strong competitive position and may not need any additional incentives to attract investors, the situation is different for the other quadrants. In particular, countries and industries located in area 2 may well be tempted to compensate for their locational disadvantages by offering various kinds of investment incentives. The possibility to influence the investment pattern with various policy measures complicates the analysis of the regional integration-FDI nexus, and motivates a discussion of the effects of FDI incentives on regional development.

5. FDI incentives and regional development

5.1 FDI incentives: rationale, proliferation, and rules governing their use

Before focussing on the link between FDI incentives and regional development, a few general observations on FDI incentives are useful. The first one is that the attitudes towards inward FDI

have changed markedly over the last couple of decades. In addition to the push from deeper integration discussed above, FDI has also been advanced by multilateral trade liberalisation and innovations in telecommunications and information technology, which have combined to facilitate the coordination of international production networks. Consequently, almost all countries have liberalised their FDI policies, and an increasing number of host governments provide various forms of investment incentives to encourage entry by foreign-owned companies. These include fiscal incentives such as tax holidays and lower taxes for foreign investors, financial incentives such as grants and preferential loans to TNCs, and measures like market preferences, infrastructure, and sometimes even monopoly rights.

The second observation concerns the motives for subsidising FDI. The main economic argument in favour of public support to FDI is based on prospects for positive externalities associated with the activities of TNCs. Probably most important, foreign entry may increase the efficiency of indigenous firms. Such efficiency gains could result, for instance, from tougher competition and knowledge spillovers arising with the entry of foreign firms.² But as TNCs will not include these externalities in their private assessment of the costs and benefits of investing abroad, they may invest less than what would be socially optimal. The motive for public subsidies to foreign investors is to bridge the gap between the private and social returns, thus promoting larger inflows of FDI. But a word of caution is merited here: the empirical evidence on externalities and, by extension, the justification for specific FDI incentives is mixed; a key conclusion of the empirical literature is that host country and host industry characteristics determine the impact of FDI and that systematic differences between countries and industries should be expected (for a detailed review see Blomström *et al.* 2000 and Uppenberg and Riess, this volume); furthermore, there is evidence that spillovers do not occur automatically, but depend on the ability and motivation of indigenous firms to engage in investment and learning to absorb foreign knowledge and skills.

Third, even when justified economically, the proliferation of FDI incentives creates new problems. One is that competition between host countries may lead to more and more generous subsidies. In fact, competition between potential investment locations, internationally or within countries, may raise the subsidy levels so much that most of the benefits are shifted from the host country to the foreign investors (Haaland and Wooton 1999).³ At the same time, it is understandable that many countries are unwilling to give up their promotion efforts, and there is a consensus that the unilateral withdrawal of investment incentives would be costly for any individual country (Head *et al.* 1999). There is thus a parallel between FDI subsidies and trade barriers in the sense that multilateral coordination may be key for dismantling trade barriers and limiting international or regional investment subsidies. But how far has multilateral coordination gone in setting rules for how countries should compete for FDI?

Even before considering regional development objectives, there are theoretical arguments for FDI incentives; in practice, however, the case is much weaker.

2 It is also possible to motivate FDI incentives with arguments based on capital market imperfections, assuming that TNCs have better access to capital, or labour market imperfections, assuming that unemployed workers would not find new jobs in the absence of FDI. See Blomström and Kokko (2003).

3 In addition, there are costs because subsidisation invites rent seeking. For instance, tax holidays and tax breaks may appear to be simple and innocuous forms of incentives, but are likely to lead to transfer pricing and other distortions as firms try to shift as many transactions as possible to the activity with tax preferences, or set up new firms as the tax preferences of existing firms expire.

The short answer to this question is that while multilateral agreements – for instance WTO's agreements on Subsidies and Countervailing Measures (SCMs) and Trade-Related Investment Measures (TRIMS) – include clauses on incentives and investment rules, they have not achieved much in establishing common rules for how countries should compete for FDI (Kokko 2003). However, more advanced regional integration agreements like the EU and NAFTA include explicit rules for FDI incentives: it appears clear that extensive market integration makes it necessary to harmonise incentive policies as well. At a broad theoretical level, there are several reasons for this development. For one thing, common rules for incentive policies are necessary to create a level playing field for all firms in the integrating region. It is clear that the opposition to far-reaching trade and investment liberalisation would be fierce if some countries in a regional integration agreement were able to lure investors from other member countries by offering particularly generous incentive packages. For another, a situation where production location is determined by specific incentives rather than underlying production conditions defeats some of the efficiency objectives of regional integration. Consequently, EU rules set two kinds of limits on FDI incentives. The first type of restriction follows from Article 87(1) of the Maastricht Treaty, which, in principle, bans specific FDI incentives. The Article states that: “Any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, insofar as it affects trade between Member States, be incompatible with the common market.”

In principle, EU rules ban FDI incentives, but they envisage important exemptions.

Similarly, the EU's Code of Conduct on business taxation from 1999 bans “harmful” tax measures that may affect investment location within the Union. In this context, harmful tax measures are defined as taxes that are significantly lower than those generally applied in the economy. Hence, the starting point for policy is that the scope for subsidisation of FDI is very limited. However, the Maastricht Treaty also identifies some important exemptions from the general rule. In particular, support can be given to disadvantaged parts of the Union, suffering from low income levels or high unemployment, to promote balanced regional development (Article 87(3)(a)). Support used to “facilitate the development of certain economic activities... where such aid does not adversely affect trading conditions” (Article 87(3)(c)) is also allowed: this exemption covers subsidies for R&D, labour training, and development of small and medium-sized enterprises. Taken together, these exemptions give substantial scope for investment support, with subsidy levels in some cases reaching over 75 percent of the total investment amounts.

The other type of restriction comes from non-discrimination and national treatment regulations, which essentially guarantee that all firms qualifying for a certain kind of support should be treated equally. In other words, the investment subsidies apply equally to foreign and domestic investors. This is desirable from a theoretical perspective, recalling the conclusions from the literature on knowledge spillovers, which suggest that spillovers are not automatic but depend crucially on the conditions for indigenous firms. The potential for spillovers is unlikely to be realised unless indigenous firms have the ability and motivation to learn from foreign TNCs and to invest in new technology. Consequently, investment incentives aiming to increase the potential for spillovers may be inefficient unless they are complemented with measures to improve the local learning capability and to maintain a competitive local business environment.

The final observation on FDI incentives concerns their effectiveness in attracting TNCs. There is increasing evidence that investors do, in fact, respond to targeted FDI policies. Until the early 1990s, there was a strong consensus in the literature that FDI is mainly attracted by strong economic fundamentals, like market size, income, skills, infrastructure, and political and macroeconomic stability. Global and regional trade and investment liberalisation have changed this picture and made incentives a more important determinant of international investment decisions. One indication is the proliferation of investment incentives across the world. More than 100 countries provided various FDI incentives already in the mid-1990s, and dozens more have introduced such incentives since then – few countries compete for foreign investment without any form of subsidies today (UNCTAD 1996). In the OECD countries where financial incentives are common, the subsidies per FDI-related job often reach tens of thousands of US dollars (UNCTAD 1995). In developing countries, incentive schemes are often based on tax holidays and other fiscal measures that do not require direct payments of scarce public funds – the costs of these programmes are difficult to calculate, since it is seldom possible to tell what share of the FDI (if any) would have been undertaken without the tax incentives. While TNC executives used to downplay the role of incentives some years ago, they now readily admit their increasing importance for investment decisions (Easson 2001). Even econometric studies, which used to find small or no effects of incentives, now suggest that they have become more significant determinants of international direct investment flows (Clark 2000, Taylor 2000). With this in mind, we turn to the link between FDI incentives and regional development in the European Union.

FDI incentives proliferate, and recent econometric evidence suggests that they have become more significant FDI determinants.

5.2 FDI incentives: what is their contribution to regional development?

To answer this question, an obvious starting point is to analyse the role of FDI incentives in Europe and, specifically, to investigate whether the EU's regional investment subsidies are substantial enough to influence the pattern of FDI in Europe. This question has recently been addressed by e.g. Basile *et al.* (2003), who examine the location choices of TNCs investing in Europe, and Mayer (this volume), who examines effects of regional support in France. Basile *et al.* (2003) explore the investments of nearly 6,000 foreign-owned firms established in France, Germany, Ireland, Italy, Portugal, Spain, Sweden, and the United Kingdom during the period 1991-99, using a conditional logit model that allows them to relate the investment decisions to a set of variables describing the local investment environment. In addition to standard variables, like market size, labour costs, taxes, and proxies for agglomeration economies, they also include dummies to identify Cohesion Fund countries and Objective 1 regions.⁴ Controlling for other location determinants, the model yields positive and significant coefficients for both regional policy dummies, suggesting that FDI flows are indeed attracted to countries and regions where subsidies are available. These findings match several other recent studies that look specifically at the responses of FDI to incentives and regional tax competition (Clark 2000, Mihir *et al.* 2003, Taylor 2000), but it should also be noted that there are some

⁴ The Cohesion Fund provides support to projects in environment and transportation infrastructure in those EU countries where the per capita income level is below 90 percent of the Community average. In early 2004, only Greece, Ireland, Portugal, and Spain were eligible for this support, which in total amounts to about EUR 2.5 billion per year. Objective 1 support focuses on development and structural adjustment in regions where the average per capita income is below 75 percent of the Community average. About 20 percent of the EU population lives in Objective 1 regions, and the total amount of Objective 1 support for the period 2000-06 is around EUR 136 billion.

question marks regarding the generality of the results.⁵ Mayer (this volume), by contrast, does not find any substantial effects of regional subsidies for investment location in France. One likely reason for these divergent findings is that the relative strength of agglomeration forces and subsidies probably varies between countries and regions, and – at the same time – there is substantial cross-industry variation in the relative importance of agglomeration forces (see Dunning 2000).

But even if the EU's regional support programmes affect FDI flows, it is not clear whether the impact is strong enough to narrow the income gaps between central and remote regions. The reason is that FDI may still cluster to the central locations, where other fundamental determinants of investment location are stronger. Thus, the positive impact of investment subsidies may be too weak to compensate for the disadvantages of the regions qualifying for support. Moreover, given that the firms most likely to respond to investment incentives are probably also the most footloose, it is not clear whether attracting this kind of firms is enough to create sustainable regional development. Footloose foreign investors may well be prepared to move on after the subsidisation period has expired, or when competing regions offer more attractive incentives. This may result in a shorter time horizon for investments, and perhaps also weaker links to local industry. It is therefore relevant to compare the development over time of foreign-owned enterprises in supported and unsupported regions. Such a comparison should include employment creation as well as other production characteristics, like productivity, labour skills, and R&D expenditures. Obviously, such a comparison should also include locally-owned firms to explore whether local and foreign firms respond differently to incentives.

To assess whether EU regional support affects FDI flows, one needs to compare the development of foreign-owned firms in supported and unsupported regions.

Figures 3 to 7 provide some comparisons of this type for the Swedish manufacturing sector.⁶ We have defined nine of the 21 Swedish provinces as support provinces, meaning that they qualify for EU Objective 1 or 2 support.⁷ Firms investing in these provinces qualify for investment grants, favourable loans, subsidies for employment creation, and support for training, skill development, research, and innovation. Small and medium-sized firms are eligible for the most favourable support, with investment grants covering up to 50 percent of investment costs or employment grants amounting to SEK 200,000 (equivalent to around EUR 22,000 at 2003 exchange rates) per year and job created.

5 One concern is that the specification of regions does not fully conform to Objective 1 eligibility. For instance, the model defines all of Sweden as an Objective 1 region. However, only some remote parts of the country actually qualify for regional support, and most of the FDI inflows are directed to provinces without Objective 1 support. It is also worrying that Ireland, the FDI host by far the most successful of the four Cohesion Fund countries, is included in the data set, while the least successful, Greece, is not.

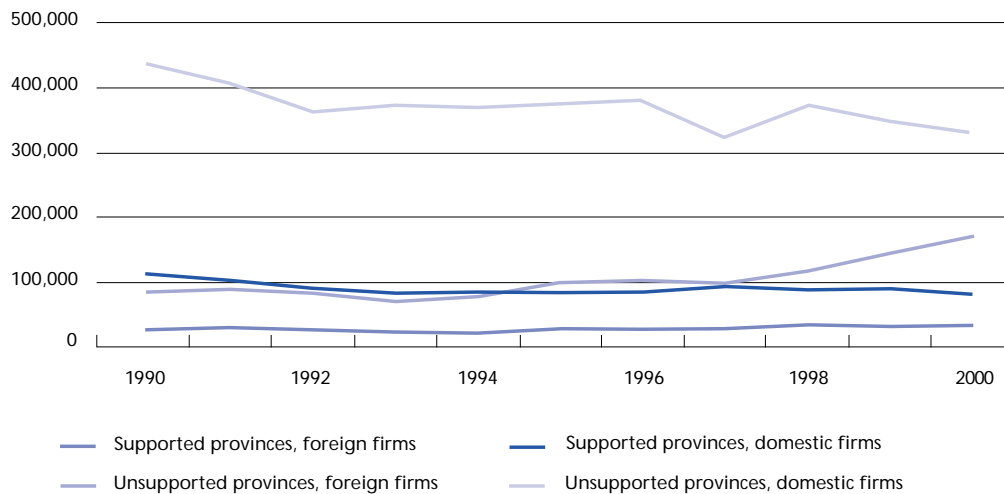
6 The data come from Statistics Sweden, Financial Statistics database, and cover all enterprises with 20 or more employees. The firms classified as foreign-owned have foreign majority ownership.

7 Objective 1 regions are defined in FN 4. Objective 2 regions are areas in industrial decline. The provinces included in the "support" category are Gotland, Värmland, Västmanland, Dalarna, Gävleborg, Västernorrland, Jämtland, Västerbotten, and Norrbotten, accounting for 22 percent of the Swedish population in 2003. Some municipalities in other provinces are also eligible for Objective 2 support (which aims to contribute to the economic and social conversion of regions in structural difficulties), but they are not included in the "support" category since the support amounts involved are limited. The total amount of regional support from the EU to Sweden envisaged during 2000-06 is about EUR 19 billion. In addition, the national budget provides about SEK 3 billion per year for regional development.

We start with Figure 3, which illustrates the development of employment in the Swedish provinces qualifying for EU support compared to that in the rest of the economy between 1990 and 2000. It can clearly be seen that Swedish accession to the EU in 1995 coincided with a strong boom in inward FDI, and that most of the increase in foreign employment occurred in unsupported provinces. In the supported provinces, foreign employment grew moderately, from about 28,000 jobs to 33,000 jobs; in other parts of the country (mainly the urban centres), foreign employment more than doubled during the same period, from 88,000 to 173,000. Meanwhile, employment in domestic manufacturing firms fell significantly in supported as well as unsupported parts of the country. While it can be argued that the employment created in foreign-owned enterprises was of great importance for the Swedish manufacturing sector, there are no signs that FDI has contributed to closing the regional development gaps in Sweden. The key message transpiring from Figure 3 is that the provinces qualifying for EU support did not perform any better than those where regional support was not available.

With respect to manufacturing employment, Swedish provinces receiving EU support did not perform better than unsupported provinces.

Figure 3. Manufacturing employment in supported and unsupported Swedish provinces, 1990-2000



Source: Statistics Sweden, Financial Statistics database.

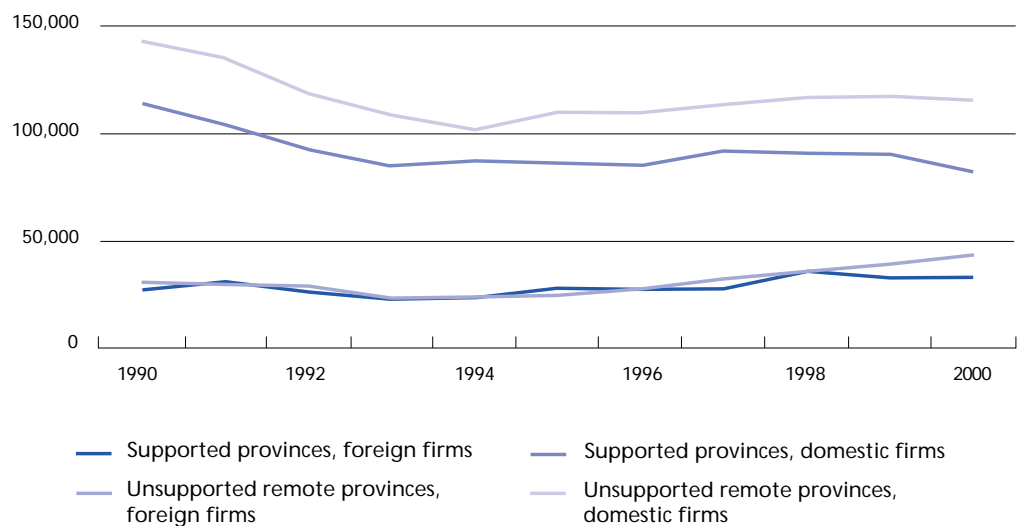
However, comparing developments in foreign employment in supported provinces to those in the rest of the country may fail to capture the impact of EU support. The investment decisions of foreign investors depend on variables other than investment incentives, as noted above, and the negative effects of smaller local markets, higher transport costs, weaker infrastructure, and various other locational disadvantages may simply outweigh the positive effects of investment incentives. One way to control for these differences between provinces would be to explore the effects of incentives in a multiple regression setting, as done by Basile *et al.* (2003) and Mayer (this volume), but we lack the detailed firm-level data needed for this task. Another approach is to compare firms in Objective 1 and 2 provinces to firms in other relatively remote provinces, where geographical location and other investment conditions are more similar to those in the

Trends in manufacturing employment have been particularly favourable in remote provinces that are not receiving regional support.

supported provinces. This is a significantly less ambitious undertaking than a regression analysis, since we will not be able to distinguish the marginal effect of regional support at the firm level: the comparisons will only reveal whether the support has a strong enough impact to influence the aggregate development of the region in question.

With this caveat duly noted, Figure 4 compares the employment development in the nine supported provinces to that in eight unsupported regions outside the urban provinces Stockholm, Uppsala, Västra Götaland, and Skåne.⁸ The most notable observation from Figure 4 is perhaps that changes in employment have been very similar in both types of regions. Both foreign and domestic firms experienced a contraction in connection with the financial crisis in the early 1990s, but in particular foreign employment increased thereafter. However, it can be seen even in this comparison that the development was more favourable in unsupported regions than in the provinces qualifying for Objective 1 and 2 support. This observation corroborates the conclusion that investment incentives, including those offered to foreign investors, are not very effective in reducing regional disparities.⁹

Figure 4. Manufacturing employment in supported and unsupported remote Swedish provinces, 1990-2000



Source: Statistics Sweden, Financial Statistics database.

To examine whether access to regional support programmes leads to any notable effects on production characteristics (aside from employment), Figures 5 and 6 show the changes in manufacturing labour productivity and average education levels in supported and unsupported remote provinces in Sweden. Looking first at labour productivity (defined as

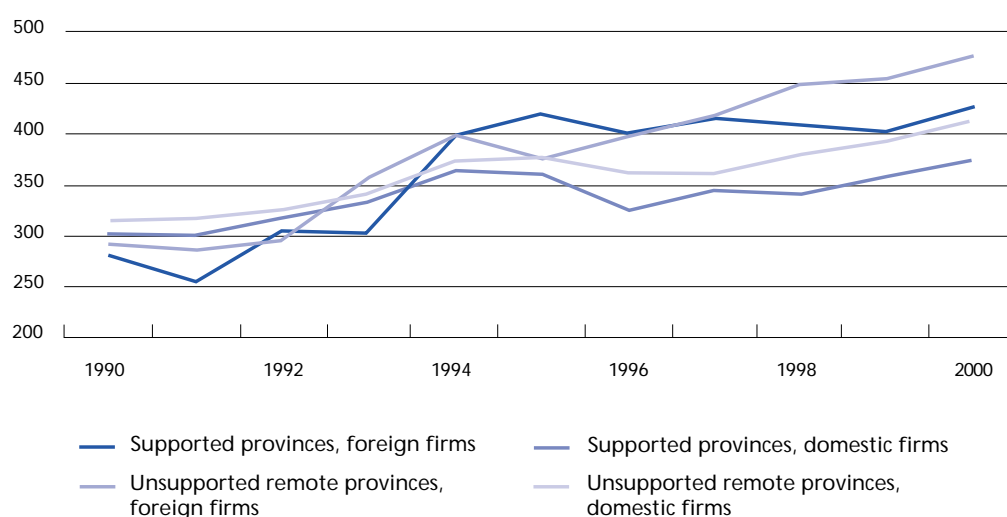
⁸ The control group of unsupported regions includes Södermanland, Östergötland, Jönköping, Kronoberg, Kalmar, Blekinge, Halland, and Örebro. These provinces accounted for 24 percent of the Swedish population in 2003.

⁹ Most of the increase in foreign employment occurred as a result of mergers and acquisitions, which makes it even more difficult to draw strong conclusions about development effects.

value added per employee, in constant 1990 SEK) in Figure 5, it is notable how rapidly value added per employee increased in both regions and both types of firms before the mid-1990s. These increases were to a large extent related to the downturn in the business cycle that culminated in the financial crisis in 1992: the job cuts during this period centred on the least productive workers, and forced firms to focus more heavily on rationalisation and productivity improvements. Productivity growth was faster in foreign-owned firms, resulting in a pattern where foreign firms now exhibit a productivity advantage over indigenous enterprises. This is a normal pattern, and reflects the benefits derived from the intangible assets that are necessary to become a multinational firm (Caves 1996). It is also noteworthy that the fastest productivity increases have taken place in foreign firms in unsupported provinces, especially during the last few years in the sample period. This suggests that the Objective 1 and 2 subsidies have not been strong enough to fully reverse the possible productivity disadvantages in the supported provinces.

The fastest productivity increases occurred in foreign-owned firms in Swedish provinces that did not receive EU regional development support.

Figure 5. Manufacturing labour productivity in supported and unsupported remote Swedish provinces, 1990-2000

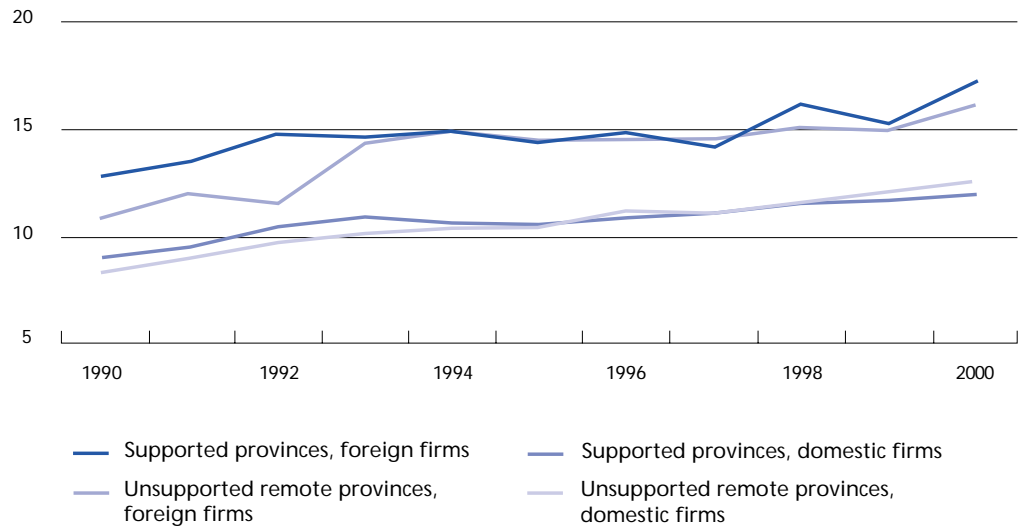


Note: Labour productivity defined as value added per employee (in '000 of SEK, 1990 prices).

Source: Statistics Sweden, Financial Statistics database.

The average level of education (measured as the share of the workforce with at least some tertiary education) has developed in a similar manner, as shown in Figure 6. Overall, foreign firms tend to employ workers with higher average education levels, and the advantage over Swedish firms seems to have increased during the 1990s. The fastest increases in the education level occurred in the early 1990s, as job cuts focused on the least productive and least educated workers. The increase in education levels has continued during the second half of the 1990s, but there are no distinguishable differences between firms in supported and unsupported remote regions. It should also be noted that both labour productivity and education levels have increased even faster in the most urban Swedish provinces, both in foreign and locally-owned firms. In other words, FDI has apparently not contributed to any regional convergence in terms of productivity and skill levels.

Figure 6. Level of education in manufacturing in supported and unsupported remote Swedish provinces, 1990-2000



Note: The vertical axis shows the level of education measured by the share of employees with tertiary education (in % of all employees).

Source: Statistics Sweden, Financial Statistics database.

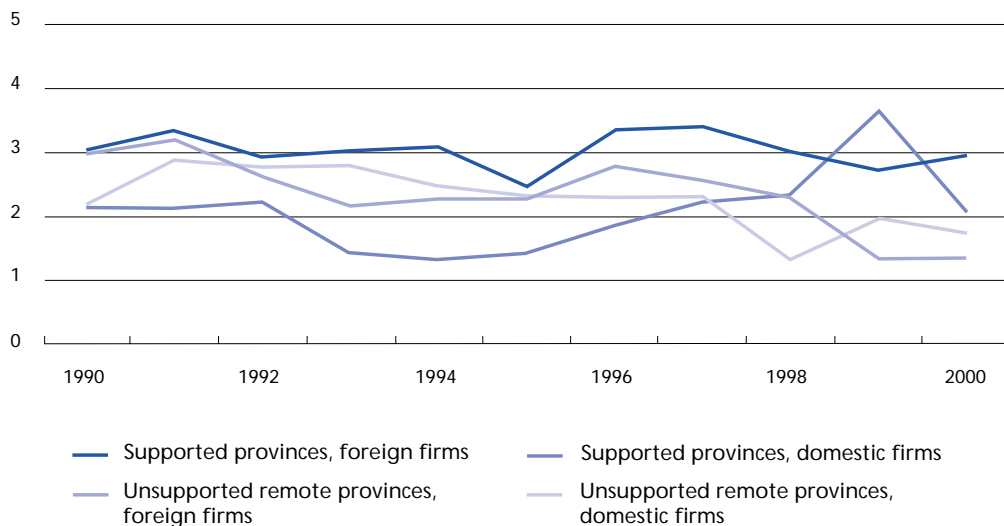
Regional support has promoted R&D in firms located in remote provinces.

Figure 7 presents a somewhat contrasting picture of the impact of regional support and FDI incentives. Summarising data on R&D expenditures as a share of sales, the figure suggests that regions enjoying EU support have distinct advantages compared to other remote provinces. Since the mid-1990s, the R&D intensity fell in domestic as well as foreign-owned firms in remote unsupported regions, but was maintained or increased in supported regions.¹⁰ Foreign firms in Objective 1 and 2 regions maintained a roughly constant ratio of R&D to sales, at around 3 percent, while domestic firms increased their R&D ratio from less than 1.5 percent to well over 2 percent. It is likely that this development is a result of various more specific forms of regional support, such as Community initiatives for research, development, and innovation. The distinct effects of these support measures at the macro level are probably due to the high concentration of R&D activities in the largest corporations, which often own plants and firms in several provinces. They are able to concentrate their R&D activities to those locations that provide the most favourable conditions (including subsidies), and may then use the results throughout the corporation. At the same time, there is a potential for positive effects on local development through various kinds of spillover effects. In fact, it has been argued that the promotion of R&D and other activities that facilitate the diffusion of innovations are particularly important for reducing regional inequality and promoting growth (Martin 1999). However, it should be noted that the R&D intensities in central provinces like Stockholm and Uppsala, where the large multinationals have concentrated the bulk of their Swedish R&D, were consistently higher, peaking at levels above 8 percent of sales in the late 1990s. This suggests that the concentration of R&D to

¹⁰ The R&D data are only available for firms with 50 or more employees.

supported regions has not taken place at the expense of research activities in central locations, but rather at the expense of other remote locations that do not qualify for equally generous support.

Figure 7. Manufacturing R&D expenditure in supported and unsupported remote Swedish provinces, 1990-2000



Note: R&D expenditure in % of sales; firms with more than 50 employees.
Source: Statistics Sweden, Financial Statistics database.

Summarising this section, it does not appear that the kinds of investment incentives allowed under Objectives 1 and 2 of EU regional development policies have had any fundamental impact on the pattern of FDI in Sweden. Furthermore, there do not appear to be any distinct effects of regional support on employment, labour productivity, and education levels, but there are signs that access to regional support has promoted R&D in foreign and Swedish firms located in remote provinces. This is encouraging, since it may contribute to the diffusion of technology in the supported regions, but it does not provide any strong evidence for the view that FDI has helped reduce the regional gaps in Sweden.

Overall, investment incentives under EU regional development policies do not seem to have affected the regional pattern of FDI in Sweden.

6. Concluding comments

This paper has highlighted the role of FDI in the regional integration process. Many of the expected benefits of regional integration are related to restructuring the production pattern in the integrating region. As market size increases, tougher competition will trigger a structural adjustment process as companies aim to grow large enough to exploit economies of scale. Much of this growth will take place through mergers and acquisitions involving firms from other countries in the regional integration area, and the growing market will also attract the attention of investors in other parts of the world.

However, not all parts of the region will benefit equally from the integration process. The largest inflows of FDI are likely to be drawn to relatively strong parts of the integrating regions, where production conditions are favourable thanks to a central location or various agglomeration effects. At the same time, there are also forces reducing the importance of some of the traditional determinants of investment location. In particular, the liberalisation of regional trade tends to reduce the advantages of a large local market. Even small countries can compete strongly for investments if they can provide sufficiently favourable investment conditions. This has created a potential to use FDI as an instrument of regional policy, to support the development of countries and regions that have earlier lagged in income and development.

The use of investment incentives provides one way to create an attractive investment environment. Various types of incentives are therefore commonly used in the competition for FDI, particularly by those countries and regions that are not favoured by strong fundamentals related to agglomeration or geographic location. Recent studies have also shown that FDI incentives have become more important with the reduction of trade barriers and the convergence in other policy areas resulting from regional integration. However, incentive competition is clearly not compatible with the harmonisation of trade and competition policies that lie at the centre of modern regional integration agreements. The EU has therefore in principle prohibited such competition, with one important exception: subsidies for regional development. Through the EU's Cohesion and Structural Funds, countries can support investment, employment creation, training, and research activities in regions designated as disadvantaged in terms of income or other conditions. The main empirical question of this paper has been whether EU's regional support packages, with a focus on Objective 1 and 2 support, have any impact on FDI, and whether this impact is strong enough to affect the regional development gaps.

There are no signs that FDI contributed to reducing the regional income and development gaps in Sweden.

Some recent studies (Basile *et al.* 2003; Mayer, this volume) have examined the impact of regional support on FDI location decisions, and come up with mixed evidence. This suggests that the relation between centrifugal forces (investment subsidies favouring relatively remote locations) and centripetal forces (various agglomeration effects) varies between countries and industries. Hence, it can be expected that regional support may influence the investment decision of foreign firms in industries where external economies of scale are relatively weak, but that the chances of creating new clusters are low. Comparing FDI in Swedish regions with and without access to Objective 1 and 2 support, we also found little impact of the regional subsidies at the macro level. Employment in foreign-owned enterprises in provinces qualifying for regional support grew during the 1990s, at the same time as productivity and education levels increased. However, these increases were significantly lower than those in more central provinces, and not much different from those in remote provinces that did not qualify for regional support. In other words, although the behaviour of some individual firms may have been influenced by the various subsidies available in supported provinces, the effects were not strong enough to show at the regional level. These conclusions match those of Bergström (1998, 2000), who examined the firm-level impact of Swedish regional support during the late 1980s and early 1990s, without finding any significant effects on employment or productivity.¹¹ In sum, given the stronger performance of foreign-owned firms in other parts of the country, it can be argued that there are no signs that FDI contributed to reducing the income and development gaps in Sweden.

The main exception from this relatively pessimistic conclusion concerns R&D. There are signs that regional support may have allowed both foreign-owned and domestic firms in supported regions to reach higher R&D intensities than what would otherwise have been possible. To the extent that these research activities result in technology diffusion and other positive externalities, they are likely to further regional growth and development. In general, it is likely that policy interventions supporting R&D, training, and other activities with positive spillover effects will have a stronger positive impact than subsidies on capital investment (where the benefits can be internalised to a much larger extent). The obvious caveat concerns the relation between the costs and benefits of support programmes. So far, we have not discussed the fiscal consequences of regional support in any detail, and it is clear that further research should examine this more in depth. Furthermore, there are very few analyses focusing on cross-country and industry differences in the impact of regional support policies, and more work is required to distinguish the cases where various kinds of subsidies can be expected to be most efficient.

11 The Swedish regional support programmes that were in place before EU membership were similar to Community programmes, and they were largely directed to the same regions that qualify for Objective 1 and 2 support. See Bergström (1998).

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