

Foreign capital divestment: the case of Spain

Carlos M. Fernández-Otheo*

Rafael Myro*

Abstract

Within the present scenario of world economic integration and opening of markets, a restructuring of the international localisation of firms is underway. This is giving rise to processes of foreign direct capital divestment in some of the most developed countries that have, to a greater extent, based their development on the provision of resources and technology from abroad via foreign direct investment. This study analyzes the case of one of the most characteristic countries, Spain. Here, the foreign divestment, which has grown very fast, is, and has been particularly until now, the consequence of an intense process of intrasector restructuring of the activities of non-residents companies, in which companies owned by residents also take part as active buyers. Behind the divestment, however, lies the fact that some extremely high-tech activities dedicated to international trade have left the national territory.

Key words: foreign direct investment, divestment, international investment, delocalisation, multinational firms, manufacturing, Spain.

JEL classification: F21, F23, L60

Length of the article: 7.948 words without tables and figures.

*Facultad de Económicas, Departamento de Economía Aplicada II, Campus of Somosaguas, s/n, Universidad Complutense de Madrid, 28223, Pozuelo de Alarcón, Madrid. E-mails: cmfotheo@ccee.ucm.es and r.myro@ccee.ucm.es.

Foreign capital divestment: the case of Spain

1. Introduction

Liberalisation and international integration of national markets, combined with the development of the economies of Eastern Europe and of Asia, are giving rise to a vast restructuring process of the activities of international firms.

Recently, we are witnessing foreign capital divestment in some countries that have, to a significant degree, based their economic growth on technology and resources coming from abroad in the form of foreign direct investment. This is today the case of Spain, a country which absorbed 12 % of the investment flow entering the EU at the beginning of the 1990s, and where foreign capital control of industry exceeds 40 %. Now the flows of investment have reduced at lower relative levels than in other EU countries while flows of divestment have grown sharply.

This process of divestment, which masks another process whereby industrial assets are delocalised and rerouted towards emerging economies or towards the European centre, has received scarcely any attention from experts¹. This has probably been the direct consequence of the opacity that one finds in the statistical registers for foreign direct investment, since the data is provided in net terms. In Spain for example it was not possible to have access to detailed figures until the summer of 2003, when finally the Foreign Investment Register of the Ministry of Economy began to offer information in this area (²).

¹ Simões (2003) offers an interesting survey on this subject.

² The Balance of Payments provides data on gross and net investment flows until the beginning of the 1990s although this is only from an aggregate perspective; from then onwards only net data is given. Until that time, divestment was a very low-key phenomenon: with the exception of property investment, the highest figure, corresponding to 18.5% of gross investment, was registered at the end of the 1980s.

A first approach to the divestment process in the EU was made under the auspices of the European Union Committee of the Regions several years ago, although from a different perspective to that adopted in this paper, focussing on the emigration of companies and productive activities, identifying a case collection of closures of companies and establishments –more than 140 and most of the cases coming from Spain— that had, in one way or another, been part of processes of delocalisation and restructuring in Europe during the first half of 1990s (³).

The present paper analyze foreign capital divestment flows in Spain from 1993 to 2002, with the using the new data on net investment flows. We consider both liquidation of previous investments and new inflows since investment and divestment tendencies are phenomena that can not be clearly separated. Section 2 present an explanation of how divestment can be measured and offers an overview of the theoretical framework from which its effects can be inferred. The next section describes the divestment process occurred in Spain between 1993 to 2002. Section 4 and 5 concentrates on the effects that the divestment process has had on the sectors, and specially in manufacturing industry, the sector that was hardest hit. Section 6 and 7 attempt to offer a first evaluation of the phenomenon and an estimation of its possible effects and, to a lesser degree, of its possible causes. And finally a summary and the conclusions.

2. Foreign capital divestment: measurement and framework for analysis

Until very recently –the summer of 2003– the Foreign Investment Register did not supply information with which real divestment operations could be estimated, i.e. where there is a liquidation of previously registered effective investment (⁴). The figures for

³The study, commissioned by the Junta de Andalucía for the Regional Committee, gave rise to the passing of a resolution by the latter body on the question of delocalisation (European Union Committee of the Regions, 1995; Fernández and Myro, 1995; Fernández y Myro, 1996; Myro, Fernández and Mora, 1996).

⁴ The Register records the following categories as direct investment: 1) Investment flows in companies not quoted on the Stock Exchange (since 1999 investments in quoted companies are also included); 2) Investment flows in quoted companies in which the investor acquires at least 10 % of the capital, thereby achieving a permanent role in its management; and 3) The constitution and expansion of subsidiaries. With regard to the period prior to the legislative modification of 1999, consideration is no longer given to loans of more than five years and investments made by resident

received gross investment that used to be provided –now gathered by the Register under the rubric of *registered gross investment*– lumped together opening and closing operations where there was not necessarily any entry or exit of foreign capital: we are talking about acquisitions of shares and holdings by non-resident parties and the multiple accounting of the same investment as a result of the internal restructuring of the shareholdings of foreign groups in Spain. The exclusion of these two categories has led to the creation of a second type of gross investment, *effective gross investment*, which, in principle, implies a real increase of direct investment stock in the hands of non-residents.

Since *net investment series* (⁵) are also provided, *real divestment* can be estimated as the difference between the latter and effective gross investment, which undoubtedly proves the most useful way of analysing its repercussions on the productive system (⁶). There is no reason why these figures, however, have to agree with those registered in the Balance of Payments, as, on the one hand, the precise moment when they were entered into the accounts may not coincide, and, on the other, the types of direct investment considered in these series and in the Register are not the same (⁷).

Once defined, divestment can be calculated for the different productive activities and for companies belonging to the same country, facilitating a fairly complete characterisation of Spain in terms of this relatively unknown phenomenon. This constitutes, of course, a first step towards an analysis of the determinants of divestment, which is a crucial prerequisite for defining developing tendencies. Nonetheless, we are scarcely able

companies with foreign participation in other resident companies (also known as indirect or “cascade investments”). Nevertheless, reinvestments of profits in the same company continue to be entered into the accounts as direct investment. And, likewise, the inflows to benefit from the Spanish foreign securities holding company tax regime –the so-called ETVE (Entidades Tenedoras de Valores Extranjeros) are considered as direct investment, following the criterion for residency established by the IMF’s 5th Manual for 1993. We must, however, insist on the provisional nature of the data, particularly for recent years, as they are frequently subject to substantial modification.

⁵ According to the Foreign Investment Register, net investment is obtained by means of the difference between registered gross investment and the gross liquidation of investment. More details about the methodology applied may be seen in the notes heading the investment data that appear in the Bulletins it produces periodically.

⁶ Theoretically, the values communicated to the Register as divestment must coincide, relatively speaking, with the investment values appearing in the Register, given the fact that companies are obliged to communicate any modifications or updates they make, and given the statistical work the Register itself carries out in order to be able to vouch for appropriate adjustments.

⁷ The types of investment included in the Balance of Payments are: unquoted shares, other forms of capital holding, financing between related companies and real estate investment. They can be analysed separately.

to tackle this question here, due to lack of information regarding the eventual destinations of relocated companies, as well as of other variables influencing their decisions. However, we formulate some hypotheses that may provide an orientation for future work.

We do, nevertheless, offer a first assessment of the effects of divestment on the Spanish economy, which is, without question, the most pressing question to deal with. The starting point for this analysis centres on an evaluation of the effects of divestment on the presence of foreign capital in the Spanish economy and on each of its individual branches of activity. But this first approach does not give us much direct information about impact on productive activity. To make more substantial progress in our analysis, we must define patterns of behaviour for sectors and for countries, and compare divestment with effective gross investment, guided by the conceptual framework provided by foreign investment theory ⁽⁸⁾. In fact, divestment is the reverse of the investment ⁽⁹⁾, so both processes can not be analysed separately.

The effects of divestment on the economy, which are generally negative since a loss of productive resources is involved, differ considerably depending on the type of divestment involved. Three categories can be distinguished, arranged here in an order of smaller to greater that reflects their impact on the welfare of a country ⁽¹⁰⁾.

The first category refers to operations to sell foreign-owned assets when the sale is carried out relatively soon after the time of purchase, when the capital that is the object of the transaction has not really materialised in the shape of a new production plan. The situation arises when foreign direct investment operations do not come up to expectations and are withdrawn following more careful study of the internal market situation and the adoption of a new action plan based on better information.

The second category is made of companies and productive installations under the control of foreign capital which are sold to local business people, resulting from an increase in the competitive capacity of the latter group. In this case, we observe the same process that pushes local companies to establish a presence in markets outside their own country. Naturally, there is a short-term loss of investment capable of stimulating economic growth,

⁸ Dunning (2000) offers a revision of the eclectic theory.

⁹ Boddewyn (1985).

¹⁰ Two of these categories of divestment –failure and restructuring– agree with the proposals by Benito (1997) y Mariotti y Piscitello (1997), quoted by Simões (2003).

but the mid and long-term story is a different one, since the competitive capacity of locally owned companies is reinforced. In fact, it is to be expected that some divestment be produced for this reason as the level of economic and technological development of a country progresses. It is also likely that such divestment should take place in activities in which the local economy is more competitive, or where there is less difference between the competitive capacity of local and foreign-owned companies. When local companies invest abroad they are displaying signs of the same competitive robustness that might lead them to purchase companies from foreign capital. For countries that are technologically dependent, such as Spain, these activities tend to be the least technologically intensive.

In the case of the third type of divestment, the departure of foreign capital is the result of changes affecting the localisation of the productive activities of companies. Such changes may be the consequence of 3 different situations: 1) a restructuring in these businesses' international activity, responding to the appearance of new localisation advantages in other countries, either developed or not; 2) a loss of advantage where they are currently sited ; 3) a series of mergers and acquisitions of other multinational companies. It is common knowledge that the present increase in the international integration of economies, particularly intense in Europe, favours these restructuring processes ⁽¹¹⁾. In this case, the effects on economic prosperity are more negative, because a country abandoned by foreign capital loses productive resources and technological capacity. We can expect this type of divestment to happen more in activities in which local companies are less competitive, where foreign capital has greater control over production and technology and the localisation advantages offered by the country are not so significant. This tends to occur in the most technologically intensive industries, which have a greater need for a favourable technological setting and have a greater projection towards international markets. The position of market dominance occupied by foreign capital and its lesser dependence on the market reduce the costs of departure from that national territory. Meanwhile, national capital is less equipped to replace the activities performed by its foreign counterpart. In this situation, too, the economic progress of a

¹¹ At times, also for the very same reasons, installations and companies are simply closed down, without any continuation of the productive activity they pursued in the country.

country is likely to be accompanied by some divestment flows, as a loss of advantages in localisation is inevitable when salaries and other productive inputs (land, for example) become dearer.

In line with the above, we can establish a hypothesis according to which divestment will tend to cause more harm to the national economy if it is produced in activities where the competitive capacity of that nation's capital is limited and the role of foreign capital is significant, which will probably occur in the most high-tech sectors and where there is less dependence on the national market. Nevertheless, if the countries spearheading the divestment do not display outstanding competitive capacity in these sectors, or are faced with a reduction in their position, the damage caused may be expected to be lower.

In industries where extensive investment and extensive divestment coincide, an intrasector restructuring of foreign capital activities is being produced. If this is due to a phenomenon of delocalisation of certain productive activities in the direction of less developed countries, it will bring about an improvement in the quality levels of foreign production and, consequently, the incorporation of more and better technology. The fact that countries investing and disinvesting in Spain are more developed than Spain itself implies that they will tend to guarantee that this is the case. As a result, divestment will prove to be much less harmful the greater the success registered due to processes of intrasector restructuring of the activities of foreign capital.

In short, the importance of the effects of divestment on the economy will depend on:

- whether it takes place in activities where the local economy is less competitive, these normally being the most technologically advanced areas.
- whether divestment is or is not accompanied by new investment in the same sector, the former situation tending to indicate that an intrasector restructuring process in the activities of foreign capital has taken place.

Armed with this brief analytical guide, we will first describe the process of foreign capital divestment and investment in Spain and then offer a first evaluation of the effects produced.

3. Divestment in Spain in the period 1993–2002

Figure 1 charts the growth of effective gross investment, real investment and net investment in the period 1993–02. The statistical series have been removed of flows not embedded in the national productive system (coming from companies exploiting the advantages of the Spanish foreign securities holding tax regime), since, as explained at the beginning, these are "passing flows", which acquired great relevance from 1999 onwards.

[Figure 1]

With regard to the effective gross investment series, we observe a first phase of flow reduction in the central years of the decade, once there had been a reduction of the favourable effects for investment brought about by the integration of Spain in the European Union (¹²), within the expansive climate of international investment that took place in those years. Recovery from this phase took place occurred around 1998, when the maximum values from the early nineties returned and a new phase of spectacular growth began (reaching its peak in 2000 with entries almost three times higher than those of 1998). With the onset of the new century, the developed economies, which constituted the main support for these flows were in full contraction, what caused an abrupt fall in these figures. This contraction exceeded nonetheless the levels reached in one of the most brilliant periods for foreign capital in Spain, registered between the closing years of the 1980s and the opening years of the following decade.

Turning to the divestment time profile, we see that, broadly speaking, it matches the profile for gross investment. In the first stage, 1993–97, the figures are fairly regular running from year to year, their value being equivalent to 31 % of effective gross investment. In the second, far more turbulent period of 1998–02, the proportion reached was slightly higher (33 %).

This growth, to a certain degree, can be seen to be in tune with the growth of the product and is clearly borne out in terms of the investment received, but seems somewhat puzzling when the divestment operations are considered. We do not possess information that enables us to put forward a reasonable explanation, but this situation is probably

¹²See, among others: Baldwin, Forslid and Haaland (1996), Martín (1998), Fernández-Otheo (2000) and Bajo and López Pueyo (2002).

related to the numerous mergers and acquisitions that took place during this period, or at least in operations of this type where companies based on national capital intervened as purchasers, one of the results of which would have been the liquidation of investments by the company held by foreign capital (¹³). In fact, what the figure demonstrates for the years 2000 and 2001 is a faithful reflection of the extraordinary relevance of the so-called megamergers (operations whose value is in excess of 1,000 million dollars) in received investment series (the purchase of Airtel by Vodafone, to give an example from the telecommunications field) and in divestment series (the sale of Hidrocantábrico - shares by the US company TXU and the Belgian firm Electrabel in electric power).

So then, even when different sources are compared, everything seems to point to the fact that the divestment that has taken place over the last decade is of greater relevance than that produced over previous decades, when foreign capital was still situating itself, due to the clear localisation opportunities that Spain offered. And a whole series of factors have affected this divestment, from improvements in the Spanish economy competition-wise, to the intensification of the processes of integration in the EU, or strategic actions undertaken by companies to define their position within the model of entrepreneurial consolidation that is in force on a world scale.

A more refined appreciation of the importance of this divestment process would call for an evaluation of the growth of the presence of foreign capital in the aggregate magnitudes of the economy. We are not in a position to do that here, but we can provide some points in this regard: since 1998, the Central Balance Office of the Bank of Spain records a significant reduction in companies belonging to non-residents, although we do not know to what degree this is due to such companies not filling in the questionnaire received (the 1236 companies registered in 1998 fall to 1015 in 2000, while, taking just the biggest of them, the drop is from 1112 to 916). Everything appears to indicate, then, that the presence of the latter, measured as a percentage of the total, expresses a diminishing tendency.

¹³ Bear in mind that, when series of effective gross investment are provided, acquisitions by non-residents and other operations of internal restructuring by foreign groups will already have been excluded.

4. Investment and divestment in relation to activities

Services and manufacturing industry have usually alternated in the first position in the receipt of direct investments⁽¹⁴⁾. Leaving aside the flows to benefit from the Spanish foreign securities holding company tax regime, between 1993 and 1997 the profile was made of services (50 % of effective gross investment) and industry (40 %), basically in the manufacturing sector (table 1). Between 1998 and 2002, services continued to gain importance (they already constituted two thirds), relegating industry to a secondary position (20 %), because of the reduction in entries within the manufacturing sector. There was also powerful growth (making up more than 10 %) of other flows into the national productive system –via holding companies–, but unfortunately it is not possible to say what their final sectoral destination was.

With respect to divestment, this was proportionally higher in the manufacturing sector than in services between 1993 and 1997 (51 and 44 %). In absolute values the situation grew worse for almost all sectors from 1998 onwards ⁽¹⁵⁾: power ⁽¹⁶⁾, water and the extraction industry, services and manufacturing multiplied their figures from the previous period by ten, four and two, respectively. Manufacturing industry, therefore, ceded first place to services in terms of the quantity of liquidations of previous investment presented.

(Table 1)

There are other perspectives for measuring the greater or lesser incidence of divestment. One of them is to calculate the effective gross divestment/investment *ratio* for each period. This approach indicates that the intensity of divestment processes was

¹⁴ Remember that until August 2003 effective gross investment data were not provided, and even then this only went back to 1993.

¹⁵ Divestment by holding companies with productive activity in Spain is difficult to interpret using existing data, because of the existence of extremely high figures with a negative sign in 2002 (more than 6,000 million euros); it is important to stress that the statistics for the last few years are often dramatically corrected by the Register.

¹⁶ In the production and distribution of electricity we find a good example of the first type of divestment described in section 2, where expectations placed on the initial investment are frustrated. The US company TXU and the Belgian firm Electrabel sold their shareholdings in Hidrocantábrico, despite the fact that, not long before, they had acquired them from La Caixa and the Banco Sabadell. At the time of writing, this company's shares are 40 %, owned by the Portuguese power group Electricidade de Portugal (EDP), while Électricité de France (EdF) owns 35 %, but through the German company EnBW.

always greater in the manufacturing sector (for 1998–02, for example, the proportions stood at 92 %, compared to 42 % for services) ⁽¹⁷⁾. In net terms, the strong divestment drive and the contraction of investments produced a big reduction of investment in manufacturing, while this did not happen in the services sector, where the powerful advance of divestment was compensated by the even greater growth of investment flows.

In short, what was said in the previous section continues to hold at a sectoral level: on the one hand the coexistence of powerful investment and divestment at the same time. This singular phenomenon might also be occurring in other developed countries, but it is difficult to confirm this from the publications that usually cover this area. On the other hand, there are other aspects, too, that deserve our attention: take the asymmetry in results between the two periods under consideration and the difference in the intensity of the phenomenon of divestment as reflected in the various productive activities, where the situation of industry in particular stands out. This all provides a stimulus to go deeper into the importance of investment and divestment in their different subsectors.

5. Divestment in manufacturing industry.

Manufacturing plays a fundamental role in industry and, consequently, it is of interest to divide the sector into its various levels of demand and of high, medium and low-tech intensity, –also known, respectively, as advanced, intermediate and traditional manufacturing ⁽¹⁸⁾. The results of such a breakdown can be seen in table 2. The first thing we must point to with regard to development over time –which, by the way, fits in quite well with the growth path for investment received– is the greater extent of liquidations of investment in intermediate manufacturing in the first period (1993–97), which occupy 47 % of the total, with the traditional sector eight points behind, followed by advanced manufacturing (14 %). During the second period (1998–02) the positions change: the intermediate sector goes into second position behind traditional manufacturing (43 %) and divestment also increases in advanced manufacturing (to a fifth of the total). For the

¹⁷ Estimates of the presence of foreign capital have been made by Iranzo (1991), Martínez Serrano and Myro (1991), Martín and Velázquez (1996) and Merino (2003).

¹⁸ The justification for this breakdown is to be found in Myro and Gandoy (2003).

whole period, traditional and intermediate manufacturing shared an identical proportion of total divestment.

(Table 2)

The fact that there should be such similarity does not mean that there are no differences between these two types of activities: in the same table there is evidence that the intensity of divestment (divestment/investment) becomes much greater as levels of product demand and the degree of technological expertise required to produce such products advance. This could already be observed between 1993–97 and became more explicit after that period.

Figure 2 shows what has happened in the different subsectors. The first thing to notice is the greater quantitative relevance of chemicals and food, beverage and tobacco (25 and 18 % of the total, respectively), and, from 1998 onwards, printing; they all register values higher than 1,000 million euros for the period taken as a whole. In second place, also in terms of absolute value, we find all the most advanced, and the rest of the intermediate sectors, to which must be added non-metallic mineral products, although they only reach just over 3 %.

(Figure 2)

The unquestionably atypical behaviour of transport equipment must be highlighted, with a great deal of divestment activity during the period prior to 1998 and scarcely any divestment after that date, making this sector the recipient of the best treatment by foreign capital, if the important role it plays as a flow receiver is also taken into account (the third most important sector). This is significant, since, as one of the most important pillars of Spanish industry, it is constantly under the possible threat of activities being moved from the EU area towards the Eastern Europe (¹⁹).

¹⁹ It is common knowledge that a great number of multinational companies in the sector are investing in Eastern Europe, their aim being to take advantage, not only of the growth of these markets, but also of the cost advantages offered by these countries. It is no surprise that we notice the increasing presence in the different EU countries of vehicles manufactured there. This is bound to affect the productive organisation of companies in Europe. In Spain's automobile sector, for instance, some models that used to be manufactured there have been transferred to these Eastern countries –or, at least, the production of them is now shared. It is not by any means clear, however, that these delocalisations have, up to now, lead to a reduction of production in Spain. The latest data provided by Anfac –the employers' organisation in the sector– concerning the number of cars

Behind the divestment figures lie different types of divestment, as categorised in the second section, from the acquisition of installations and companies by national capital⁽²⁰⁾ to the partial or total suspension of activities by foreign companies⁽²¹⁾, including strategic withdrawals from the country when expectations aroused by initial investment operations fail to materialise. The information available in the Register does not allow us to quantify in what proportion the various kinds of divestment are distributed, and, once again, it proves very useful to go back and study concrete cases of firms involved, in order to be able to describe their specifics, as seen in notes 19 and 20. But, all in all, the picture is not complete. Because the statistical information does not provide a sufficiently nuanced breakdown, divestment operations where the buyer was also a non-resident are kept out of the picture. And such operations might have been of some importance, if the cases we demonstrate here are anything to go by⁽²²⁾.

produced, indicate that the historic record of three million units, established in 2000, might be broken by the end of 2003.

²⁰ Cases showing the acquisition of foreign installations and companies often appear in the specialised economist press. To give a brief picture of what these reports consist of, we indicate some examples below from recent years, without wishing to repeat what Fernández and Myro (1995, 1996) already had to say in this area. In the food sector, the most recent news (2003) is the sale of the Argal Group (foods), owned by the multinational Sara Lee, to its managers via a management buy out (MBO) operation. Ebro Puleva, the leading Spanish food group, repurchased the licences for baby food from Abbot (2003), and the expected sale of 625 food-shops by Ahold (2003). In 2002 Gullón, the biscuit company, acquired the Fontaneda factory (United Biscuits). Lastly, the Damm brewery bought two plants and six brand names from its competitor Heineken (2001).

²¹ In the area of electrical and electronic equipment several companies have stopped trading, with no likelihood of production continuing. Olivetti, for instance, in 1996, closed its printer and cash dispenser plant in. Delphi Packard wound up its electric wiring plant in Soria (2001). In Catalonia, Lear (2002) and Valeo (2003), both of them companies producing electrical equipment for automobiles, were the last two cases we know of. Alcatel The most recent case are Samsung and Phillips (2003). Hasbro, the USA multinational firm, closed its plant of toys in Valencia (2003)

In the pharmacy subsector, the process of productive rationalisation that generally accompanies cross-border mergers and acquisitions led to the sale of productive installations to other companies (Pfizer –Farmasierra and Glaxo–Alcalá Farma), which continue to manufacture the same products under subcontracting formulas. This reveals the importance of advantages based in human capital for the survival of the plants (Simões, 2003). Bayer, Fisipe (synthetic fibre) and Cosesa (cosmetics) closed their plants in 2002 in Catalonia.

²² One of the most significant operations was the sale of the IBM plant in Valencia to SCI Systems in the mid 1990s (in 2002 this company had been acquired by Sanmina, the first world computer manufacturer to design for big trademarks); after some years of relative productive continuity, the plant was dismantled. In 1998 Ericsson sold its Madrid factories to SCI and Flextronics (both of them dedicated to the subcontracting business), and later, in 2001, its mobile telephone factory at Zamudio (in this case the identity of the buyer is unknown). By this time, Alcatel closed or reduced its activities in different places near to Madrid. The Madrid plant, Lucent Technologies, perhaps the

The balance between investment and divestment for each sector was initially favourable for the period between 1993 and 1997: there were no sectors with negative net investment. Later on, as indicated already, the situation changed radically: of the fifteen industrial sectors considered, ten obtained negative net investment figures, six of them in excess of a yearly annual average of 90 million euros (²³). All the advanced, almost all the intermediate (except transport equipment) and, once again, nearly all the traditional sectors (apart from metallurgy and non-metallic mineral products) were hard hit by divestment.

However, the impact caused by divestment was relatively cushioned (except in the area of advanced activities) by the investments made, given that there was a certain sectoral correspondence in the volume of these operations. In fact, there was a high correlation between both types of operation for the fifteen manufacturing sectors (with a coefficient of 0.66), which indicates the existence of an intense intrasector restructuring of the positions of foreign capital, resulting from changes in companies or in product lines. Special attention will be paid to this phenomenon below.

The different sectoral impacts of divestment were already detected by Fernández and Myro (1995), in their case study for the first half of the 1990s. Most affected by plant transfer were the most advanced sectors (electronics, electrical machinery and computer and medical-surgical equipment); between them they accounted for almost a third of the cases (30 out of 99) corresponding to Spain, and an even greater proportion for those registered in Europe. In the intermediate sectors, far fewer cases were detected, and they were located within the chemicals and transport equipment sector (this area having suffered in terms of liquidated investment flows, though not after 1997, as we have seen). The traditional sectors, in contrast, were indeed subject to sharp movements leading to relocalisation, principally in foods and textiles-clothing.

According to Merino de Lucas (2003), whose statistics cover the 1990–98 period, company closures were numerically more concentrated within the traditional sectors (19 out of 40 cases, with the food industry at the top of the list); a quarter of cases

technologically most advanced plant to be set up on Spanish soil, was sold a couple of years ago to British Petroleum; the leap backwards in the productive sense was striking: from microprocessors to solar panels.

²³ An analysis about the net investment perspective could see in Fernández–Otheo (2003).

corresponded to the intermediate sectors (chemical products, basically) and a similar number to the advanced sectors (9 of the 11 cases detected falling within electrical material and accessories). It is noticeable that there were more closures of companies employing over 200 workers than of those with smaller workforces; and such closures constituted 12 % of the companies existing at that time. When we look at cutbacks in businesses among companies with more than 200 workers (almost the entire set of cases belonged to this group), the sectors involved were paper and publishing, chemical products, motor vehicles and other transport material and electrical materials and accessories, all of them affected to more or less the same degree (5 out of the total 30 cases detected falling to each sector). Since this situation continued until 1998, then by all indications the increase in divestment activity pinpointed in our study must have entailed a greater number of closures of companies and businesses.

In short, despite the fact that quite a number of sectors were hit by divestment within the low-tech area, everything seems to indicate that the brunt of the divestment process is being borne by the intermediate and, especially, advanced sectors, which is a matter of concern for a country that has made up for its technological deficiencies in the most sophisticated area of production thanks to the presence of foreign capital. As was explained in section 2, it is not to be expected in principle that divestment be produced in these sectors via acquisitions by residents, and that is why the implications are potentially of a more damaging nature. Nevertheless, this is something we will attempt to confirm in the following sections.

6. Divestment and productive capital stock in manufacturing industry.

To assess the importance of these changes, it is useful to make a first approximation to the possible significance of net investment growth on foreign capital stock, taking as a starting point the figures for fixed capital stock offered by the IVIE⁽²⁴⁾ and the percentages for the foreign capital share of national capital provided by the most recent estimation⁽²⁵⁾. This approximation will only constitute a rough sketch, for various

²⁴ Institut Valencià d' Investigacions Econòmiques (www.ivie.es).

²⁵ Merino de Lucas (2003).

reasons. Firstly, because the value of the reference *stock* for foreign capital is the stock it controls, rather than that which it owns; in second place, because this stock was reached by applying to the total accumulated stock in each area of activity the percentage share of foreign capital in value added; thirdly, because the divestment figures respond to material and non-material assets, and not just to the former, which, nevertheless, are the only assets included within fixed stock; fourthly, because both stock and divestment might well have been affected by the different methods of evaluation used; and, finally, because what have been used for reference are values for fixed capital stock from 1992 and 1998, respectively, not having been possible to add the value of investments made from within the country over the succeeding years by foreign-capital controlled companies already operational in the country, coinciding in time with the estimated divestment (²⁶).

This last point is of particular importance, because we have been able to estimate that investment operations carried out from within Spain by companies belonging to non-residents (either in established or new companies) and which do not appear in the accounts as foreign investment, amount to 60 % of the total, for the period between 1993 and 1998. As a consequence, what we offer below is only an indication of the relative importance of divestment within each activity, taking the fixed capital stock from the beginning of the period as a reference. But it is obvious that the negative values cannot be interpreted as a fall in fixed capital stock, just as the positive values cannot be construed as an increase; attention must be paid to the development within, and the contrast between, the different productive activities, rather than to the sign.

Figures 3 and 4, then, offer the results of the proposed estimation; that is to say, the value that represents net direct investment in each sector of activity and in each of the periods that have been taken into consideration, over the value of existing fixed capital stock in 1992 and 1998, valued at constant 1995 prices (as we did in the analysis of effective gross investment and divestment).

Appendix 1 offers the estimations of foreign stock of physical capital and control by sectors in 1992-1998.

²⁶ In principle, the Foreign Investment Register includes reinvestment operations by companies owned by foreign capital and located on Spanish territory, financed through their profits or by the capitalisation of reserves or foreign loans. However, a comparison of the information with the evolution of foreign assets leads one to conclude that the companies do not answer the questionnaires properly, despite the requirements laid down by the register's staff.

(Figure 3)

Net investment received between 1993 and 1998 is positive and constitutes a very appreciable addition to foreign capital stock in some medium and high-tech sectors, such as transport material and electrical and electronic material, and also in certain more low-tech areas such as textiles, paper or basic metals. In contrast, foreign capital stock tends to contract, in a relative sense, in office and data machinery, computers and precision instruments ⁽²⁷⁾.

(Figure 4)

The situation changes completely with the net investment received between 1999 and 2002. Here the sharp falls registered in certain sectors seem to affect existing foreign capital stock to a more appreciable extent. Of course, advanced manufacturing industry stands out as a group of sectors in which we can begin to discern the beginning of a tendency towards the relative contraction of foreign capital stock, particularly in areas dedicated to office and data machinery and precision instruments ⁽²⁸⁾. But the food ⁽²⁹⁾ and textile industries also suffer in a similar way. It is worth remembering that, given that we are talking of a very basic approximation, the negative values do not necessarily indicate a reduction in foreign capital stock, even when they are very high. The differences between the sectors, as we remarked above, are of more interest than the calculated effect sign.

In transport material, for the moment Spain continues to have its attractions –production stays at the same level that it registered at its peak, in the year 2000–, but a sharp restructuring of this sector is taking place on a world scale, due to excess capacity in the automobile sector, which may affect the situation in the immediate future.

What is worrying about this process is that foreign capital appears to be questioning the continuance of its presence exactly where Spain needs it most, in medium and high-tech industries, where it supplies the technological wherewithal necessary. The cases we know seem to confirm that divestment in these sectors is due to a restructuring of

²⁷ We know that there is no reduction, thanks to investments made by companies already installed in Spain during this period, which we have been able to estimate. However, the subsector that is most affected is that of precision instruments.

²⁸ Within the area of precision instruments, the office machinery subsector was the most affected.

²⁹ Part of this stock would have fallen under the control of national companies, as was stated in note 16.

international activities by multinational companies (Alcatel, Ericsson, Lucent Technologies, Delphi, Lear and Valeo).

In contrast, the investment received is providing support to the competitiveness, solidity and expansion of sections of traditional industry (paper, basic metals and wood) and, for the moment, of some sectors of importance, such as transport material. Meanwhile, foreign capital divestment in the traditional industries seems to be provoked mostly by purchases made by national capital, as some well-known cases demonstrate (Ebro Puleva–Abbot, MBO–Sara Lee, Damm–Heineken, Gullón–United Biscuits...).

7. The restructuring of foreign capital activity in Spanish manufacturing industry

As pointed out in section 2, the effects of divestment on the economy are less negative if such operations occur because of a restructuring process affecting the activity of foreign capital on Spanish soil and if the degree of economic development of the disinvesting countries is high. In fact, investment in less technologically intensive areas might be replaced by investment geared towards more high-tech activities.

To carry out an analysis along these lines, we calculated an intrasector restructuring index for foreign capital activity within a sector i , which is defined, in the same way as the intra-industry commerce index of Grubel y Lloyd, as follows:

$$IRI_i = 1 - \frac{|I_i - D_i|}{I_i + D_i} ,$$

where I is effective gross investment and D is divestment. The difference between both values is taken in absolute value. The value of this index fluctuates between 0 and 1; a situation of zero investment or zero divestment (not both at the same time) will give a value zero for the index, while the index takes value 1 if both categories are equal.

Figure 5 presents the results of that calculation. The first point that must be made is that the intrasector restructuring indices for foreign capital activity are high and have been growing over the most recent years. At a general level, then, foreign capital is transforming its activities within each of Spain's industrial sectors, and this is a tendency that increases along time. This occurs to a greater degree in medium and low-tech

industries than in high-tech areas, where the departure from Spanish territory of productive activity is more evident. This type of production tends to be located in the office machinery and computer equipment subsectors, as well as medical and precision equipment, these being sectors with a high orientation towards international markets through commerce, that is to say, with a greater independence from the domestic market.

(Figure 5)

In contrast, in medium-tech industry the process of intrasector restructuring is generalised and considerable, except for the case of transport material, where there is plenty of investment and very limited divestment. Spain continues to enjoy advantages in this sector and does not yet seem to be affected by the pattern of delocalisation in the direction of the countries of Eastern Europe, as we already argued above. Finally, in the traditional industries, restructuring is also a very general phenomenon, excepting the case of metallurgy and non-metallic mineral products. In both cases, Spain is still a net receiver of investment.

We can now proceed to identify the countries that are instigating this restructuring or this exit from Spanish territory. We do this by calculating the same IRI index for each group of activities and for each country. The data base for the calculation is to be found in Appendix 2. Table 3 shows the results obtained. A study of the content reveals that, in general, the European countries are restructuring their shareholdings and actions in Spain. Moreover, the low index values always correspond to greater gross investment than divestment, as are the cases of Holland and Italy in low-tech industry, of Holland, France and Portugal in the medium-tech field, and of Germany, France and Belgium in high-tech areas of industry. The European countries, therefore, are not ceasing to invest in Spain, although they are replacing some activities by others of a different kind. It would seem likely that this is favouring better quality production activity with a higher technological content.

(Table 3)

On the other hand, the United States, Switzerland and other OECD countries group together the companies that are disinvesting in the technologically advanced and intermediate sectors, with relatively low restructuring indexes. In this case there will

clearly be a departure from Spanish soil, probably in the direction of Asian countries or other European countries with more powerful technological environments.

In short, the divestment generally forms part of a process of restructuring of activity that is being led by foreign capital proceeding from the European Union, in which we may presume that activities of a lower technological content are being replaced by others of a more advanced nature. Consequently, this should not cause excessive alarm, or not at least for the moment. However, there are some important high-tech areas where a certain exodus from Spanish territory is taking place, the main actors being companies from the USA, Switzerland and other OECD countries. This is an area for genuine concern.

Apparently, the emergence of the economies of Eastern Europe is contributing to the restructuring process of EU capital in Spain and perhaps also to the delocalisation of Swiss companies. It is more unlikely that it is encouraging US companies to transfer to other countries, since this country is not a great investor in the emerging zone. Nevertheless, as can be observed in Figure 6, there is a positive relationship between the net investment received by Spain in the various industrial activities and the capital stock accumulated in the countries of Eastern Europe, which seems to indicate that both of these economic zones are attractive for investors in the very same industries, although products will be different. Spain only appears to have perceptibly "lost out" in the food and chemical industries. These are, it must be said, sectors in which Spain is registering significant divestment.

(Figure 6)

We are starting to fear that the divestment process might continue, that it could spread to other sectors in the near future and its dimensions perhaps exceed in value the investment flows received. In fact, if we take the previous figure and consider only the period of 1998-2000, the situation changes radically: the number of sectors where net investment is positive in Spain constitutes a minority. The automobile industry, however, does not yet seem to be threatened in this way.

Nevertheless, an examination of direct investment made abroad by Spain, reflected in figure 7, reveals the leading role of local food products and chemical companies, leading one towards the hypothesis that divestment in both sectors is, at least partly, the result

of the greater strength of the national industry within them, which might have managed to acquire assets owned by residents; and some examples of cases where this has occurred have already been provided. This takes some of the bite out of the dramatic side of the divestment process and the negative effect it is having on the fibre of Spanish industry.

(Figure 7)

To summarise, the divestment registered in Spain seems to be the result of a restructuring process of the international activities of multinational firms. In general, this is not leading to a reduction in the presence of foreign capital in the different industries, except in some high-tech areas, such as office machinery and computers and precision instruments, where the situation might be described as disturbing. On the contrary, it is giving rise to a broad restructuring of production by multinational companies in Spain. Within the framework of this restructuring process, foreign capital divestment registered in some sectors, such as food or chemicals, is reaching significant levels. However, companies owned by national capital appear to be participating in these divestment operations, acquiring property that belongs to non-residents and demonstrating a competitive toughness that is quite as visible as the direct investment operations they carried out abroad during the period we are considering. At the end of the day, since these divestment operations are a response to the seductive powers exercised by some of the emerging economies, such as those of Eastern Europe, the possibility that they might tend to grow in the near future cannot be ruled out.

8. Summary and conclusions

In this paper we have studied foreign capital divestment in the Spanish economy for the period of 1993-02, using the Ministry of the Economy Investment Register. We have shed some light on a phenomenon of growing importance that has scarcely been tackled at an empirical level, deriving from the international restructuring of the localisation of large firms, which is, among other things, a response to a more globalised world and the subsequent processes of delocalisation and relocalisation of production.

The volume of foreign capital divestment reached significant levels in the 1990s, increasing appreciably towards the end of the decade, to the point where it almost

cancelled out the direct investment that was flowing into manufacturing industry, making received net investment practically zero. But not all the industrial sectors went through the same experience. The most affected were the most technology-intensive, where foreign capital was in a dominant position. This was particularly true for office machinery and computers and precision instruments, in which areas there began to emerge the outlines of a tendency towards a reduction in the presence of foreign capital in Spain. The marked international market orientation of foreign productions in these sectors probably encouraged the change in localisation, though we do not know if this meant relocalisation in European countries with a more favourable technological environment, such as Ireland or central Europe, or in the emerging economies. In the field of electrical and electronic activities, divestment was also significant, but it occurred within the framework of a restructuring of foreign activities which also involved new investment entries, perhaps at an equal or higher technological level. In this connection, the fact that US companies appear to be being replaced by European ones does not bode well.

In medium and high-tech sectors, divestment seems to have caused less impact and to have had less negative consequences, as it has always occurred within the framework of the restructuring of foreign capital activities led by the most advanced EU countries. This restructuring quite possibly replaced lower quality and less technologically developed productions with others of a more advanced nature, the former being transferred towards emerging economies. Moreover, Spanish companies seem to have participated in this restructuring activity, through the acquisition of foreign companies, especially in the sectors of food and chemicals, whilst at the same time they increased their investments in the rest of the world. For these reasons, the effect of divestment on these kinds of industries does not appear to be of much significance yet, although it might be in the new future. In fact, the restructuring of the activities of foreign companies in Europe is only a reflection of the attractive pull of the new emerging economies. But the investment received by Spain shows, at the same time, that the Spanish market has not yet lost its attractions. On the contrary, a sector as classic as the automobile industry still prefers to locate its plants there.

All things considered, the effects of the process of foreign capital divestment in Spain do not appear overly alarming for the moment, except in some advanced industries

where foreign capital is very much in control. Nevertheless, there could be grounds for greater concern in the future, if efforts are not made to create an entrepreneurial environment supported by greater development and technological backup. This is also necessary in order to strengthen the competitiveness of Spanish companies, which, in the future, will have to take on board the necessity for greater input aimed at innovation at home, so as to reduce their dependence on foreign technology.

Bibliography

- BAJO, O. and LÓPEZ PUEYO, C. (2002): "Foreign direct investment in a process of economic integration: the case of Spanish manufacturing, 1986–1992", *Journal of Economic Integration*, vol. 17, march, pp. 85-103.
- BALDWIN, R.E., FORSLID, R. and HAALAND, J.I. (1996): "Investment creation and diversion in Europe", *The World Economy*, vol. 19, no. 6, pp. 635-659.
- BENITO, G. (1997), "Why are Foreign Subsidiaries Divested? A Conceptual Framework", in I. Björkman and M. Forsgren (eds.), *The Nature of the International Firm*, Copenhagen: Copenhagen Business School Press.
- BODDEWYN, J.J. (1985), "Foreign divestment theory: Is the reverse of FDI theory", *Weltwirtschaftliches Archiv*, 199, pp. 345-355.
- COMMITTEE OF THE REGIONS OF THE EUROPEAN UNION (1995): *Dictamen sobre la deslocalización de empresas internacionales*, Bruselas, 19-20 de junio de 1995, octavo pleno.
- DUNNING, J.H. (2000): "The eclectic paradigm as an envelope for economic and business theories of MNE activity", *International Business Review*, vol. 9, pp. 163-190.
- FERNÁNDEZ–OTHEO, C.M. (2000): "Efectos de la integración sobre la inversión directa extranjera", in R. Myro (dir.), *Economía europea. Crecimiento, integración y transformaciones estructurales*, Civitas, Madrid, pp. 155-178.
- FERNÁNDEZ–OTHEO, C.M. (2003): *Inversión directa extranjera y desinversión de España en la década final del siglo XX: nuevas perspectivas*, Los papeles de la Ortega, no. 1, Editorial Biblioteca Nueva–Fundación José Ortega y Gasset, Madrid.
- FERNÁNDEZ, C.M. and MYRO, R. (1995): "Las migraciones de la actividad industrial en la Unión Europea", *Economía Industrial*, no. 305, pp. 49-73.

- FERNÁNDEZ, C.M. and MYRO, R. (1996): *The migrations of the industrial activity inside and outside the European Union*, European Regional Science Association, 36th European Congress, ETH Zurich, 26–30 August 1996. http://www.ucm.es/info/ecap2/fernandez_cm/
- IRANZO, S. (1991): "Inversión extranjera directa: una estimación de la aportación real y financiera de las empresas extranjeras en España", *Información Comercial Española*, 696-697, pp. 25-53.
- MARIOTTI, S. and PISCITELLO, L. (1997): "Divestment failure or part of a restructuring strategy: evidence from the Italian MNEs", in K. Macharzina, M. J. Oesterle and J. Wolf (eds.), *Proceedings of the 23th. Conference of EIBA*, Stuttgart.
- MARTÍN, C. (1998): *España en la nueva Europa*, 2nd. ed., Alianza, Madrid.
- MARTÍN, C. and VELÁZQUEZ, F.J. (1996): "Una estimación de la presencia del capital extranjero en la economía española y de algunas de sus consecuencias", *Papeles de Economía Española*, no. 66, pp. 160-175.
- MARTÍNEZ SERRANO, and MYRO, R. (1992): "La penetración del capital extranjero en la industria española", *Moneda y Crédito*, 194, pp. 149-190.
- MERINO DE LUCAS, F. (2003): *deslocalización de las multinacionales extranjeras: ¿casos aislados o un fenómeno generalizado?*, *Economía Industrial* (forthcoming)
- MYRO, R., FERNÁNDEZ, C.M. and MORA, A. (1996): *Las migraciones de la actividad industrial en la Unión Europea*, Colección Pablo Olavide, Junta de Andalucía, Sevilla.
- MYRO, R. and GANDOY, R. (2003): "La industria", in J.L. García Delgado (dir), *Lecciones de Economía Española*, Thomson-Civitas, Madrid, pp. 217-243.
- SIMÕES, V. C. (2003), *Divestment by foreign-based companies: founding conditions, sourcing and firm boundaries*, Conferència Internacional "Desinvestimento: estratégias empresariais, as regiões e as políticas", Lisboa, 22–23 september.

Appendix I. Control levels of Spanish industry by foreign capital

The data used are those of Merino de Lucas (2003), who selects companies employing more than 200 workers in which foreign capital possesses a more than 30 % stake holding. He then proceeds to estimate the proportion that corresponds to these companies within the total production of all the companies comprising each sector. Merino de Lucas provides this information for 1991, 1994 and 1998. By observing how this share developed between 1991 and 1994, and taking into account the estimation made by Martín and Velázquez (1996), in reference to the years 1985, 1989 and 1993, we established a value for the sectoral control of foreign capital for 1992. This value is not completely in concordance with those offered by Iranzo (1991) and Martín and Velázquez (1996) for the years close to those dates. This is to be explained by the different methodologies and databases used. The greatest variance is to be found in the estimation calculated by Martín and Velázquez for the percentage represented by foreign capital, which continues to be lower in foods and office machinery and computers in 1993, and already higher in machinery and mechanical equipment and in rubber and plastics in 1989. Table A show the final results.

(Table A)

Table 1.- Foreign direct investment flows received and divestment in Spain, 1993-2002
(millions of 1995 euros and percentages)

Sector	1993-1997					1998-2002				
	Effectiv. gross investm. (a)	Divest ment (b)	%	Net investm.	b/a	Effectiv. gross investm. (a)	Divest ment (b)	%	Net investm.	b/a
Agriculture and fishing	321	109	1,2	212	33,8	186	112	0,6	75	59,8
Energie, water and extractive	575	167	1,8	408	29,0	2.518	1.764	8,7	754	70,1
Manufacturing	11.352	4.705	51,3	6.647	41,4	10.011	9.213	45,7	798	92,0
Construction	530	208	2,3	322	39,3	786	84	0,4	702	10,6
Services	14.875	4.078	44,4	10.797	27,4	40.722	17.193	85,2	23.530	42,2
Holding companies with productive activity in Spain	1.961	-89	-1,0	2.050	-4,5	7.158	-8.192	-40,6	15.350	-114,5
<i>Subtotal (productive system)</i>	<i>29.614</i>	<i>9.178</i>	<i>100,0</i>	<i>20.436</i>	<i>31,0</i>	<i>61.382</i>	<i>20.173</i>	<i>100,0</i>	<i>41.209</i>	<i>32,9</i>
Spanish foreign tax regime (ETVE) ^(a)	976	-29		1.005	-2,9	48.675	157		48.518	0,3
Total direct investment	30.589	9.149		21.440	29,9	110.056	20.329		89.727	18,5

Source: Foreign Investment Register and own elaboration.

Note (a): Holding companies to benefit the Spanish foreign securities tax regime (the so-called ETVE in Spanish).

Table 2.- Flows of received direct investment received and divestment en Spanish manufacturing, 1993-2002
(millions of 1995 euros and percentages)

Activities	1993-1997					1998-2002				
	Effective gross investm. (a)	Divestment (b)	%	Net investm.	b/a	Effective gross investm. (a)	Divestment (b)	%	Net investm.	b/a
Low tech	4.632	1.820	38,6	2.812	39,3	5.862	3.988	43,3	1.874	68,0
Medium tech	5.225	2.210	47,0	3.015	42,3	3.533	3.367	36,5	166	95,3
High tech	1.496	676	14,4	820	45,2	616	1.859	20,2	-1.242	301,7
Total	11.352	4.705	100	6.647	41,4	10.011	9.213	100	798	92,0

Source: Foreign Investment Register and own elaboration.

Note: The contents of each technological level could see in figure 2.

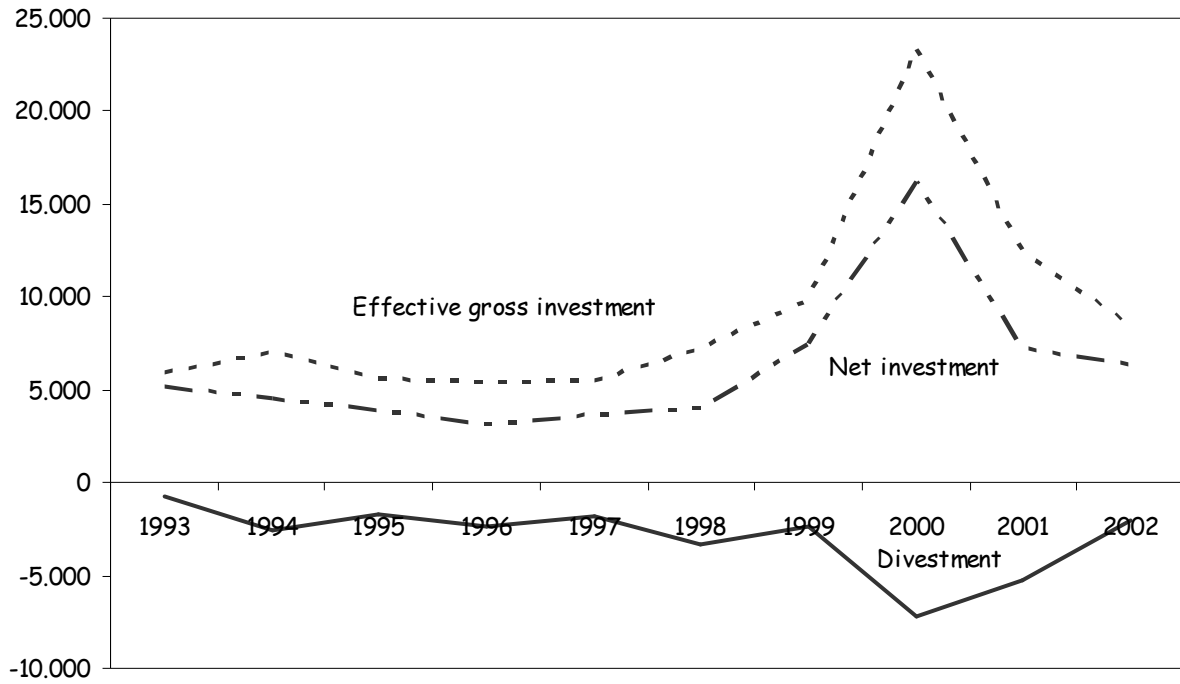
Table 3.- Reestructuring index of intraindustrial foreign direct investment in Spain by countries, 1993-2002

Country	Manufacturing		
	Low tech	Medium tech	High tech
European Union	0,67	0,46	0,71
<i>Netherlands</i>	0,52	0,21	0,97
<i>France</i>	0,92	0,00	0,00
<i>Germany</i>	0,53	0,98	0,18
<i>United Kingdom</i>	0,90	0,62	0,78
<i>Italy</i>	0,07	0,81	0,84
<i>Belgium</i>	0,84	0,84	0,00
<i>Portugal</i>	0,96	0,00	0,89
USA	0,89	0,71	0,53
Japan	0,39	0,81	0,99
Switzerland	0,30	0,67	0,47
Rest of OECD	0,61	0,93	0,23
Fiscal paradises	0,85	0,00	0,84
Rest of the countries	0,79	0,36	0,00

Note: $IRI_i = 1 - \frac{\text{investment} - \text{divestment}}{\text{investment} + \text{divestment}}$

Source: Foreign Investment Register and own elaboration.

Figure 1.- Direct investment received by Spain and divestment in the productive system, 1993-2002
(millions of 1995 euros)



Note: The figure excludes the so-called Special purpose entities (SPEs).

Source: Foreign Investment Register and own elaboration.

Figure 2.- Foreign direct divestment in Spanish manufacturing, 1993-2002
(millions of 1995 euros)

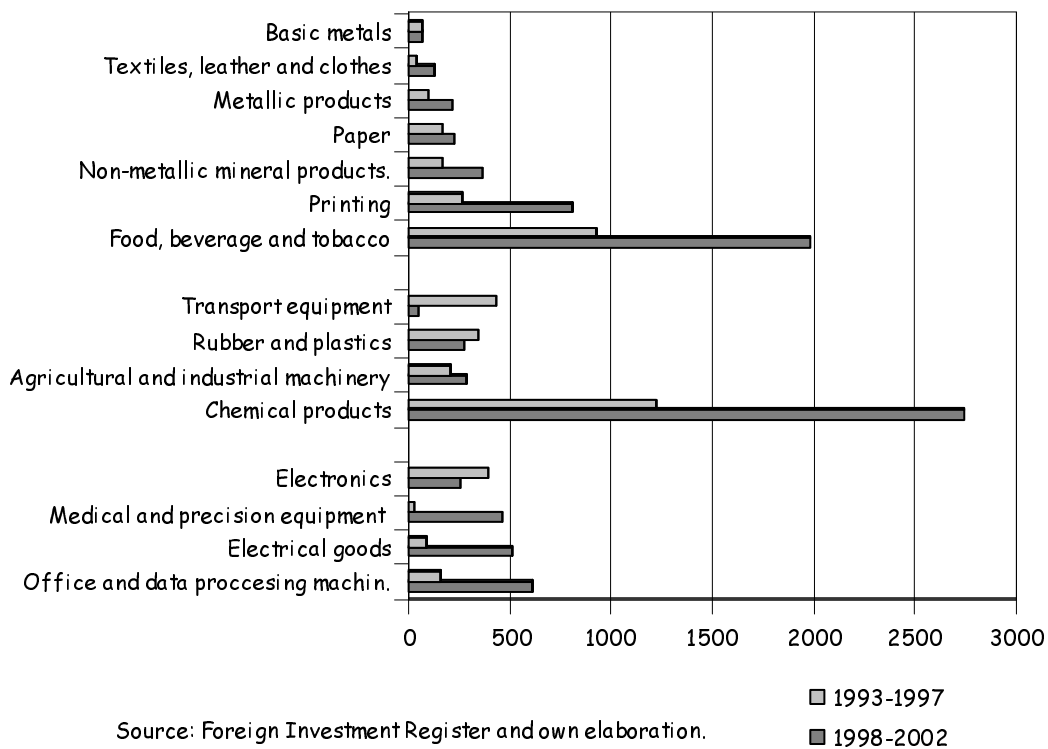
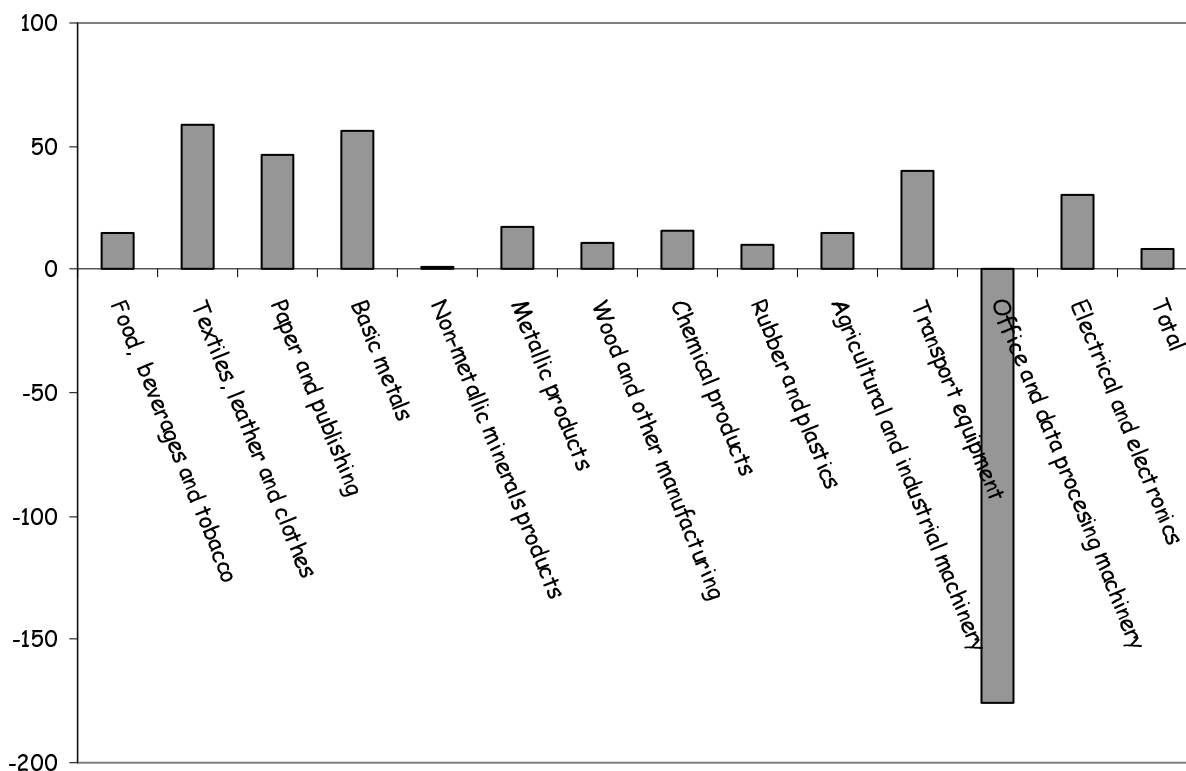
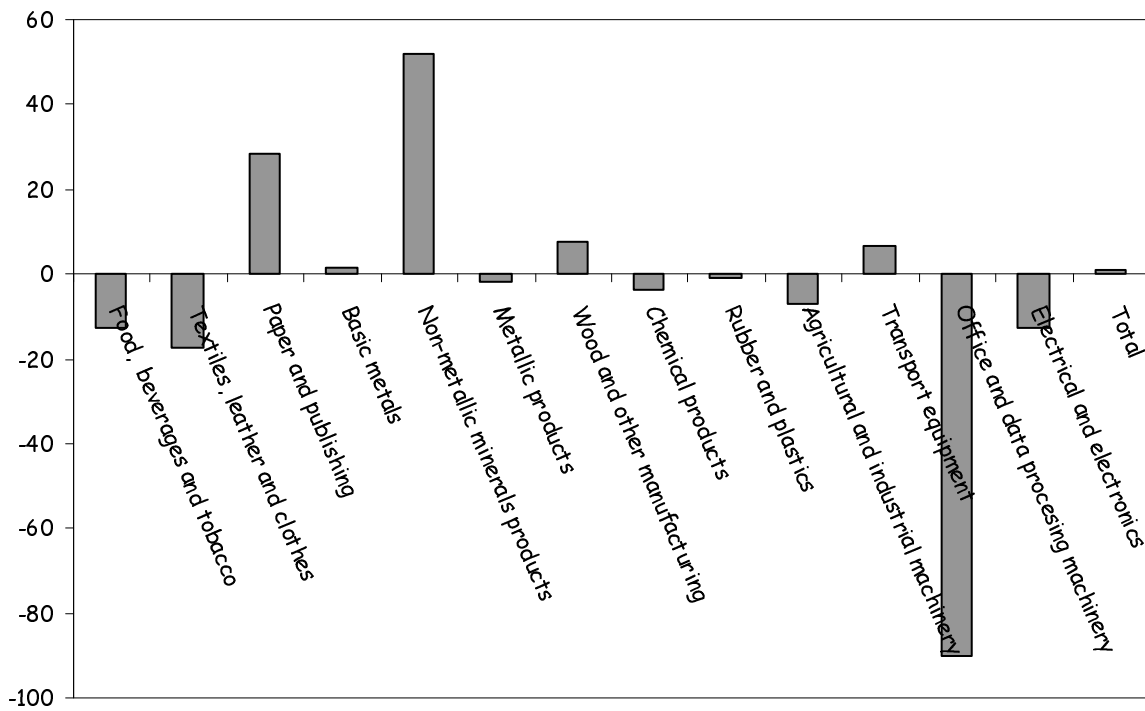


Figure 3.- Importance of net foreign direct investment received in Spain between 1993 y 1998 on fixed sectoral capital stock owned by non-residents in 1992 (at 1995 constant prices)



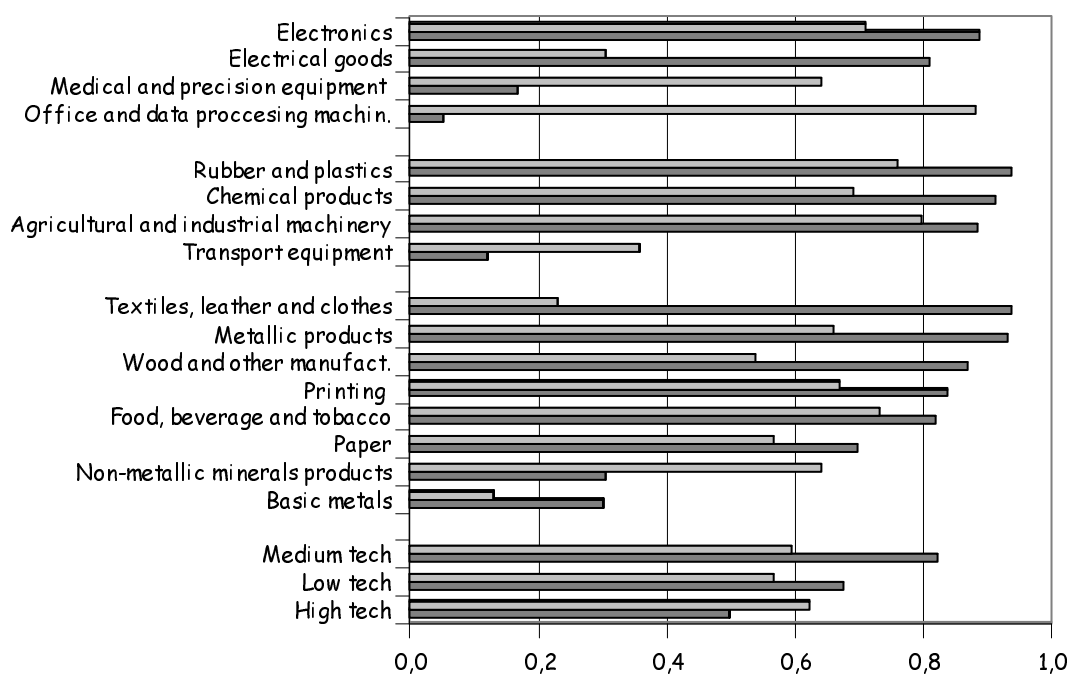
Source: Own elaboration

Figure 4.- Importance of net direct investment flows received in Spain between 1999 and 2002 on sectoral fixed capital stock owned by non-residents in 1998
(at 1995 constant prices)



Source: Own elaboration.

Figure 5.- Intra-industry foreign direct investment restructuring index, 1993-2002



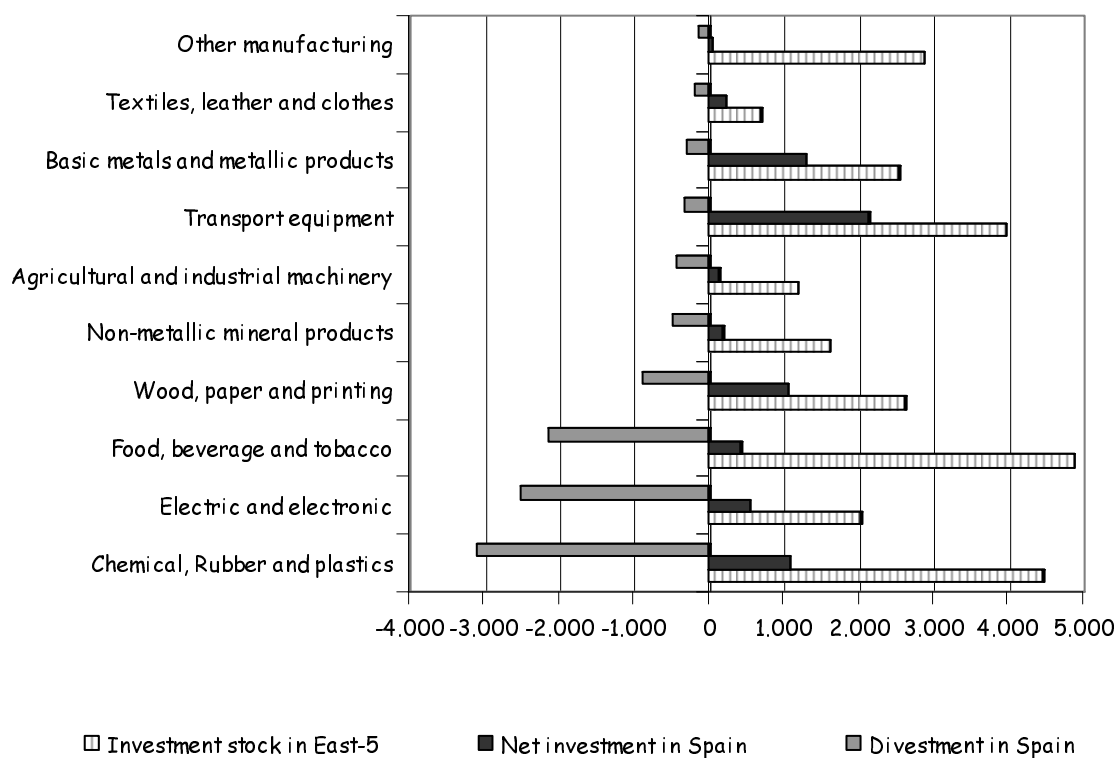
Note: $IRI_i = 1 - \frac{\text{investment} - \text{divestment}}{\text{investment} + \text{divestment}}$

Source: Foreign Investment Register and own elaboration.

□ 1993-1997

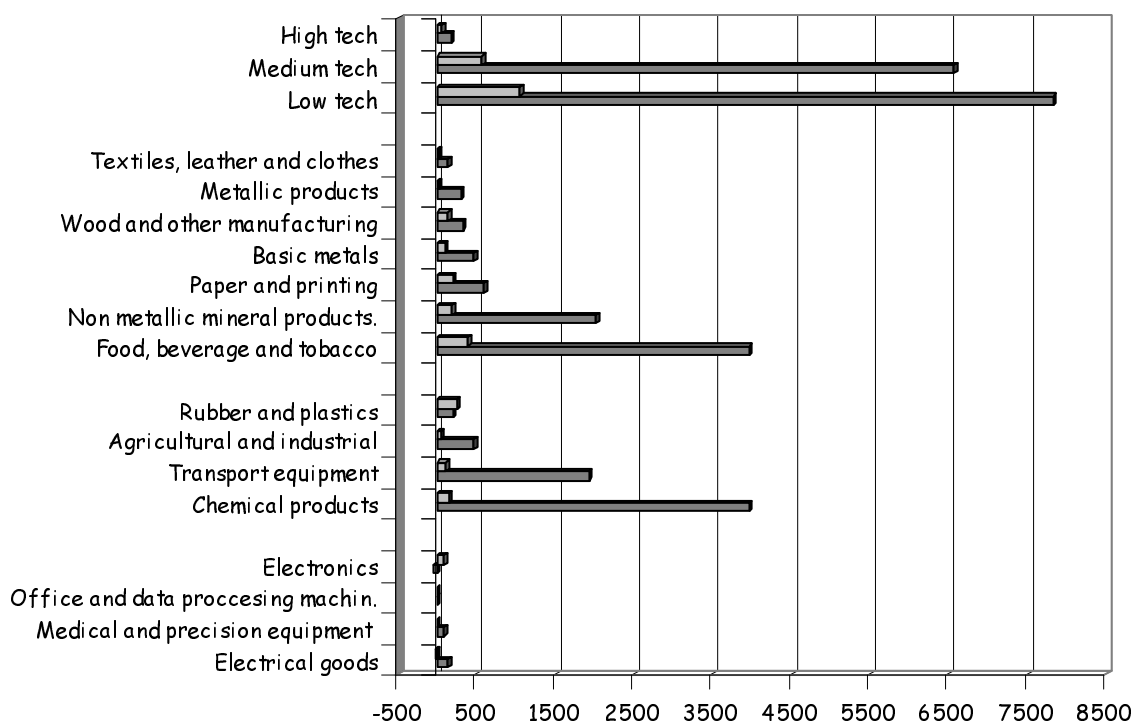
■ 1998-2002

Figure 6.- Net foreign direct investment flows received and divestment in Spanish manufacturing (1993-2000) and foreign direct investment stock in Europe East-5 (2000) (millions of 1995 euros)



Note: Countries included in East-5: Czech Republic, Hungary, Poland, Slovak Republic, Slovenia.
 Source: UNCTAD, Foreign Investment Register and own elaboration.

Figure 7.- Net direct investment outflows of Spain in manufacturing, 1993-2002
(millions of 1995 euros)



Note: The flows related with Spanish foreign tax regime (ETVE) owned by non-residents are excluded.

□ 1993-1997
■ 1998-2002

Source: Foreign Investment Register and own elaboration.

Table A.- Foreign stock of physical capital and control by non-residents in Spanish manufacturing, 1992-1998

Sector	Foreign capital stock (millions of 1995 euros)		Foreign capital control (% in total production)	
	1992	1998	1992	1998
Food, beverage and tobacco	6.661	7.348	51,6	47,4
Textiles, leather and clothes	643	603	12,0	11,0
Paper and printing	1.239	1.615	16,4	17,3
Basic metals	2.041	4.268	20,9	47,0
Non metallic mineral products.	2.758	3.504	30,3	36,4
Metallic products	1.037	1.885	14,1	24,0
Wood and other manufacturing	538	574	12,4	11,3
Chemical products	5.656	6.539	60,6	61,9
Rubber and plastics	2.107	2.216	44,7	38,8
Agricultural and industrial machinery	892	1.228	33,3	35,6
Transport equipment	4.554	7.366	49,9	69,4
Electrical and electronics	281	501	51,9	50,5
Office and data processing machin.	2.538	2.008	55,2	45,0
Total	30.946	39.654		

Source: IVIE, Fundación BBVA, Merino de Lucas (2003) and own elaboration.

Appendix 2.- Foreign direct investment flows by countries and sector

Table A.- Foreign direct investment accumulative flows received and divestment in the Spanish manufacturing by countries, 1993-2002
(millions of 1995 euros)

Countries	Effective gross investment			Divestment			Net investment		
	93-97	98-02	93-02	93-97	98-02	93-02	93-97	98-02	93-02
European Union	8.551	8.783	17.334	2.190	5.558	7.748	6.361	3.225	9.585
<i>Netherlands</i>	3415	4442	7857	466	2000	2466	2949	2442	5390
<i>France</i>	1415	1473	2889	312	764	1075	1104	709	1813
<i>Germany</i>	1348	516	1863	48	1374	1421	1300	-858	442
<i>United Kingdom</i>	882	905	1786	391	954	1346	490	-49	441
<i>Italy</i>	745	384	1129	683	-49	634	62	432	495
<i>Belgium</i>	247	383	630	95	569	664	151	-186	-35
<i>Portugal</i>	199	186	385	83	193	276	115	-6	109
USA	1.237	627	1.864	564	2.690	3.254	673	-2.064	-1.390
Japan	384	236	620	560	281	841	-176	-45	-221
Switzerland	885	186	1071	1125	868	1993	-241	-682	-922
Rest of OECD	27	19	46	68	18	86	-41	1	-40
Fiscal paradises	152	45	197	134	-239	-105	18	285	303
Rest of the countries	115	85	201	52	31	83	64	54	118
Total	11.351	9.981	21.332	4.694	9.207	13.900	6.657	774	7.432

Source: Foreign Investment Register and own elaboration.

Table B.- Foreign direct investment accumulative flows received and divestment in the Spanish manufacturing by countries and sector, 1993-2002
(millions of 1995 euros)

Countries	Effective gross investment			Divestment			Net investment		
	Low tech	Medium tech	High tech	Low tech	Medium tech	High tech	Low tech	Medium tech	High tech
European Union	9.281	6.565	1.488	4.644	2.180	924	4.638	4.384	563
<i>Netherlands</i>	4.831	2.611	415	1.717	306	443	3.114	2.305	-28
<i>France</i>	1.526	808	555	1.290	-155	-60	236	963	615
<i>Germany</i>	549	1.172	142	200	1.207	14	350	-36	128
<i>United Kingdom</i>	936	671	179	762	303	280	174	368	-101
<i>Italy</i>	354	645	130	13	442	179	342	202	-49
<i>Belgium</i>	300	328	2	218	451	-5	82	-123	7
<i>Portugal</i>	249	123	13	270	-10	16	-21	133	-3
USA	751	796	317	932	1450	872	-182	-654	-555
Japan	28	496	97	7	736	99	21	-240	-2
Switzerland	212	674	185	37	1346	610	175	-671	-426
Rest of OECD	15	28	3	34	32	21	-19	-4	-17
Fiscal paradises	100	92	5	73	-186	7	26	278	-2
Rest of the countries	100	88	12	65	19	-2	34	69	15
Total	10.486	8.738	2.108	5.793	5.577	2.531	4.693	3.161	-423

Source: Foreign Investment Register and own elaboration.