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"THE EFFECTS ON THE PORTUGUESE ECONOMY OF FOREIGN DIRECT INVESTMENT IN THE AUTOMOTIVE SECTOR (FROM RENAULT'S PROJECT TO AUTO EUROPA'S PROJECT - 1980 TO 1994)"

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"THE EFFECTS ON THE PORTUGUESE ECONOMY OF FOREIGN DIRECT INVESTMENT IN THE AUTOMOTIVE SECTOR (FROM RENAULT'S PROJECT TO AUTO EUROPA'S PROJECT - 1980 TO 1994)"[1]

Rogério Guerra Santos[2]

Summary

The objective of this work is to investigate some effects of FDI[3] on the Portuguese economy. As Portugal has been a relevant host country to foreign investment, particularly since its adhesion to the European Community (1986), we consider that the analysis of FDI impact at this point in time may bring some empirical light to the controversy between the pros and the cons of multinational proliferation. Given the eminently empirical character of this problem, the diversity of activities covered by the investment projects and the dimension of an all-industries study, we decided to focus on one sector only. The automotive sector, which absorbed an average of 50% of total FDI in the manufacturing industry between 1986 and 1992, seemed like a natural choice for examination.

This paper is divided into three chapters: in the first, a brief introductory reference is made to the determinants of FDI in Portugal, with particular stress on government incentives; in the second we examine, empirically, some effects of FDI on the automotive sector; in the third chapter we analyze in some detail the two major FDI projects that took place in Portugal during the last 15 years, Renault and Auto Europa, from the standpoint of their effects on the Portuguese economy. The work ends with some conclusions and policy matters.

Key-words: FDI, effects, automotive, spillovers, projects.

1. Brief Reference to the Determinants of FDI in Portugal

1.1. Generic Determinants

To help us gain a better understanding of the sectoral specifications, we feel we should start by briefly reviewing FDI in Portugal from a historical perspective. Simões, V.C.(1992) classified the evolution of FDI in Portugal into five stages: a) the first, that he called Nationalism, took place between the 1940's and the 1950's, was characterized by a general distrust of the foreign investor; investment volumes were low, basically of a commercial type, aimed at the internal market and determined either by internal demand or by import substitution; b) the second stage, called Opening, already showed some degree of liberalization imposed by EFTA[4] partners and, as from the early 1970's, by the trade agreement with the EEC[5]; during this period and until April 1974, FDI figures grew rapidly, although still with modest volumes,

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[3] FDI = Foreign Direct Investment
[4] EFTA = European Free Trade Association
[5] EEC = European Economic Community

particularly from MNCs'[6] export oriented affiliates; the main determinant was the low cost of wages; c) the third, Post-April, corresponds to the second half of the seventies and to a period of continuous political crisis, which coincided with overall hard times in the world economy; this period is marked by a decline in FDI absolute values as well as a return to the determinants of the first stage; d) the fourth stage describes the first half of the eighties; pre-membership work to EEC full member status and a favorable climate to FDI are the main characteristics; FDI grew strongly through industrial integrated affiliates producing to external markets; determinants became more comprehensive and included internal market supply, import substitution, low wage cost, government incentives, as well as mining and forestry resources; e) finally, in the fifth stage, which started with EEC adhesion (January 1986) and continued through the '80's and early '90's, Portugal hosted a significant volume of FDI, most (perhaps all) determined by the same factors of the previous period, with the exception of import substitution which was no longer relevant. Tables 1 and 2 show the evolution of FDI in Portugal, from 1986 to 1994, by country of origin and industry, respectively.

With regard to the determinant "low salaries", it is worthy to note the conclusions of a study carried out by ICEP[7] in 1994[8] where a comparison was made between the wage component of production costs, in Portugal, Spain and Germany, in relationship to the average labor/hour cost in the EU. In 1970, Portugal aligned with Spain with 40% of the average EU[9], while Germany was at the 140% level; in 1991, Portugal stayed at 40%, Spain jumped to 80% and Germany came down to 120%; it is estimated that, by the year 2010, Portugal will be around the 60% level, Spain at 90% and Germany at 110%. Even assuming a substantial margin of error for these estimations, it should not be controversial to state that the determinant "low salaries" will still be pertinent for at least another decade. The second major determinant, government incentives to investment, will be dealt with in the next section.

1.2. Government Incentives in the Automotive Industry

The FDI projects hosted by Portugal in the period from 1980 to 1994, received a total close to 250 billion PTE[10] (at 1994 prices) from various types of government incentives, of which 97% were absorbed by the contractual regime[11], while only 3% were divided amongst the general regime projects (Table 3). From the

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[6] MNC = Multinational Company
[7] ICEP = Investments, Tourism and Trade of Portugal. Governmental institution.
[8] ICEP-London Economics, 1994.
[9] EU = European Union.
[10] PTE = Portuguese Escudo. Local currency.
[11] See page 4 for definitions.

former type, a special mention must be made of the Renault and Auto Europa projects, which received 15% and 60% of total incentives, respectively. If one adds to Auto Europa and Renault (inducing projects) the amounts granted to the projects induced by these two major developments, one can conclude that "Auto Europa group" absorbed around 70% of the total incentives granted in the period while "Renault group" got 20%. The remaining 10% were applied to independent "groups" like GM, Ford, Fiat and Yazaki. This latter Japanese investment ended up being, even from the point of view of incentives, the most *profitable* project to the host country.

In relation to the cost of the projects in *public escudos*[12] of 1994, Renault was the least costly project to the host country, with a ratio of 24%, followed by Continental with 29%; Auto Europa and Ford Electrónica show up in intermediate positions with 31% and 38% respectively; the more costly projects were Delco Remy, Sommer Allibert and Cofap, with ratios higher than 50%.

The analysis of the cost in *public escudos* of 1994 of each direct job effectively created leads us to a somewhat different hierarchy of the projects. Auto Europa has the highest cost per direct job created (more than 50 million PTE), although this value will tend to diminish if we account for the incipient stage of the project and its growth expectations. The lowest direct job cost belongs to Renault, with around 11.6 million PTE, although this value, unlike that of Auto Europa, and given the declining stage of the project, will tend to grow. The remaining projects fall between these two extreme values, of which Delco Remy should be noted for its relatively high cost of almost 30 million PTE per direct job.

If we now relate the amounts of incentives with share capital, we can conclude that, again with the sole exception of Yazaki, public monies are always greater than the formal financial commitment of the promoting companies. The lowest ratio belongs to Sommer Alibert (incentives received and share capital are of similar value), followed by Continental, Delco Remy, Renault and Cofap, that received respectively 1.3, 1.8, 2.5 and 3.2 times the value of their share capital; The highest ratios to be found in Ford Electrónica, Auto Europa and Bendix, with respectively 5.1, 5.6 and 6.5 times the value of their share capital. This situation basically occurs for two reasons: (i) the incentive to be conceded by the Government depends on the type and amount of both the total investment and the eligible expenses: the multinational structures of the investors allow them access to sources of funding independent of the traditionally limitative relationship between internal and external capitals.

[12] Cost in Public Escudos = Total Incentives / Total Investment x 100, prices of 1994

One final note about the singularity of Bendix. As the project contract ended in June 1991, we could not cross check either real investment values or incentives received. However if we take information obtained from official sources at face value, we could conclude that the total amount of incentives received by Bendix were greater than the total amount invested. In 1981, in fact, Bendix invested around 720 million PTE and in the same year received 84 million in financial incentives, plus 1023 million in tax breaks between 1982 and 1991. In this particular case, the primary philosophy presiding over "incentives to investment" is perverted as they become subsidies to production.

2 Effects of FDI on the Automotive Industry

2.1. Characteristics of Foreign Direct Investment

Foreign direct investment in Portugal is divided, from the point of view of its relevance to the national economy, into two major groups: contractual regime and general regime. The differentiation criterion is mainly based on the total investment volume estimated by the project. Until mid 1993, the level of investment required to integrate the contractual regime was 10 billion PTE. The Reg. Decree No. 17/93 of July 1st, reduced this minimum amount to the present 5 billion PTE.

The analysis of FDI that took place between 1980 and 1994 faces the traditional problem arising from the comparison of values relating to different periods in time. In Table 4, project values can be found, both at the registered-year value and 1994 adjusted value. These latter values are likely to be slightly inflated because, especially in major operations like Auto Europa, the investment program is seldom completed in one year; sometimes two or three years are needed. On the other hand, it is also common that the larger portion of capital expenditures normally takes place in the first months of the program. Another difficulty worth mentioning arises from the contract confidentiality which prevents access to contractual documents (contractual regime) and, moreover, to the follow-up reports on the projects. This is a significant barrier to any performance analysis, particularly in the cases where incentives are linked to performance levels. The only way to overcome this problem is to find direct access to the investment promoting companies. ICEP, the public institution whose mission it is to coordinate and follow up the contractual regime projects, supplied only non-protected or public domain data. Other relevant information was obtained directly from the firms involved.

The first issue to be raised concerns the difference between the total amounts of investment under the two regimes, contractual and general. At 1994 prices, the 13 contractual projects represented more than 90%

equity of over 9 billion PTE and an endebtement ratio[15] of 1,35, representing a clear situation of technical bankruptcy. other examples are Delco Remy and Yazaki with solvability ratios[16] of 0,1 and 0.18, respectively.

2.3. Employment

Regarding the total number of workers employed in the industry (Table 6), there was modest growth (3,6%) between 1989 and 1993 (1991 even showed a slight reduction). However, the relative weight of the sub-sectors in the composition of employment will be more interesting to analyze.

In decreasing order of importance, Service (28%), Auto Retailers (15%), Parts Retailers (8%) and Gas Stations (7%), represent, in total, almost 60% of employment. Auto Assemblers do not exceed 6%, and these have been in steady reduction since 1990. In summary, more than 90% of employment in the industry is linked to commercial activities, or to those connected to existing car stock (service, parts and gas).

The number of direct jobs estimated to be created in FDI projects between 1980 and 1994 (Table 7), was about 22.600. Indirect jobs can not be analyzed because, on the one hand, estimations were seldom made (Renault and Auto Europa were exceptions) and, on the other hand, even the numbers projected in these two projects do nor merit more credit than any other public relations operation. Bearing this in mind, Renault estimated 5.300 indirect jobs and Auto Europa around 7000.

The breakdown between contractual regime and general regime reflects the aforementioned situation of investment analysis, although now it is somewhat more favorable to the latter. While under this regime, 3000 jobs were estimated (13%); under the contractual regime estimations were at around 20.000 (87%).

When the two regimes are compared at real job-creation level (not estimations), the situation differs significantly. The general regime shows approximately the same figure, while in the contractual regime it turns out to be much lower. In fact, the only project where the relationship "reality/estimation" is positive is Yazaki's. In the initial contract, this operation estimated to create around 2.650 new jobs and, in 1994, they already employed more than 5.700 workers. We wish to mention only the projects with higher negative relations: Auto Europa (estimated to create 4.671 new jobs by 1994 and they do not exceed 3000, thus accomplishing only 64% of contractual objective), Ford Electrónica (1.700 vs. 1.030, 61%), Delco Remy (551 vs. 211, less than 40%); Renault, in whose contract it was estimated that around 6000 new jobs

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[15] Endebtement Ratio = Total Liabilities / Net Assets

[16] Solvability Ratio = Net Equity / Total Liabilities. In general, it is expected that this ratio is ≥ 1.

would be created, achieved a peak of 3812 (including workers already employed by Nissan, to whom Renault acquired the assembly line). The headcount by the end of 1994 was 2330 which resulted in an average performance ratio of only 52%. In summary, if we exclude Yazaki, the flagrant exception to the general under-performance rule, the level of average accomplishment of the contractual objectives of new-direct-job creation in the "contractual regime" did not exceed 65%.

2.4. Automotive Industry Trade Balance (Table 8)

When we analyze the developments in the coverage ratio[17] of the passenger vehicles sub-sector, the turning point coincides naturally with the implementation of the new liberalized imports regime (1986). In 1985 the ratio almost reached the 50% mark. It decreased sharply from 1987 to not more than 12% in 1994. The situation was quite different in the commercial vehicles sub-sector (never subjected to import quotas), where the coverage ratio kept an average of around 70% over the past 5 years.

The analysis of import and export unit prices, is well known for its complexity and, if less carefully done, may lead to precipitated and frequently erroneous conclusions, particularly when the large majority of import and export operations are known to take place in an intra-firm universe. By just looking at the numbers, one may be led hastily to conclude in favor of transfer prices manipulation. Some aspects may, at least partially, justify the differences: (i) imports are priced on a CIF basis, while exports use FOB; (ii) imported vehicles are mainly from the middle and high-price segment, while exported units belong largely to the low-price segment; (iii)for market strategy reasons, information from firms is seldom correct, particularly when it comes to import and export timings (inaccurate cut-offs).

In the commercial vehicles sub-sector, given the diversity of prices, models and specifications, any transfer price analysis would be even more difficult and inconclusive at this level of aggregation. On the average, between 1988 and 1994, import unit prices are higher than export unit prices by only 2% (the latter are even greater in 1991 and 1992).

2.5. Automotive Components Sub-sector

This segment of the automotive industry was born in 1963 as a direct consequence of new import regulations known as the "assembly law". In its early stages, between 1970 [18] and 1980, this industrial segment was populated by a great number of small and very flexible companies, producing a wide range of short-series products, based in intensive labor and oriented exclusively to the internal market. This

[17] Coverage Ratio (in %) = Exports / Imports x 100

[18] See "Current Profiles-1993", ICEP.

environment was modified in the 1980's decade. The number of firms was reduced with an increase in unit-size; industrial flexibility decreased and production series became greater; the external market assumed a growing interest; foreign investment turned into a reality; internationalization of some local firms began. In Table 9, an important part of this perspective is quantified.

Total output went up in increments since 1986 at an annual average rate of more than 25%. Interestingly, a complete reversal took place between the relative weights of internal and external markets. Up until then, the internal market represented a fundamental share of the activity (supply of local assembly lines). From 1987 to 1994, while external market grew at an annual average of 30%, the growth of internal market only slightly exceeded a 10% annual average.

Regarding employment, a modest annual average increment of less than 3% between 1980 and 1994 took place but, on the other hand, output per worker grew much more rapidly at an annual average rate of over 20% in the same period.

As noted above, the number of firms diminished every year between 1980 (200 firms) and 1986 (122 firms), beginning then a growth cycle until 1994 (140 firms). The average size of active firms increased, between 1980 and 1994, from 82 to more than 164 workers per firm.

It is relevant to relate the above developments with the Auto Europa project. By the end of 1994, out of the 308 "first line" suppliers to this project, 43 are 100% domestic, to which 40 must be added as "second line" suppliers. The degree of one-client dependency of these firms varies from 20% to 100%. It should also be noted that 70% of the "first line" suppliers are multinational affiliates.

2.6. Spillover Effects

The quantitative analysis of how the foreign investment projects directly affect the host country economy, does not cause major difficulties, aside from those already mentioned which are common to most research work. Such does not apply when wanting to prove the assumption that the mere presence of multinationals may influence the level of technical efficiency of domestic firms. This therefore affirms that multinationals own specific competitive technological advantages and that these advantages are "transferred" to the economy in general and to the domestic firms in particular[19]. We intend to investigate this in another work and at another level.

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[19] Blomstrom (1991) surveys the existing evidence regarding the importance of technical spillovers from foreign direct investment, suggesting they can be quite large. Mansfield *et al.* (1977), Bernstein (1988), Jaffe (1986), suggest that the social returns to R&D are much larger than private returns. Mansfield (1985, 1992) provides evidence that 70% of technical innovations tend to diffuse in an industry within a

We may, however, make some considerations about the subject, particularly as to the automotive sector, based on elements collected during the research for this work.

Firstly, we should mention the remarkable "Study of Technologies and Laboratorial Capabilities in the Automotive Components Manufacturing Industry", developed in 1992 by AFIA-Automotive Industry Manufacturers Association, where it is stated that *in the automotive components industry there two very distinct situations: multinational affiliated firms and isolated firms (even with some foreign share capital). The former, with small autonomy and following a pre-defined mother-company's strategy, face no market insertion problem; their technological level, sourced within the group, is permanently updated; they benefit from mother-firm's innovation capacity; general competitiveness (financial, managerial) brings another important edge. As to isolated firms, naturally it becomes much more difficult to accede to technological sources, either of products or processes, as well as highly costly.* Still in the same study it is stressed that, *in the same way that Renault project "dragged" a significant number of manufacturers, who had upgraded their productive structures, to create quality and to certify their products, these projects (Auto Europa and others) may contribute to rebuild the industrial tissue and help to modify the specialization profile of the national industry.* If we combine the essence of the aforementioned two statements, it could be concluded that only (or mainly) those firms that are part of multinational groups benefited from the induced effects of the structuring projects.

There are, however, 100% domestic firms present in the automotive components sector that were able to take significant advantages of the presence of multinationals. Two success cases[20] worth mentioning are Autosil and Arjal. Sena da Silva, President of Autosil, is quoted as saying that *Renault project became a fundamental reason to increase production capacity, as well as to develop exports of Portuguese components and to change companies' strategies;* also that *the essential factor in the industry's new dynamic was the structuring effect of Renault's project implementation at the beginning of the 1980's.* António Silva, Director of Arjal, qualifies as *frankly positive the impact of the creation and development of new industrial units linked to Auto Europa, which designed the lay-out for the future industrial strategy.*

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year. Wang and Blomstrom (1992) show that the rate at which MNCs undertake technological transfers increases with the amount invested by domestic firms in learning. Mansfield and Romeo (1980) and Cantwell and Dunning (1991) support empirically this view. Kokko (1992) argues that technological spillovers are not an automatic consequence of FDI and that their incidence may (or will certainly) vary both with the behaviour of MNC and with the characteristics of the host country and industries.

[20] See "Components With Future", in *Comércio e Turismo*, ICEP, No.7,October 1995. pp.28/30

One fact however, which exemplifies the less positive side of the problem, is the presence of merely two domestic firms (amongst a total of 11) that, by the end of 1994, built or moved their premises on to Auto Europa's [21] "industrial park".

A final point is the declaration[22] concerning the progressive downsizing strategy of the Renault operation in Setubal of Ruy Moreira, founder member of AFIA and specialist in the national automotive industry: *The number of lay-offs in the horizontal industry, dispersed by more than 100 companies, may well have already affected more than 2500 employees, as a result of the production contraction in Setubal, of which the great majority will only find work when Ford/Volkswagen plant reaches cruising speed.*

We believe that the above stated facts indicate the existence of indirect effects, at least in the sectoral or operational universe. The main problem that we face when analyzing indirect effects has, however, much more to do with their degree of solidity and with what advantages they offer. If, on the one hand, we take into account that Portugal is not an automobile manufacturer (sources of technology are located beyond its frontiers) and, on the other hand, we accept the implacable incentive of multinational firms to search for locations that at any moment suit their best interests, then how will we be able to answer questions like the following: Who is going to benefit from the structuring effect of FDI projects? Domestic firms? Multinational tributaries to the main project? Or both? Furthermore, According to multinational logic, at the time the project reaches the end of its life cycle, will the residual effects constitute an acquired competitive advantage that may allow the horizontal sector to survive? Or even grow in a sustainable manner ?

3. Structuring Projects

3.1. Renault Project

3.1.1. Objectives

The so-called "Renault Project" was, along with Auto Europa's, one of the two major industrial projects involving some of the largest amount of investment that ever took place in the Portuguese automotive industry. During its 15 year contractual term, its importance for various aspects of the Portuguese economy was undeniable. The most visible effects were the creation of new jobs (direct and indirect) as well as the repercussions on the balances of trade and payments. The indirect effects of this project, although more difficult to measure, are, in our opinion, so much or even more relevant than the direct ones. Modern

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[21] *Survey to suppliers of VX-62* (code for vehicle produced at Auto Europa). AFIA. 1994

[22] Interview by A.J.Rosas, in weekly newspaper "Independente", Jan. 13, 1995

methods of industrial management, quality standards, induced domestic firms investment, administrative innovation and information techniques, are only some of the aspects where Renault performed a very positive role in the transformation of a good share of the industrial and commercial Portuguese fabric. The overall cost to the host-country (including EC participation) was considerable (although relatively low), but the figures suggest that the results were not less significant.

The size of the project with all the implications to the industrial, commercial and financial activities were so significant that a comprehensive analysis falls beyond the scope of this work; we will, therefore, examine only those aspects directly related to our objective.

From the host-country's standpoint, the Renault project answered most of the major macroeconomic questions raised by the situation of the Portuguese economy at the end of the 1970's decade. These were rather clear in point 4 of Resolution No. 45-A/80 of February 11 which "authorizes the investment under contractual regime and approves the minutes and other documents related with the creation of companies destined for the manufacture and sale of Renault vehicles". The following point lists the fundamental objectives of the operation: 1) To create a profitable and competitive industrial complex under the framework of the European Economic Community; 2) To contribute to the improvement of the Portuguese balance of payments, through an export program oriented to auto parts, CBU vehicles, auto components and, mainly, engines; 3) To create a significant number of new jobs; 4) To contribute to the existence of a valid and competitive horizontal industry in European terms, as a result of the high degree of local content demanded at vehicle and engine levels; 5) To introduce new technologies, with training programs and high levels of labor qualifications.

The same official resolution establishes the standards for the implementation of the three vertical activities: commercial activity - to supply the internal market with parts and vehicles; assembly activity - to assemble and manufacture vehicles for internal and external markets, based on an installed capacity of 80.000 per year by the end of 1987, with an average local content rate of 60%; mechanical activity - to produce and export engines (220.000 per year), as well as gear boxes (80.000 per year, starting in 1987), with average local content rates of 80% and 60% respectively. At the same time, a "break set" manufacturing unit[23] should be created. Also an existing foundry should be up-scaled[24] and included in the project.

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[23] Bendix project

[24] This objective was replaced, at a later stage, by Funfrap, a totally new foundry.

The estimated effects of the whole operation on the national economy are listed in the points that follow (also defined in the aforementioned Regulation): "1) Significant increment in the gross added value of about 40 billion PTE, at December 1978 prices, as opposed to the *non-project* hypothesis; 2) Creation of about 6000 new direct jobs, with subsequent creation of 5300 to 7300 new jobs in the horizontal industry of components manufacture; 3) Significant improvement in the balance of trade of the automotive industry; a positive balance of about 10 billion PTE (1978 prices), or about 35 billion (current PTEs) relative to the *non-project* hypothesis is expected".

Finally, the other important aspect covered in the same Regulation (clause 13) concerns the "benefits granted by the Portuguese government as counterpart to the achievement of the project's objectives": a) fiscal incentives; b) non reimbursable subsidy, up to 473 million PTE, for training; c) payment of the long-term-loan accumulated interest until December 31, 1983 or 1.4 billion PTE, whichever is lower, reimbursable from the moment that the firm (Renault) manages to totally reconstitute its equity capitals; d) coverage of exchange rate losses connected to debt service in French francs resulting from externally financed imported investments, on what they may exceed, in terms of exchange rate variation, the difference between the French and Portuguese inflation rates; e) granting of additional CKDs' import quotas; f) guaranties against low sales trends in the market development.

The four major vectors which defined the pre-configuration of the Renault project are, thus, Objectives, Standards of Implementation, Expected Effects and Benefits Granted. It is time now to analyze some of the main aspects related to the reality of the project, one year before its contractual term.

3.1.2. Incentives

We will start by quantifying the tangible benefits actually received by Renault. As can be seen in Table 10, Renault received, at current prices, a total amount of more than 19 billion PTE, of which around 5 billion were various types of financial benefits and more than 14 billion came from fiscal reductions and exemptions. These amounts, adjusted to 1994 prices, represent a total of 36 billion PTE (9.5 billion and 26.5 billion of financial and fiscal origins, respectively). In terms of intangible benefits (these are more difficult to quantify), we point out the fact that a considerable market share was reserved and allocated to Renault (note clause 13 mentioned above).

As a result of the import quota system imposed on the competition, Renault absorbed almost all of the market increases in passenger vehicles and more than 50% of total automobile market increases. In fact,

while Renault sold 12.000 units in 1980, which represented 12.4% of a total market of 96,700 units, in 1987 it managed to sell 51,800, which represented around 30% of a total market of 174,200 units. In 7 years, the market registered an increase of 80%; Renault's increase exceeded 330% in the same period. In summary, Renault absorbed 90% of the passenger vehicle market increase during the period. An evaluation of this benefit cannot be done in this work. It is indisputable, however, that it would certainly lead to a very significant figure.

3.1.3. Exports

Regarding export activity, we can observe the developments of Renault's exports, starting in the 1985 project completion year, in Table 11.

The income from exports, which in 1990 already represented roughly 50% of Renault's total income, began a decline in the same year, reaching 37% in 1994. The main cause of this declining trend in the vehicles segment is closely linked to the Clio model's life cycle and to the production strategy of the manufacturer, particularly regarding the location of other production units in Spain and Central Europe. Nevertheless, export values are still substantial. An average annual rate of increase higher than 20% was registered from 1985 until a peak of 66 billion PTE in 1989, stabilizing since then and until 1994 at an average figure close to 60 billion PTE.

The average share of vehicles in the total export activity in the period was about 50%, while engines represented almost 40%. The remaining 10% were split in similar shares between gear boxes and mechanical parts. The trends show a clear decline in vehicles (by 1994 exports fell to 1986 levels) and a relative stabilization in the other segments.

Given, on the one hand, the importance of the export sector in Renault's activity and, consequently, in the composition of profits (which benefited of substantial tax breaks) and, on the other hand, the fact that all the transactions were located in the intra-group universe, it is important to consider the unit transfer prices[25] practiced by Renault in the above context.

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[25] Transfer pricing is a well-Known and always-present issue when discussing multinational activities. Abundant work has been produced both at academic and governmental levels in the last two decades, neither with any practical results. Given the present "cabinet-war" between countries (EC member states included) to attract FDI, it is not foreseen any major change in transfer pricing regulations. It seems clear that nobody desires it. For theory on Transfer Pricing see i.e. Plasschaert, S.R.F., *Les Prix de Transfert et les Entreprises Multinationales*, Presses Universitaires de France, Paris, 1979, or Verlage, H.C., Transfer Pricing for Multinational Enterprises, Rotterdam Univ. Press, Rotterdam, 1975.
Bergsten and Graham (1992) argue that, amongst other rights and obligations, the home nation should have "the right to adjust earnings for possible distortions caused by transfer pricing".

The composition of transfer prices depend mainly on three basic vectors: the first, is related to the nature of the exported product or, in this particular case, to the models and sub-models range of the exported vehicles. The second vector, reflects the variation of the exchange rate (prices are "negotiated" in French francs); the third and most decisive, comprises of the strategic decision of the firm about intra-group profit distribution. Regarding the first vector, access to information is naturally limited, however it is known that a significant part of vehicle exports was composed, in a first phase, by the Renault 5 model and, in the second phase, by the Clio model (also some light commercial Trafic). Just this unknown variable immediately prevents any definite conclusion about the potentially manipulative character of transfer pricing. Relative to the exchange rate effect, and bearing in mind that the PTE/FF trend relationship verified in the period was clearly unfavorable to the former currency, the analysis suggests that the export figures in "constant francs" are substantially inferior to the ones shown in "current francs". This means that, if the range and specifications of the product had been kept constant, *ceteris paribus*, the unit transfer price of, for example, 1992, would have been situated at 1985 levels. As to the third vector, the financial strategy of the multinational, we consider this to be the fundamental determinant variable of transfer pricing. Actually, Renault merely took legitimate advantage (serving its best interests) of the fiscal benefits granted by the Portuguese government. Thus a good portion of the 24.5 billion PTE of net profits created between 1982 and 1994 resulted from internal market activity; and a not much smaller portion of profits were gained from intra-group exports.

3.1.4. Employment

The first and foremost observation that should be made about the number of jobs created by the project (see Table 12) is the clear negative deviation away from initial estimations. In fact, with respect to the "creation of around 6000 new direct jobs", the performance was quite poor; the maximum number of people employed by Renault, registered in 1989, was 3812. That particular year marked an obvious strategic turning point in Renault's approach to the internal market. A future overall downsizing was to be expected. Human resources grew systematically until 1989, starting then a descending curve until 1994. This curve declines abruptly from 1992 to 1993 as a result of the joint effect of reductions in internal and external sales. In 1994, the total number of employees does not exceed 2330.

As for employment created within the distribution network, the behavior of the curve is similar, albeit delayed in time. Considering that the distribution network is composed of dealers and agents (or sub-

dealers) and that the average headcount per sales point is 17 workers, it can be verified that employment peaked again in 1989, with 4539 employees, corresponding to 267 sales points. As of the same year, the distribution network had progressively been reduced to 233 sales locations in 1994. It is important to point out that, as part of qualitative and structural changes, several dealers did away with their exclusivity and joined multi-brand business in order to avoid lay offs. This means that figures stated above are somewhat inflated. As some smaller and weaker firms did not survive, their allotments were transferred to a few larger dealerships, and the network became smaller by a number of firms with a non-proportional increase in firm-size.

As to the "creation of 5300 to 7300 new jobs in the components horizontal industry", we do not know of sufficiently detailed studies that support either a positive or a negative thesis. There are, however, *indicia* leading to significant negative performance. Even if we absurdly assume that every job created in the components industry between 1980 and 1989, would have been a direct result of the Renault project, we would end up with an unrealistic maximum of 5,100.

3.2. Auto Europa Project

Whatever vector of analysis is applied, Auto Europa is by far the largest FDI project that ever took place in Portugal. The project began in July 1991 and its contractual period will extend through a full decade. Its official term will end December 2001. The foreign investors are Ford Motor Co. and Volkswagen Aktiengesellschaft, with a paritary capital composition (50%/50%), globally amounting to 21.266 billion PTE. The object of the operation is the manufacture of a monovolume vehicle of MPV (Multi Purpose Vehicle) type, to be inserted into the top market segment, C/D class. The estimated total investment is 453.964 billion PTE, of which the foreign component should reach 181.17 billion. The estimated creation of new jobs is 4,671 direct jobs and around 7,000 indirect jobs, by 1995. Installed production capacity comprises 830 units per day and cruising speed shall be reached by mid 1996 with a production level of 600 units per day. 98% of the output is destined for European markets and the sales networks of the two sponsors (Ford and VW) will be responsible for its distribution. It is expected that this export amount, which should represent 373 billion and 599 billion PTE in 1997 and 2000, respectively, to increase national exports in 16 to 18%. Other expectations of the project also include an average annual impact on the Goods and Services Balance of 642 million USD, an average annual growth of 530 million USD to Gross Value Added and a 1,470 million USD increment to the corresponding National Value Added.

The total incentives granted to this project exceed 119 billion PTE, with the following source partition:

State Budget:		
from SIBR(Regional Base Incent. Syst.):	22.53 bill. PTE	
Fiscal Credit:	7.51 bill. PTE	30.04 bill. PTE
EEC Funds:		
REDEF (Reg.Devel. Eur. Fund):	52.57 bill PTE	
ESF (Eur. Soc. Fund):	36.50 bill. PTE	89.07 bill. PTE

Once the project is thus characterized on the basis of its quantitative previsions. it is necessary to consider some qualitative aspects, particularly performance rates. This is not an easy task for several reasons: i) follow-up reports are considered confidential by official institutions; ii) this operation, when compared to Renault's decline stage in terms of the life cycle curve[26], is still at the launching stage, that is, while Renault is positioned at an obvious end-project stage (the turning point from an industrial operation into a clearly commercial venture happened at the beginning of the 1990's), Auto Europa is still immersed in the problems of a new-born industrial project; also its dimension is, by itself, a considerable and almost insurmountable barrier to any less careful analysis; iv) finally, the fact of its export-oriented nature, in which the internal market is less than marginal, makes the problem of transfer pricing as well as the correct use of government incentives one of the key control points of the project.

In spite of the noted difficulties, some aspects can still be considered. As for the project itself, we are dealing with one specific operation. It is a venture integrated into the grand scheme of a strategic association between two major world-wide manufacturers, aiming to scale economies and to share R&D costs. The primary determinants are both equally important. namely the cost/skills ratio of human resources and the amount/nature of host country incentives.

With regard to the estimated effects of the project, several factors, already known at the end of 1994 point to an almost certain future general downsizing. The forecasted trend in the European market of this type of vehicle was reviewed when the figures for the growth of this all-brand segment were unveiled. The boom did not happen and sales grew only 20% between 1993 (132,000 units) and 1994 (160,000 units). With this trend, Auto Europa will be unlikely to sell 180.000 units in an environment of fierce competition in 1997. Actually, at present, all the main European, American and Asian car manufacturers already

[26] For theory of Life Cycle, see Vernon, R.,"International Investment and International Trade in the Product Cycle", Quarterly Journal of Economics", 1966

produce a similar vehicle (GM, Renault, Peugeot, Citroen, Mitsubishi, Mazda, Fiat, Toyota, Nissan, Honda). Table 13 shows projections of production and export. The above reasoning was obviously not unknown to the project sponsors. Meanwhile, regarding performance levels, firstly, the total investment figure, when the project is 98% concluded (end 1994), will be lower than projected by 12%. This has already led to a proportional reduction in incentives. Secondly, a matter directly linked to production levels, namely to the number of jobs to be created. By end of 1994 Auto Europa employed around 3000 workers, which represents a negative deviation of more than 30% in relation to the forecasted 4500. As to the number of indirect jobs created, the situation is even less glowing: according to IAPMEI[27] studies, indirect jobs effectively created would probably not exceed 3000, a number in excess of 50% negative deviation from projected figures. In fact, installing a third production shift to increase production levels to the order of 180.000 units/year, is the only manner by which employment figures can be achieved close to those contractually previewed. This perspective is considered unrealistic by industry experts.

As to the effects of the project on the Balance of Payments, any analysis is, naturally, premature. It is already known, however, that the most realistic projections for 1995 suggest that the volume of gross exports, assuming an average transfer price of 2.9 million PTE, will not exceed 120 billion PTE. Everything stated above with respect to production projections and market trends also applies to this particular issue.

The analysis of incentives granted to this project by the Portuguese government, which are a function of the total investment, leads us to the conclusion that as far as "public monies"[28] are concerned, this is an expensive venture. Total incentives represent 31% of total investment. Note that this value is well higher than the equivalent Renault figure (24%), at 1994 prices. This particular aspect suggests some preoccupation about the use of incentives to subsidize production, a more than probable situation, which introduces a distortive factor to the rules of competition[29]. The cost in "public escudos" of each job effectively created will be, at full production cruising speed, around 40 to 50 million PTE, more than three times higher than that of Renault, both at 1994 prices.

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[27] IAPMEI (Instituto de Apoio às Pequenas e Médias Empresas Industriais) = Public institution (Ministry of Economy) for small and medium size industrial ventures.

[28] In the EC some concern has been expressed about excessive intervention by member states to attract FDI. See Gatsios, C. and Seabright, P., "Regulation in the European Community", Oxford Review of Economic Policy, 5(2), 1989.

[29] This preoccupation was publicly denounced at the Auto Europa opening ceremony by Monika Wulf-Mathies, European Comiss. for Regional Policies.

Conclusions and Suggestions

1. In the most relevant period of FDI in Portugal, 1986 to 1992, the investment amounts oriented to the manufacturing industry were relatively low, around 20%. Approximately 50 % of this value was invested in the automotive industry. This sector of activity thus represents 10% of total FDI in the period.

2. In the period 1980-1994, FDI in the automotive sector is composed of 13 "contractual regime" projects and slightly over 50 "general regime" projects. The former ones were responsible for 90% of the total amount involved (1994 prices). Only two projects caused any significant structuring effects, namely Renault, in the early 1980's, and Auto Europa, 10 years later. Four other projects were the result of independent multinational strategies: Ford Lusitana, Fiat Portuguesa, Inlan (GM) and Yazaki. Most of the remaining ventures were, in varying degrees, induced by the two structuring projects.

3. In general, the capital structures of the investment projects indicate a significant degree of precariousness. The investors' formal commitment, translated as the value of share capital, represents an average of 10% of the total investment value. The most utilized financial instruments are external bank loans and supplementary capital advances (which, financially, are not more than medium/long term loans from shareholders or group companies). It seems that the quantity and quality of incentives granted by the government to any project, whether national or multinational, whether originating from national Budget or from Community monies, should be a function, not only of "eligible expenses" but also of the capital formally applied by the investor.

4. The previsions for the number of new jobs to be created by FDI projects in the automotive sector in the stated period ascended to 22,600 direct work places and 12,300 indirect ones. Given the poor performance ratios of 65 to 70% for the former and 55 to 60% for the latter, the number of new jobs effectively created did not exceed 15,000 to 16,000 direct and 7,000 to 7,500 indirect, that is, a total of 22,000 to 23,500 new jobs.

5. The total of incentives granted to FDI projects in the period topped 183 billion PTE. at current prices. If we adjust this value to 1994 prices, the result will be a rounded figure of 250 billion PTE. Renault benefited by 15% of this amount and Auto Europa by 60%. The *attraction cost* (incentives vs. total investment) in 1994 public escudos was 24% in Renault's case (the lowest), 31% for Auto Europa, 38% for Ford Electrónica and more than 50% for Delco Remy, Sommer Allibert and Cofap. From the analysis of the cost in public escudos of each new job effectively created (incentives vs. number of direct jobs

created), we can conclude that the lowest value belongs to Renault with 11.6 million PTE, and the highest to Auto Europa with more than 50 million PTE. We also realized that the concession of incentives was based fundamentally on criteria connected with profitability and total investment volume (% of eligible expenses). This suggests that, particularly in the cases of induced investments, funds received as incentives to investment are more likely to be used as production subsidies to increase competitiveness for the exclusive benefit of the multinational.

6. As to the effects of FDI projects on the BoP[30], one can conclude that this area brought higher pay outs to the Portuguese economy. In 1980, in the automotive components sub-sector, the volume of exports did not exceed 14% of the total output, with values slightly over 2 billion PTE. Mainly as a consequence of the Renault project, the export share grew to 53% in 1986, with a figure that topped 45 billion PTE. Since then, the curve kept growing steadily, reaching 80% in 1994, with 358 billion. In addition, the Renault enterprise exported an average value of almost 50 billion PTE per year between 1985 and 1994 (vehicles, engines, gear boxes and mechanical parts), comprising one third of all exports of the components sub-sector. The other main project that incorporates a previsional major impact in the BoP is Auto Europa. The early stage of its development prevents any realistic analysis at this point. It will certainly provide a fertile ground for future research.

7. The automotive components sub-sector, notwithstanding the significant developments in exports, keeps its basic characteristics of technological and commercial dependency on the local auto manufacturers. An interesting movement towards internationalization by a few firms of the sub-sector is beginning. One that should be watched more closely in the future. The basic scenario shows that the growth of the sub-sector has, on the one hand, always been linked to the structuring projects, and, on the other hand, to multinational capital and technology. In our opinion, the future of the domestic manufacturers of components will endure deep structural changes. In an environment of fierce competition, manufacturers will have to develop competitive advantages, which mainly are (i) absolute respect for delivery dates, (ii) high level of quality standards, (iii) investments in R&D, (iv) scale economies and (v) internationalization through foreign investment.

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[30] Streeten and Lall (1977) well known formula to evaluate direct effects on the BoP:

$$B = (X + I) - (M + R + D)$$

where B = direct effects on the BoP, X = exports f.o.b., I = net inward capital, M = imports c.i.f., R = royalties and tecn.assist., D = repatriated profits and interest.

8. Bearing in mind the importance of the Renault project, and the terminal phase of its development, some general conclusions should be drawn concerning cost and level of performance, relative to contractual objectives. As to the attraction cost of the project, expressed by the incentives/total investment ratio, we have already stated that it was the lowest, compared to all the other projects. The indirect cost (market share reserve), though not quantifiable, could be analyzed by raising two points. From a negative standpoint, should Renault have been given the opportunity to pocket overprofits of a monopolistic nature while reducing the choice range for the consumer? Conversely, from a positive standpoint, the consumer was at least given the opportunity of being able to acquire a car, although almost mandatorily a Renault, which, given the situation of the Portuguese BoP at the time, might otherwise not have been possible.

The performance ratios related to direct effects on the BoP and to indirect effects on the auto components sub-sector are positive. The ones related to direct effects on employment are negative. Still to be evaluated but likely to be vetted positive are the indirect effects on management systems (several mid and high level employees trained at Renault were later absorbed by local firms), on financial technology (Renault was a pioneer in financial sales-aid systems, i.e. leasing and long-duration renting) and on modern commercial methods (computer assisted distribution of car and parts with a dealers' network was established).

9. The conclusions that can be made about the Auto Europa project are, given the early stage of its development, necessarily scarce. However, the following observations are possible. The attraction cost ratio of this project (incentives vs. total investment) is 31%, higher than Renault but lower than the other relevant projects. The cost in "public escudos" of each direct job created (incentives vs. number of direct jobs) is, by far, the highest (almost 50 million PTE), close to five times larger than that of Renault. The general technology level and the modern logistics system suggest very significant spillovers of a diverse nature. The degree of transience of the project is quite high, if we consider its "mere" seven years of operational contractual life (the first three were solely dedicated to fixed assets and training investment), although the involved MNCs "have promised their best efforts to try to make the project continue beyond 2001 or 2002". Its most significant effect will definitely be noted at the export level. If expectations are confirmed, the gross value of exports will exceed, in the cruising production year, 500 billion PTE, which, given the local content rate of 50%, will represent 250 billion PTE of net increase of exports. According to the Ministry of Industry's estimates, the project's contribution to GNP will be 0.75 %.

The critical aspect of the project is, in the opinion of specialists in the field, the acceptance of the product by its market. The product is a vehicle of innovative characteristics, one which is very popular in the USA but is still not adapted to the habits of the European consumer. Competition is intense, as the major European and Japanese manufacturers have already launched a similar vehicle. Competition by low pricing is unlikely to be the chosen path (incompatible with Ford or VW's image), although incentives/subsidies received may help reduce the cost of the product. Auto Europa (its sponsors) has to be competitive by standing out through exceptional overall quality and equipment level. Also a "need" for this particular product has to be created. Otherwise. this project may prove to have been a monstrous mistake.

10. We found the appropriate institutions of the government who were to exercise control over the projects to be somewhat inefficient, particularly where general regime projects were concerned, both for reasons of personnel shortages and due to the traditional aversion by MNC's to be controlled.

11. If we take into consideration that the funds (or equivalent tax breaks) granted by the government as incentives to investment are, regardless of their source, tax-payers' money, we then have difficulty in understanding the "confidentiality" or "secrecy clause" included in investment contracts. The most commonly invoked counter-argument to this is that in this case a private entity is a party to the contract, so their interests as such, must be respected.

12. Of the several policy issues raised from the analysis above, one merits special focus, namely the precariousness or transience of the projects. This quality is graciously accepted as a rule of the game where the strategic interests of the MNC, the host country and the domestic firms are concerned. In this game, the point we want to stress is the way that domestic firms align themselves with the dominant MNCs. In this sense, the case of Arjal, mentioned above. is a good example of how the strategy of the local firm may be developed from the basis of an initial relationship with the MNC's affiliate, thereby taking full advantage of the technological spillovers positive effects, and jumping in at a second phase to a direct relationship with the parent-company. This internationalization model is probably the only manner by which domestic firms can recover learning costs, get a pay-back for new fixed-capital investment, diversify their client portfolio, achieve scale economies and, mainly, overcome the threat of "term contract" with the dominant MNC affiliate.

Table 1- FDI by Country of Origin Source: ICEP Billions of PTE, cur. prices

Yr.	1986		1987		1988		1989		1990		1991		1992		1993		1994		Total
Origin	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%	Value	%	1986/94
United K.	5,5	*22,4*	14,6	*23,8*	36,8	*26,7*	79,5	*22,7*	93,5	*19,5*	245,8	*30,8*	135,3	*22,9*	30,1	*10,8*	32,6	*13,71*	**641,1**
France	2,3	*9,5*	4,8	*7,9*	11,7	*8,5*	44,5	*12,7*	63,3	*13,2*	60,6	*7,6*	83,3	*14,1*	28,2	*10,1*	22,4	*9,4*	**298,8**
Germany	3,6	*14,8*	3,4	*5,5*	8,3	*6*	11,2	*3,2*	40,3	*8,4*	110,9	*13,9*	23,6	*4*	24,3	*8,7*	14,0	*5,9*	**225,6**
Spain	2,7	*11,1*	12,3	*20,1*	10,5	*7,6*	44,1	*12,6*	61,8	*12,9*	62,2	*7,8*	69,7	*11,8*	34,3	*12,3*	27,1	*11,4*	**297,7**
Holland	0,4	*1,6*	1,9	*3,1*	10,2	*7,4*	23,8	*6,8*	15,3	*3,2*	33,5	*4,2*	47,9	*8,1*	30,1	*10,8*	12,4	*5,2*	**163,2**
Others EU	2,2	*9,1*	7,5	*12,2*	10,2	*7,4*	33,3	*9,5*	57,0	*11,9*	89,4	*11,2*	67,4	*11,4*	22,9	*8,2*	51,9	*21,8*	**289,8**
TOT. EU	16,7	*68,5*	44,4	*72,6*	87,8	*63,6*	236,4	*67,5*	331,3	*69,1*	602,5	*75,5*	427,3	*72,3*	169,9	*60,9*	160,4	*67,4*	**1916,1**
Brazil	0,3	*1,2*	1,7	*2,8*	5,1	*3,7*	23,1	*6,6*	20,1	*4,2*	5,6	*0,7*	5,3	*0,9*	6.1	*2,2*	17,9	*7,5*	**67,4**
Japan	0,2	*1,0*	1,5	*2,5*	1,7	*1,2*	2,5	*0,7*	10,5	*2,2*	4,8	*0,6*	1,8	*0,3*	5,0	*1,8*	1,0	*0,4*	**28,0**
Switzerlan	3,9	*15,8*	2,5	*4,1*	7,6	*5,5*	18,2	*5,2*	24.0	*5*	34,3	*4,3*	16,5	*2,8*	15,3	*5,5*	8,1	*3,4*	**122,3**
USA	1,9	[illegible]	6,9	[illegible]	18,9	[illegible]	37,5	[illegible]	13,4	[illegible]	40,7	[illegible]	32,5	[illegible]	18,7	[illegible]	10,0	[illegible]	**170,4**
Others	1,4	*5,8*	4,5	*7,3*	17,8	*12,9*	32,9	*9,4*	80,5	*16,8*	114,1	*14,3*	109,3	*18,5*	66.4	*23,8*	40,6	*17,1*	**427,0**
TOTAL	24,4	*100,0*	61,2	*100,0*	138,0	*100,0*	350,0	*100,0*	479,4	*100,0*	798,0	*100,0*	591,0	*100,0*	279,0	*100,0*	238,0	*100,0*	**2959,0**

Table 2 - FDI by Industry Source: ICEP In % a) Estimated Values

Year / Industry	1986	1987	1988	1989	1990	1991	1992	1993	1994
Manufacturing Ind.	47,0	29,5	32,6	17,7	18,0	21,8	16,8	33,7	28,1
Construction, Pub. Works	1,1	1,2	4,4	10,2	8,2	5,8	4,7	1,8	6,6
Commerce, Restaur.,Hotels	26,1	18,8	17,6	12,8	10,2	6,8	7,9	15,2	14,7
Banks, Insur., Real Estate	17,5	39,4	35,9	53,6	60,4	61,7	65,8	44,3	45,6
Subtotal	**91,7**	**88,9**	**90,5**	**94,3**	**96,8**	**96,1**	**95,2**	**95,0**	**95,0**
Others	8,3	11,1	9,5	5,7	3,2	3,9	4,8	a) 5,0	a) 5,0
TOTAL	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

Table 3. Incentives Source: ICEP/IAPMEI/Firms Mill. PTE

Project	Incentives				TOTAL adjusted to 1994 prices
	Financial	Fiscal	Other	TOTAL	
Auto Europa	75700	7510	36500	119710	150308
Bendix	84	1023		1107	5646
Cofap Europa	5025	4275	1403	10703	13950
Ford Electrónica	9248	a)		9248	13148
Ford Lusitana	245			245	466
Funfrap				b)	
Inlan				a)	
Fiat Portuguesa				a)	
Continental Mabor	4219	2982	788	7989	10413
Delco Remy	2911		1300	4211	6180
Renault Portuguesa	4664	14037	407	19108	36049
Sommer Allibert	1750	1001	856	3607	5977
Yazaki Saltano	250	a)		250	434
Total Contractual Regime	**104096**	**30828**	**41254**	**176178**	**242571**
Total General Regime	**6000**			**6000**	**7200**

a) not quantified b) included in Renault project

Table 4. FDI in the Automotive Industry, by Country of Origins

Source: ICEP/GAPIN

Mill. PTE

Date Begin. Project	Origin	Local Firm	Local	Investiment (m.p.)		Period contract (years)	*Updating Factor*	Investiment (at1994 prices)	
				Investim. Total	Investim. Foreign			Total	Foreign
1980	France	Renault Portug.	Setubal	23000	16000	15	*6,603*	(2) 134587	93626
1980	Portugal	Inlan	Ponte de Sor	4500	(1) 4500	10	*6,603*	29714	(1) 29714
1981	France	Bendix	Abrantes	720	190	10	*5,503*	3962	1046
1983	France	Funfrap	Aveiro	3700	1020	10	*3,582*	13253	3654
1986	Italy	Fiat Portuguesa	Ven. Novas	2200	(1) 2200	5	*2,079*	4574	(1) 4574
1987	USA	Ford Lusitana	Azambuja	1800	(1) 1800	5	*1,9*	3420	(1) 3420
1988	Japan	Yazaki Saltano	Porto	2000	900	10	*1,734*	3468	1560
1989	USA	Delco Remy	Setubal	7715	2340	10	*1,54*	11881	3604
1989	USA	Ford Electrónica	Setubal	22310	1817	10	*1,54*	34357	2798
1990	Irland	Cofap Europa	Cantanhede	19020	3450	10	*1,359*	25848	4689
1990	Germany	Auto Europa	Setubal	388000	181170	10	*1,359*	(3) 487173	246210
1990	Germany	Contin. Mabor	Famalicão	26580	7038	15	*1,359*	36122	9565
1988	Belg/Lux.	Sommer Allibert	Setubal	10733	5800	10	*1,052*	11291	6102
Total Contractual Regime				512278	228225			799651	410562
Total General Regime				(4) 50000	50000			60000	60000

(1) Reserves and retained profits

(2) Assumed that 50% of investment was done in 1st year, 30% in second and 20% in third year.

(3) -do- 40% in 1st yr., 30% in 2nd , 20% in 3rd and 10% in 4th. yr.

(4) Although it is known that some minor projects are not 100% foreign capital, the difference to figures above is irrelevant.

Table 5. Share Capital Structure of Main Investors

CAE: 3843

Mill. PTE

Local Firm	Equity capital		
	Total	Foreign	% ForeignCap.
Auto Europa	21266	21266	100
Bendix	170	170	100
Cofap Europa	3345	2676	80
Ford Electrónica	1817	1817	100
Ford Lusitana	200	200	100
Funfrap	2745	1890	69
Inlan	617	617	100
Fiat Portuguesa	300	300	100
Continental Mabor	6255	6255	100
Delco Remy	2340	2340	100
Renault Portuguesa	7708	5781	75
Sommer Allibert	3500	3500	100
Yazaki Saltano	4600	4140	90
Total Contractual Regime	54863	50952	93

Table 6 - Employment by Sub-sectors

Source: ACAP - AutomobileTrade Association of Portugal

CAE - Year	1989	1990	1991	1992	1993
355110-Fab.Tires	2857	2745	1566	1666	1540
355120-Rec.Tires	1527	1548	1798	1404	1652
382210-Fab.Rep.Tractors and Access	371	362	273	234	257
382220-Fab.Rep..Agric. Equip.	3871	3837	3930	3735	3489
382440-Fab.Mach. to Civil Const.	943	680	1031	1065	976
3842490-Fab.Indust.Mach. .n.spec.	3939	3951	3944	3664	4094
384310-Fab. Assmb. Motor Vehic.	8117	8684	8217	8137	7111
384320-Fab.Trailers toMotor Vehic.	2275	2720	2509	2521	2179
384330-Fab.Parts .Access. to Motor Vehic.	7823	7463	7493	7662	7073
384400-Fab.Motoc.Bicic.	2342	2253	1722	1715	1623
610410-Whole Sale Agr. Mach.	12439	12647	12805	12491	12083
610440-W/Sale Aut.Mot.Bic.	6110	6622	6531	6899	6514
610490-W/Sale Agric. Ind. Equip.	3226	4459	4926	5508	5737
620610-Retail.Aut.Mot.Tract.	18195	19750	19538	20912	21538
620630-Retail.Parts Acess.Aut.Mot.Bic.	9042	10012	10270	10332	10325
620710-Gas Stations	8031	8317	8540	8941	9507
620970-Retail Rubber,.Plast.Art.		323	254	219	190
951300-Service Aut.,Mot.	36146	35921	36251	35407	35962
TOTALS	127254	132294	131598	132512	131850

Table 7. Employment Created by FDI Projects

Source: ICEP/IAPMEI

Local Firm	Employment Direct	
	Estimated	Real
Auto Europa	4671	3000
Bendix	219	
Cofap Europa	935	
Ford Electrónica	1700	1030
Ford Lusitana	447	
Funfrap	312	
Inlan	400	
Fiat Portuguesa	300	
Continental Mabor	795	793
Delco Remy	551	211
Renault Portuguesa	6000	3100
Sommer Allibert	666	
Yazaki Saltano	2650	5700
Total Contractual Regime	19646	
Total General Regime	3000	

Table 8 - Trade Balance

Source: ACAP; Cov.Rat (C/R) in %; Unit Value in 000 Pte; Value in billion PTE

Sub-Sector		Passeng. Vehicles			Commercial Vehicles		
		Value	Units	Unit Value	Value	Units	Unit Value
Year	Issues						
1988	Imp.	161,1	191,4	841,7	79,2	46,2	1714,3
	Exp.	24,7	37,5	658,7	33,8	21,1	1601,9
	Bal.	-136,4	-153,9	-182,7	-45,4	-25,1	-112,4
	C/R	15,3			42,7		
1989	Imp.	157,6	163,0	966,9	79,5	39,0	2038,5
	Exp.	37,3	54,0	690,7	46,1	30,0	1536,7
	Bal.	-120,3	-109,0	-276,2	-33,4	-9,0	-501,8
	C/R	23,7			58,0		
1990	Imp.	196,6	186,7	1053,0	72,2	50,2	1438,2
	Exp.	46,8	40,8	1147,1	54,4	42,5	1280,0
	Bal.	-149,8	-145,9	-94,1	-17,8	-7,7	158,2
	C/R	23,8			75,3		
1991	Imp.	233,6	206,1	1133,4	62,4	40,8	1529,4
	Exp.	34,4	43,8	785,4	61,3	29,8	2057,0
	Bal.	-199,2	-162,3	-348,0	-1,1	-11,0	527,6
	C/R	14,7			98,2		
1992	Imp.	321,7	259,7	1238,7	89,6	56,8	1577,5
	Exp.	56,2	61,0	921,3	57,6	23,7	2430,4
	Bal.	-265,5	-198,7	-317,4	-32,0	-33,1	852,9,9
	C/R	17,5			64,3		
1993	Imp.	301,3	220,2	1368,3	73,4	41,9	1751,8
	Exp.	54,0	38,5	1402,6	35,1	22,5	1560,0
	Bal.	-247,3	-181,7	34,3	-38,3	-19,4	-191,8
	C/R	17,9			47,8		
1994	Imp.	308,8	216,7	1425,0	99,1	54,9	1805,1
	Exp.	37,8	23,6	1601,7	64,5	52,8	1221,6
	Bal.	-271,0	-193,1	176,7	-34,6	-2,1	-583,5
	C/R	12,2			65,1		

Table 9 - Auto Components Sub-sector

Sales in bill. PTE; Sales p/ worker in 000 PTE; Source: AFIA

Year	Sales						Direct Jobs	Sales per worker	Number of Firms
	Market								
	Internal		External		Total				
	Values	% Δ	Values	% Δ	Values	% Δ			
1980	14,5		2,3		16,8		16400	1024	200
1981	22,0	52	2,9	26	24,9	48	16400	1518	180
1982	23,7	8	3,9	34	27,6	11	16600	1663	170
1983	23,2	-2	8,4	115	31,6	14	15950	1904	160
1984	23,2	0	13,4	60	36,6	16	15200	2408	120
1985	23,7	2	21,0	57	44,7	22	17000	2629	122
1986	40,0	69	45,0	114	85,0	90	19000	4474	122
1987	45,0	13	55,0	22	100,0	18	21000	4762	125
1988	55,0	22	80,0	45	135,0	35	21500	6279	127
1989	60,0	9	117,0	46	177,0	31	21500	8233	127
1990	66,0	10	160,0	37	226,0	28	21500	10512	130
1991	68,0	3	216,0	35	284,0	26	22000	12909	130
1992	75,0	10	275,0	27	350,0	23	22200	15766	135
1993	85,0	13	325,0	18	410,0	17	22500	18222	140
1994	87,0	2	358,0	10	445,0	9	23000	19348	140

Table 10. Benefits received by Renault

(Current Prices, 000 PTE)

Year	Financial Benefits					Fiscal Benefits	GRAND TOTAL
	Bonus on loans' interests	Subsidies for Training	Subsidies from EEC	Exchange rate losses	TOTAL		
1980	24178				24178		24178
1981	169640				169640		169640
1982	451786				451786	81120	532906
1983	596485				596485		596485
1984	742329				742329		742329
1985	838153				838153		838153
1986	431806				431806	942833	1374639
1987	393466				393466	3861846	4255312
1988	208161			147635	355796	3689828	4045624
1989	74797	160805			235602	2949901	3185503
1990	143287	18293			161580	1169374	1330954.0
1991	122176	71440	34858		228474	536286	764760
1992	182534	105072			287606	805915	1093521
1993	78660	39753			118413		118413
1994	24537	11635			36172		36172
TOTALS	**4481995**	**406998**	**34858**	**147635**	**5071486**	**14037103**	**19108589**

Table 11. Renault Exports Source: Renault Portuguesa (current prices)

Year	Exp.Vehicles			Export. Engines			Export. Gear Boxes			Exp.Mec. Parts	TOTAL EXPORTS
	Units	Value (Mill. PTE)	UTP (1) (Thou. PTE)	Units	Value (Mill.PTE)	UTP (1) (Thou.PTE)	Units	Value (Mill.PTE)	UTP (1) (Thou.PTE)	Value (Bill.PTE)	(Mill.PTE)
1985	5811	4128	*710,38*	186793	2) 13405	*71,76*	52339	2) 2983	*56,99*		20516
1986	11887	10112	*850,68*	172904	2) 17290	*89,47*	42406	2) 2417	*56,99*		27999
1987	15291	15951	*1043,16*	165330	16445	*99,47*	48877	2799	*57,27*		37421
1988	14967	15658	*1046,17*	183948	19165	*104,19*	62748	3678	*58,62*		41824
1989	31418	37600	*1196,77*	260325	25221	*96,88*	68303	3231	*47,30*		66052
1990	27010	31279	*1158,05*	201779	20273	*100,47*	82666	4539	*54,91*	9937	61489
1991	33736	31601	*936.71*	145659	13539	*92.95*	120172	6466	*53.81*	4250	56647
1992	44294	39263	*886,42*	193314	13828	*71,53*	136746	6717	*49,12*	4741	64549
1993	23600	25575	*1084,00*	201309	23216	*115,36*	115612	5656	*48,92*	3254	58308
1994	12780	16906	*1323,00*	240104	28750	*119,74*	122391	6118	*49,99*	3860	55801

(1) UTP = Unit Transfer Price (2) estimated values

Table 12. Employment Source: Renault Portuguesa

Year	Employm. in RP(3)	Dealers+Agents (No. of Firms)			Employm. in DN(2)
		Dealers	Agents	Total	
1982		76	95	171	2907
1983		81	119	200	3400
1984		85	138	223	3791
1985	3182	84	153	237	4029
1986	3328	87	151	238	4046
1987	3391	87	157	244	4148
1988	3471	86	165	251	4267
1989	3812	87	180	267	4539
1990	3160	86	175	261	4437
1991	3157	87	160	246	4182
1992	3143	81	160	241	4097
1993	2355	77	158	235	3995
1994	2330	69	166	233	3961

Note 1: Excluded Dealers owned by Renault.
Note 2: DN=Dealership Network=Dealers+Agents.
Average size of Dealers, in number of employees= 17
Note 3: RP=Renault Portuguesa. Includes Lisbon, Setúbal, Cacia and Guarda

Table 13 - Auto Europa. Production and Export Source: IAPMEI

Year / Projections	1995	1996		1997
		Hip. A	Hip. B	
Annual Production /units	50.000	88.000	132.000	188.000
Gross Export/billion PTE	145.7	233.2	349,8	500,0
Net Export/billion PTE	68,0	108.8	174,9	250.0
NVA National Value Added/%	46,6	46.6	50,0	50.0

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