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"Development of socio-economic and agricultural structures in selected rural regions in Spain after EU accession"

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Abstract

This report focuses on the socio-economic and agricultural structural changes in rural Spain following accession to the European Union in 1986. The research involves a comprehensive descriptive analysis (of key socio-economic indicators and agricultural and rural development conditions) based on documentary and secondary statistical sources and telephone interviews/consultations with key actors, such as relevant government and public sector officials, key interest groups, and academic/policy experts in the field. The study focuses on the identification of key features of Spanish agricultural and rural transformation following accession at the national level and in the Autonomous Community of Navarre. It also examines the directions/trends of Spanish rural changes focusing on the socio-economic and agricultural structural conditions since EU accession and draws conclusions on the successful/unsuccessful measures for managing rural and agricultural changes in Spain since EU membership.

Executive Summary

Introduction

1. Spain joined the European Union (then the European Economic Community) in 1986, and has since experienced important institutional, economic and demographic changes. Moreover, alongside the integration process into the European environment, the country has also consolidated its democracy. Although the transition to democracy in Spain started in 1975 (after the death of Franco), EU membership strengthened the democratic process. Hence, accession to the EU was regarded as essential not only from an economic but from a political point of view.
2. Spain's population accounts for 43 million or 9.4% of the EU-25 population (in 2005). The increase of population, between 1982 and 2005, has been low, at an annual average growth rate of 0.6%. However, between 2000 and 2005, the population rose at a higher rate of around 1% per annum. This is mainly due to the openness of the country towards immigrants and a higher birth rate among them. The structure of the population by age groups has also changed during this period (1982 to 2005) with an increase in the share of population above 60 years of age (from 15% to 21%) and a severe decline of the youngest group (less than 30 years of age) from 50% to 35%.
3. Between 1980 and 2005, the Spanish economy experienced periods of both economic growth and crisis. However, overall, the real GDP rose at an annual average rate of over 3%. At the very beginning of the 1980s, the economy went into recession, mainly due to the effects of the oil crises of 1973 and 1979, but it started to gradually recover from 1982 onwards, as the preparations for accession began. The first two years following accession were relatively prosperous, and by 1987 annual real GDP growth reached its highest level (5.5%) since 1974. Nevertheless, as the country needed to adjust to the European economic environment, the economy again slowed down and by 1992 slipped back into recession. It was not until mid-1990s that the Spanish economy entered a phase of more continuous economic expansion and macroeconomic stability. Over the last decade the performance of the economy was generally seen as remarkable.
4. Overall, the rate of growth in the Spanish economy has been converging with that for Europe as a whole, but the Spanish economy has grown at a higher rate than the EU average. Whereas in the early 1980s the Spanish GDP per capita represented 72% of the

EU15, in 2005 it reached 91% (or 98% of EU25). Two important stages had a positive effect on the Spanish economic progress and helped convergence – accession to the EU which attracted foreign capital and opened an influx of EU funds, and the integration in the European Monetary Union which led to more competitive interest rates.

5. The growth of the per capita real GDP has been mainly due to the increase in the level of employment, whereas the labour productivity has remained relatively stable, particularly from the mid-1990s. The rise in the employment rate is mainly explained by the liberalisation of labour market and the inclusion, in recent years, of immigrants in the labour market. However, recently, labour productivity has tended to decline explained by the evolution of annual growth rates of the capital (human and physical) stocks, amongst other things.

6. One of the most important changes of the Spanish economy is its increase in openness, partly due to the process of trade liberalisation that started in the 1960s, and also because of the integration process into the European Union. In just over two decades, the contribution of international trade to the Spanish GDP doubled, from 31% in 1980 to 61% in 2000. Moreover, EU membership has altered the pattern of Spanish imports and exports, with the majority of goods and services traded now within the EU. This increase has been in part the result of a trade diversion effect, although there was also an important volume of trade creation, in the early stages of the integration process. The percentage of goods with other member states grew from 41% in 1980 to 74% in 1998. Currently, this share represents 67%.

7. Despite Spain opening its economy much earlier on, the country did not represent an attraction to foreign direct investors until after accession to the EU, and nor was Spain interested in investing in other countries. Hence in the years prior to accession, the shares of FDI inflows and outflows in the GDP were less than 0.5% and 0.2%, respectively. Joining the EU created an impetus for foreign investors and in just two years the amount of FDI doubled from €987 million in 1985 to €1,932 in 1987. By 1990, some 2.5% of the Spanish GDP represented FDI and by 2000 this share went up to 6.5%. From 2004 there is a clear drop in the amount of FDI in Spain.

8. There has been a decline in the relative importance of the primary sector and an increase in the manufacturing and services sectors. Although structural changes within the Spanish economy began during the 1960s, by 1985, the year before accession, agriculture was still relatively important. It represented 15% of Spain's labour force and 6% of the total Gross Value Added. The remarkable economic progress Spain experienced following EU membership meant that, by 2005, the agricultural sector to account for just 5% of the total employment and 3% of the Gross Value Added.

The Spanish agricultural sector

9. Until the late 1950s, Spanish agriculture presented the typical features of the so-called traditional agrarian model, characterised by an important contribution to total employment and GDP, with low-paid labour and limited mechanisation that translated into a low labour and land productivity.

10. However, during the 1960s, the sector underwent significant transformation. Processes of mechanisation and capitalisation led to an increase in intermediate consumption, an important improvement of the labour and land productivity, and the integration of the sector in the agro-food system. This led to the modernisation of farms and production systems. Moreover, as the economy experienced economic growth

consumers' preferences changed with the consumption of meat and fruits and vegetables rising.

11. By the early 1980s, the structural transformation of Spanish agriculture was well established, but the integration of Spain in 1986 and the adoption of the CAP triggered another sequence of structural changes.

12. Some 25 million hectares (over 50%) of total Spanish land is Utilised Agricultural Land (UAA). There are currently some 1.1 million holdings with an average size of about 25 hectares. The majority of these holdings (67%) are, however, located in the Less Favoured Areas, covering around 77% of the UAA. Spanish agriculture is specialised in crop production, but particularly in crops specific to Mediterranean agriculture, such as fruits (particularly citrus fruits) and vegetables and olive oil. Vegetables and fruits account for more than a third of the total Spanish agricultural output (19% vegetables and 15% fruits), whereas cereals and olive oil represent 17%. In livestock, pig production is the most important component, accounting for 11% of total agricultural output.

13. Accession to the EU and the adoption of the CAP brought undoubtedly some significant changes. Agricultural output has increased both in nominal (by a factor of 3.2) and real terms (by a factor of 1.8). However, when analysing annual growth rates the situation is rather different. For example, prior to accession (e.g. between 1980-1985) Spanish agricultural production recorded high annual average growth rates of 10%. In the first five years following accession (1986-1990) the agricultural output continued to increase, but at much lower rates (5.4%). At the beginning of the 1990s, as the economy as a whole went into recession, agricultural production slowed down even more hence, between 1990 and 1995, the sector recorded negative real growth rates.

14. Moreover, accession to the EU and the Single Market brought changes in the specialisation of agricultural output. Although, prior to accession, the contribution of crop production to total output was higher than that of livestock (e.g. 56%), its share increased even more after EU integration (reaching some 62% in recent years). Within the crop sector there is a clear rise of the shares of horticultural products (from 12% for 1980-1985 to 19% for 2000-2005) and olive oil (from 4% for 1980-1985 to 7% for 2000-2005). Implicitly, for the same period, the contribution of livestock has been reduced (from 44% to 34%), with milk and eggs being the most affected.

15. Since 1960s, the Spanish agricultural sector underwent a significant process of capital investment and improvement of quality of land, a process which has continued after the country's accession to the EU. For example, the number of tractors almost doubled between 1980 and 2004, reaching some 967,000, and the amount of irrigated land area has increased by 16%. This had positive effects on the labour and land productivity.

16. As with most developed economies, the number of people employed in agriculture has declined, and between 1980 and 2005 more than one million people left the Spanish sector. Farm labour is mainly provided by the family members, which account for 51% in 2005 as compared to 70% prior to accession (1985). There is also a significant increase of the share of non-family members from 28% in 1980 to 49% in 2005. A quarter of agriculture labour force is female, and this share varied little over the years. Spanish agricultural labour force has also experienced a considerable improvement in the level of education. This is reflected by the increase in the percentages of occupied those with at least secondary studies (from 6% in 1985 to 52% in 2005) and with a university degree (from 0.23% in 1985 to 1.85%) within total agricultural employment.

17. Another important characteristic of the Spanish agricultural workforce is the high proportion of people belonging to the age group of 25-54, which has increased, in two decades since accession, from 57% (1985) to 71% (2004). This can be partially explained by the increase in the number of immigrants which, in some regions, are particularly employed in the agricultural sector. For the same period, the youngest group (16-19 years of age) declined from 6% to 2%, whereas the oldest group (more than 55 years of age) dropped from 28% to 19%. The changes that took place in the demographic structure of the labour force, particularly during the 1990s, have triggered in some regions (e.g. Cornisa Cantábrica, Galicia, Castilla-León) the appearance of abandoned lands or the conversion of arable land into forested areas.

18. Although, between 1980 and 2005, total agricultural income has increased both in nominal (by almost five times) and real terms (by 12%), integration to the EU did not immediately fulfil Spanish farmers' expectations regarding an increase of their agricultural income. In the first year following accession (1986) total real farm income declined by 5% as compared with the previous year. Moreover, between 1986 and 1990 the growth rates of the total agricultural income did not exceed 1%. The most prosperous five-year period, with high annual average growth rates (5%), was the first half of the 1990s. However, between 2001 and 2005, the Spanish real farm income has recorded a negative average growth rate of 2%.

19. When farm income is related to the number of Annual Work Units (AWU), the results show a similar trend. However, although there has been an important reduction in the quantity of labour used, between 1980 and 2005, Spanish farm income per AWU recorded high average growth rates, for example at 4.2% between 1986 and 1990 and 8.4% between 1991 and 1995.

20. In 1980, the amount of subsidies accounted for less than 1% of agricultural income. By 2000, this exceeded 30%. Thus, there is little doubt that the increase in Spanish farm income is due to the amount of subsidies received by the sector following EU accession. Moreover, the evolution of price indices (prices received and paid by farmers and consumer prices) shows that there has been an income transfer from the agricultural sector to other branches of the economy and towards the consumers.

21. The increase in the agricultural labour productivity, between 1980 and 2005, has been much bigger than in other sectors of the economy. For example, whereas labour productivity in industry increased by almost a factor of 2, Spanish agricultural labour productivity rose (in real terms) by a factor of 3. The decomposition of agricultural labour productivity into land productivity and land available per worker, shows that, between 1980 and 1990, its increase was due to the latter variable, whereas between 1991 and 2005 labour productivity has increased mainly due to land productivity. This confirms the importance of the mechanisation and capitalisation process that took place until 1990s and the substitution of labour by capital which followed.

22. Accession to the EU and the opportunity to trade on a wider market have also led to a significant increase of agricultural imports and exports. Moreover, from the mid-1990s, Spain established itself as a net agricultural exporter. Given the specialisation of the sector, crops are relatively more important in exports, whereas livestock products dominate Spanish imports. Prior to the entry of Spain into the EU, only 20% of imports and 60% of exports were oriented towards other EU member states. By 2005, these shares went up to 40% and 85%, respectively.

23. Although, farm structural changes took place before Spain's accession to the EU, these continued after accession and have accelerated from early 1990s. Some 1.3 million

farm holdings disappeared between 1982 and 2005. The decline was particularly significant between 1989 and 1999, when the number of farms dropped by 22% as compared with only 4% between 1982 and 1989. As expected, the average size of a Spanish farm holding has increased from 10 ha in 1982, to 20 ha in 1995 and 25 ha in 2005. By 2005, around 959,000 agricultural holdings (or 88.8% of total holdings) have an economic size of at least 1 ESU. The sector is, however, characterised by a dualistic farm structure with a large number of very small scale (e.g. 49% of farms have less than 5 ha, which accounts for 4% of total agricultural land) and a small number of very large units (e.g. 10% of farms have =>50 ha and accounts for almost 70% of total agricultural land). As regards farm type, one farm in five is specialised in olive production, whereas 18% of farms are specialised in fruit and citrus fruits. The majority of farm holdings (95%) have a sole holder, of which 26% are women.

24. Farm labour is provided mainly by family members (64% in 2005 of total farm AWU). In recent years, there is also an increase of part-time farming. For example, in 2005, 80% of the total family labour force (expressed as number of persons) worked part-time on the farm. Off-farm employment has increased, and at the end of 2005, 27% of the total number of sole holders had another gainful activity as their main occupation. Off-farm employment is more important for small-size farms. As agriculture has become less important, agricultural households are increasingly less dependent on farming income. Thus, whereas in 1980 this accounted for 70% of total household income by 1990 it represented only 60%. However, out of the total 959,000 agricultural holdings, only 3.3% have a gainful activity other than agricultural production (e.g. 1.5% processing farm products and 0.4% tourism).

25. Using the definition of the National Institute of Statistics (NIS), Spanish rural areas are classified according to the number of inhabitants of the municipalities. Thus, NIS identifies: (i) rural municipalities (less than 2,000 inhabitants); (ii) intermediate municipalities (between 2,001 and 10,000 inhabitants); and (iii) urban municipalities (more than 10,000 inhabitants). Using this criterion, more than three quarters (76%) of the Spanish population lives in urban areas. As in most developed economies, Spanish rural areas have suffered depopulation, a process that commenced in the early 1960s. Moreover, rural areas are characterised by a small proportion of young population (11.8%). Almost one in three people in Spanish rural area are above 65 years of age. Interestingly, there is a higher male presence in these areas. The lack of job opportunities in rural areas has influenced Spanish women to migrate in a larger proportion towards urban areas.

Agriculture and rural policies

26. Between 1980 and 2005, there have been important changes in the applied rural and agricultural policies in Spain, from a more sectoral approach (particularly oriented towards the support of agriculture) that dominated the 1980s, to a rural policy based more on territorial measures during the 1990s.

27. Before the integration of Spain into the EU, Spanish agricultural policy was based mainly on price and market support measures. There was not a rural policy as such, but rather a sequence of public investments mainly concentrated on the improvement of agricultural production. Moreover, an important share of the agricultural budget (e.g. 45% in 1981) was oriented towards the increase of irrigated agricultural land area. Additionally, some 16% was allocated to protection and improvements in rural areas, but as the country was preparing for accession, by 1985, this share had halved and most of the financial

resources were re-oriented towards the support of transition measures for the implementation of the communitarian standards.

28. After integration into the EU, Spanish agricultural and rural policy followed mainly the policy directions established in Brussels. Spain joined the EU at a time when the CAP was under serious budgetary constraints and needed imperative changes in its policy mechanisms. The reform of the Structural Funds, in 1988, represented a turning point for the development of the EU regional policy, and implicitly for Spain.

29. Between 1989 and 2006, around 23% of the Community Structural Funds and over 55% of the Cohesion Funds were allocated to Spain. Most of these were oriented towards Objective 1, Objective 2 and Objective 5 measures. Nevertheless, more than 80% of the Spanish Structural Funds were allocated for Objective 1 regions. These covered more than three quarters of the Spanish territory and around 60% of the total population.

30. Under the first Community Support Framework (CSF) (1989-1993), the amount of Structural Funds received by Spain accounted for ECU 13,100 millions (or 21% of EU12). More than three quarters of this amount was allocated to Objective 1 regions. Objective 2 measures received some 12%, the rest being divided between Objectives 3-4 and 5a and 5b. The Spanish government proposed seven priority axes for regional development, one of which was related to agriculture and rural development. Some 15% of total public expenses were allocated for this priority, which included five major sub-programs. However, the majority of financial resources were oriented towards the improvement of agricultural production (51%) and farm efficiency and commercialisation of agricultural products (31%). Environmental protection and conservation of natural resources received only 6.4% of the EAGGF Guidance. For the regions included in the Objective 5b, a Development Program for Rural Areas was approved.

31. Additionally, some €300 million were allocated as compensatory payments for Less Favoured Areas, e.g. around 6,000 municipalities (or 76% of total national territory) located in mountain regions or areas in danger of depopulation.

32. Despite the small amount (€387 million of which 27% EU funds and 32% private participation) allocated to LEADER I (1991-1994), this community initiative was considered beneficial for promoting rural development. There were 53 Local Action Groups (LAGs) which covered 16% of the national territory and 5% of the population. Most of the Leader I measures were oriented towards the promotion of rural tourism and rural crafts, which jointly generated the creation of more than 10,000 jobs.

33. It is estimated that, between 1989 and 1993, in the absence of Structural Funds support, the Spanish annual GDP growth would have been on average 0.25% lower. Moreover, the total effect of these funds on the level of employment was an average increase of 1.2%.

34. For the second programming period (1994-1999), Spain received around ECU 32,000 million (or 23% of the EU15). The support of the Objective 1 regions continued and under the second CSF. Objective 1 regions covered 78% of the Spanish territory and 59% of the total population. Around 83% of the Spanish Structural Funds were allocated for Objective 1 and distributed amongst ten integrated operational programs (one for every Objective 1 region). Additionally, two multi-regional operational programmes for the interventions in areas belonging to Objective 5a and for the economic development and diversification of rural areas also received public funding. For Objective 1 regions, 8% of the total budget under the CSF was allocated for agriculture and rural development. Not surprisingly, more than half (56%) of this support was actually oriented towards the improvement of farm

structures and the competitiveness and profitability of agricultural holdings. Only 11% went for the economic diversification of rural areas, of which more than half was for rural tourism and craftsmen's activities, and the conservation of rural and cultural heritage.

35. In parallel, horizontal programmes for the implementation of the accompanying measures following the MacSharry CAP reform were financially supported for the first time. Spanish accompanying measures amounted for €1,735 million of which 71% funded by the EU. Almost half (44%) of this was allocated for afforestation and 28% represented compensatory payments for LFAs. As a result, more than 430,000 hectares of farm land were transformed in forest areas. However, only 6% of these public funds were oriented for early retirement, and about 8,000 farmers had access to it. In Objective 1 regions, accompanying measures accounted for 26% of the total rural development funds allocated, with most distributed between farmland afforestation and forestry and environmental protection measures.

36. Given the success of LEADER I, a larger amount of funds (e.g. €1,100 million) was allocated to LEADER II. Moreover, the programme attracted the participation of all (17) Autonomous Communities which perceived LEADER as an important political tool. Therefore, Leader II was extended at the national level in the form of 17 regional programs. It covered 45% of the national territory and 12% of total population. During this phase, the number of LAGs increased to 132. In addition to rural tourism, which remained the main activity, special attention was paid to the creation of small local enterprises and the commercialisation of local products. More than 2,500 new small enterprises and almost 20,000 jobs were created.

37. As LEADER II was incapable of financing all local communities and as the demand for such funds increased, the Spanish authorities proposed to the European Commission the creation of a new national programme for regional development in Objective 1 regions. The first Programa Operativa de Desarrollo y Diversificación Económica de Zonas Rurales (PRODER 1) was approved in 1996, for a period of four years (1995-1999), and received €620 millions (of which 51% was from the EU). A number of 97 LAGs covered 24% of the national territory and 11% of the total population. This programme supported similar objectives as LEADER II, but was addressed to those areas not eligible for LEADER II funding.

38. As the second reform of the Structural Funds has reduced the number of priority objectives from 5 to 3, under the third CSF (2000-2006), the Spanish financial framework was divided between 10 regional integrated operational programmes for Objective 1 regions and seven rural development programmes for regions outside Objective 1. However, out of €43,000 million of total Spanish Structural Funds, 88% were allocated to Objective 1. Additionally, two more programmes for improving agricultural structures and production systems received public funding from the EAGGF Guarantee Section. Nevertheless, more than half (57%) of total public expenses for rural development was still allocated for agricultural measures, and only 9% for the economic diversification of rural areas.

39. During the third programming period there is a very significant increase in the financial support for accompanying measures (e.g. from €1,735 million for 1994-1999 to €3,420 million for 2000-2006). Despite that afforestation still received a large share (32%), most of this support (38%) was oriented towards agri-environmental schemes. The proportion allocated for compensatory payments represented 16%, whereas early retirement measures accounted for 13%, a considerable increase as compared to the previous programming period.

40. LEADER initiative and the Spanish program PRODER continued to be financed. LEADER+ and PRODER 2 covered 50% of 48% of the national territory, and 19% and 20% of the population. The number of LAGs increased to 145 and 162, respectively. As compared with the previous programming period, all rural areas could apply for funds from both programmes. However, LEADER+ received a smaller amount (of €795 million) whereas the funds for PRODER 2 increased by almost a third as compared with 1994-1996 period. Overall, although these programmes were financially limited, they had the capacity to mobilize private capital and local physical and human resources, and stimulate, to some extent, the development of less favoured rural areas.

41. As regards the first pillar of the CAP, Spanish farmers benefited from both, price and market support and direct payments. However, while in 1989 price support accounted for 83% of total transfers to the Spanish agriculture, by 1998 this has declined to 54%. The reforms of the CAP, but particularly Agenda 2000, led to a significant increase of direct payments, and undoubtedly they represent an important component of the Spanish farm income. However, the distribution of direct payments is very uneven across farm sizes and types. A small number of large farms receive the vast majority of this support. For example, in 2005, 22% of farms received 83% of direct support.

The Case Study: The Autonomous Community of Navarre

42. Navarre is a relatively small region of Spain located in the north of the country, and it covers 2.1% of the total Spanish area and 1.2% (580,000) of the total population. The region includes seven counties and is one of the 17 Autonomous Communities (or regional governments) that creates the Spanish state.

43. The region has a particular administrative and tax system, so-called the “*regimen foral*”, which allows a large degree of legislative and fiscal autonomy.

44. Although it is a relatively small size regional economy (less than 2% of the national economy), Navarre presents a similar evolution to that of the national level, in terms of economic growth trends over the years. For example, between 1980 and 2005, the regional economy real GDP rose by an average of 2.7% as compared to 3% for the national economy and 2.3% for the EU15. Given its small size, the region practice a high level of openness, its extra-regional relationships being more important than in other regions.

45. The region’s population has gradually increased from 508,000 in 1981 to 580,000 in 2005, this means an average growth rate of 0.6% per year. However, as the rest of Spain, the region experiences a slow ageing population. For example, between 1982 and 2005, the annual growth rate of the population with less than 30 years of age is negative (excepting 2003 and 2004), whereas for the population aged over 60 annual growth rate are positive.

46. Between 1980 and 2005, regional real GDP per person in the region grew at higher rates than the national and EU15 averages. With the exception of the first year of accession (1986) when Navarre real GDP represented 74% of the EU15 average, for the rest of the years, the regional figures are well above 75% of the EU average. In consequence, Navarre was never included in Objective 1 regions. By 2004, Navarre real GDP represented 84% of EU15 and 118% of EU25. Moreover, the economic welfare level of the region is much higher than that of the national level (e.g. at 126%).

47. The region also benefits from a higher rate of labour occupation than the national average, and implicitly it has experienced, since accession to the EU, much lower rates of

unemployment than the economy as a whole. For example, in 1985 unemployment rate in the region was 19% as compared with 22% national average, whereas by 2005, these figures were 5.6% and 9.2%. Female unemployment rate, although much lower than the national level (12%), is still almost doubled (8%) as compared with male unemployment rate.

48. Agricultural sector plays a small role within the region, and its contribution to the Gross Value Added (GVA) and labour force has significantly decreased following accession to the EU. Whereas, in 1984, the sector accounted for 14% of the region's labour force and 8% of GVA, twenty years later it represented only 5% of labour force and 5% of GVA. Indeed, until early 1990s, the region experienced a high level of specialisation in agricultural sector, but since then, the level of industry specialisation has become one of driving forces of the regional economy. However, the contribution of the services sector (in terms of labour force and GVA) remained by far the most important.

49. The region has an UAA of 616,000 ha, of which 58% arable crops land and 42% pastures. However, the region, as well as the whole country, lost some 7% of UAA (or 45,000 ha), since 1985, and this was mainly due to a larger reduction of pastures areas. However, an effort was made to improve the quality of land particularly through irrigation following accession. Thus, irrigated land area in the region has increased by 37%, and currently represents 15% of the region's UAA, as compared to only 10% of UAA prior to accession.

50. The level of mechanisation in the region is superior to that of the Spanish agriculture, with an average index well above the national level. Agricultural labour force follows a similar trend to that of the national sector. It has constantly declined at an annual rate of around 2% per year. Between 1980 and 2005, almost 10,000 people (or 39%) left the region's agricultural sector. Nevertheless, the region's sector has experienced a significant increase (by 19 percentage points) in the participation of female labour force, from 4% in the year prior to accession to 25% in 2004. Moreover, the level of education of agricultural labour force in the region has considerably improved (e.g. the percentage of occupied people with at least secondary education rose from 17% in 1985 to 53% in 2004). This is mainly due to the existence, in the region, of two technical agricultural institutes. Since 1989, more than 18,000 people received training in these centres.

51. The agricultural output of the region has increased in both nominal (by almost three times) and real (by 27%) terms, since the country joined the EU, but at annual rates smaller than those prior to accession. For example, between 1980 and 1985, agricultural production increased by an average of 2% per year, whereas between 1986 and 1995, this rose only by 1% per year. However, the region's agricultural output had reached its best between 1996 and 2000. The region is specialized in crop production, mainly cereals (18% of total output) and horticultural products (13%). Livestock output has slightly increased its contribution from 37% prior to accession to 43% between 2000 and 2005. This is mainly due to a rise in pig, eggs and milk production. The northern part of the region is also specialised in cattle and sheep.

52. Agricultural income in the region has almost doubled in real terms, following accession to the EU. However, in recent years (2001-2003) total farm real income has recorded a negative rate of 0.6%. As the number of occupied people in the sector has decreased, the farm income per worker has grown faster – e.g. from an annual average in real terms of €5,000 (for 1980-1985) to €13,600 (for 2001-2003).

53. Agricultural productivity has also increased in the region, from 49% of the total regional average in 1980 to more than 66% in 2004. Moreover, agricultural productivity for the period 1980-2004 is higher for the region compared to the national (agricultural)

average. When compared with EU average, the agricultural productivity of the region was much higher until 1998, when for the first time since accession, the EU indicator was above the region's average. In 2004, agricultural productivity in Navarre accounted for 88% of the EU15 average.

54. The analysis of the structure of the farms in Navarre shows a similar evolution to the national level, but with slightly better structural indicators (e.g. more available land and higher standard gross margin per farm with less available labour per farm). The number of holdings has decreased from 42,563 in 1982 to 17,790 in 2005, and the average size rose significantly from 12 ha to 33 ha. The majority of farms (62%) are located in LFAs, covering 64% of the region's total UAA. One in three farms is located in the mountain areas. However, more than half of the region's farms (67%) have less than 8 ESU. There are also significant differences in farm structure amongst the seven regional counties.

55. Most of the farms are specialised in crop production, particularly cereals and oil seeds. Following accession, there has been a significant increase in the number of vineyards and olives farms in the region, in contrast to a decrease of fruits and citrus fruits farms. On the livestock side, with one exception (e.g. beef producers), all farm types had almost halved their number.

56. The agro-food industry has a traditionally remarkable importance for Navarre. Its contribution to the national agro-food sector accounts for 3% of the GVA and 3% of the labour force. The sector employed around 13,000 people, in 2005. Moreover, the region contributes 8% to the national agricultural and food exports. The region is particularly famous for vegetables, wine, olive oil and beef and lamb. Therefore, the region has seven Protected Designation of Origin products and five Protected Geographical Indications.

57. According to the national definition, the region is more rural in character than the country as a whole, with only around 47% of the population and 97% of the municipalities being considered rural (less than 10,000 inhabitants). According to the OECD definition, Navarre is classified as a region considerably rural or an intermediate region, as only 44% of the region's population lives in communities with population density smaller than 150 inhabitants by square kilometre.

58. The economy of rural areas within the region has suffered significant structural transformations. Hence, whereas prior to accession, the economic activity was concentrated around agriculture (e.g. 33% of the labour force), by 2001, this sector employed only 17% of the workforce, with industry and particularly services becoming predominant. For example, rural tourism has become a preferable activity in rural areas, particularly since the 1990s. By 2006, there are 435 rural tourism establishments. Moreover, between 2001 and 2006, the number of tourists in the rural areas has increased by almost 35%. The development of rural tourism amongst the counties is geographically uneven, however, with the two northern counties (Noroocidental and Pirineos) located in the mountain areas having the most developed rural tourism sector.

59. Additionally, there is a gradual ageing population that affects, to a larger extent, the region's rural areas. The population of over 65 years accounts for 28% in rural areas in contrast to only 14% in urban areas. There is also an imbalance between the number of men and women, with a larger male presence. Female migration has affected particularly Spanish rural areas.

60. As regards the development of rural policies, the regional behaviour is similar to the national one, in the sense that the programmes and measures were designed within the same framework and based on the same regulations, mainly those of the EU. However,

given its *“foral”* status, the regional government could adapt these to its own agricultural and rural necessities.

61. As income per capita was superior to the 75% of the EU average, Navarre was not considered an Objective 1 region, but some of its areas were included in Objective 2 and Objective 5b.

62. The operational program for Objective 5b areas, designed for the first programming period (1989-1993), included four sub-programmes and it focused particularly on agricultural and forestry measures (80% of the total national and EU funds). Amongst these measures, afforestation, improvement of grazing land and support for the Pyrenean natural park received the largest share. Only 12.4%, however, were allocated for rural tourism and support for small business. The distribution of funds by sectors shows that the largest share was allocated for forestry (32%), followed by agriculture (30%) and tourism (19%), whereas environmental activities received less than 2%.

63. Under LEADER I, the region benefited of €16.3 million of which 73% represented public (national and EU) contribution, the remaining representing private funding. EU contribution was less than €2 million. There was one Local Action Group in the region. Although the total amount of funds was small compared with other programs, this initiative it was very important for promoting the diversification of the rural activities, mainly tourism and marketing of agricultural products.

64. In the second programming period (1994-1999), the number of areas eligible for Objective 5b funding increased from 101 to 181 municipalities. This meant an increase in the area covered from 42% to 67% (of the region territory). This involved almost 23% of the region's total population. The amount (public and private) spent by the region accounted for €167 million of which 90% was concentrated again on the development of primary sector (agriculture and forestry). Within this, an important amount, however, was allocated for rural infrastructure and the conservation of natural resources and environment.

65. For this programming the region benefited of €33 million for LEADER II initiative, of which 51% represents private funding and 18% from the EU. These funds were distributed amongst four LAGs which designed 582 projects. The promotion of rural tourism and small business and artisanal activities concentrated the largest share, but interestingly is that more than 80% for of the funding for these measures came from the private sector.

66. In the third programming period (2000-2006), due to Agenda 2000 changes and the creation of the second pillar of the CAP, with the exception of the capital (and its surroundings) the rest of the Navarre was included in Objective 2. This covered 95% of the regional territory and 51% of the population. The measures were grouped around five priority axes and the total public financing accounted for almost €286 million of which half from EAGGF Guarantee. Again, most of these funds (54%) were oriented towards agriculture (e.g. improvement of the efficiency of agricultural holdings and agricultural infrastructure) and agro-food industry. Only 30% of the public funds were allocated for accompanying measures, of which most for afforestation and compensatory payments for LFAs. The agri-environmental measures received just 21% of this amount or 6% of total public funds.

67. The funding for LEADER + initiative remained the same as previously (€33 million) divided between four LAGs, but the contribution from the EU increased by around €2.5 million (or 29%). Rural tourism, the promotion of rural and cultural heritage, support for

small business and marketing for agricultural products accounted for three quarters of the total available funds.

Success factors in managing rural areas

68. The research underpinning this case study involved desk-based research and a review of key policy and evaluation documents, supplemented with consultation with key informants. Fifteen individuals were consulted during the summer of 2007 drawn from academia government and other organisations involved in rural development (such as Local Action Groups and consultancy companies).

69. As success is a relative term, the choice of the Autonomous Community of Navarre as a 'successful' Spanish region is based mainly on its economic performance in relation to the national and the EU average. Thus, the economic welfare level of the region is well beyond the national level (126% of the GDP per capita) and EU25 level (118% of the GDP per capita).

70. There are a number of external and local factors that influence the 'success' of the region. EU membership and the contribution of EU funds assigned to rural areas have no doubt an impact on the development of the region's rural areas. There is also a consensus that the effects of these funds on rural areas have increased particularly from 2000. The general evolution of the economy or other sectors than agriculture within the region is, however, crucial. No region can develop if the economy as a whole is not performing well. With the general economic development, agriculture has declined in importance, and thus more people are now employed in industry and services. This had an impact on the performance of rural areas too. For example, the rural tourism and small businesses have flourished in the region of Navarre.

71. The economic behaviour of the counties within the region has not however been homogenous. This implies that there are other (local) factors that influence the development of rural areas, such as natural resources and the conservation of environment, good infrastructure and educational level. Infrastructure is perceived as the factor that helps to explain better the behaviour of the most dynamic areas. In the experts' point of view infrastructure is the main factor that shapes the development of successful rural areas. Additionally, this is related to the proximity of rural areas to urban centres. The distance between rural and urban areas is considered a handicap that damages potential investments in rural areas. Lack of jobs and basic services makes rural population (particularly young women) to move away from such areas. The development of new information and communication technologies may reduce the distance between rural and urban areas and allow the diversification of economic activities in rural areas.

72. The role of rural policies is also crucial for the development of rural areas, and the main positive impacts of rural policies on the region were those that help to improve the diversification of rural economies and the conservation of the environment. The use of a more territorial and integral approach for rural development is beneficial. Although LEADER programmes were financially limited it attracted an important private initiative. Thus, the importance of the implication of regional and local authorities and other local agents is seen essential for the design and implementation of rural development measures.

73. However, there were also some negative impacts that come out of the analysis. It is also believed that the focus of previous agricultural and rural policies on the support of agriculture, led to income polarisation in rural areas as it has been mostly concentrated on wealthier regions where farms are large and productive. Thus, often, the support of these

policies did not focus on those most in need. Moreover, the level of intensification of agricultural production had a negative impact on the environment.

Conclusions

74. Since accession to the EU, the Spanish economy experienced a series of structural changes that led the country to be comparable with other EU economies. EU membership, and the integration in the European Monetary Union, has no doubt contributed to the remarkable economic progress of Spain, and implicitly to the development of Spanish rural areas. Moreover, it has given added impetus to the process of democratic reform. Accession to the EU has not only increased the opportunity to trade on a wider market, but led to the attraction of foreign capital. The experience of the Autonomous Community of Navarre is obviously partly a result of the overall changes experienced by the Spanish economy, but also affected by specific regional characteristics, including its 'foral' status.

75. As with most of the developed economies, one of the structural characteristics associated with the Spanish development process is the decline of the importance of agriculture within the economy as a whole. However, significant processes of agricultural modernisation led to the improvement of the Spanish agricultural labour and land productivity, and the integration of the sector in the agro-food system. There has also been a change in the sectoral specialisation (following accession), with a particular development of those crops (e.g. cereals and olives) favoured by the EU policies. Nevertheless, agriculture is diminishing as a driving force for Spanish rural economies, and farming communities are looking for various off-farm opportunities (e.g. rural tourism) to diversify their source of income.

76. There is a general concern amongst the specialists consulted in Spain that past rounds of EU rural development policies have taken insufficient account of a wider range of criteria regarding rural areas (e.g. culture and traditions, level of economic development and geography) and instead focused predominantly on support of the farming sector. It was also felt that allocation of rural funds should be based on needs for different areas, so producing a rural policy based on more- focused territorial targets to address specific problems it might be more beneficial

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LIST OF ABBREVIATIONS

ACF	Agreed Common Framework
AKI	Research Institute for Agricultural Economics
AWU	Annual Work Units
CAP	Common Agricultural Policy
CSF	Community Support Framework
EC	European Commission
ERDF	European Regional Development Fund
ESF	European Social Fund
EU	European Union
ESU	Economic Size Unit
EAFRD	European Agricultural Fund for Rural Development
EAGGF	European Agricultural Guidance and Guarantee Fund
EPA	Encuesta de Población Activa
FEGA	Fondo Español de Garantía Agraria
FBG	Fundació Bosch-Gimpera
FDI	Foreign Direct Investment
FORPA	Fondo de Ordenación y Regulación de Productos Agrícolas Instituto de Reforma y Desarrollo Agrario
GDP	Gross Domestic Product
GVA	Gross Value Added
ICONA	Instituto para la Conservación de la Naturaleza (ICONA)
INE	Instituto Nacional de Estadístico
IRYDA	Instituto de Reforma y Desarrollo Agrario
IQ1	Percentage of occupied population with at least secondary education
IQ2	Percentage of occupied population with university
ITGA	Instituto Técnico de Gestión Agrícola
ITGG	Instituto Técnico de Gestión Ganadero
LEADER	Links between actions for the development of the rural economy
LFAs	Less Favoured Areas
LAG	Local Action Group
MAPA	Ministero de Agriculture, Pesco I Alimentación
MPS	Market Price Support
OECD	Organisation for Economic Co-operation and Development
PRODER	Programa de Desarrollo y Diversificación Económica de Zonas Rurales
PSE	Producer Support Estimate
SCARLED	Structural change in agriculture and rural livelihoods
SGM	Standard Gross Margin
SENPA	Servicio Nacional de Productos Agrarios
UAA	Utilised Agricultural Area
WP	Workpackage

1 INTRODUCTION

1.1 Main objectives and structure of the report

The objective of this report is to analyse the key indicators of agricultural and rural changes and the evolution of the rural development policy in Spain, following accession to the European Union (then the European Economic Community) in 1986. A particular focus is given to the effects of these changes on a specific region, respectively the Autonomous Community of Navarre. The study also attempts to identify the reasons why some policies have had more positive effects than others and what are the success factors in managing rural changes in Spain, particularly in the Navarre region, following accession.

The report is organised as follows. After a short introduction of the main characteristics of the Spanish economy, the evolution of the Spanish agricultural sector is explained in detail in Section 2. The most significant agricultural and rural policies applied in Spain are presented in Section 3. Next, the Autonomous Community of Navarre is analysed with a specific focus on its agricultural sector and rural policies. Section 5 identifies the success factors in managing rural changes in the regional case. Finally, some conclusions are presented in Section 6.

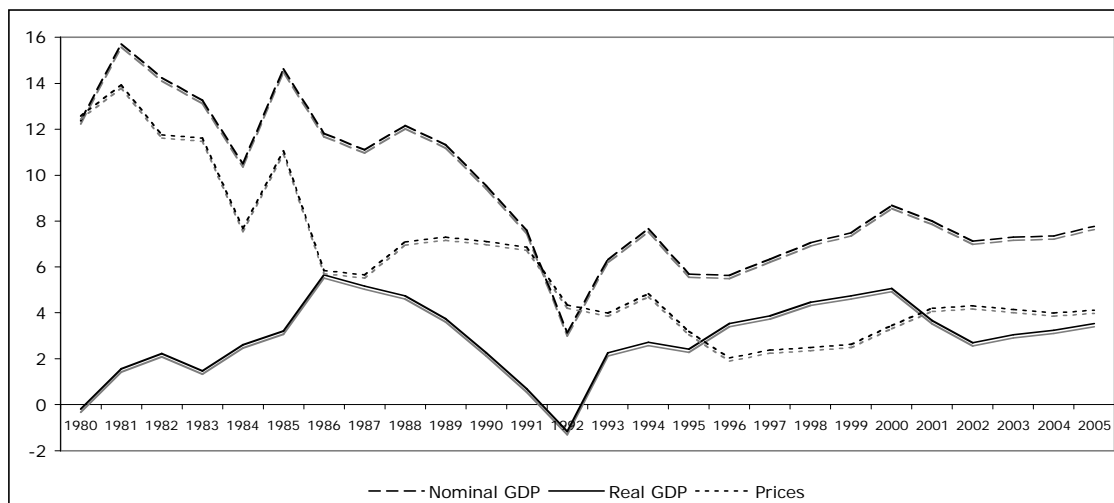
1.2 The evolution of the main macroeconomic indicators before and after EU accession

The main macroeconomic indicators for a period that includes a number of previous years to the integration of Spain in the European Union (EU) until now are analysed (whenever statistical information is available), that is, the period between 1980 and 2005. During this period, the Spanish economy has experienced significant economic and institutional structural changes. Moreover, alongside the process of integration into the European environment, the country has also strengthened its democracy. It succeeded from being immersed in a dictatorship (until 1975) to become a consolidated democracy.

During these analysed 25 years there are periods of economic growth combined with periods of economic crisis. However, overall, the economy recorded high economic growth rates, with the real GDP growing at an annual growth rate of over 3%. The nominal GDP has multiplied by 8.7 and the real GDP by 2.1 (see Table A1.1, Appendix 1). Figure 1.1 shows the evolution of inter-annual growth rates for nominal and real GDP and the GDP deflator. As it can be seen during the studied period (and focusing the analysis on the real economic growth rate) there are different stages of development. At the beginning of the eighties, Spain was submerged in an economic crisis as a result of the rise of the oil prices that took place in the seventies, crisis that was more severe in Spain, because of the difficult institutional environment of an incipient democratic state.

Next, an ascending trend can be observed and that reaches the highest levels in 1986 and 1987, the first two years of Spain as an EU member. This increase in real GDP might be explained by the efforts made by the country in preparation for accession and by the accession process itself. However, due to the necessary adjustments of the Spanish economy to the other European economies, a recessive period follows, which reaches the top in 1992. In this year a negative rate of the real GDP can be observed. From mid nineties, however, the Spanish economy enters a phase of a continuous economic expansion, with a remarkable macroeconomic stability (Myro, 2005).

Figure 1.1 Growth rates: nominal GDP, real GDP and prices



Source: Author's elaboration based on INE

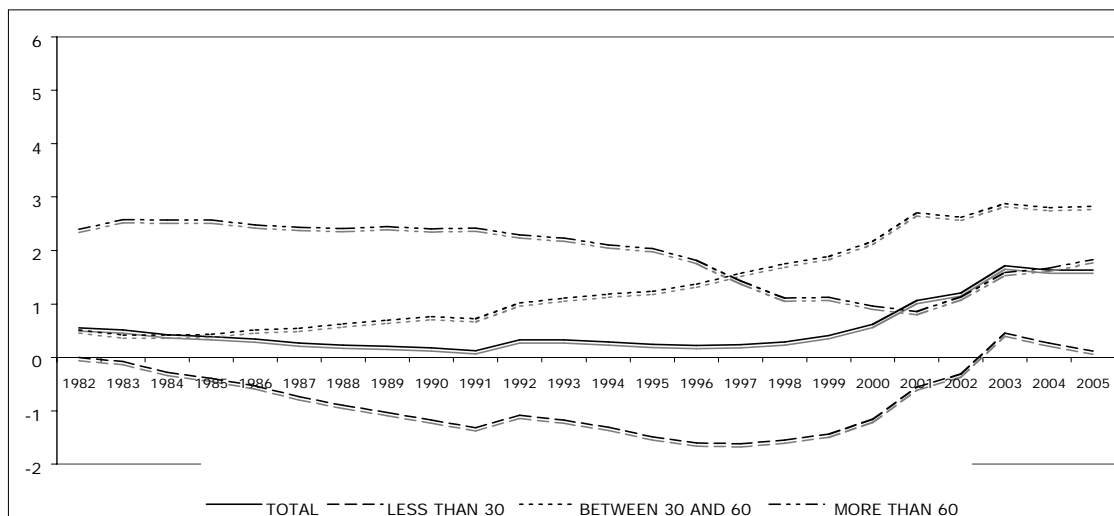
The analysis of the previous Figure points also out an additional but important economic aspect: the evolution of the inflation rate, quantified through the inter-annual growth rate of the GDP deflator. In the early eighties prices grew at annual rates of over 10%, whereas in the last years (2003-2005) inflation rate it is around 3-4%. This evolution gives an idea of the considerable effort made to control the magnitude of the inflation rate, as an important macroeconomic indicator.

As in most developed countries, the growth of the Spanish population has been low. Between 1981 and 2005 the population rose from 37,646 to 43,038 thousands of inhabitants (Table A1.3, Appendix 1), that represents a growth rate of 0.58% per annum, a very moderate rate. This can be explained, amongst others, as a consequence of the increase of the per capita income that has allowed to improve the educational standards of women and so, the possibility for these to find a job, and with it, the decrease of the birth rate (De la Dehesa, 2003).

Figure 1.2 shows that population's behaviour, between 1982 and 2005, has not been constant. Whereas at the beginning of the eighties the annual growth rate was 0.5%, it started to decline until 1991, when it became negative. From this moment, there is a constant growth that accelerates in the last years due to immigration, and the higher birth rate in this group of people. Hence, for 2000-2005 the annual growth rate was around 1%.

At the same time, there has been an important change in the composition of the population by age groups, due to the different growth rates in each group. Figure 1.2 provides information related to those rates, considering three groups of age: less than 30 years of age, between 30 and 60 and more than 60. As it can be seen, the growth rate of the first group has been negative and inferior to the existing rate in the other two groups. In these last groups, the growth rate has reached sometimes levels up to 2%.

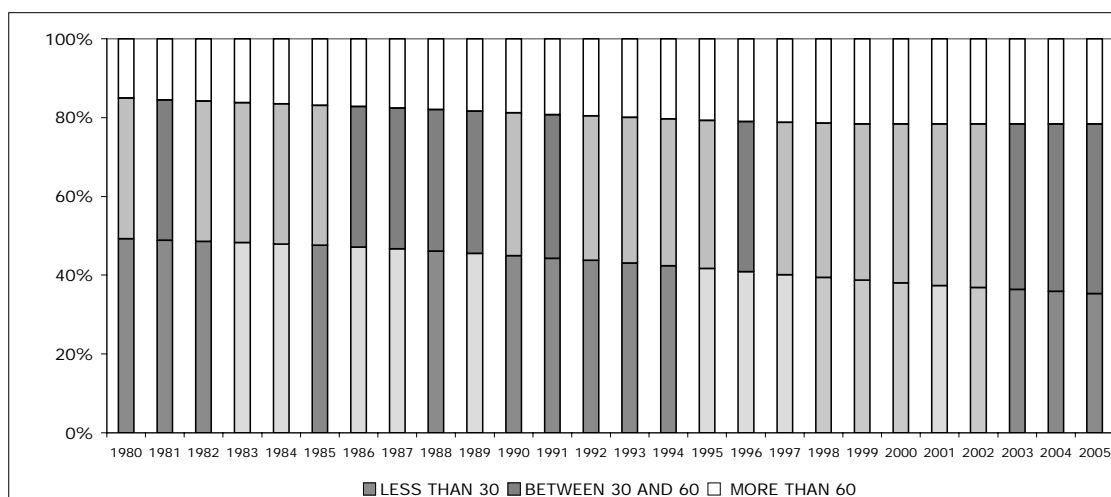
Figure 1.2 Annual growth rates. Total population and by age groups



Source: Author's elaboration based on Eurostat

These differences between the growth rates have been the main cause for the change in the distribution of the population by age groups, as it is shown on the Figure 1.3. The strata of the youngest population represented nearly 50% of the population in the early eighties, but its relative weight has fallen down to a 35%. The share of intermediate group has increased from 35 to 43%. Nevertheless, what is more worrying is the gradual increase of the oldest population group from 15% in 1982 to 21% in 2005. The ageing of the population is likely to represent a problem with regard to the growth of Spanish population in the next decades (Musso and Westerman, 2005).

Figure 1.3 Distribution of the population by age groups

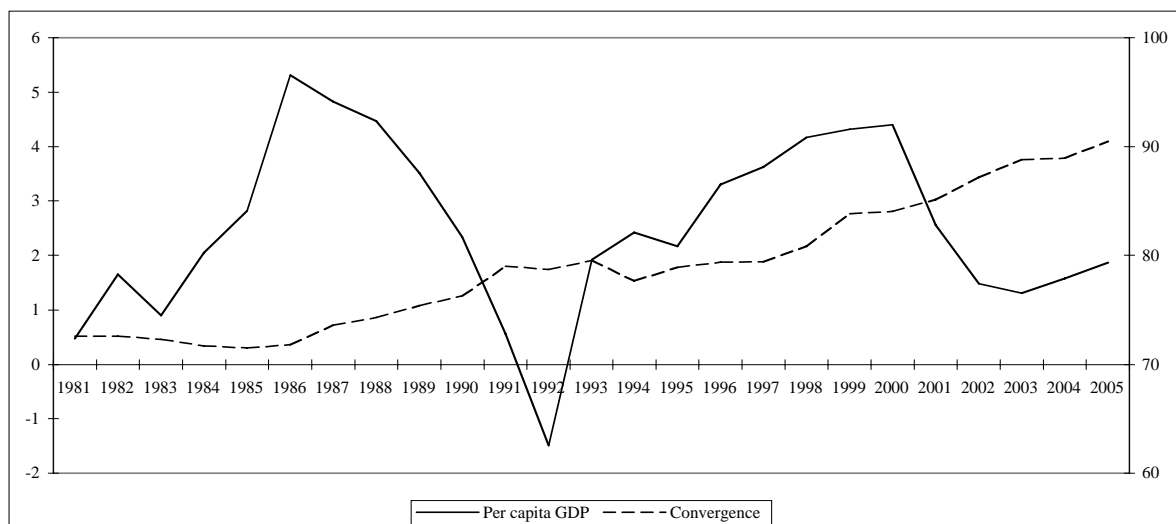


Source: Author's elaboration based on Eurostat

The combination of the two variables, GDP and population, allows to work out one of the most important magnitudes when it comes to studying the evolution of an economy with regard to its welfare level, and the comparison with other countries, the GDP per capita. In the first place, it must be considered that, as it has been seen before, the GDP had higher annual rates than the ones presented by the population. This has caused GDP per capita growth rates to be higher than the GDP growth rate. The real GDP per capita has increased from €9,300 in 1980 to over €17.000 (at 2000 prices) in 2005. Figure 1.4 (Table A1.5) represents the evolution of the annual growth rates of this variable, that follow a similar trend to the one represented on the Figure 1.1 for the GDP, displaying both periods of growth and economic crisis.

As these growth rates have exceeded in many occasions the European average, there has been an important convergence process that is also portrayed by Figure 1.4. Whereas in the early eighties the Spanish GDP per capita represented around the 72% of the EU average (considering the Union of fifteen countries), in the last years it has reached 90%.

Figure 1.4 Growth of the real per capita GDP and convergence of Spanish economy with Europe



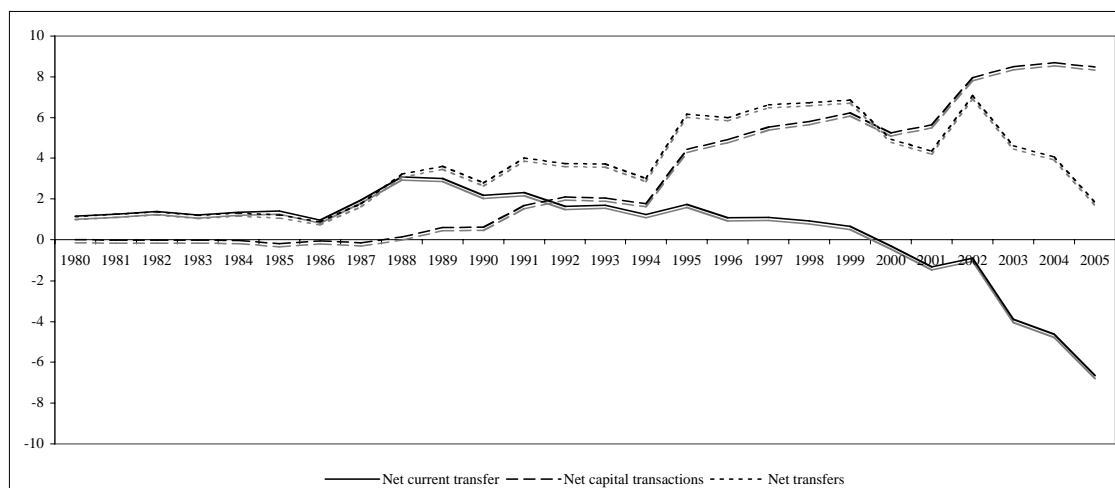
Source: Author's elaboration based on Eurostat

This process presents two stages in which the growth rates are higher. In the first one, between 1985 and 1990, the effects of the incorporation into the EU are made clear. The integration meant an important entry of foreign capital, and also substantial resources in the form of current transfers from the European Union. In the second one, between 1997 and 2003, mainly due to the incorporation into the Monetary Union, there was an encouraging effect following the drop of the interest rates (de la Dehesa, 2003).

With regard to the evolution of the transfers, the analysis of its evolution can be done through the corresponding information coming from the balance of payment. Considering, in a joint way, the current and capital transfer, the net quantity was always positive for Spain (Figure 1.5, Table A1.6). Current transfers have been one of the sources to financing the traditional trade deficit of the Spanish economy. Prior to the entry into the EU, the balance of payment was positive due to the remittances that Spanish emigrants sent to their families. From 1985, those transfers come mostly from the European funds.

In the last years, the net balance of current transfers becomes negative because of two different circumstances. First, the change regarding the way of financing that the EU uses, with the transfers of capital more relevant than net current transfers (while net current transfers have a decreasing magnitude, capital transfers present an increasing tendency).

Figure 1.5 Net current and capital transfers with the rest of the world

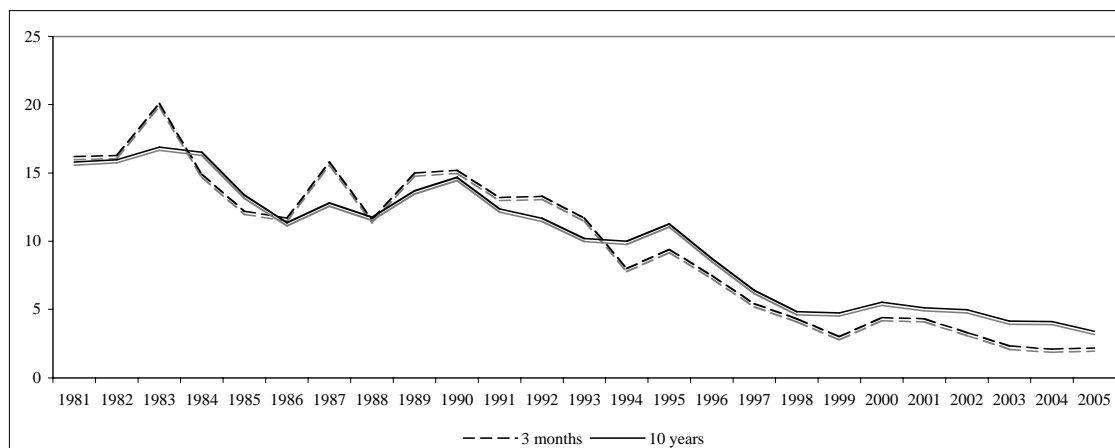


Source: Author's elaboration based on AMECO

Second, the Spanish economy becomes an immigrant receiver, and hence the importance of remittances that the immigrants send to their families in the rest of the world. So, from the year 2000 the net current transfers becomes negative. Meanwhile, due also to the contribution of European funds, there is an increase in the net capital transactions (more than 90% corresponds to the capital transfer, Donoso, 2005).

With regards to the evolution of the interest rates (the cost of capital), between 1980 and 2005, an important reduction can be observed. This is showed in the Figure 1.6 (Table A1.7), where the evolution of a short-term and long term interest rates have been included. However, different stages are also noticeable.

Figure 1.6 Interest rates



Source: Author's elaboration based on Banco de España and Eurostat

The first one begins in 1983, after a couple of years in which there have been important increases due to the growth of the distrust of the economic agents (because of the attempted coupe d'état in 1981 and the successive arrival to power of the socialist party for the first time since the dictatorship). In 1983 an important reduction initiates, mainly derived from the improvement of the expectations of the economic agents generated, due to the following incorporation into the European Union. The second one starts in 1995 and goes until 1999, again a period of good prospects for the Spanish economy, at this time due to its integration into the European Monetary Union.

To analyse the evolution of the per capita GDP more thoroughly, a decomposition of this variables is used. Hence, the growth of the per capita GDP can be interpreted through the evolution of occupation rate and labour productivity².

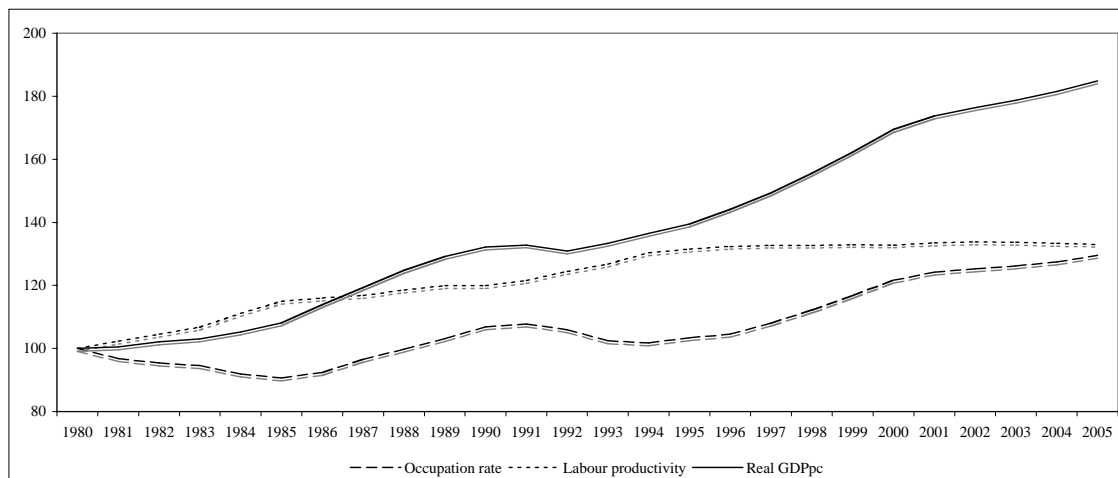
$$\begin{aligned} \text{GDP}_{pc} &= \frac{\text{GDP}}{\text{Number of inhabitants}} = \frac{\text{GDP}}{\text{Number of employees}} \cdot \frac{\text{Number of employees}}{\text{Number of inhabitants}} = \\ &= \text{Labour productivity} \cdot \text{Occupation rate} \end{aligned}$$

In the case of the Spanish economy, the growth of the per capita real GDP in the analysed period (1980-2005) is due, mainly, to the increase of the quantity of labour used, as labour productivity has maintained relatively stable from 1995 onwards (Myro, 2005).

In the next Figure 1.7, the evolution of both variables is displayed (see also Table A1.8, Appendix 1). The evolution is presented using indexes and taking as reference year 1980. In order to have a better idea of the impact of these variables on the evolution of the real per capita GDP, this is also included on the Figure as an index. It can be seen that the path of the per capita GDP is similar to the one representing the occupation rate, whereas that relative to the labour productivity, however, increased at the beginning of the 1980s, followed by a constant decline from the mid nineties. The factors that have contributed to the increase of the occupation rate have been mainly, the liberalisation of the labour market, and particularly in the last years, the inclusion of immigrants into the labour supply.

² That is, the per capita GDP grows because there are more people working or because each worker can obtain a bigger quantity of product, or a combination of both circumstances.

Figure 1.7 Indexes of occupation rate, labour productivity and real per capita GDP



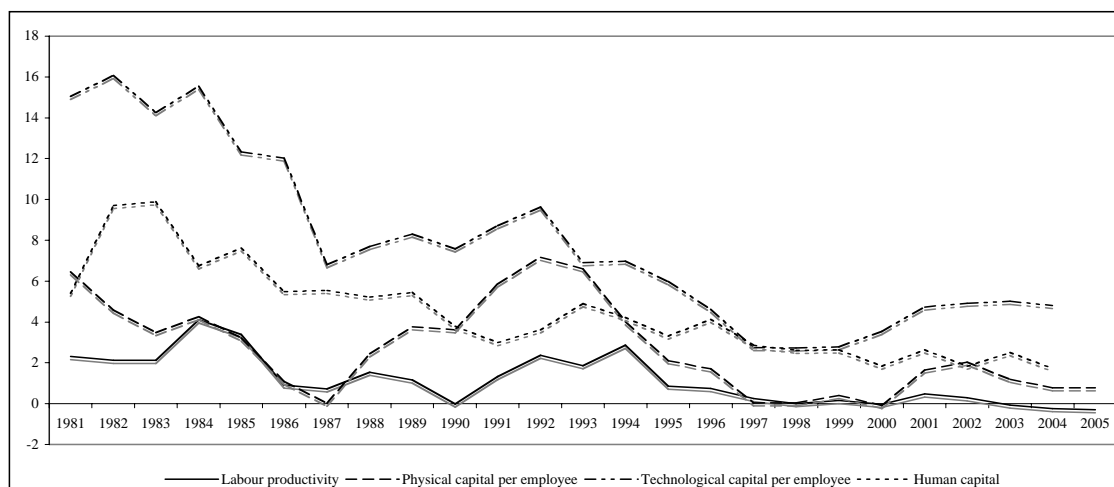
Source: Author's elaboration based on Banco de España and AMECO

In developed economies, growth in labour productivity is one of the most important determining factors of long-term improvements in living standards (OECD, 2004). Moreover, this is also very important in order to ensure the competitiveness of the economy. Given these, in the case of Spain, the decline of labour productivity noticeable in recent years raises some concerns (Jordan, 2003). Thus, it is interesting to analyse the evolution of those variables that can have a significant importance over the labour productivity, as, for example, the accumulation of capital in the economy (Arratibel *et al.*, 2007). In our case, there is available information (Table A1.9) about the accumulation of physical and technological capital by employee, and human capital. This last variable is approximated through achievements in the educational levels. A representation of the annual growth rates of the three variables has been included in the Figure 1.8.

The volume of physical capital per worker grew up in the early eighties at an annual rate that surpassed 4%, whereas in the last ten years it does not reach 1%. So, the decrease in the labour productivity can be explained, among other causes, by the limited increase of the physical capital per worker, which occurred especially from 1993 onwards (Myro, 2004).

As regards the evolution of the other variable, the technological capital, although at the beginning of the 1980s important growth rates are recorded, this follows a similar path to that of the physical capital. Thus, annual growth rates declined from the early nineties, and have not started to recover until the beginning of this century. However, the increase was at much lower rates than that recorded in the early eighties.

Figure 1.8 Annual growth rates of capital stocks



Source: Author's elaboration based on Banco de España, AMECO and IVIE

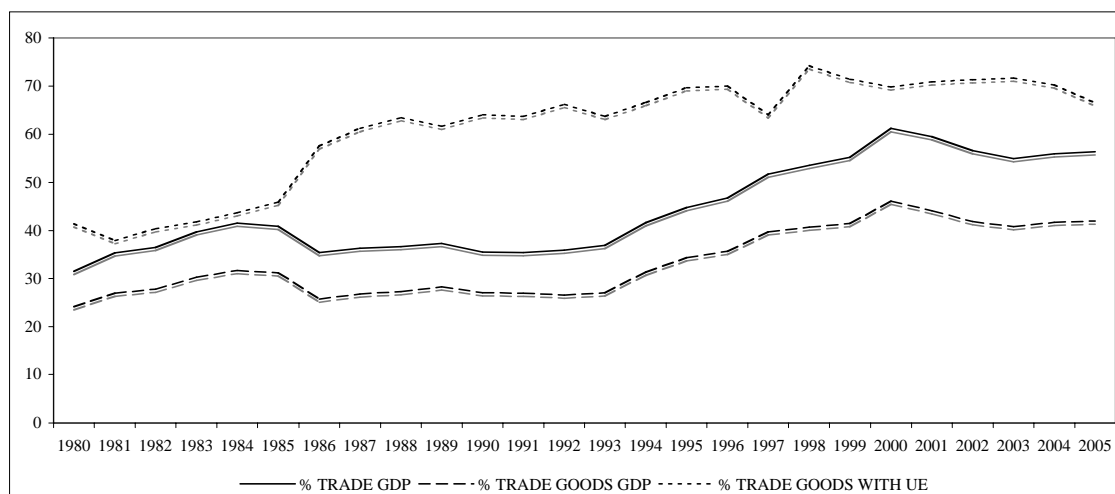
The human capital (measured as the percentage of occupied population with at least secondary studies) has also experienced an important reduction in its growth rates.

All these circumstances could help to explain the important decrease in the labour productivity rates, particularly in recent years, and could imply, if tendencies keep on being the same, that in the future the economy might experienced some difficulties in increasing its per capita income by means of productivity improvement.

During this period (1980-2005) the Spanish economy has also experienced other important structural changes. One of these, has been the increase of the opening-up to the world, partly due to the process of liberalisation started in the sixties (that became more relevant with the end of the dictatorship in 1975), and also because of the integration process into the European Union. The openness index has been portrayed on the Figure 9, where the percentage of international Spanish trade of goods and services in the GDP, has been represented. Figure 9 highlights also the importance of the trade of goods. This has experienced the highest growth, its share in the GDP increasing from 24% in 1980 to 42% in 2005 (Table A1.10, Appendix 1).

The evolution has not, however, been homogeneous for the whole period. In the early eighties the opening-up process accelerated, but surprisingly it slowed down during the first six years following accession to the EU. This is explained by the fact that between 1985 and 1992, the GDP grew faster than the foreign trade (de la Dehesa, 2003). In contrast, the four consecutive devaluations of the Spanish currency (peseta), which took place between 1992 and 1994, encouraged the increase of Spanish exports. This increase caused in turn an important rise of the degree of the opening-up process, with the proportion of foreign trade accounting for over 60% of the GDP in the year 2000. These changes reflect the transition of the Spanish economy from being a closed economy towards a more opened, which makes Spain comparable to the most developed economies and with a longer tradition of international integration (Malo de Molina, 2003).

Figure 1.9 Openness index of the Spanish economy



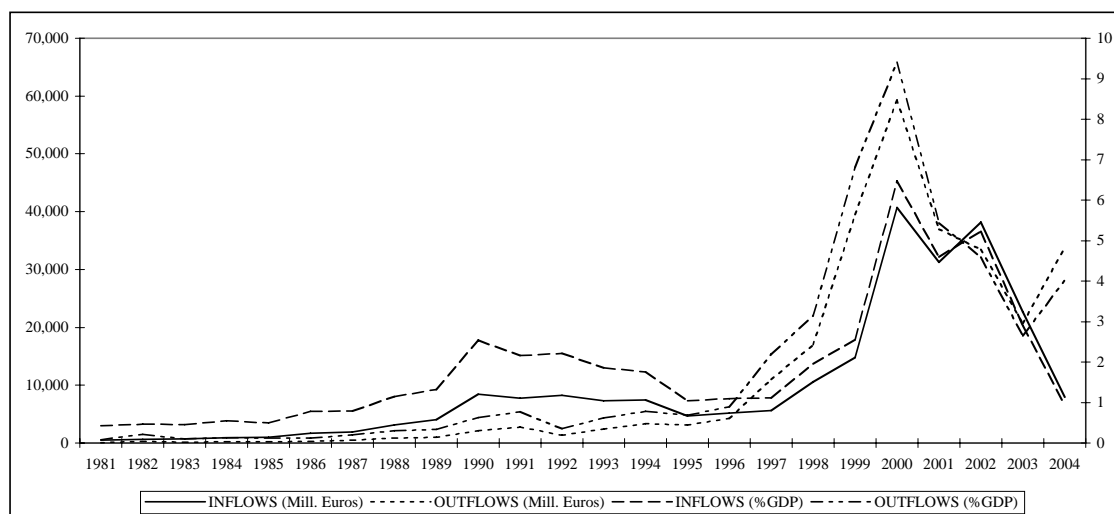
Source: Author's elaboration based on OECD

One of the characteristics that usually stand out from the international trade analysis of the Spanish economy, is its high degree of concentration in other member countries of the EU, which is also represented in the Figure 1.9 (as the percentage of goods trade (imports and exports) with other members of the EU). Its evolution is very significant. At the beginning of the eighties only around 40% of the Spanish exports and imports of goods were carried out with the EU, whereas at the beginning of this century it accounted for over 70%. EU membership brought a significant change in the origin of Spanish imports and exports, with other members of the Union becoming favourite trading partners. A part of this increase has been caused by a trade diversion effect, although there was also an important volume of trade creation, at the early stages of the integration process (Alonso, 2005).

The opening-up to the world process has also attracted an important increase of the financial flows, particularly following the introduction of the euro (Sanz, 2002). This can be quantified by the percentage of the financial assets claimed by non-residents in the total national financial assets, and the percentage of the total financial liabilities of the Spanish economy that belong to the rest of the world. Referring to the former, its share has increased from 5.7% in 1985 to 18% in 2002, whereas the share of liabilities almost tripled (from 8% in 1985 to 21% in 2002). These trends have accelerated particularly since 1992 (Requeijo, 2003).

A part of those assets and liabilities corresponds with the so-called direct foreign investment. These investment flows occur among countries, and at first result to be more stable, and therefore, allow financing needs of long-term resources, with the resulting links with the productive system of the country in which the investment is carried out. In this respect, the Spanish economy has behaved traditionally as an investment receiver, but, since 1996, the trend has reversed, and it has started to be an exporter of this kind of investments (see Figure 1.10 and Table A1.11).

Figure 1.10 Foreign direct investment (€ Million and percentage of the GDP)



Source: Author's elaboration based on INE and OECD

Regarding the inflow of foreign investment, this was less important in the years previous to EU accession. Between 1981 and 1985, FDI did not exceed €10 billion per annum, this representing less than 0.5% of the Spanish GDP. For the same period, Spanish direct investment flows in the rest of the world were also insignificant (less than €250 millions per year or less than 0.2% of the GDP).

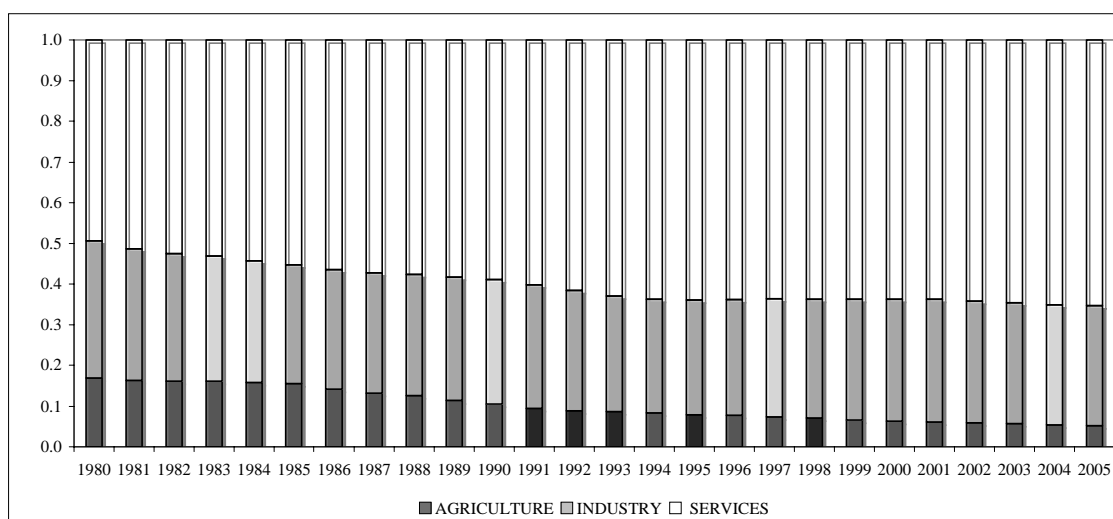
The entry of Spain into the EU in 1986 led to a very significant change in the previously mentioned trends. In just two years following accession, the FDI in Spain more than doubled (from €987 millions in 1985 to €1,932 millions in 1987). By 1990, the inflow of FDI represented 2.5% of the Spanish GDP. In this period, the investments concentrate on the industrial and services sectors, although the former has been losing relative weight along the period (Fernandez-Otheo, 2005). The behaviour of the Spanish investors in the rest of the world, however, has not changed in such a significant way, and the share of outflows remained below 1% of the GDP until 1997 when it started to increase. By 2000 some 9.4% of Spanish GDP represented domestic investment in the rest of the world.

The economic crisis of the beginning of nineties slowed down the growth of these flows, both in absolute and relative terms. However, from 1997, an increase in both inflows and outflows can be observed. This growth moved in a similar way to the economy as a whole, slowing down with the decline process of the world economy at the turn of this century, which shows the pro-cyclical character of the international investment (Fernández, 2005). During this period, the Spanish economy made large investments in the rest of the world, resulting in a spectacular growth of outflows (these exceeded the inflows). The investments focused mainly on some services activities (e.g. financial and telecommunications) particularly in other EU member states, but also in Latin American countries (Jordan, 2003).

This change (outflow exceeding inflow investment) turns out to be very beneficial for the Spanish economy, as it means a higher integration into the world cycle, and therefore a potential lower impact of different economic crises. Moreover, from a business point of view, the increase of Spanish investment implies a diversification of the entrepreneurial risks and the exploitation of economies of scale and scope (Utrera, 2003).

As with most developed economies, the structure of the economy has suffered significant transformation, process which has, however, started, some twenty years before the accession of Spain into the EU. This is about the decline of relative importance of the primary sector and the increase, that simultaneously takes place, in the industry sector, and above all, in the services sector. This change is illustrated in the next two Figures (Table A1.12, Appendix 1) which show the distribution of employment and of the gross value added among the three major sectors.

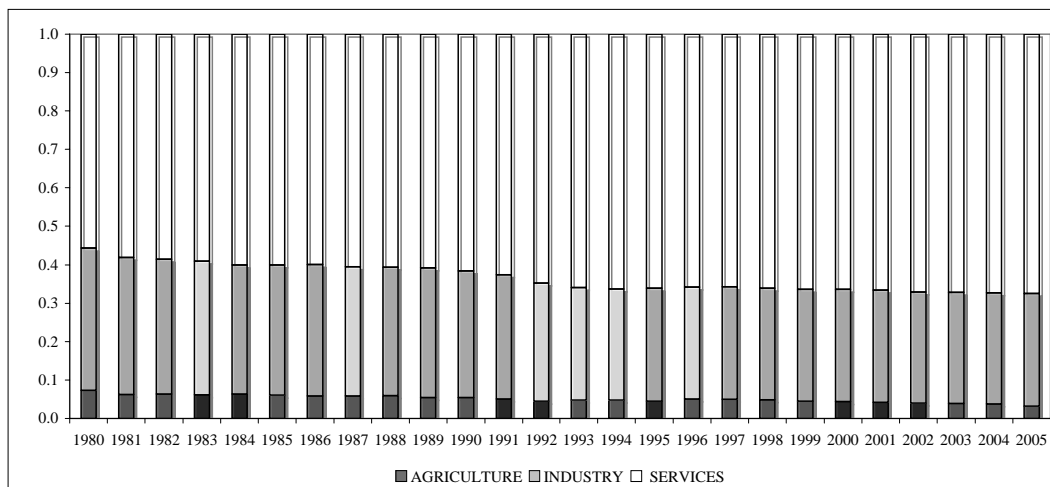
Figure 1.11 Participation of the different branches in the occupied population



Source: Author's representation based on AMECO

Between 1980 and 2005, agriculture's shares has declined from 17% of total labour force to 5%, and from 7% of the gross value added to 3%. In contrast, the services sector has increased its contribution to employment from 50% to 65% and in the gross value added from 55% to 67%. This has a positive influence on the income per capita, because the change moves towards more value added activities, and it forces agriculture to increase also its productivity during the economic development stages (Myro, 2005).

Figure 1.12 Participation of the different branches in the occupied population



Source: Author's elaboration based on AMECO

2 THE SPANISH AGRICULTURE

2.1 Introduction

As it has been pointed out, one of the structural changes that have accompanied the Spanish economic growth has been the decline of the importance of the agricultural sector, such as its contribution to the GDP and employment is nowadays around 5% and 3% respectively. A number of factors may explain the phenomenon. For example, consumers' preferences change with the economic development, and proportionally less spending is dedicated to food. Moreover, the supply of food products changes when it transforms into intermediate goods (followed by a process of transformation before reaching the final consumers). However, although there is shift in importance regarding agriculture in developed economies, the sector still plays a key role in the conservation and maintenance of the rural areas, avoiding depopulation and the desertification of the territory.

Until late 1950s, the Spanish agriculture presented the typical features of the so-called traditional model, characterised by an important participation on employment and production, with low paid labour and limited mechanisation that translated into a low labour and land productivity. Moreover, there was a balance between supply and a little diversified demand, which it corresponded to a low level per capita income economy.

At the beginning of the sixties an intense process of rural depopulation took place, which triggered a series of changes within the agricultural sector (González *et al.*, 1998), such as: a significant increase (in nominal terms) of agricultural wages, ageing of the active agricultural population and an increase of the relative weight of the female labour and of the part-time agriculture. Additionally, an intense process of mechanisation and capitalisation led to an increase of the intermediate consumption (outside the farm), an important improvement of the labour and the land productivity and the integration of the sector in the agro-food system. From the demand point of view, as the economy developed, there was a growing increase of meat and fruit and vegetables consumption and a decrease of the consumption of other products, such as legumes or potatoes.

By early eighties the process of structural transformation of the Spanish traditional agriculture had completed. However, EU accession in 1986 and the adoption of the Common Agricultural Policy (CAP) had triggered another set of structural changes of the sector with implications on the production orientation and on the formation of the agrarian rents. Currently, the sector still experiences transformations which are related to other circumstances, such as the process of liberalisation of the international commercial exchanges and the increased demand for environmental services by a part of the society (Colino, 2005).

The next sections focus on the evolution of the main variables related to the sector, and the impacts that various changes, following the integration into the EU, had on these variables. For this purpose it is important to take into account that many of the observed trends were influenced by a process of structural changes that started before the integration and that it is rather difficult to isolate the effect of the integration from other internal factors that also influenced those variables (Abad, 1997). It is also important to point out that the Spanish agriculture is not territorial homogeneous, and that it is possible to find different agricultural systems, levels of specialization, farm structures.

2.2 Endowment of the Spanish agriculture

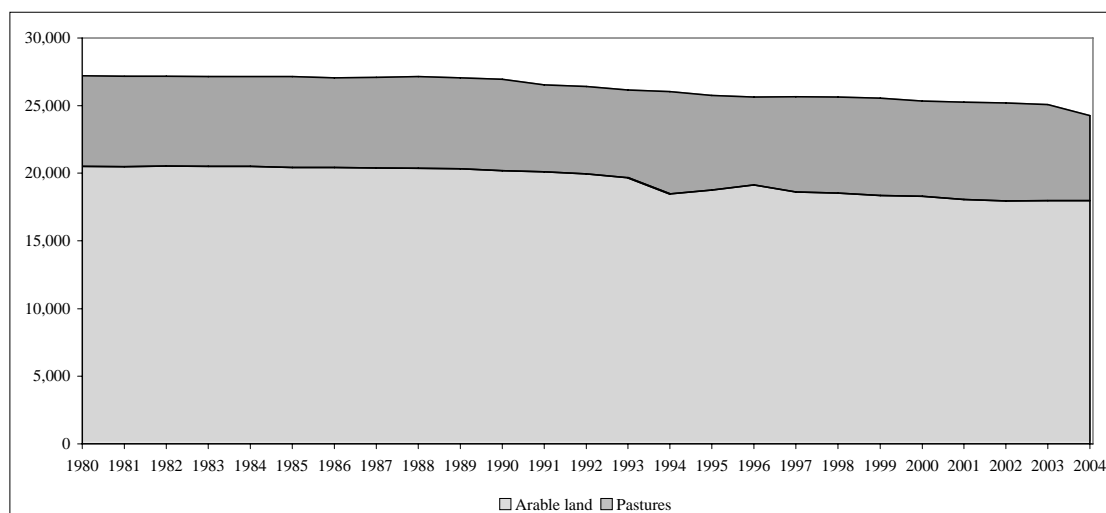
One of the first aspects to be treated when analysing the economic behaviour of a sector, is the available production factors, both the amount and the quality of them. When the agricultural sector is mentioned, it seems undeniable that the relevant factors are the land, the labour and the capital.

With regard to the land, the Spanish agricultural sector has around 25 million hectares of Utilised Agricultural Area (UAA), although between 1980 and 2005 there has been an important decrease (Table A2.1) of over two million hectares. This decline has accelerated particularly after Spain joined the EU, at the end of the 1980s and especially in the early nineties. However, this decrease has affected mainly arable land, whereas pastures area have increased by nearly 6%.

In this respect, it is has to be to mentioned the effort made to improve the quality, through successive investments to transform growing areas into irrigated land. An important increase of the number of hectares of irrigated land can be observed, both in absolute and relative terms. Hence, the irrigated land area has increased by 700 thousand hectares, and whereas at the beginning of the 1980s, it accounted for the 11% of the total UAA by 2004 represented 15.6%.

At the same time, the there were investments and in other capital goods. The sector underwent a very intensive process of capitalisation, especially in the first stages of the modernization process (1960-1980). However, this process still continues today but at a slower pace. Between 1980 and 2004, the number of tractors available for the Spanish farmers has doubled, passing from half a million to nearly one million in the year 2004 (Table A2.2). Additionally, the number of Rotovators and cereal combine harvesters, have also experienced a significant increase, e.g. by 27% and 23%, respectively.

Figure 2.1 Utilised Agricultural Area (000 ha)

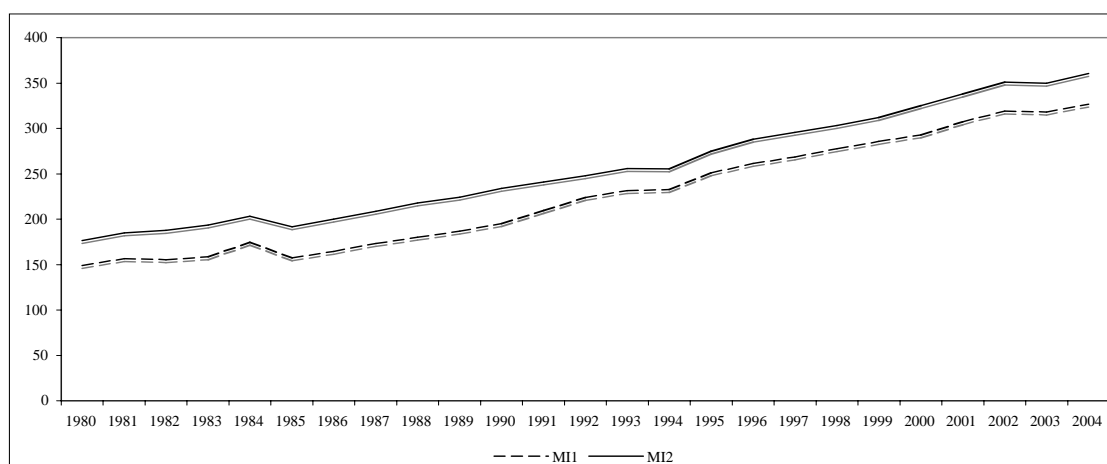


Source: Author's elaboration based on MAPA

Moreover, there has been an important increase in the power of the engines, which is not reflected in the number of machines used. For this reason, the Ministry of Agriculture, Fishing and Food (Ministerio de Agricultura, Pesca y Alimentación, MAPA) elaborates several indicators to quantify more accurately the degree of mechanization of the Spanish

agriculture, considering the power of the engines related to the number of hectares of used land. Specifically, this is the agricultural mechanization index, which is calculated as the relationship between the horses of power of the machinery (only tractors and Rotovators or total machinery) and the arable land plus permanent meadows.

Figure 2.2 Mechanization indices (HP/ha) ⁽¹⁾



Source: Author's elaboration based on MAPA

Notes: (1) MI1: mechanization index taking into account only tractors and Rotovators MI2: mechanization index considering all the machinery

The evolution of the two mechanization indices, measured as horses of power for every hectare, is shown in the Figure 2.2. The two indices show an increasing trend, before and after accession to the EU. Annual growth rates were higher between 1980 and 1985. In the last years, although a growing rate is still noticeable, there has been a significant slow down in the speed of capital accumulation. The capitalisation that has taken place has allowed Spanish agriculture to improve significantly its labour and land productivity. Nevertheless, the level of mechanization is inferior to the European average, and it is likely that the mechanisation will continue to increase (Arias, 2000).

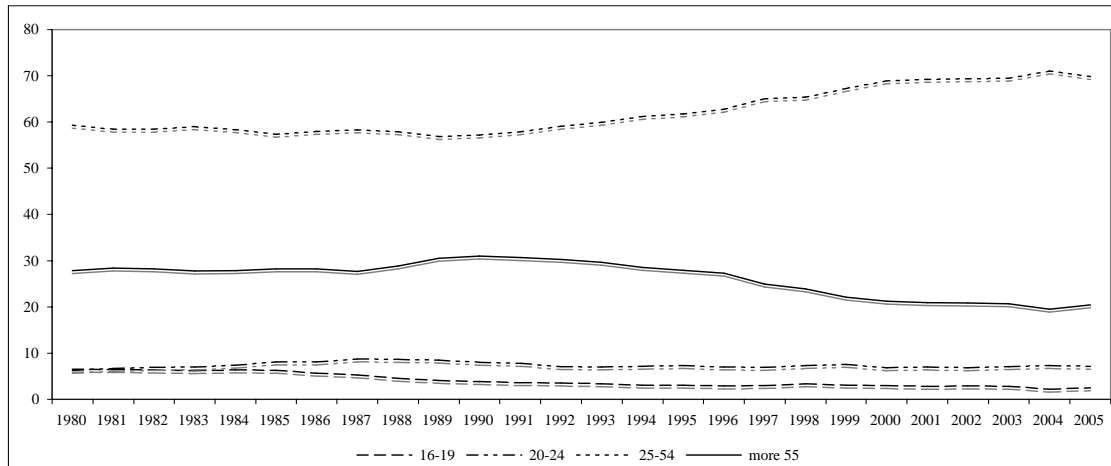
The investment efforts made by the Spanish agriculture led, however, to an important increase of the amount of received loans by the sector, and hence of its debt level, trend that had actually started in the preceding decades of the 1980s (Naredo, 1988).

With regards to the third factor to be considered, the labour factor, during the twenty-five analysed years (1980-2005) there has been a decrease of over a million people, half the occupied population in the sector in 1980. One of the most important characteristics of the occupied population in agriculture is the high percentage of people belonging to the oldest age group, while a certain shortage of occupied young people can be observed. The increase of the average age of labour force in the sector has triggered the appearance of abandoned lands or lands that have been turned into forest lands in some regions (Cornisa Cantábrica, Galicia, Castilla-León).

Figures 2.3 and 2.4 (Table A2.3) show the percentages of labour force by age groups, both in the agriculture sector and in the economy as a whole. From these Figures it can be concluded that most of the occupied population, both in agriculture and in the economy as a whole, corresponds to the segment that includes the occupied people aged between

twenty five and fifty four, although the percentages are ten points higher in the economy as a whole.

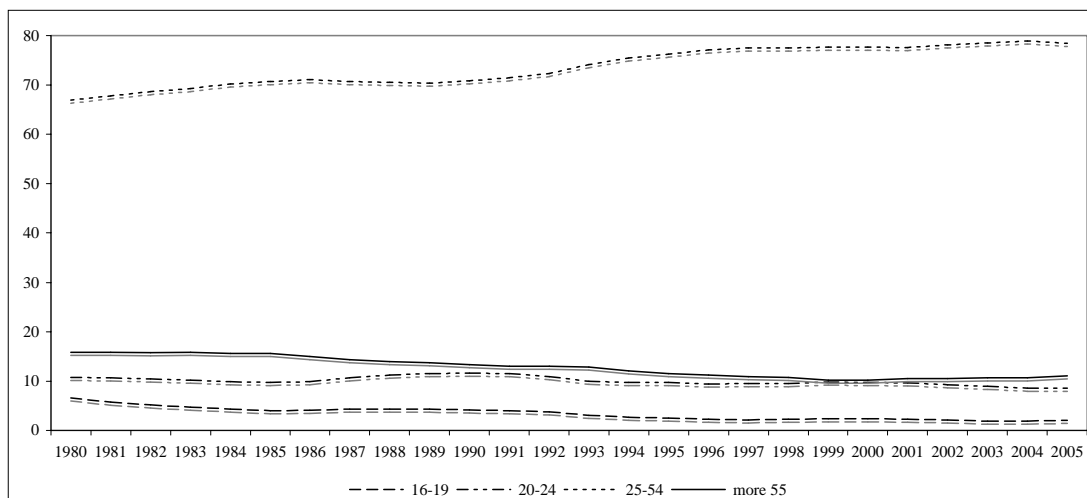
Figure 2.3 Percentage of agricultural employment by age groups



Source: Author's elaboration based on INE

Important differences in the percentage of occupied people over fifty years of age can be observed, that in the early nineties reached 30% of the occupied agricultural population, whereas in the economy as a whole it has never reached 15%. Anyway, a change of trend can be seen. The gap that separates the two oldest groups is widening. This is due to the significant increase of the number of immigrants, that come to find a job in Spain, and which in some regions are employed particularly in the agricultural sector (Camarero, 2002). The percentage of the youngest occupied population is still smaller in the agricultural sector, which indicates some possible problems regarding the next generations of farmers.

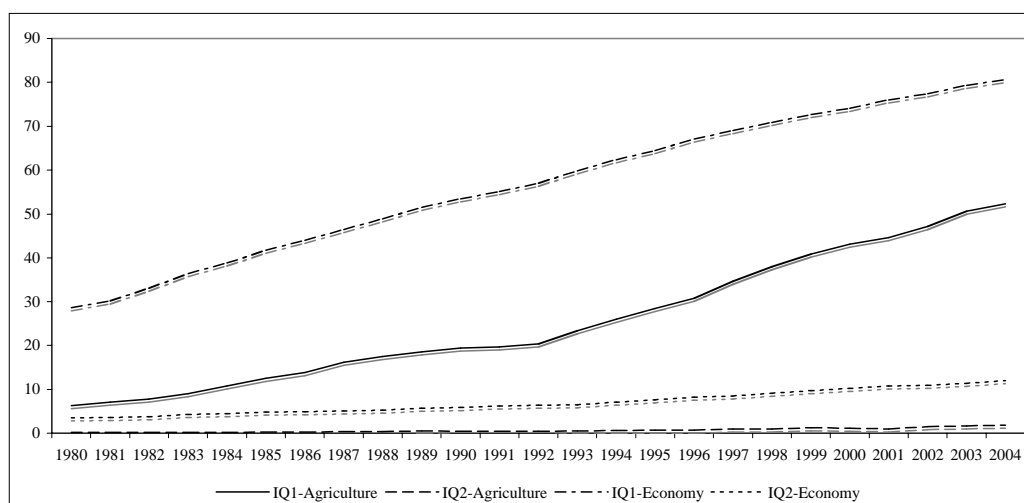
Figure 2.4 Percentage of employment in the total economy by age groups



Source: Author's elaboration based on INE

Another problem that is usually pointed out is the level of education of the Spanish agricultural labour force (Table A2.4). In the analysed period there has been a considerable improvement, and two indicators (IQ1: percentage of occupied population with at least secondary studies; IQ2: percentage of occupied population with university degree) show a significant increase in the level of education in both agriculture and the economy as a whole. However, there is still a significant difference compared to the economy as a whole, as it is shown in the Figure 2.5.

Figure 2.5 Qualification indices, Total economy and agriculture

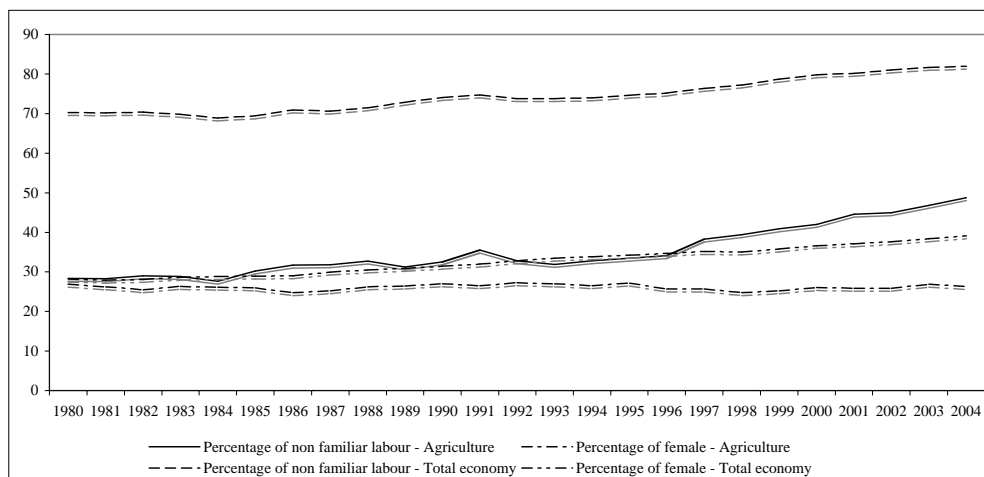


Source: Author's elaboration based on INE

Whereas in 1980 the share of occupied population in the agricultural sector with a university degree was nearly non-existent, by 2005 it reached 2% (a very small percentage if taking into account that in the economy as a whole the university graduates account for more than 12%). Agricultural labour force with at least secondary studies has, however, increased very significantly from just 6.3% in 1980 to 52.4% in 2005.

As regards other characteristics of the agricultural labour, it could be said that most of the agricultural workforce is provided by the family of the farmer, a situation similar to other EU countries. Nevertheless, in the last years an increase in the paid labour can be seen (Table A2.5). This trend is especially visible from the mid nineties (Figure 2.6), in such a way that, it has passed from being below 30% to nearly 50% in the last observed years. In the economy as a whole this percentage is also increasing, but it has maintained more stable, although at very superior level (around 75%).

Figure 2.6 Other characteristics of the occupied people. Total economy and agriculture



Source: Author's elaboration based on INE

Another characteristic is the smaller participation of women in the total volume of occupied people, although the differences with the economy as a whole are not so evident as above. During the last years we can see an increase in the participation of women in agricultural sector, although the increase is smaller than that observed at the total level of economy.

2.3 Analysis of the main agricultural indicators

For this purpose the Economic Accounts of the Agriculture provided by the MAPA in the successive yearbooks of Agricultural Statistics will be used. However, it has to be pointed out that a series of homogenous accounts for the whole analysed period are not available. For the period 1980-2000, the accounts that have been done according to the methodology of the European System of Integrated Economic Accounts (known as SEC-79) are available. Later on, the methodology of the European System of Regional and National Accounts established in the Regulation 2223/96 (the so-called SEC-95) has been applied, and the MAPA has used it to elaborate a homogeneous series of agricultural accounts for the period 1990-2005. Therefore, there is a series of years for which available information exists but according to two different methodologies. This means different estimations for the same magnitudes. Since the conclusions from the main trends do not differ significantly, the author opted for the use of the series 1980-1990 elaborated according to the SEC-79, and for the last 15 years, the use of the estimated data using the methodology based on the SEC-95. It is worth noting that the data from one period to another can not be directly compared³.

³ The most significant differences refer to the changes in the evaluation systems (from using market prices and factor costs to basic and acquisition prices) and the way that subsidies and taxes on production and imports are included. With the SEC-95, the variables valued at basic prices (e.g. production) include a set of net subsidies (so-called product subsidies) that before were only taken into account when transforming the magnitudes valued at market prices into magnitudes valued at cost factors.

It is also convenient to mention in this report that, with the purpose of having magnitudes at constant prices to be able to calculate growth rates in real terms, we have opted to use the same method to deflate both series, using indices of received and paid prices by the farmers and the GDP deflator⁴. The whole series of magnitudes expressed in current terms are presented on Tables A2.6 and A2.8 (Appendix 2).

The evolution of the main agricultural indicators indicates that despite of the decline of relative importance of the sector in the economy as a whole, the agricultural production has increased, both in nominal and real terms. For example, agricultural production at current prices rose from €12,000 million (1980-1985) to €40,000 million (2001-05), which indicates that it has multiplied by 3.2 (Table 2.1). If we consider the magnitudes valued at constant prices, the growth, although smaller, it is still remarkable.

Table 2.1 Main agricultural indicators (1) (annual average)

	1980-85	1986-90	1991-95	1996-00	2001-05
CURRENT PRICES					
Output of agricultural industry	12,369	18,938	25,612	33,961	40,223
Intermediate consumption	5,439	8,136	9,091	11,514	14,362
Gross Value Added	6,930	10,802	16,521	22,447	25,861
Fixed capital consumption	863	1,564	2,069	2,587	3,389
Net Value Added	6,067	9,238	14,452	19,859	22,472
CONSTANT PRICES					
Output of agricultural industry	9,144	10,511	12,793	15,074	16,845
Intermediate consumption	3,671	4,072	4,136	4,639	5,303
Gross Value Added	5,473	6,439	8,656	10,436	11,543
Fixed capital consumption	627	775	849	870	968
Net Value Added	4,846	5,664	7,807	9,566	10,574

Source: Author's calculations based on MAPA

Notes: (1) The magnitudes are obtained using different methodologies before and after 1990

However, the evolution has not been homogeneous along the whole period. Table 2.2 presents annual average growth rates for each of the five-year period, between 1980 and 2005. The growth rates of the production were very high before the integration of Spain into the EU, especially when expressed in nominal terms. From 1986⁵, a reduction in those

⁴ We have used the double deflation method (see Rao, 1993), in such a way that the added value is obtained by the difference between the deflated production (using the index of received prices by the farmers) and the deflated intermediate consumption (using the index of paid prices by the farmers).

⁵ Mendez et al. (2005) show that Spanish agricultural output growth would have been higher under three different alternative scenes to the CAP, one of them being the fact that Spain continues with the same agricultural policies prior to 1983.

rates of growth is observed until the mid-1990s, when the production presents negative real growth rates. This can be explained by the difficulties of adaptation of the Spanish agriculture to the new agricultural policy, and also by the crisis that affected, in the early nineties, the Spanish economy as a whole. The sector recovered between 1996 and 2000, but slowed again down between 2001 and 2005, although the growth rates are positive.

Since the integration of Spain into the EU, the intermediate consumption has increased to a lesser degree than the agricultural production. This had influenced positively the gross value added which recorded higher growth rates than the agricultural production. However, the decline in the growth rates of the intermediate consumption between 2001 and 2005, can be attributed to the changes of the agricultural policy with a tendency towards the extensification of the production.

The investment (approximated by the fixed capital consumption) also experienced growing rates, especially in nominal terms. The highest growth rates can be seen for the period before the integration of Spain into the EU (1980-1985), and from that moment, there is a decrease in those rates although a certain recovering process can be observed in the last two five-year periods.

Table 2.2 Annual growth rates (1) (%)

	1980-85	1986-90	1991-95	1996-00	2001-05
CURRENT PRICES					
Output of agricultural industry	10.6	5.4	3.4	5.0	2.0
Intermediate consumption	13.7	3.9	2.0	6.4	2.4
Gross Value Added	8.9	6.5	4.3	4.4	1.8
Fixed capital consumption	14.3	7.5	3.1	4.1	5.8
Net Value Added	8.3	6.4	4.6	4.4	1.2
CONSTANT PRICES					
Output of agricultural industry	1.9	1.9	-0.3	5.1	0.03
Intermediate consumption	2.1	2.0	-0.6	4.4	0.5
Gross Value Added	1.8	1.9	0.01	5.6	-0.2
Fixed capital consumption	4.1	2.1	-0.4	0.8	1.9
Net Value Added	1.7	1.9	0.1	6.2	-0.3

Source: Author's calculations based on MAPA

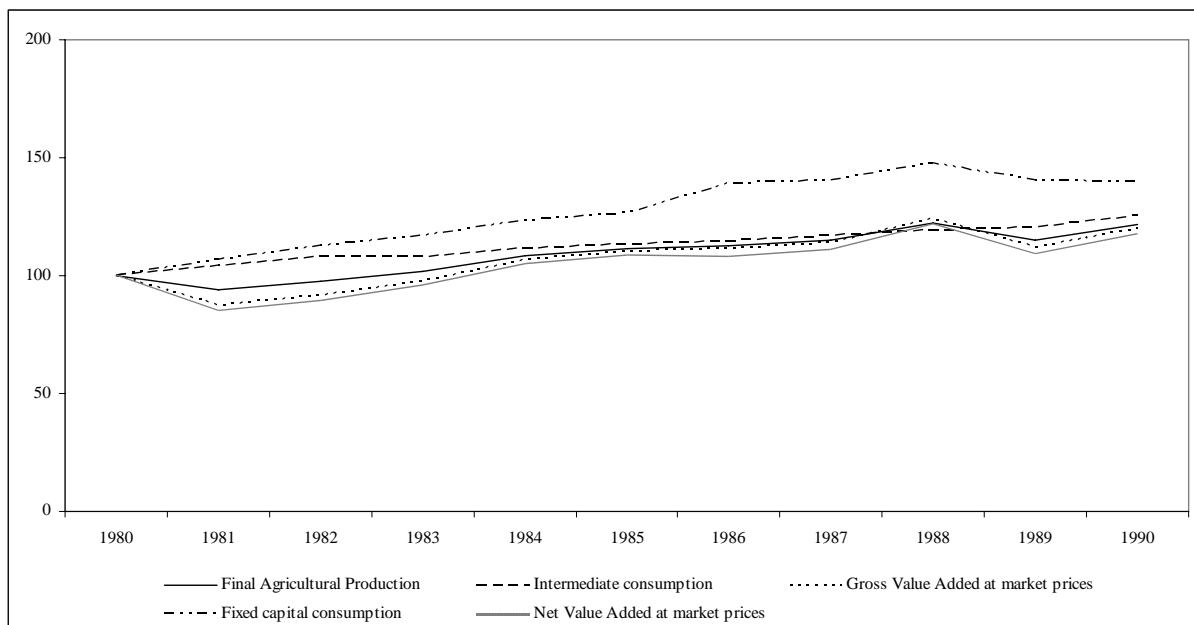
Notes: (1) These are obtained using different methodologies before and after 1990

If we take into account that the prices of the capital goods acquired by the farmers have increased more significantly than the rest of agricultural prices, the valuation of the capital consumption at constant prices indicates clearly a lower increase. Despite that the contribution of this indicator in agricultural production (output) is relatively limited, the net added value in current terms has increased to a lesser degree than the agricultural production.

Nevertheless, considering the accumulated growth along the whole period, and considering the indicators expressed in constant terms, it can be observed how the trend changes remarkably between the two first five-year terms as compared with the rest of the period (partly this change is due to the differences of the accounting of the subsidies to the products that in the SEC-95 methodology are included as a part of the production and whose amount has increased considerably during the studied period). For this reason, a part of the increase of the production corresponds to the increase in the amount of subsidies. In the Figures 2.7 and 2.8 those trends are represented.

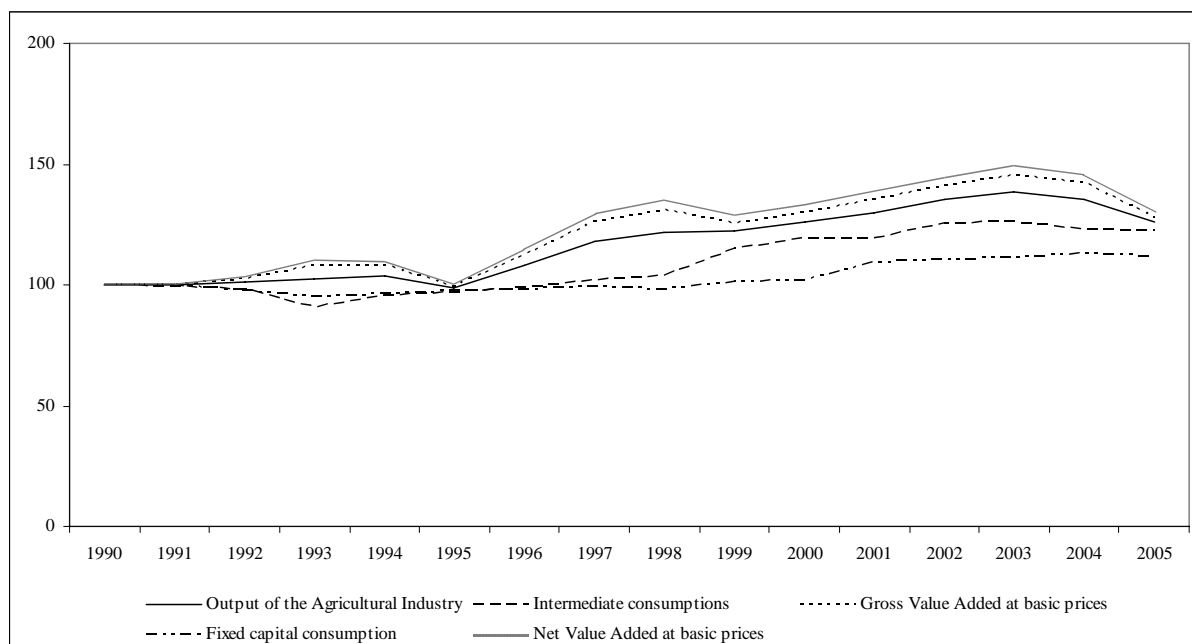
So, whereas in the first ten years it can be seen that both the intermediate consumptions and the capital consumption increase more than the production, in the last fifteen years this evolution is just the other way around.

Figure 2.7 Indices of the main agricultural indicators (constant prices), 1980-1990



Source: Author's elaboration based on MAPA

Figure 2.8 Indices of the main agricultural indicators (constant prices), 1990-2005



Source: Author's elaboration based on MAPA

2.3.1 Production specialisation

The evolution of the agricultural supply is conditioned by the surrounding agrological characteristics, that cause some countries to have comparative advantages in terms of availability and quality of natural resources. But there are other factors that can explain the dynamic of its evolution, such as the changes that take place in the food demand or the protection mechanisms applied for different crops (Colino, 2005).

First, the analysis of the specialization of the sector refers to the two main magnitudes, the crop and animal production (and in the last years, applying the SEC-95 to the agricultural accounts, some other productions linked to the agricultural activity appear, they are becoming more relevant).

The evolution of the contribution of both crop and livestock to total production remains relatively constant along the period, e.g. around 60% crops and 40% for animal production. However, there is a change of trend as compared with the period prior to 1980, when due mainly to food demand pressure animal production gained some relative weight in total Spanish output. That is the relative decline of the share of livestock production from 44% prior to accession to 34% between 2001 and 2005. This can be explained by the comparative advantages that North European countries have in animal production and its exporting pressure (Lamo de Espinosa, 1997).

Table 2.3 Contribution of different products to agricultural output (annual average, %)

	1980-85	1986-90	1991-95	1996-2000	2001-05
Crop output	54.9	59.0	59.4	61.6	62.0
Cereals	11.3	11.0	10.8	11.6	9.9
Potatoes	5.5	4.9	2.6	1.4	1.3
Industrial crops	3.7	3.9	5.6	4.9	3.7
Horticultural products	11.6	14.4	15.4	15.5	19.4
Fruits	12.1	12.5	14.1	14.6	14.9
Wine	3.4	3.5	2.0	3.5	2.7
Olive oil	3.5	3.7	4.5	5.6	6.5
Other crop products	3.6	5.1	4.3	4.5	3.5
Animal output	44.1	40.4	36.9	34.5	34.1
Animals	22.7	27.2	27.4	26.1	25.5
Cattle	6.6	6.6	6.9	6.6	5.9
Sheep and goats	4.8	5.2	5.1	4.8	4.4
Pigs	10.5	10.3	10.1	10.1	10.5
Poultry	5.5	4.3	4.0	3.4	3.7
Equines	0.1	0.1	0.3	0.2	0.2
Other animals	0.9	0.8	1.1	1.0	0.8
Animal products	11.7	13.2	9.5	8.4	8.6
Milk	9.0	8.5	6.7	6.0	6.2
Eggs	4.2	3.5	2.4	1.9	2.1
Other animal products	1.2	1.2	0.4	0.4	0.4
Agricultural services					
output	:	:	1.1	1.2	1.1
Other activities	:	:	2.6	2.6	2.7

Source: Author's calculations based on MAPA

Spanish agriculture, as well as other Mediterranean countries, is specialised in crop production and, to a bigger extent in those typical crops of the Mediterranean agriculture. Cereals are important, although a decreasing trend is noticeable in recent years. The production of fruits and vegetables is the most remarkable. The incorporation of Spain into the EU has had an important impact on these sectors (Mora and san Juan, 2004). Their contribution to total agricultural production has increased from around 10% during the first half of the 1980s to 20% (for vegetables) and 15% (for fruits, particularly citric fruits) in recent years. Something similar has happened to olive oil production (which has benefited particularly from CAP price and market support).

Industrial crops also present an increase in their participation in the production during the first fifteen years, followed by a decreased trend. In this case, the evolution of sunflower production is quite important (because of its contribution to output and used land). This

was negatively affected by the 1992 reform of the CAP, which caused the cultivated area to decrease by more than 1.5 million hectares between 1993 and 2005.

On the other hand, there has been a reduction of relative weight for the wine and potato production. This was mainly due to a fall in demand for both products. Moreover wine production was subject to restrictions given the surpluses recorded at the EU level.

With regard to the animal production, we can say that the Spanish agricultural sector presents a certain specialization in pig and, to a smaller extent, poultry production. These sectors are less dependant on land for feeding and with bigger intensification levels. However, in sectors such as cattle and sheep (meat and milk) which compete to a large extent with productions from other EU countries, we can see a smaller contribution and with decreasing trends. Finally, we have to point out that the production of services and other goods linked to the agricultural production is gaining a relevant weight as it accounts for 4% of the Spanish agricultural activity production.

2.3.2 Agricultural intermediate consumption

Before analysing the composition of the intermediate consumption, it is important to assess what is the relative weight of this magnitude in the agricultural production, as it is a good indicator of both the level of integration of the agriculture with the rest of the economic system and the degree of production intensification. Table 2.4 shows that there is a decreasing trend of the contribution of intermediate consumption in total agricultural production, from 40% for 1980-1985 to 31.5% for 2000-05. This could be, partly, explained by the change of methodology, previously pointed out.

The biggest amount corresponds to the expenses for animal feeding, as it accounts for more than 45% of the total intermediate consumption. After the integration of Spain into the EU there is a certain decline in the relative weight, due to the smaller importance of the animal production, and also due to the extensification process promoted by recent CAP reforms. In the last years, there is a small increase of around 3 percentage points, but it doesn't reach the existing values before the EU accession.

Table 2.4 Participation of different components in total intermediate consumption (annual average, %)

	1980-85	1986-90	1991-95	1996-2000	2001-05
Intermediate consumption /Agricultural production	40.2	38.8	32.4	30.8	31.5
Seeds and planting stock	2.7	3.4	5.1	6.2	6.4
Energy	8.8	7.8	9.2	8.5	8.4
Fertiliser	12.6	11.8	9.3	9.4	8.1
Plant protection products	3.2	3.9	5.8	6.7	6.0
Veterinary expenses	1.8	2.1	3.2	3.7	3.5
Feedingstuffs	49.8	45.9	45.3	43.6	46.3
Maintenance materials/buildings	12.3	14.2	11.1	10.8	10.5
Services	3.3	4.1	3.6	3.9	3.8
Other expenses	5.3	6.8	7.5	7.2	6.9

Source: Author's calculations based on MAPA

The contribution of expenses for the maintenance of materials and buildings comes second. There is also a significant fall in the contribution of fertilizers, from 13% (1980-85) to just 8% (2000-05) which can also be related to the processes of agricultural extensification and the increase awareness of producers with regard to the environmental problems (MAPA, 2003).

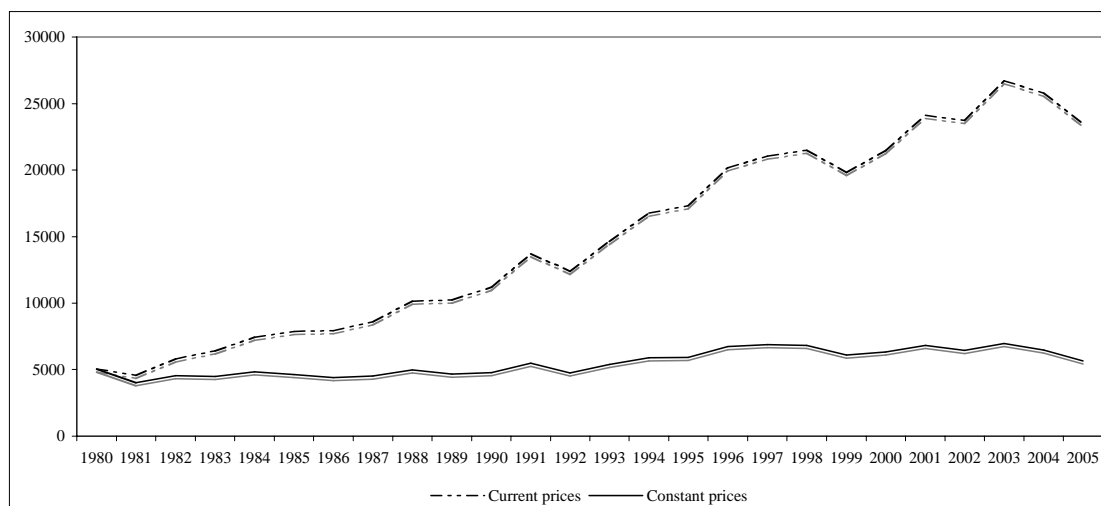
Some expenses are also substantial, for example, energy expenses, as they maintain a relatively stable participation around 8%, and finally plant protection and veterinary expenses. The contribution of the latter has increased, particularly from 1990 onwards, accounting for 6%-7% of the intermediate consumption

2.3.3 Evolution of the agricultural income

The evolution of the previous variables influences, on a global basis, the evolution of the agricultural income, which quantifies the received incomes by primary productive factors applied to the agricultural activity (e.g. land, labour, capital, entrepreneurial management and the state, MAPA, 2003). This is equivalent to the Net Added Value at factor cost.

Table A2.9 indicates a growing trend of the agricultural income, both when assessing the series data at current and constant⁶ prices. Agricultural income in current prices has multiplied by more than 4.5 times in the twenty five analysed years, and that has happened despite of the decrease observed in the last two years (Figure 2.9).

Figure 2.9 Evolution of the agricultural income (million €)



Source: Author's elaboration based on MAPA

However, the trend at constant prices is very different, and we can nearly say that it maintains relatively constant along the period, as it has multiplied by 1.1. Agricultural income decreased by almost 5% after the first year following accession, hence the expectation of Spanish farmers that integration will improve their income were not

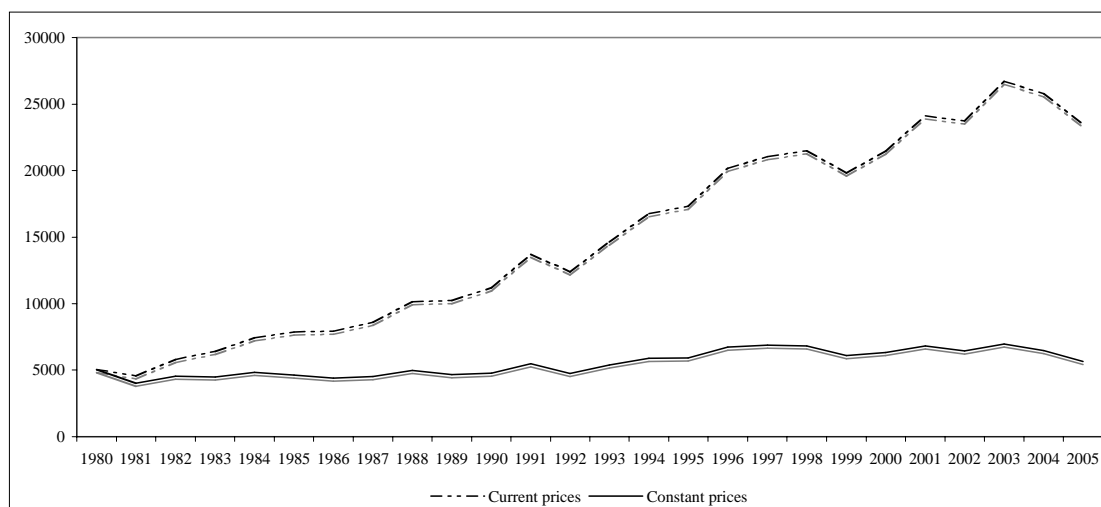
⁶ To deflate this magnitude the GDP deflator has been used, with the purpose of considering the prices of goods and services that farmers with this income can get.

immediately confirmed. The next years were followed by some small increases, hence, by 1990, real income for Spanish farmers increased just by 3% as compared with the year prior to accession. This can be explained amongst other things by the financial problems created, by the accumulation of output surpluses, at the Community level, which led to changes in the CAP from the mid-1980s, and the important decline in the received prices by the farmers (García Grande, 1995).

When related to the number of Annual Work Units (AWU), the results show a similar trend. However, although, in this period there has been an important reduction in the quantity of labour used, the income per AWU presents higher growth rates (Figure 2.10). For example, in current prices, it has multiplied nearly by 9 and in constant prices by more than 2.

Again, the behaviour of this variable has not been homogeneous along the whole period. In order to show the existing differences, on Table 2.5 the annual average growth rates per five-year periods has been included. The agricultural income, assessed at current prices, increases especially in the period prior to the integration of Spain into the EU, it slows down during the immediate years after the entry, and started to recover in the early nineties. Next, the agricultural income enters a more moderate growth process. The same trends can be observed in the income per AWU.

Figure 2.10 Evolution of the agricultural income per worker (€/AWU)



Source: Author's elaboration based on MAPA

During the first ten years (1980-1990), the growth rates of the total agricultural income did not exceed 1% and even the average is negative, which shows that the Spanish farmers even lost purchasing power. The best five-year period, with high annual average growth rates, is during the early nineties. Next, this growth slows down again, until the average becomes negative.

Table 2.5 Annual average growth rates of the agricultural income (%)

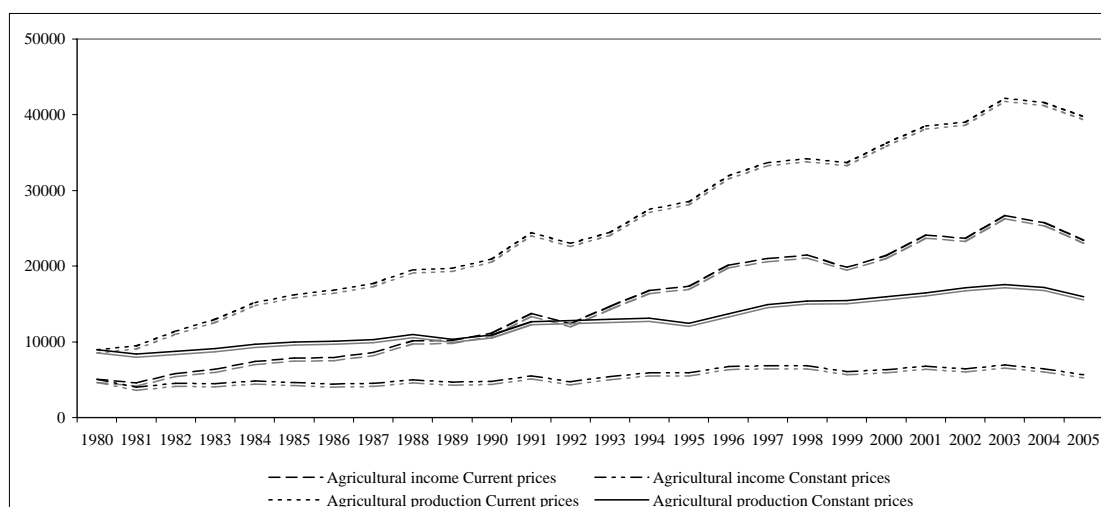
Year	Total agricultural income		Income per worker	
	Current prices	Constant prices	Current prices	Constant prices
1980-1985	10.0	-0.9	15.0	3.5
1986-1990	7.4	0.8	11.1	4.2
1991-1995	9.9	4.9	13.5	8.4
1996-2000	4.7	1.7	4.6	1.6
2001-2005	2.2	-1.9	3.9	-0.2

Source: Author's calculations based on MAPA

An interesting question is the analysis of the relationship between agricultural income and agricultural production, as it expresses the capacity that the sector has to turn the agricultural output into final goods and services. If the evolution of the income is compared to the output (Figure 2.11) it can be observed that, although they follow a similar trend, the lines separate with the passing time. This means that the agricultural income is representing a decreasing percentage of the production, and all this, despite of the growing volume of subsidies that the sector receives, mainly in the aftermath of the Spanish entry into the EU. In 1980, the net current subsidies accounted for less than 1% of the agricultural income, whereas in 2000 it exceeded 30%. The increase in the amount of received subsidies is one of the reasons that could help to explain the increase that took place in agricultural income (Lamo de Espinosa, 1997).

This can be explained also through the evolution of the prices received and paid by the farmers, and their comparison with the consumer price indices, which allows understanding the slowing down of the real income per AWU. The relationship between the received and paid prices indices is called agricultural terms of trade, and it is usually interpreted as an indicator of the evolution of the competitiveness of the sector.

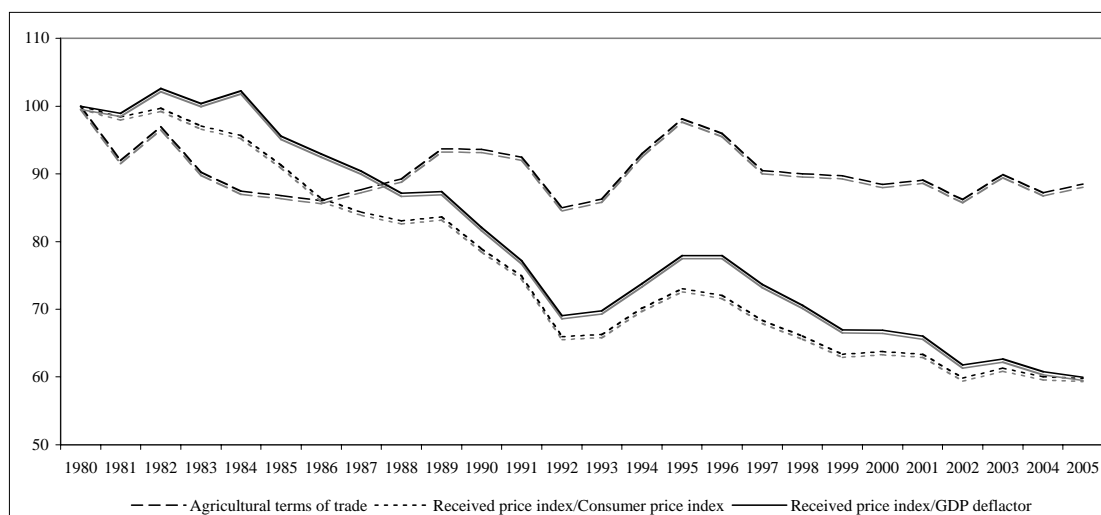
Figure 2.11 Evolution of the agricultural income and production (million €)



Source: Author's elaboration based on MAPA

As Garcia Delgado *et al.* (1993) point out, the improvements on the income per AWU can be translated into improvements of the income of the productive factors or they can be derived towards the sectors that supply intermediate consumption to the farmers (because the prices paid by the farmers grow more than the prices received) or towards the consumers (because the prices received by the farmers grow less than other prices).

Figure 2.12 Relationship among different price indices



Source: Author's elaboration based on MAPA

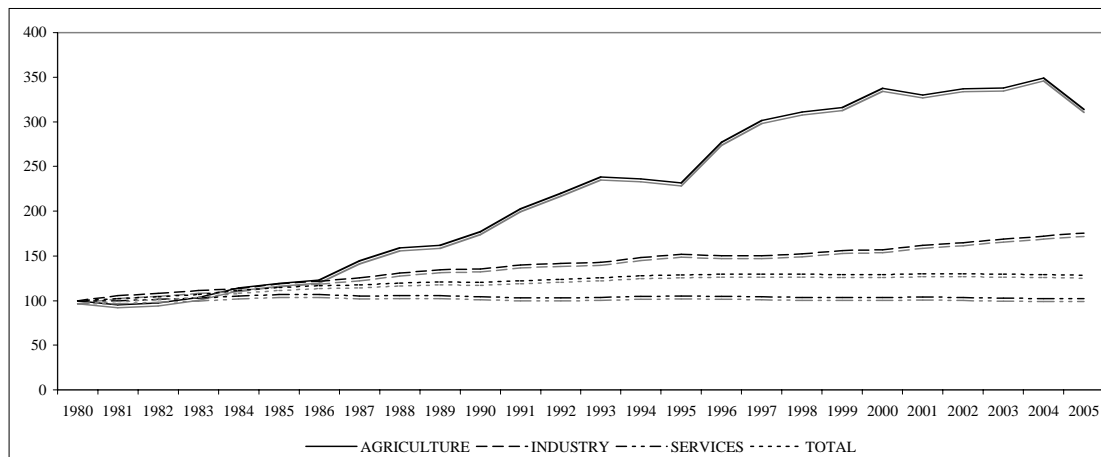
As it can be seen on Figure 2.12, the agricultural terms of trade show a decreasing trend, indicating that the prices received by the Spanish farmers have increased less than the other prices (the relationship has been done both with the consumer price index and with the GDP deflator). Only in the early nineties there is an increase of the index, showing that the prices received by the farmers grew up at higher rates.

The difference that can be observed between the prices received by farmers with regard to the general prices implies that there has been an income transfer from the agricultural sector to other branches of the economy and towards the consumers.

2.3.4 Evolution of the agricultural productivity

There has been an improvement of the Spanish agricultural labour productivity, improvement that has been much higher than in other sectors of the economy (Table A2.11). In order to analyse this behaviour, in Figure 2.13 the evolution of the labour productivity is represented (assessed at constant prices) in the analysed period for the sectors in which an economy is usually decomposed. To make the data for all sectors homogeneous, the calculations have been done using data supplied by AMECO, and the labour productivity in each sector has been estimated as the gross added value generated by each occupied person.

Figure 2.13 Evolution of the labour productivity (constant terms) in different sectors of the economy (1980=100)



Source: Author's elaboration based on AMECO

As it can be observed that, whereas prior to the integration of Spain into the EU, the industry and the services present bigger labour productivity growth rates than the agriculture, in the mid eighties there is a change of trend and a very relevant increase of the observed differential among the productivity growth rates. Nevertheless, it has to mention that agriculture keeps on being less productive than the rest of the economy, although, due to what has been previously said, in this period there has been a substantial improvement. So, in current terms, it represented 43% of the average productivity of the economy in 1980, and it has moved up to nearly 63% in the year 2005. When data is assessed at real prices (1980), the agricultural labour productivity reaches the average of the economy as a whole, which shows again the difference that has taken place in the evolution of the prices of the different sectors (according to this source primary sector prices have multiplied by 2.6, industry ones by 3.8 and services ones by 5.1).

One additional question, related to the labour productivity of the agricultural sector, is the possible decomposition that can be done in order to analyse how it has improved. Considering also the use that has been made of the land factor, the agricultural labour productivity can be decomposed in two components. In this way, the labour productivity would be the result of multiplying the land productivity (GAV/land) by the available hectares for each worker (Land/labour), that is:

$$\text{Labour productivity} = \frac{\text{GVA}}{\text{Labour}} = \frac{\text{GVA}}{\text{Land}} * \frac{\text{Land}}{\text{Labour}}$$

In the case of the Spanish agricultural sector, the behaviour of the three magnitudes has not been uniform during the whole period. Table 2.6 shows annual average growth rates for each one of them. From its analysis it can be concluded that during the first years the increase of the available hectares of land per AWU was more important than the improvement of the land productivity, although both aspects contributed in a positive way. It has been previously pointed out that during this stage the process of capitalization and machinery purchase was relatively important, and that it allowed the agricultural labour productivity to increase considerably.

Among the things that help to explain this evolution, we have to underline the high speed of destruction of employment, in part conditioned by the rise in labour prices, both in absolute and in relative terms, that has caused the substitution of labour by capital and has motivated the capitalization of the sector⁷ (whereas salaries have multiplied by five, the prices of the investment goods have done it by 3.7).

Table 2.6 Average annual growth rates of labour productivity and its components

Period	GVA/AWU	GVA/SAU	UAA/AWU
1980-1985	6.90	2.30	4.67
1986-1990	5.41	2.08	3.29
1991-1995	8.71	6.14	2.25
1996-2000	5.58	5.97	-0.29
2001-2004	4.46	3.44	0.97

Source: Author's calculations based on MAPA

In the last three five-year periods, this trend reverses and the increase in the land productivity becomes the first determining factor of the growth of the labour agricultural productivity. This means an increase in the intensification of the Spanish agriculture. The other component, the hectares of land per AWU, has a smaller contribution, which even gets negative, on average, during the period 1996-2000.

2.4 Agricultural trade

One of the circumstances in which the agricultural sector has changed more significantly since the incorporation of Spain into the EU has been in foreign trade⁸. The fact of belonging to a wider market meant an important increase, both of the imports and the exports (Table A2.14 and Table A2.15), as it has previously been said it had happened in the economy as a whole.

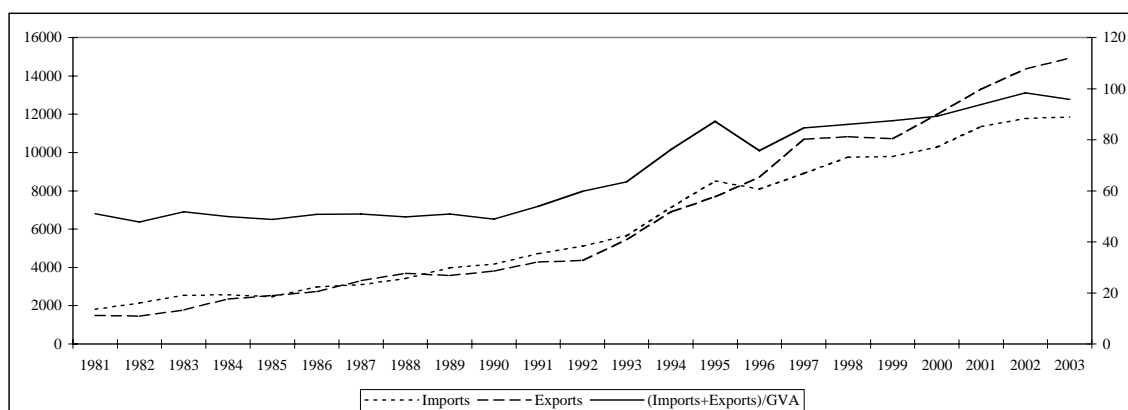
In the Figure 2.14 the evolution of the two magnitudes is represented. As it can be observed the magnitudes have a growing trend, although it is from 1992 when the growth rates start to be relevant. Sanz and Gil (2001) suggest that although the integration into the EU took place in 1986, there was a transition period that finished in 1990. It is also true that in the early nineties there were a series of devaluations of the peseta that improved competitiveness of the Spanish products, which contributed to the increase of the exports (Sumpsi, 1996). This can also be one of the causes of the increase of the agricultural trade balance, which started to be positive after the entry of Spain into the EU. In fact, the cover rate has passed from being around 80% in the early eighties to more than 160% in the last considered years.

⁷ Abad and Naredo (2002) pointed out that the capitalization process was a need for many farmers due to the shortage and increase of price of the labour.

⁸ Statistics published by the INE in the Statistical yearbook of Spain were used. In the first group, live animals and animal products, both fish and fishing products are included. In this paper, the author opted not to consider them, as they are not products coming from the agricultural sector. Therefore, the data that has been put forward in this section consider the modified first group, group II vegetal products and group III oils and fats.

In order to compare the agricultural trade to total trade of goods, we have also elaborated the openness rate. To compute it we have used as a referent the GVA in the agricultural sector. This coefficient is also included in the Figure 2.14. In the first place, we have to point out its magnitude, considerably higher, in the whole period, than what had been calculated for the total goods (that varied between 25% in the first years and 45% in the last ones). In the second place, it is remarkable its growing trend. To all this we can add that, additionally, in the case of agricultural products the balance is positive, whereas in the case of the goods as a whole the balance is negative.

Figure 2.14 Imports and exports of agricultural products (Thousands of Euros)

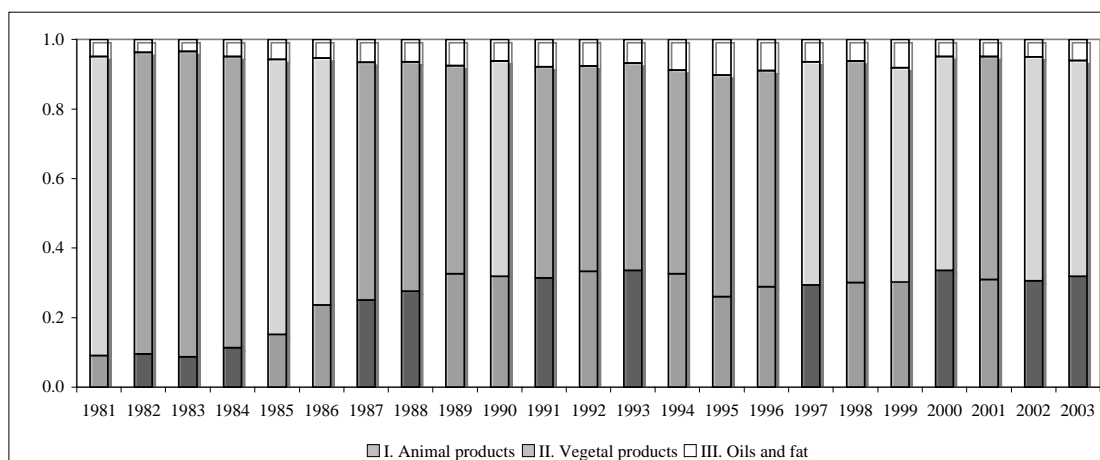


Source: Author's elaboration based on INE

With regard to the distribution of the imports (Figure 2.15), it can be observed how the entry of Spain into the EU implied a change, as the imports of living animals and animal products became more relevant, to come to a standstill later on, and account for around 30% of the total agricultural imports. The vegetables are the products that represent the highest rate of the imports (especially cereals and seeds and oleaginous fruits).

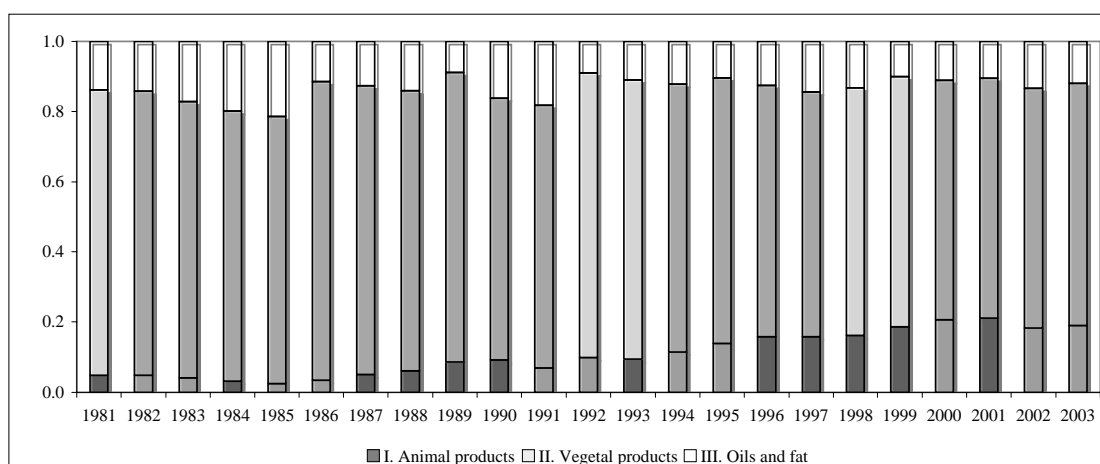
Referring to the exports (Figure 2.16), they are mainly focussed on crop products, as it corresponds to a Mediterranean country, in whose production, as it has already been observed, the crop products play a more important role (in fact, the main contributions come from fruits, and to a lesser extent from legumes and potatoes). It is also interesting to point out the larger participation of fats and oils in this case, due to the olive oil exports. Nevertheless, it is rather relevant the increase suffered in the participation of animal products (e.g. meat has remained more stable).

Figure 2.15 Distribution of imports



Source: Author's elaboration based on INE

Figure 2.16 Distribution of exports



Source: Author's elaboration based on INE

Moreover, the increase in the volume of trade has been accompanied by a deviation of the trade towards the communitarian countries, which in the last years represent around 75% of the total agricultural trade, existing differences between the exports and the imports. Prior to the entry of Spain into the EU, 20% of the imports came from the Community member countries, and 60% of the exports were directed to the same countries. Twenty years later, the corresponding data are around 40 and 85% respectively⁹. This information also indicates that the Spanish economy presents a positive agricultural balance with the European countries, but it is negative for the rest of the countries that do not belong to the EU.

⁹ We have to take into account that part of the increase has been because the considered area, the EU, has enlarged the number of member countries.

2.5 Farm Structure

During these 25 years, and in a correlative way to the previously mentioned modifications, a process of structural change of the agricultural holdings has taken place, which has modified in a significant form the main characteristics of the farms.

For the study of the evolution of the structural characteristics of the sector different sources of information are available. In the first place, agricultural censuses that include a wide variety of farms (all of them with more than 0.1 hectare of land). It is carried out more or less every ten years, and in the analysed period, it would be available for the years 1982, 1989 and 1999. It is elaborated by the National Institute of Statistics (Instituto Nacional de Estadística, INE), that is also the organism that makes the results public.

On the other hand, and some of the years in which the census is not elaborated, the so-called Survey of the Structure of the Agricultural Holdings is carried out. This information makes reference to the years 1990, 1993, 1997, 2003 y 2005. This is also the responsibility of the National Institute of Statistics.

The obtained results from both sources take us to similar conclusions, although the farms included in every source and the applied methodology to obtain the main magnitudes change from one to another. The information taken from both sources related to the main variables is included in Tables A2.15 to A2.17.

Using the information coming from the three agricultural censuses, the number of farms decreases in the period from more than 2.3 million to less than 1.8 millions, that means that around the 22% of the existing farms in 1982 disappears in this period. Moreover, as the total utilised agricultural area has increased¹⁰, the physical average size of the Spanish farm has augmented in an important proportion. As it is shown in the Table 2.7, from 9.97 hectares per holding the utilised agricultural land goes to more than 14 hectares. A similar behaviour could be seen for the total land. This process has become more evident after the integration of Spain into the EU, in the last decade, when these two indicators grew more than 25% and 38%, respectively. At this point, it is important to take into account that the available area per holding conditions its economic dimension and its efficiency. Moreover, the labour productivity grows with the size of the farm, and it is positively related to the availability of land per labour unit (Colino, 2005). An important proportion of farms have difficulties for obtaining acceptable levels of profitability and competitiveness (Ceña, 1997).

Besides that, the other physical factor, the labour used on the farm (measured as annual work units) has decreased from around 1,500 thousands to 1,200 thousands. But, as the number of farms decreases in a bigger way, the average labour used on the farm has increased from 0.63 in 1982 to 0.66 in 1999. However, it is interesting to point out that the amount of labour per hectare of land is decreasing, that is to say, every unit of labour must work more land, as we have seen before.

In relation to the economic size of the farms, and considering the methodological changes and that the magnitudes are expressed in current prices, an important increase can be seen, mainly in the second analysed period. In the first one there was an important reduction. Using this information, the improvement of the labour productivity is shown

¹⁰ There is an inconsistency between the evolution of the total utilised area shown by the agricultural census and the one shown by the agricultural yearbook published by the MAPA. The existence of methodological changes between the censuses of 1982 and 1989 (Ruiz-Maya, 1992 and 1999) and an important level of sub-estimation in the arable land (mainly herbaceous crops) in the censuses previous to 1999 (MAPA, 2003) are possible explanations of the main observed differences,

again.¹¹ By 2005, around 959,000 agricultural holdings (or 88.8% of total number of holdings) have an economic size of at least 1 ESU (Eurostat, 2007).

López (2003) decomposes the Standard Gross Margin (SGM) per hectare as the relationship between the physical output per hectare and the SGM per unit of physical output. That is to say, the increase in the land productivity could be explained with the productive intensification and increase of the gross margin per unit of physical output (because the evolution of the prices or the increase of the subsidies). For the Spanish agriculture, this author concludes that the last factor has a bigger participation, and above all, he underlines the effect of the increase of the level of subsidies from 1992.

Table 2.7 Structural indicators obtained from the Agricultural Censuses

Indicator	1982	1989	1999	Change (%)	
				1989-1982	1999-1989
Total land per farm	18.66	18.79	23.56	0.7	25.4
UAA per farm	9.97	10.64	14.70	6.8	38.1
AWU / farm	0.63	0.55	0.66	-12.3	20.2
AWU / hectare of UAA	0.063	0.052	0.045	-17.9	-13.0
SGM / farm	4.57	3.97	8.68	-13.1	118.7
SGM / hectare of UAA	0.46	0.37	0.59	-18.6	58.3
SGM / AWU	7.25	7.19	13.07	-0.9	81.9

Source: Author's calculations based on INE

One of the concerns about the structure of the Spanish economy is the duality existent in the farm sector, with an important number of farms of very small size (e.g. 49% of farms have less than 5 ha accounting for 4% of total agricultural land) and a small number of farms with a large scale (e.g. 10% of farms have 50=> ha and accounts for almost 70% of total agricultural land) (Eurostat, 2007). With the information included in the Table 2.8¹² (that has been derived from Table A2.16), the relative situation in 1989 and 1999 can be also analysed. In this short period of time some restructuring could be seen¹³. According to Sumpsi (2002), it is a classical structural adjustment, as the decreasing in the number of holdings is bigger in the groups of smaller dimension, whereas the number of medium and big size farms increases considerably.

Although, the dualism is still present in 1999. In 1989 the 63% of the farms obtained less than 2 ESU, and other 24% of farms obtained between 2 and 8. The first group accounted only for the 9% of the total SGM. However, the farms with more than 40 ESU represented only around 1%, but with more than 25% of the SGM. In 1999, the situation is a bit more balanced, but it can be observed that there is still an important participation of the smallest farms in the total number of farms (47%) accompanied by a small participation in the SGM (3.8%). By 2005, the smallest farms (less than 2ESU) accounts for 22.9% of the

¹¹ In the period 1982-1989 this process was less important (Sumpsi, 1995).

¹² We couldn't find similar information for 1982.

¹³ Between 1982 and 1989, this process was less important (Sumpsi, 1995).

total number of farms and just 1.3% of the SGM, whereas the large farms (more than 40 ESU) account for 10% of total and more than 60% of the SGM.

Table 2.8 Participation of different class size in the number of farms and SGM

Economic size	1989		1999	
	% farms	% SGM	% farms	% SGM
Less than 2 ESU	63.4	9.5	47.1	3.8
From 2 to 8 ESU	24.3	23.1	28.6	12.9
From 8 to 16 ESU	7.4	18.9	11.0	13.4
From 16 to 40 ESU	3.7	20.4	9.1	23.9
From 40 to 100 ESU	0.9	12.9	3.2	20.1
More than 100 ESU	0.3	15.1	1.1	25.9

Source: Author's calculations based on INE

Using the information provide by the Survey of the Structure of the Agricultural Holdings¹⁴ (Table A2.17), the main conclusions about the evolution of the structural characteristics are very similar. It can be observed that the magnitudes are, in general, much smaller. With this exception, in the last 15 years one third of the holdings have disappeared, from almost 1,600 to 1,069, and as the UAA grew but on a smaller scale, the average physical size has increased.

At this point it is interesting to mention the large participation that the less favoured areas have on the farm sector. Using this source of information, it can be seen that these areas concentrate around 67% of the Spanish holdings and around 77% of UAA. The participation of less favoured mountain areas is around 30% of both holdings and UAA.

With regard to the average labour used in every holding, a growing trend is observed, because the reduction in the utilised labour is smaller than the decrease in the number of holdings. The standard gross margin presents a remarkable growth rate (at current prices), and the same could be said for the relative magnitudes obtained using it.

There is some interesting information referred to the labour factor (Table A2.18). The first one is related to the importance that the family has as source of labour force, although the trend shows a decreasing participation, from 75% in 1990 to 65% in 2003.

One additional question that could be analysed is the importance of the part-time farming. It is one of the characteristics of the Spanish agriculture that could have had a negative effect on the restructuring process. Using the data from the Survey, and considering the farms where the holder is a physical person¹⁵, the distribution of total AWU in groups

¹⁴ We have used the data from the survey available in the web page of EUROSTAT because the information is homogeneous. The covered years are 1990, 1993, 1995, 1997, 2000, 2003 and 2005. For the last year we have needed to include some details coming from the INE. Although we do not consider all the analysed period, in this case, the conclusions will not differ much, because, as we have seen from the analysis of the census data, the main changes in the sector happened in the period 1989-1999.

¹⁵ A physical person is someone who has a business in his own name (in some cases including partnerships) and who receives no specific remuneration for his work/time, but receives all the profits (or a % in the case of a partnership).

according to the dedication is included in Table 2.10. Also the percentage of members of the family that are full-time working people in the farm could give an indication of the part-time farming.

Table 2.9 Structural indicators obtained from the Survey of Agricultural Structure

Indicator	1990	1993	1995	1997	2000	2003	2005
UAA per farm (ha)	15.39	17.86	19.75	21.21	20.32	22.07	23.23
AWU/farm	0.72	0.80	0.85	0.91	0.84	0.87	0.93
AWU/hectare of UAA	0.047	0.045	0.043	0.043	0.041	0.040	0.040
SGM/farm	5.58	8.28	8.59	10.62	11.90	15.14	18.70
SGM/hectare of UAA	0.36	0.46	0.43	0.50	0.59	0.69	0.80
SGM/AWU	7.77	10.30	10.07	11.68	14.22	17.31	20.15

Source: Author's calculations based on Eurostat

Table 2.10 Information about part-time dedication in the agricultural sector

	1990	1993	1995	1997	2000	2003
Work time > 0 to < 25% (%)	10.9	10.2	9.3	9.7	11.0	12.2
Work time > 25 to < 50% (%)	12.1	10.2	11.8	11.9	12.0	15.0
Work time > 50 to < 75% (%)	14.4	8.0	10.6	9.3	10.0	9.2
Work time > 75 to < 100% (%)	14.3	11.6	12.5	13.3	14.4	12.2
Work time 100% (%)	48.2	60.0	55.7	55.7	52.7	51.3
Percentage of family labour force full-time employed	13.8	18.7	16.2	16.0	14.4	12.8

Source: Author's calculations based on Eurostat

The data are very significant. Only around half of the AWU used in the holdings, where the holder is a natural person, have a 100% work time. Moreover, around 13% of the family members working in the holdings are full time employed.

As regards farm type, 20% of total farms are specialised in olives production, 18% in fruit and citrus fruits, 12% specialist cereals, oil seed and protein crops and 8% are specialised in wine production (Eurostat, 2007). The majority of farm holdings (95%) have a sole holder, of which 26% are women.

Finally, it is worth noting that the diversification of activities that has been taking place in the last years has implied a change in the sources of income of the farms. But, it is difficult to have this kind of information because the agricultural statistics do not use to consider them (because they are not related to the agricultural activity). So, they must be approximated using other sources of information. In order to have an idea of this process, we will use information coming from Eurostat (2000), which is summarized in the Table 2.11. It can be seen that in the eighties, the sources of current receipts of the agricultural households changed a lot, with an important loss of participation of the income coming from the agricultural activity (from 70% to 59.5%). However, at the end of 2005, out of the total 959,000 agricultural holdings, only 3.3% have another gainful activity than

agricultural production (e.g. 1.5% processing farm products and 0.4% tourism (Eurostat, 2007). The other three considered sources have increased its participation. In this respect it is important the growth of the percentage corresponding to social benefits.

Table 2.11 Different income sources for Spanish agricultural households

Source of current receipts	1980	1990
Income from agricultural activity	70.0	59.8
Compensation from dependent activity	11.0	14.0
Social benefits-received	5.6	8.2
Other sources of current receipts	13.4	18.0

Source: Eurostat (2000)

But this information is not available in a similar way for the most recent years. López (2003) using the information coming from the personal income tax declarations in 2000 corresponding to people who declare to have agricultural receipts, reached similar conclusions. In this case, the information is analysed by groups of tax-payers classified using the volume of agricultural receipts. In the group of tax-payers with less than €10,000 of agricultural receipts, only 13.6% live mainly from agriculture, and globally considered, the 90% of the income comes from outside the agriculture. In the second group, that includes those farms that obtain incomes between €10,000 and €20,000 from the agricultural activities, 55.8% declares that the receipts from the agriculture are superior to 50% of the total income. The last group (more than €20,000 from agriculture activity) is characterised by having a bigger dependence on agricultural income, and by a higher level of income than the other two groups.

In any case, the trend is clear: the agricultural households are increasingly less dependent on the income coming from the agricultural activities. The diversification of sources of income is a reality present in the Spanish agricultural sector, although this trend could be observed at EU level.

2.6 The rural areas¹⁶

All the economic activity carried out by farms, that has been analysed previously, takes place in a physical environment, the rural area. One of the most interesting features is its human component. It has already been pointed out by some authors that, without the existence of a strong social network (e.g. number of people, and capacity of initiative) there is no possibility to affect in a positive way the improvement of the rural territories (Sancho and Reinoso, 2003).

For this reason, it could be interesting to carry out a brief analysis of the rural population using the information coming from the censuses of population (Tables A2.19 and A2.20¹⁷) that have been elaborated by the National Institute of Statistics (Instituto Nacional de Estadística, INE). For this purpose, we have to take into account that the INE identifies the

¹⁶ Some authors (Molinero and Alario, 1994) point out that it is difficult to make generalisations for the Spanish case because the spatial dynamic and structures of the rural areas are very different from one region to another. But the analysis by regions is beyond the scope of this paper.

¹⁷ In these tables the information relative to the year 1960 is also included in order to have a better idea of the changes in the distribution of the population between 1960 and 1980.

rural municipalities as those with less than 10,000 inhabitants¹⁸. Nevertheless, it is rather usual to differentiate an intermediate category that includes those municipalities with a number of inhabitants between 2,001 and 10,000. Therefore, these three groups, that is, rural, intermediate and urban municipalities, are considered.

Table 2.12 presents data related to the number of municipalities and the number of inhabitants, both in absolute and participation terms. In order to situate the analysis, and taking into account an idea suggested by Garcia Sanz (2003), we have also included the information relative to the Census of 1960. This author suggests the distinguish of three stages in the evolution of the Spanish rural population: the big crisis that affected the rural space in the second half of the last century, and which stopped at the beginning of the eighties. As it can be seen, between 1960 and 1980, the rural and intermediate municipalities lost more than 3 million inhabitants. In the eighties, a moderation of this trend could be observed, and from the beginning of the nineties this trend slows down and there is even a certain recovering process.

Finally, in 2001 there are more than 9 million people living in rural and intermediate municipalities (more than 9,000 municipalities). If we consider the population density index, in 2001 around 3,200 municipalities had less than 10 inhabitants per square kilometre which accounted for around 40% of the total Spanish area. Moreover, more than half of the Spanish municipalities have a density ratio of less than 15 inhabitants per square kilometre (Molinero, 2002).

With regard to the evolution, the first question that could be pointed out is that whereas the total Spanish population has grown, the population of the rural areas has diminished. The two trends have made the proportion of population located in the rural areas to decrease at bigger rate, the rural municipalities represented an 8.6% of the total population in 1981, and in the last census it accounted for 7,34%. If we also consider the intermediate municipalities, jointly, the decrease has been from 26.8% to 23.6%. However, its participation in the number of municipalities is more or less the same, around 73.5% for rural ones and around 19% for the intermediate ones. This is the double imbalance that is pointed out by the MAPA (2004). First, every time the distribution of the municipalities and the distribution of the population tend to drift apart. Second, at the same time a process of polarization is noticeable, with an increase of the number of municipalities of the smaller size and the concentration of the population in the biggest ones.

Using the data from the United Nations database (Table A2.21) that includes also some projections for the future, Figure 2.17 has been elaborated. The conclusion does not differ from the previous one, but it allows seeing that the above trend will continue in the next years. If in 1950 almost half of the population was classified as rural, fifty years later only around 20% of the population was included in this category.

¹⁸ In the European Union the rural communities are defined accordingly to the density of the population, with the limit of 100 inhabitants per square kilometre. This way, those regions having over fifty per cent of the population living in rural communities are classified as essentially rural, those having between 15% and 50% of the population in rural communities as relatively rural, and the rest, as essentially urban. The OCDE uses another classification that is also based on the density of the population.

Table 2.12 Distribution of population by municipalities according to their size

	1960	1981	1991	2001
Number of inhabitants				
Rural	4,440,868	3,246,009	3,079,009	2,997,457
Intermediate	8,778,278	6,868,725	6,581,871	6,653,954
Urban	17,373,790	27,631,526	29,802,992	31,195,960
Total	30,592,936	37,746,260	39,463,872	40,847,371
Percentage of population in every group				
Rural	14.52	8.60	7.80	7.34
Intermediate	28.69	18.20	16.68	16.29
Urban	56.79	73.20	75.52	76.37
Number of municipalities				
Rural	6,763	5,893	5,985	5,944
Intermediate	2,016	1,589	1,509	1,514
Urban	423	540	583	650
Total	9,202	8,022	8,077	8,108
Percentage of municipalities in every group				
Rural	73.49	73.46	74.10	73.31
Intermediate	21.91	19.81	18.68	18.67
Urban	4.60	6.73	7.22	8.02

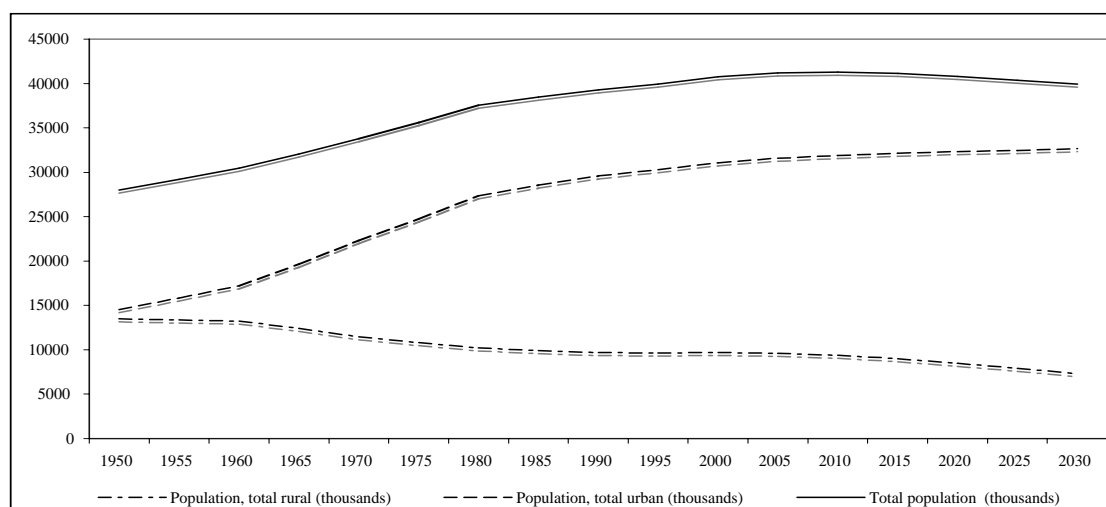
Source: Author's calculations based on INE

Moreover, it is worth mentioning that the rural demographic decrease is aggravated by its own effects: the increase of the population ageing and the decrease in the fertility rate lead to a negative growth (Camarero, 1991). In any case, the process of depopulation in the rural areas implies that there is not a critical body to carry out development initiatives or even to maintain the basic public services (Regidor, 2000), due to the impossibility to achieve enough return because of the small number of inhabitants (Molinero, 1999).

Nevertheless, in the last years there have been some changes in the migration trends. Now, there is an important percentage of migration from rural municipalities that is not directed towards urban areas, but towards intermediate municipalities. This trend can be observed in the increase of inhabitants in the intermediate municipalities between 1991 and 2001¹⁹.

¹⁹ Molinero (2002) explains that in this period, there were 754 intermediate municipalities that lost 211,000 inhabitants and 846 municipalities that gained 391,556 inhabitants. The net balance is an increase of 391,556. In the case of the rural municipalities, 1,538 increased their size and gained 140,000 inhabitants and 4,367 lost 235,686 inhabitants.

Figure 2.17 Rural and urban population trends



Source: Author's elaboration based on UN

There are two characteristics of the rural population that are mentioned as very important for its future evolution (Table 2.13). The first is the ageing of the rural population, that is bigger than the one mentioned before in the first section for the total population. This is a direct consequence of the migration process that is usually done by the youngest group. In 2001, in the rural areas more than 28% of the population are more than 65 years of age, whereas the youngest group only represents the 11.8%. In the other extreme, we have the urban municipalities, where the oldest people represent only 15.6% of the population. The first group is above the national average and the second one is below the national average.

Table 2.13 Ageing and male index according to the size of the municipalities, 2001

Size of the municipality	% of young people	% of adult people	% of old people	Male index (1)
Rural	11.8	60.1	28.2	104.8
Intermediate	15.8	65.1	19.2	100.2
Urban	15.6	68.7	15.6	94.7
Total	15.4	67.5	17.1	96.2

Source: Sancho and Reinoso (2003)

Notes: (1) Number of men per 100 women

The other mentioned characteristic is related to the proportion of men and women in the population, and it is also related basically to the migration process. In Spain, women have moved more than men from rural areas to urban ones, mainly because in those rural areas they have had more difficulties to find a job (Camarero, 1991 and 2002). If in the total population for every 100 women there are 96 men, in the rural area this index reaches 104.8 (this index is 116 for the municipalities with less than 100 inhabitants). This has been a problem in some rural areas to form couples and to regenerate the social network.

Traditionally, the active population of rural areas has been linked to the agricultural economic activities. But this is changing in Spain, and rural areas are suffering a process of diversification of their economic activities, mainly towards construction and services activities. Taking into account, that the activity rate grows with the size of the municipality, women present in general (and particularly in rural areas) a smaller rate of activity. Using the information coming from the last population census²⁰ (Table 2.14), it can be seen that the agriculture concentrates the biggest proportion of occupied people in the rural areas, but with a decreasing trend, as it was already evident in the census of 1991 (MAPA, 2004).

Table 2.14 Employment in different sectors by size of the municipality, 2001

	Agriculture	Industry	Construction	Services	Total
Number of occupied					
Rural	221,593	198,347	155,265	488,687	1,063,892
Intermediate	331,097	551,420	384,786	1,273,415	2,540,718
Urban	482,094	2,248,891	1,376,642	8,617,476	12,725,103
Total	1,034,784	2,998,658	1,916,693	10,379,578	16,329,713
Percentage of participation of every economic sector					
Rural	20.83	18.64	14.59	45.93	100
Intermediate	13.03	21.70	15.14	50.12	100
Urban	3.79	17.67	10.82	67.72	100
Total	6.34	18.36	11.74	63.56	100

Source: Author's calculations based on MAPA (2004)

In rural areas more than 20% of the occupied people are working in agriculture, more than 13% in the case of the intermediate areas, and almost 4% in the case of urban areas. The construction sector occupies also more people in rural areas. García Sanz and Izcara (2000) relate this circumstance to the modernization process that is taking place in rural areas (increase in the endowment of infrastructures, recovering of old buildings, improvement of housings, etc.). In correspondence with this situation, the services sector has less relative importance in the rural areas.

²⁰ García Sanz (2002) using the Survey of Active Population in 2000 finds similar conclusions.

3 AGRICULTURAL AND RURAL POLICIES

Traditionally, the public sector has intervened in the rural sector. The measures of economic policy that could affect the agricultural sector and the rural areas are mainly included in two kinds of policies: sectoral or territorial. In the first group is the agricultural policy and in the second one the regional or rural policy. Moreover, along the time there has been a certain change of trend, in such a way that during the eighties the sectoral approach has dominated, and the policies were more oriented towards the agricultural sector, as this one was the sector that concentrated most of the employment and the income of rural areas. It was understood that supporting the agriculture, a development of the rural areas could be obtained. But researchers and also politicians have found, in many occasions, the evidence that the agriculture policy has not been able to avoid the decline of many rural areas, as it has happened in the EU. This had led to changes in the approach of the development of those areas that is increasingly based on more territorial policies and measures (Murua *et al.*, 2005). This change is evident when analysing the evolution of the CAP and its second pillar at the end of the nineties.

In relation to the Spanish case, before the integration into the EU, the regional development policy had an urban and industrial bias, and then, the impact in the rural areas was small because it reinforced the trends to the concentration of industrial activities in some areas (Regidor, 2000). Moreover, the little amount of financial resources assigned to the regional development policy was another element that explained the small impact obtained (Cuadrado and Mancha, 1996). Then, it was the agricultural policy which had more effects in the rural areas. But, after the incorporation into the EU, the Spanish rural sector has been affected but both the agricultural and regional policy, as at the EU level, the regional and the rural policy have become more important.

This section describes the main the agricultural and rural development policy measures, and tries to understand the effects of such policy measures on Spanish rural areas.

3.1 Rural development policy during the last 25 years²¹

During the last 25 years, the rural development policy has changed in the objectives, ways and possibly the obtained results. It is true that the circumstances in every period have been different, showing a problematic changing that needs to be answered by the public sector.

Regidor (2000) distinguishes three stages in the evolution of the rural development policies, depending on the emphasis done in different aspects, along the last thirty years of the last century. The first one, during the seventies, the approach was the integrated development that made reference to the integration that the rural development programmes had to make of the objectives and administrative and technical structures. It was a conception based on the pluri-activity of the farmers. Later on, in the eighties, the endogenous development was the main approach. It was important to make use of all the resources in the rural areas, resources that could be natural, economic or cultural. The local community was responsible for using the potential development and to lead the process of structural change. Finally, in the nineties (and it could be said that until now), the main approach was the sustainable development, that is, based on an adequate management of the natural resources and with the generation of economic activities that respect the environment, but taking into account social, economic and ecological factors. For the author, this approach finds many difficulties in its application to real cases

²¹ Much of the content of this sub-section is based on MAPA (2003).

because the productivistic tendencies of the economic strategies of many agents (from institutions to farmers).

3.1.1 Until the incorporation of Spain into the European Union

As it has been pointed out in the first section of this document, from 1980 to 1985 the Spanish economy is immersed in a transition period, and the end of the economic crisis of the seventies. Moreover, some legislative changes occurred, linked to the democratization process that was taking place at general level. The main objective of these changes was to allow the sector to adapt to the new economic and political situation.

In general terms, the Spanish agricultural policy before the integration of Spain into the EU was based on prices and market policy, managed by the Fondo de Ordenación y Regulación de Productos Agrícolas (FORPA) and the Servicio Nacional de Productos Agrarios (SENPA) and the structure policy managed by the Instituto de Reforma y Desarrollo Agrario (IRYDA) and the Instituto para la Conservación de la Naturaleza (ICONA).

At that time, there was not a proper rural policy, but rather a series of public investments (Beaufoy *et al.*, 2002). They were mainly concentrated on the improvement of the agricultural structures that could be summarised in the irrigation policy, land consolidation, and reforestation of marginal land. There were small programmes for the incorporation of young farmers, the protection of family farms, a quality policy through the protected designation of origin and conservation of natural resources.

In order to have some idea of the importance of such measures, in the Table 3.1 the total subsidies paid by the MAPA in 1981 are included²². The first thing to consider is the total volume of aids, which supposed less than the 3% of the total agricultural production value.

As it can be seen, the improvement of the agricultural production and the commercialization and surplus measures account for more than 90% of the total subsidies. Other questions, as social and managerial improvements and infrastructures received less support from the agricultural authorities.

Table 3.1 Subsidies paid by MAPA, 1981

	Millions €	%
Infrastructure and agricultural buildings	9.64	3.7
Improvement of the agricultural production	177.47	67.4
Commercialization and surplus measures	64.99	24.7
Industrialization	2.84	1.1
Social, managerial and other improvements	8.47	3.2
Total	263.41	100.0

Source: La agricultura, pesca y alimentación en España. 1981. MAPA

Another way to analyse the public intervention is to consider the amount of agricultural public investment. In this respect, and using information relative to 1981 and 1985, it is outstanding the concentration that occurs in some kind of interventions. Concretely, it is very important the big effort during these years to increase the irrigated agricultural

²² These figures include the production aids.

land²³, measure that concentrates more than 45% of the total public investment in 1981, and more than 23% in 1985. There are other measures that are also important, as the reform of agricultural structures with a participation of more than 15%. In this period, the contribution of the public sector to the total agricultural investment went down from 25% to less than 20%.

Table 3.2 Public agricultural investment

	1981		1985	
	Millions €	%	Millions €	%
Transformation in irrigated agricultural land	181.73	45.9	118.63	23.4
Reform of the agricultural structures and rural development	67.24	17.0	83.67	16.5
Protection and improvements in the rural areas	64.49	16.3	44.21	8.7
Improvement of the production	46.02	11.6	32.52	6.4
Commercialization, industrialization, market regulation	18.06	4.6	33.97	6.7
Agricultural research	5.35	1.4	10.45	2.1
Other measures	12.71	3.2	182.78	36.1
Total public investment	395.6	100	506.2	100
Total private investment	1,186.4		2,271,8	

Source: La agricultura, pesca y alimentación en España. 1981 and 1985. MAPA

For some authors (Bueno, 1983), none of these measures had an important effect on the structural change, because short-term actions were priority to solve eventual problems. In the last years before the integration into the EU, the measures adopted were directed to be transition measures to the application of the communitarian normative (Regidor, 2002).

3.1.2 The rural development after the integration into the EU

After the integration into the EU, the Spanish agricultural, regional and rural policy is mainly based on the European policy. The integration took place in a very changing moment for the EU in general, and for the agricultural policy in particular. In the eighties, the generation of continuous agricultural surpluses and the increasing cost of the CAP, pushed the European authorities to change the orientation of the agricultural policy, that was going to mean a reduction in the protection and the support to the sector. But, the European Commission knew that the main affected agents would be located in less favoured areas, and in order to compensate the difficult situation that this change could represent for many rural areas, a new approach was adopted, the integrated development approach (Viladomiu, 1994). For this reason, in 1988 the reform of the structural funds was carried out, with an increase of the budget dedicated to the funds. One of the main

²³ Ceña and Ramos (1997) justify this concentration arguing that the Spanish agriculture has higher production costs than the agricultures of the North of Europe, in part due to the need for irrigation in order to have comparable yields.

changes that this reform implied was the orientation of the policy, from a sectoral approach to a territorial one, as it was mentioned before. The European Commission changed the message, and from speaking about agricultural development, it went to rural development, that had been based not only on the agricultural activities. It is also at this time when at European levels the environment started to be a matter of concern.

From that moment, the development policy was instrumented in programming multi-annual periods. These periods were: 1989-1993, 1994-1999 and 2000-06. The member states were responsible for the identification of the different regions included in every objective and to define the main actuations to carry out in every one. In order to have an idea about the Spanish participation in the total amount of resources that at EU level were oriented to the structural funds, the distribution of the structural and cohesion funds among the different objectives at national and Community level are included in the Table A3.1.

3.1.2.1 First programming period (1989-1993)

The 1988 reform of the structural funds supposed a series of changes, from which it could be distinguished: the increase in the amount of funds and the concentration in some objectives. This concentration was very beneficial for Spain, due to the relative seriousness of its regional inequalities in the communitarian context (Mancha and Cuadrado, 1996).

The five fundamental objectives, which will be valid until 2000, could be classified according to its territorial character. The interventions of the structural funds are concentrated on three regional policy objectives, which account for 85% of the funding. These objectives are Objective 1 for regions where development is lagging behind, Objective 2 for the adjustment of regions worst affected by industrial decline and Objective 5b for structural adjustment in rural areas. Three objectives are applied Community-wide, having no geographical limitations: Objective 3 focuses on long term and youth unemployment, Objective 4 assists the adaptation of workers to industrial change, Objective 5a promotes adjustment in the agricultural and fisheries sectors.

In the case of Spain, most of the funds were concentrated on the Objective 1 regions (where the 58% of the Spanish population was living). With the information coming from the EC (1997), the total amount of resources dedicated to the five objectives was 13,100 millions of ecus (almost the 21% of the resources available for all the community), and these regions accounted for more than 77%. For the Objective 5b (highly related to rural areas) a 2% of the total funds were assigned.

The practical implementation consists of the elaboration of the Community Support Framework (CSF), where the operative programmes and the priority axes are included. One of those was directed towards agriculture and rural development.

The CSF of the regions Objective 1 (1989-1993) had as basic purpose to prepare these areas for the European Single Market and the reduction of the differences²⁴ between the Spanish regions and other member states. The actions were concentrated around seven axes, one of which was agriculture and rural development (almost 15% of the total public expenses of the programming period were allocated for this axis).

Additionally, some specific measures directed towards rural areas were included, in axis 2.1 of aids for industry and artisan work. The axis for agriculture and rural development was divided in 5 sub-programmes, with different importance in the budget (Table 3.3).

²⁴ To be an Objective 1 region it was needed to have less than 75% of the European average PIB per head.

More than half the budget was dedicated to the improvement of the production conditions. The second most important sub-program was the improvement of effectiveness of the agricultural structures and of the conditions of transformation and commercialization of agricultural products that concentrated more than 30% of the total resources. The other three sub-axes, related to the environment, improvement of quality and diversification received jointly less than 20% of the funds.

Moreover, for the regions included in the Objective 5b, a Development Program for Rural Areas was approved. The areas included in this Objective are rural areas with smaller level of development than the average of the region where they are included, and, in this sense, they are similar to the regions Objective 1, but the regions where they are included are more prosperous. The program is structured around 6 axes. The first four ones coincide with the aforementioned for the CSF for the regions Objective 1. Additionally, it includes the diversification of economic activity and improvement of basic infrastructures, and the valuation of human resources. The contribution of the structural funds was €1,481 millions of which more than 67% corresponds to EAGGF Guidance.

Table 3.3 Budgetary distribution for agriculture and rural development sub-programmes, 1989-1993 (€ million)

Sub-axes	EAGGF Guidance	ESF	EFRD	TOTAL	%
1. Improvement of the production conditions	457.1		162.5	619.6	50.9
2. Protection environment and conservation of natural resources	78.1			78.1	6.4
3. Improvement of the effectiveness of the agricultural structures and of the conditions of transformation and commercialization of agricultural products	372.7			372.7	30.6
4. Reorientation of the production and improvement of quality	54.7			54.7	4.5
5. Actions relative to professional training and aids to contracting.		92.0		92.0	7.6
TOTAL	962.6	92.0	162.5	1,217.0	100

Source: La agricultura, la pesca y la alimentación española en 1989. MAPA

Additionally, there were the compensatory payments, directed to the agricultural less favoured areas. From 1989, the application area has been enlarged to consider areas with danger of depopulation. In this period, there were more than 3,000 mountain municipalities with 20,780 thousand hectares (around 40% of total national territory) and more than 2,800 municipalities with danger of depopulation that concentrated more than 18,000 thousand hectares (35.8% of the total national), and jointly received a total amount of aids of 300 million euros.

For González (1990), some of these programmes have reached notable results. For example, between 1989 and 1990, inside the sub-program 3, there were almost 17,000 farms included in the program of improvement of the effectiveness of the farms, and more than 8,000 young farmers were incorporated into the agricultural activity with a total investment of 35,000 million pesetas. The main problems of the practical implementation

of the CSF were derived from the new development of multi-annual programmes, and the lack of administrative background. However, it can be considered that its application has been positive for these areas.

At the end of the eighties in the EU, a new approach to rural development in less favoured areas started. The LEADER initiative came up, with an innovative way to understand and focus rural problems. An ascendant, territorial and integrated approach is used in the LEADER method that implies a new direction for the rural development. It was dedicated specifically to motivate the development of rural areas, with a character of pilot experience. The main objective of this initiative is to motivate the endogenous resources of the rural areas and the search of different alternatives to agriculture for the rural development, alternatives that could provoke new resources and introduce innovative activities in the rural society (Sancho, 2002).

The measures that could be adopted have as common objective to promote the economic diversification of the areas and improve the living conditions and wellbeing of their inhabitants, and additionally to improve the level of training (Beltrán, 1991 and 1994). Its application area were Objective 1 and 5b regions. Fifty-two rural areas were selected with a total 81,855 km² and 1,854,305 inhabitants, with an average density of population of 22.6. Most of them were situated in less favoured areas with development problems (high unemployment and high active agrarian population rates). The basic indicators are summarised in Table A3.2.

The investment initially predicted was 263 millions of euros, although finally it reached 387, mainly due to the increase in the private participation. From this final amount, the 27% was financed by the structural funds (EAGGF Guidance, European Regional Development Fund, ERDF and European Social Fund, ESF), the 20% was financed by the national public administrations (central, autonomous and local), and the rest was provided by the private initiative.

The approved programmes are oriented to the promotion of rural tourism (51%), to the valorisation of local agricultural products (15%), to the promotion of products elaborated by rural artisans and the rest to training and other activities (Atienza, 1992). The tourism investment generated 2,850 labour posts and more than 30,000 places of rural tourism, and the second activity in order of importance, the promotion of products of rural artisans amounted to the creation of more than 7,500 labour posts, with an average investment of 10.9 million pesetas (Sancho, 2002).

One of the most important contributions of the LEADER program was to start a new way of promoting the rural development, with the creation of a new association figure, the local action groups (Pérez and Giménez, 1994). Moreover, it is also very well considered the acceptance that this kind of initiatives has got in rural areas. However, the final evaluation has showed that some of the objectives have not been reached, as the mobilisation of the local population or the innovation character of the approved projects. For the CEMAC (1999) one of the reasons that could help to explain this result is the lack of experience of the public authorities to share responsibilities with other sectors.

In general terms, it has been estimated (EC, 1997) that in the absence of structural funds support, the Spanish GDP growth would have been, on average, almost 0,25% a year lower during this programming period. For the European Commission much of the significance of structural assistance for growth comes from the fact that it tends to be concentrated on investment, and on human and physical capital. Sosvilla and Herce (2004) computed that the total effect on the level of employment was an average impulse of 1.22% over the benchmark scenario.

3.1.2.2 Second programming period (1994-1999)

Before starting with the exposition of the main measures included in this programming period, it is convenient to frame the situation of the sector and the policy. First of all, it is important to point out that in 1992 took place the Mac Sharry reform of the CAP. This reform consists, basically, in the reduction of the guarantee prices of the main agricultural continental products, reduction that is compensated with the introduction of a system of direct aids and the so-called accompanying measures. The direct aids turn into the basic instrument of protection of the incomes of the agricultural population (Arnalte, 2002). Moreover, in the Spanish case, the Ministry has a new report about the rural development in Spain. This report (MAPA, 1992) underlined some of the main drawbacks of the rural areas: the level of wellbeing is smaller than in urban areas and the possibility to improve the situation was limited by demographic conditions, the characteristics of the agricultural economy, the difficulties for the diversification of activities, the deficient conditions of commercialization of the elaborated products in the rural areas, and a scarce level of professional qualifications. To cope with this situation, the report suggests developing an active policy in the promotion of activities in the rural areas to have complementary alternatives to the agricultural economy.

In this programming period the CSF in the Objective 1 area was articulated around 10 integrated operational programmes (one for every region in Objective 1), one multi-regional operational program for the interventions in areas belonging to Objective 5a and another multi-regional one for the economic development and diversification in rural areas. For the regions included in the Objective 5b, seven Single Programming Documents (SPD) were approved, one for every Autonomous Community with rural areas included in this objective. There were horizontal (except for Navarre and the Basque Country that have their own ones) programmes for the implementation of the accompanying measures approved in the reform of the CAP. And there was an additional program for the improving of production structures.

The CSF in the regions Objective 1 affected 78% of the Spanish territory and the 59% of the total population. It had as priority objectives the development of infrastructures, the improvement of human resources and quality of life, the support for researching, development and innovation, and the modernization of the productive sector. Again, the intervention in agriculture and rural development was concentrated around two axes, 2.1 Agro-food industry and structural measures and 4 Agriculture and rural development (this axe concentrated the 8% of the total budget of the CSF). The financial contribution of the EAGGF Guidance rose to ECU 3,455 millions.

In relation to the regional operative programmes, the main objectives were the improvement of the infrastructures of the agricultural production, the protection and conservation of the natural resources, the restructuring and improvement of agricultural quality and diversification of the activities. In general, most of the Autonomous Communities dedicated a big proportion of the funds to the improvement of the infrastructures, to the modernization of the farms and support investments for the improvement of the commercialization of agricultural products.

The evaluation of this CSF shows that the interventions have contributed to the reduction of regional disparities, the development of basic infrastructures, social equipments and have stimulated the rural tourism.

In this period, the areas under the Objective 5b accounted for 16.8% of the national territory and reached 4.4% of the population. Each one of the Autonomous Communities with rural areas under this consideration presented a SPD. The financial contribution of the

different structural funds was: ECU 422.8 million for EAGGF Guidance, 189.6 for ERDF and 76 for the ESF.

In this case, every Autonomous Community presented its own objectives that could be summarised in the next ones: the diversification of the economic activities, the creation of employment and the improvement of the quality of life in rural villages in order to avoid the depopulation of rural areas, the conservation of natural resources and the increase of the income of rural population. These objectives were articulated around five priority axes: infrastructures, diversification and creation of employment, protection and conservation of natural resources, improvement of rural habitat, and human resources. As in these rural areas the agricultural sector has a relative high importance, an important proportion of funds were dedicated to the improvement of infrastructures and to support investments for the improvement of the commercialization of agricultural products, as in the Objective 1 regions. In this case, the impacts are conditioned by the scarce budgetary endowment (considering the period 1994-99, from the total investment realized by the MAPA in the frame of the programmes from CSF and SPD, only 17% corresponds to Objective 5b areas). Anyway, the global valuation has been positive, mainly for the agricultural sector that has taken advantage of the executed investment, so that the competitiveness and profitability of the agricultural holdings and farms improved in a significant way.

In relation to the program to improve production structures, the objective was to regular some actuaciones in order to face up some of the main problems of the agricultural sector, as the ageing of the farmers, the abandonment of less favoured rural areas or the scarce competitiveness of farms. It tried to contribute to the improvement and modernization of the farms by means of the technical-economic optimization and reorganization of the productive structure, taking into account at the same time measures directed towards the generational change and the reduction of production costs. The main two activities considered (with a big concentration of the budget) were the investments in agricultural holdings and the installation of young farmers.

The accompanying measures approved as a part of the reform of the CAP in 1992 established the possibility that the EAGGF Guarantee could finance measures with a structural character with the objectives of promoting methods of production compatible with the environment and the protection of natural resources, the farmland afforestation and the early retirement from agricultural activity. The total public funds dedicated to all these programmes (see Table A3.2) were around €1,200 million. The European fund financed, on average, more than the 70% of this amount.

The farmland afforestation measure concentrated the 62% of the total budget dedicated to the three measures. The forecasts were more optimistic than the results showed, and finally more than 430 thousand hectares have been afforested. The main problems have been the important drought that Spain suffered in the first years of the period, and some financial difficulties. The agri-environment measures accounted for 30% of the total public expenses. The program consisted of two kinds of measures: horizontal measures for all the national territory and measures for some selected areas, among which a big importance is put on sensible areas from an environmental point of view. This program had more than 70,000 beneficiaries and affected to more than 1,700 thousand hectares. The third measure, early retirement, accounted for a 8% of the budget, and the effect was irregular among regions, but in any case very significant. Only around 8,000 farmers had access to this aid.

Finally, about the compensatory payments, the assigned public expense was €315 million. In this period, it affected to the aforementioned municipalities (there were no significant

changes in the covered area), but additionally it included the areas with specific limitations.

Due to the elevated level of acceptance of the LEADER I, in this period program it was recommended to continue with this communitarian initiative. But, this time, the Autonomous Communities participated as intermediate organism, and this was the reason why the initiative was articulated in Spain around a national framework and 17 regional programmes.

The program had a total funding of more than €1,000 millions (see its basic indicators and distribution among organism in Tables A3.3 and A3.4). The measures were classified in four groups. Measure A was dedicated to acquisition de capacities. Measure B included rural innovations programmes, rural tourism, commercialization of agricultural production, improvement in the environment, etc. Measure C included trans-national cooperation programmes, and Measure D monitoring and evaluation.

Again, among the most valued ones, it could be found that this initiative allows the rural areas to access to financial resources and technical support, the development of new associations forms, the integrated approach and its influence in the management of other programmes of rural development.

This second phase has been characterised by the development and consolidation of this kind of public intervention in the rural areas, although with cooperation structures that are dependent on the availability of public funds (MAPA, 2004). In this period the LAG have paid less attention to tourism activities, although it keeps on been the main activity. The small firms and artisanal activities and the valuation and commercialization of local products have received more attention in this reorientation of the investments (Esparcia, 2001). In this period 19,928 jobs were created, although a lot of them have a temporary character (38%), and more than 2,500 new enterprises were constituted (Sancho, 2002).

As many groups did not have access to the LEADER initiative, mainly because of the lack of budget, Spain proposed to the Commission the development of a national programme, in the framework of the regional development programmes of regions Objective 1, named PRODER (Programa de Desarrollo y Diversificación Económica de Zonas Rurales). That was mainly used to fund the development projects that could not access to LEADER funding. It had validity for the period 1996-1999. The objectives that tried to obtain were the endogenous development, maintenance of the population, the rise of the income level and the conservation of natural resources in some areas of the regions Objective 1 that had not been beneficiaries of the measure B of LEADER II.

Using the information supplied by MAPA (2006) that is included in the Table A3.5, we can analyse how all the public aids related to rural development have been distributed among different measures. In the next Table 3.4 we have summarized such information. First at all, we can see that the regions Objective 1 concentrated around 78% of the total public expenses, with higher participation in income aids and environmental improvements, and smaller one in economic diversification of rural areas.

Table 3.4 Distribution of public support among measures and regions. Programming period 1994-1999 (1)

Measures	% Every group			% national	
	O1	N-O1	Total	O1	N-O1
Income aids	6.2	4.4	5.8	83.5	16.5
Compensatory payments	6.2	4.4	5.8	83.5	16.5
Improvement of structures	55.9	57.0	56.1	77.9	22.1
a. Improvement of productive infrastructures	23.1	18.4	22.1	81.9	18.1
b. Improvement of agricultural structures	15.1	12.3	14.5	81.6	18.4
c. Improvement of commercialization and transformation structures	17.7	26.3	19.5	70.7	29.3
Environmental improvements	26.4	15.5	24.0	86.0	14.0
a. Agri-environmental measures	5.2	2.3	4.6	89.1	10.9
b. Forestry and environmental protection	10.0	11.3	10.3	76.1	23.9
c. Farmland afforestation	11.2	1.5	9.2	95.4	3.6
Economic diversification of rural areas	10.7	22.3	13.2	63.4	36.6
a. Technical support	1.8	5.8	2.7	52.7	47.3
b. Rural tourism and artisanal activities	3.2	1.7	2.8	86.9	13.1
c. Small rural enterprises	2.2	1.2	2.0	86.9	13.1
d. Rural and cultural heritage	3.4	13.4	5.6	47.8	52.2
e. Other lines of actuation	0.1	0.1	0.1	78.4	21.6
Training	0.8	0.8	0.8	79.5	20.5
a. Agricultural training	0.0	0.1	0.0	44.2	55.8
b. Training on diversification	0.8	0.7	0.8	81.6	18.4
TOTAL	100	100	100	78.3	21.7

Source: Author's calculations based on MAPA

Notes: (1) O1 for regions Objective 1, NO1 regions outside Objective 1

Moreover, it can be seen that in all regions the most important measures are related to the improvement of structures, being the main one, in regions Objective 1, the improvement of productive infrastructures (around 56%), and, in regions outside the Objective 1, the improvement of the commercialization and transformation structures. In regions Objective 1, the second most important measure is related to environmental improvements, mainly afforestation. In the other group, the measures related to economic diversification have a significant participation.

3.1.2.3 Third programming period (2000-2006)

In 1996, it was approved the Cork Declaration that established the rural preference as a priority on the European policies, and the necessity of using similar approach similar to the

established one for LEADER initiative, that is to say, a simpler and more integrated rural development policy. After some discussions, the Commission agrees to carry out a reform of the structural funds and to change the existing consideration about rural development policy. The approval of the Agenda 2000 in 1999 led to important changes in the CAP and Structural and Cohesion funds. This CAP reform has the multifunctionality concept of the European agriculture as one of its objectives. Moreover, in this programming period the Mid Term Review of the CAP took place in 2003. This strengthened rural development policy both in scope and financial resources. There were some triggering events: the incorporations of new member states, the international context and the negotiations in the World Trade Organization, the loss of social legitimacy of the CAP, the concern about the environment and some alimentary crisis. This was the deepest reform of the CAP which denotes somehow the end of the CAP, as it was known until such moment (García Grande, 2005).

The reform of the structural funds reduced the number of priority objectives. They are two regional objectives (1 and 2). The Objective 1 is to support regions lagging behind in development and having a per capita GDP of less than 75% of the Community average, and Objective 2 to support areas facing structural difficulties. The Objective 3 is dedicated to support the adaptation and modernization of policies and systems of education, training and employment. The EAGGF fund will provide co-financing for rural development measures under both Objective 1 and 2.

In relation to the development of the rural areas, the main changes have been the inclusion of the rural development policy as the second pillar of the CAP and the Regulation 1257/1999 about aids to rural development. This regulation included the accompanying measures of the reform of 1992 jointly with the compensatory payments, and the measures for promoting the adaptation and development of rural areas (art.33). In this period, the agri-environmental measures have a bigger prominence. The new regulation considers the relationship between agricultural activity and rural development in a more integrated way, underlining the changes introduced in the concession of compensatory payments and in the measures dedicated to the restructuring of agricultural and rural activities (Bardají, 1999).

The financial framework in the Spanish case was established, in general terms, in the next way (EC, 2002a and 2003). In the regions Objective 1 the CSF accounted for 10 regional integrated operational programmes (one for every Autonomous Community and one additional one for Ceuta and Melilla) funded by EAGGF Guidance, ERDF and ESF, and an operational programme to improve agricultural structures and production systems funded by the EAGGF Guidance. In the regions outside Objective 1, seven rural development programmes (one for each Autonomous Community outside Objective 1) funded by EAGGF Guarantee, and one rural development programme to improve production structures funded by EAGGF Guarantee (except Navarre and the Basque Country). And there was a horizontal rural development programme for accompanying measures in Spain funded by EAGGF Guarantee (except Navarre and the Basque Country).

In the regions Objective 1, the CSF presents some changes from the previous ones in relation to the priorities, and three new axes have been included: communications and knowledge society, and local and urban development. Axis 7 keeps on being agriculture and rural development, with the priority activities having as objectives to promote the socio-economic development but considering sustainability. Around 8% of the total communitarian funding has been assigned to this axis. The measures are classified in nine groups: management of water resources, development and improvement of infrastructures for agricultural production, investment in agricultural holdings, setting up of young

farmers, endogenous development, recovering of capacities after natural disasters, agricultural training, services to the farms and commercialisation of agricultural quality products, and endogenous development of rural areas with non-agricultural activities. All of them are funded by the EAGGF guidance, with the exception of the last one that is funded by the ESF.

In the regions outside Objective 1, the rural development programmes present some continuity with the strategies proposed in the previous programming period. And this implies that the majority of the measures have an agricultural character. These regions have applied, at different levels, a selection of twenty three measures, where they are included, among others: training, improving processing and marketing of agricultural products, diversification of agricultural activities, land consolidation and tourism and artisanal activities.

The horizontal programme of improvement of agricultural structures was implemented with the objective of fixing population in the rural areas, for which it is important to modernize the agricultural holdings. There were four priority areas that were articulated through four measures: management of water resources (with around 53% of the total public funding), investments in agricultural holdings (29%), setting up of young farmers (17%) and evaluation, control and information (1%).

The horizontal programme of accompanying measures is funded by EAGGF Guarantee. In this programming period the compensatory payments are included as an additional accompanying measure. The amount of resources (Table A3.2) of public expense has almost duplicated from the previous period. But there are differences among measures. So, the biggest beneficiaries have been the early retirement and agri-environmental measures, with an increase of more than 470% and 345%, respectively.

In relation to the agri-environmental measures (that in this programming period are of binding on all member states), there are nine actuation lines related to the problems that they try to solve. These lines are extensification of agricultural production, protection of the countryside and practices for preventing fires, water saving up and promotion of extensive production, integrated management of farms, special systems of activities with high environmental interest, protection of the flora and fauna in wetlands, fight against erosion in fragile areas, environmental techniques for the use of chemical products, and protection of endemic vegetal species in danger of erosion. Each Autonomous Community has chosen those measures that are better adapted to its environmental own problematic.

In relation to the early retirement the pursued objectives were to rejuvenate the agricultural population, to increase the size of the farms, to maintain the acquisitive power of the farmers that wanted to retire and diminish the surplus because of the dedication of some agricultural land to non-agricultural purposes. It is supposed that for this period around 15,000 farmers will adopt this measure.

As it has been said before, the accompanying payments measure affects around 6,000 municipalities. As almost 80% of the Spanish area is considered as susceptible to receive these aids, the amount received by every farm has always been small, and it has been considered more as an income complement than as an agri-environmental instrument (Atance, 2006). It is supposed that around 145,000 recipients will receive some aid coming from this programme, and that 12 millions of hectares will be affected.

Finally, the measure with less weight in the budget, the farmland afforestation, has as objective to increase the woodland by 150,000 hectares.

In this programming period the communitarian initiative is called LEADER +, and in this occasion emphasis is made in the development of four subjects: use of new knowledge and technologies, improvement of the quality of life, valuation of local products and valuation

of natural and cultural resources. Unlike the precedent LEADER initiatives, in this case all the rural territories could benefit from this programme. The communitarian funding comes from EAGGF Guidance.

It is articulated around three chapters. Chapter one is mainly dedicated to support strategies of rural development (some priority will be given to the programmes with special focus on women and young people), chapter two includes the support for the interregional and international cooperation of the LAG, and chapter three is dedicated to the integration in an information and training network for all the rural areas.

The measures than can receive subsidies in this context are grouped around four axes: development strategies, cooperation, network integration and management, follow-up and evaluation. LEADER+ is articulated through a horizontal programme coordinated by the MAPA (that includes the interregional programmes and the network integration) and 17 regional programmes, one for each Autonomous Community (that develops the other three axes). In this period 145 LAG (of which five are interregional) have participated, representing to 3,741 municipalities.

In this programming period there was also a PRODER programme, but it was designed as a group of endogenous development measures included in the integrated operational programmes of Objective 1 regions and in the rural development programmes in the regions outside Objective 1. The origin and amount of funding are then different for the two kinds of regions. In relation to the precedent programming period, it has more available funds (Table A3.4 and A3.6).

Finally, and in a similar way to what has been done in the previous chapter, in the Table 3.5 the distribution of the public aids related to rural development policy is included. Additionally, in this case, we have included the rate of growth of the amounts destined to every measure between the two programming periods.

In this period, the distribution of the public aids between regions Objective 1 and regions outside Objective 1 are similar to the previous one, then, the first ones concentrated around 78% of the aids. Moreover, the behaviour of the two types of regions se has become more similar. The main measure, in terms of the amount of public aids received, is again the improvement of the structures (around 57%), and now, in all the regions. The bigger participation corresponds to the improvement of productive infrastructures, mainly irrigation aids. The second place is occupied by the environmental improvement aids, with a significant increase in the regions outside Objective 1. This measure, accordingly to what has been said before, has increased the received aids and its budget has almost doubled between programming periods, mainly in regions outside the Objective 1.

Table 3.5 Distribution of public support between measures and regions, Programming period 2000-06 (1)

Measures	% Every group			% Total national		Rate of growth (%)		
	O1	NO1	Total	O1	NO1	O1	NO1	Total
Income aids	3.6	4.2	3.7	75.2	24.8	4.2	74.1	15.7
Compensatory payments	3.6	4.2	3.7	75.2	24.8	4.2	74.1	15.7
Improvement of the structures	55.8	61.3	56.9	76.4	23.6	79.2	95.2	82.8
a. Improvement of productive infrastructures	29.4	27.0	28.8	79.5	20.5	128.3	166.2	135.0
b. Improvement of agricultural structures	14.6	16.3	14.9	76.0	23.9	72.6	141.6	85.4
c. Improvement of the commercialization and transformation structures	11.9	17.9	13.2	70.1	29.8	20.7	23.8	21.8
Environmental improvements	30.3	24.4	29.0	81.5	18.4	106.1	185.2	117.4
a. Agri-environmental measures	8.3	10.4	8.7	73.9	26.1	186.	728.9	245.0
b. Forestry and environmental protection	13.8	10.6	13.1	82.1	17.7	147.8	70.3	129.9
c. Farmland afforestation	8.2	3.4	7.1	89.6	10.4	31.7	307.9	40.2
Economic diversification of rural areas	9.4	9.0	9.4	77.9	20.9	57.4	-26.8	28.1
a. Technical support	2.7	2.4	2.6	78.4	19.7	167.1	-25.1	79.6
b. Rural tourism and artisanal activities	1.0	2.0	1.2	62.3	35.7	-44.2	112.1	-22.1
c. Small rural enterprises	0.0	0.8	0.9	0.0	20.9	-100.0	25.6	-21.0
d. Rural and cultural heritage	1.4	2.3	1.6	66.5	30.9	-27.6	-69.3	-48.0
e. Other lines of actuation	3.5	1.5	3.0	89.9	10.7	5,406	2,287	4,702
Training	0.9	1.1	1.0	73.6	24.6	102.5	162.1	118.7
a. Agricultural training	0.1	0.7	0.3	42.2	57.7	849.0	929.2	893.9
b. Training on diversification	0.8	0.4	0.7	84.7	12.8	77.8	19.6	71.3
TOTAL	100	100	100	77.9	21.9	79.5	81.6	80.3

Source: Author's calculations based on MAPA

Notes: (1) O1 for regions Objective 1, NO1 regions outside Objective 1

These programmes are considered as rather unbalanced in territorial terms (Beaufoy *et al.*, 2002) because the majority of the rural development support will tend to be absorbed by more dynamic farms and areas, whereas the marginal rural areas received little support.

3.1.3 Some final considerations

In general, it is accepted that the evolution of the rural development policy has introduced new functions in the rural areas that could be of social, economic, cultural, environmental and territorial character. As a consequence, the sources of income have increased and a diverse activity level among the rural inhabitants has been generated (Plaza, 2006). Moreover, development policy is contributing to the structuring and creation of a socioeconomic network in some areas that were dislocated, being the triggering factor the existence of a rural development program. However, there are some problems. There are some collectives that are reluctant to these processes, and some others are becoming excessively politicized. This attitude is minimizing legitimacy and social support to some of their actuations and it could compromise their future (Ramos and Delgado, 2002).

In some cases, a low participation of the farmers in some of the rural development initiatives can be seen. That could be explained by their aging, with few expectations of replacement for new generations and with rents more or less sure coming from the CAP (Alario and Baraja, 2006). Moreover, it could be added that in many cases the only possibility to diversify the economic activity is through the industrial transformation of their products (with the need of big investment and efforts to commercialise these new products).

In relation to the initiatives LEADER and PRODER, there is a consensus about its capacity to mobilize private capital and local physical and human resources, and to contribute to some degree to the reactivation of the less favoured rural areas (Beltrán, 1994b and Esparcia, 2000 and 2001). It is considered that these programmes have contributed to very important aspects, such as upcoming of social, economic and political leadership in rural territories, the deepening of democratic culture, capacity to take entrepreneurial decisions, consolidation of experienced technical teams. They could be useful to reach more territorial policies and a better management of the territories from the very local communities.

But there are some intrinsic difficulties to the very method (Esparcia, 2004), being one of the most important the need for a change of mentality of the public people in charge. Moreover, the interaction between the groups with some success and the local power could lead to the some conflicts (Sancho 2002). Additionally, there are some doubts about the possibility of maintaining this model of actuation without the public subsidies, and, in this sense, it is unknown if an institutional compromise in this respect exists (García Rodríguez *et al.*, 2005).

In the Spanish case, the rural development policy faces a difficult administrative management that supposes the existence of some constraints, such as administrative slowness, high levels of bureaucracy, lack of involvement of private socio-economic agents and a lack of flexibility and ability to adapt to changes (Sumpsi, 2000). It could be considered, as an additional difficulty, the existence of Objective 1 and non-Objective 1 regions (Beaufoy *et al.* 2002) and the need to co-ordinate EU, state and local policy (Domínguez *et al.*, 2006). Additionally, one of the main criticism to the rural development policy has been the lack of resources, in relation to the total expenses generated by the CAP. In general, the direct aids and price support account for, even now, a big proportion of the total Communitarian expense in rural areas, resources that in many cases do not go to farmers neither to rural population. This leads to some authors to unsure that market policy has been the main force driving the structural change observed in the Spanish agriculture (Lopez, 2002).

3.2 The CAP as a market policy

It is important at this point to point out what has happened with the first pillar of the CAP. The practical instrumentation of the CAP is based on the regulation of the internal market and the establishment of some protection mechanisms to cope with external production. The regulation of one agricultural product is made using the Common Organizational Market. Until 1992, the basic element of the Common Market Organisation was the so-called “institutional prices”. This system, however, led to a series of problems (mainly surplus of agricultural products and a significant concentration of the CAP budget), which the Commission tried to solve, between 1984 and 1989, but with no important results. The Commission (EC, 1991) pointed out that although the budget dedicated to the CAP tripled in real terms, farmers’ real income has been hardly modified, the active agricultural population declined by about 35%, and 80% of the support concentrated in the 20% of the EU farms. As consequence, the Commission supported the reform of 1992. This implied a reduction of guaranteed prices, and in order to compensate farmers a system of direct aids was established. Moreover, the Commission put into effect the so-called accompanied measures, with a more socio-structural component. In 1999 the Agenda 2000 reform took place. This reform supposed the reduction of some agricultural prices, but compensated again with the increase of the aids and the increase of the prominence of the rural policy (second pillar). Finally, as has been mentioned before in 2003 the European Commission approved the Intermediate reform of the CAP.

The direct aids, in form of different subsidies received by the farms, are an important part of the income of the farms, as has been showed in the section 2. Using the data coming from Spanish Fund of Agricultural Guarantee (Fondo Español de Garantía Agraria, FEAGA), it could be analysed how these subsidies are distributed among the farms (Tables A3.7, A3.8 and A3.9).

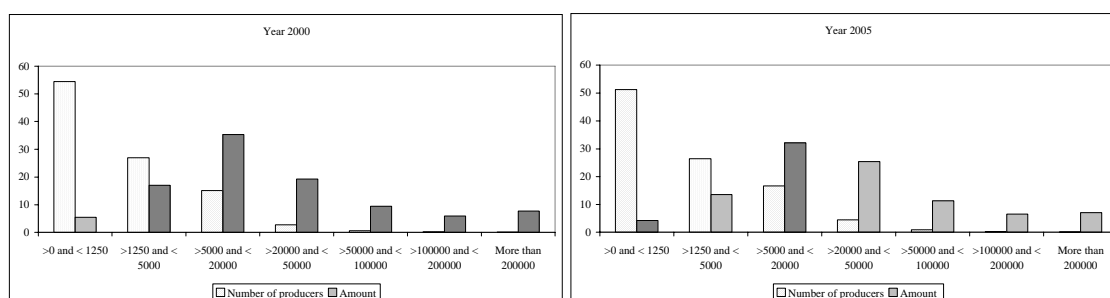
There are some concerns about the distribution of the subsidies. For example, Tio (1993), in the next year after the reform of 1992, already pointed out that the established system of direct support for farmers was socially regressive. Also, Fanjul (2005) highlighted that the richest producers received a disproportionate amount of this support whereas family farms are not sufficiently supported. In this line of analysis, Regidor (2003, 2004) distinguishes between commercial agriculture (that comprises a fairly small number of medium and large size but take the largest share of the overall economic results) and the territorial agriculture (small size farms). For this author, CAP farm support is directly proportional to their size, and therefore, the commercial agriculture accounts for the vast majority of such aid. This has also been pointed out many times by the European Commission, who in 2002 published indicative figures on the distribution of direct farm aid (EC, 2002b). There, it was pointed out that in 2000 (prior to the Agenda 2000 reforms), 82% of the Spanish farms received only 24% of the direct aids. Five years later, the situation is not very different.

In the next Figures, this distribution is presented, for the years 2000 and 2005. As it could be seen, before the effect of the Agenda 2000, the 54% of the farm receive less than 1,250 € in form of direct aids, percentage that decreases to 51% in 2005. If we consider the farms that receive less than 5,000 € these percentages are, respectively, 81 and 78%. But this majority of farms concentrate a small quantity of direct aids, around 22% in 2000 and 17% in 2005.

Another way to analyse these data is through the amount of average aid in every group (Figure 3.2). It is very illustrating to understand the differences among farms. In this way, the farms in the first group, received on average less than €500, both in 2000 and in 2005, taking into account that the average amount received by the Spanish farms as direct aids is

around €4,200 in 2000 and 5,200 in 2005. However, the group with more than €200,000 received on average more than €657,000 in 2000 and more than 547,000 in 2005. This is the group in which we can observe a reduction of the average amount received by the producer.

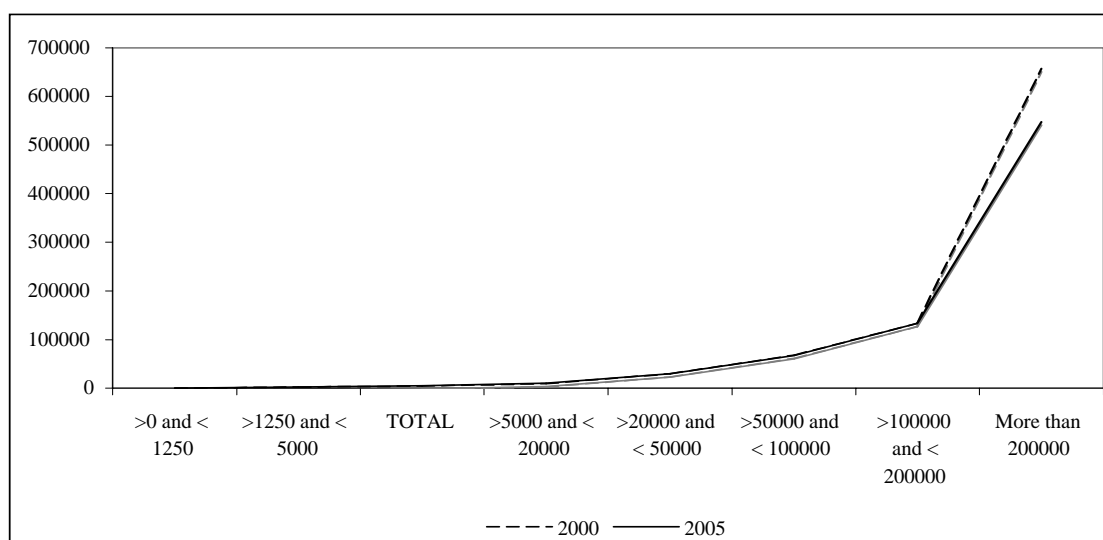
Figure 3.1 Distribution of direct payments among size groups, 2000 and 2005



Source: Author's elaboration based on FEAGA

We can see that, however, it seems to be an improvement of the distribution of direct aids because less proportion of farms are located in the groups with smaller amount of aid received, at the same time, these groups concentrate less proportion of direct aids. In the other extreme the group with bigger amount of direct aids represents less than 1% but receives more than 7% of the total amount of direct aids.

Figure 3.2 Average amount of direct payments by producer, 2000 and 2005

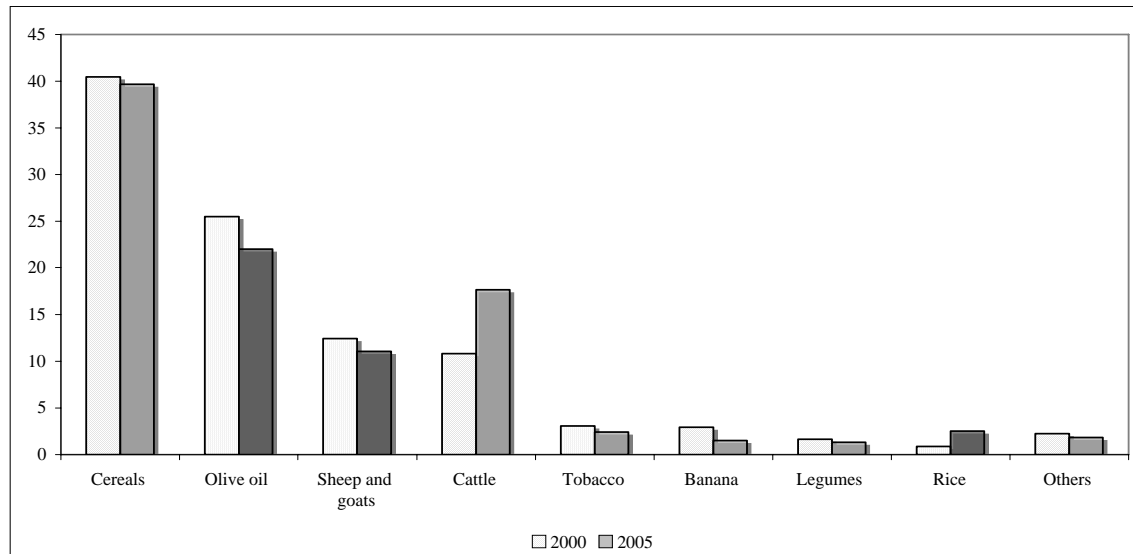


Source: Author's elaboration based on FEAGA

In relation to the sectoral distribution, the next Figure represents it. Mora and San Juan (2004) and Vega (2005), analysing the Spanish case, conclude that there are important unbalances in the sectoral and territorial distribution. It can be seen that the continental production (cereals, cattle, and sheep and goats, all of them products with high participation in the agricultural production in the countries of the North of the EU)

concentrates more than 60% of the aids. The only Mediterranean product with a higher level of participation is olive oil. The other typical products from the Mediterranean agriculture (wine, rice, tobacco, vegetables) received a smaller amount of direct aids. As the Spanish regions present a different pattern of specialization, there are also some inequalities in the territorial distribution of direct aids.

Figure 3.3 Distribution of the direct payments among products, 2000 and 2005



Source: Author's elaboration based on FEAGA

If we consider the assumed objective for direct payments as a CAP instrument, theoretically directed to the increase income in rural areas, it could be accepted that many Spanish rural areas hold on to their population due to these payments (Molinero and Alario, 1994). Nevertheless, it is also accepted that for different reasons, some of this support is diverted outside rural areas, as direct payments are received also by farmers living in urban areas or landowners who also may live in urban areas (Arnalte, 2002).

It is also important to outline that one of the mechanisms of intervention used by the CAP is the price support. Information about the impact of this kind of measure for the Spanish agriculture is a rather limited (we have the estimated indicators elaborated by the OECD, but they refer to all the EU countries). However, there are some papers where we can find some estimated figures for the Spanish agriculture. Concretely, these papers are García Alvarez-Coque *et al.* (1999), García Alvarez-Coque (2003) and one preparatory study for the second cohesion report commissioned by the European Commission (EC, 2001). Some additional estimates could be found in Shucksmith *et al.* (2005). The information is not homogeneous but it could help to analyse the effect of the price orientation of the CAP in the Spanish agriculture.

The first one, García Alvarez-Coque *et al.* (1999), makes reference to 1995. They estimated the producer support estimate (PSE) for European countries and products. The results (Table 3.6) show the aforementioned unequal distribution of support between products, and in a correlative way, the unequal distribution among countries. In order to have an idea we reproduce part of the table presented by these authors. From the total PSE of the EU a 9.4% corresponds to Spain. There were significant differences among the

countries. In the Mediterranean countries, represented by Spain and Greece, the PSE per AWU, per hectare and as a percentage of gross added value is below the European average. However, the Northern countries, in general, concentrate an important volume of the total support and present bigger unitary ratios.

Table 3.6 PSE Distribution among European countries, 1995

	Total PSE (Million ECUs)	Total PSE (% EU PSE)	PSE/AWU (ECU)	PSE/Ha (ECU)	PSE/GAV (%)
Spain	6,982	9.4	6,416	204	41
Greece	2,740	3.7	4,443	511	35
Ireland	2,482	3.3	11,184	560	76
France	17,769	23.9	16,799	591	59
Germany	12,678	17.0	17,856	731	66
United Kingdom	8,122	10.9	20,226	493	70
EU-15	74,444	100	10,279	514	52

Source: García Alvarez-Coque *et al.* (1999)

The second paper, EC (2001) analyses the composition of total transfers to the agricultural sector in some EU countries. For the Spanish case (Table 3.7), the data are summarised in the next table. The total transfers to the agricultural sector are decomposed in price support and direct aids. In the case of the Spanish agriculture, it can be seen that in 1989 the major contribution corresponded to price support (83% of the total transfers), but some years after the coming into effect of the reform of 1992, the distribution changed and direct aids started to have a bigger participation.

Table 3.7 Composition of total transfer to agricultural sector, 1989, 1994 and 1996

	Millions ECU			%		
	1989	1994	1996	1989	1994	1996
Direct and other payments	1,038.7	3,811.1	4,220.4	16.9	42.6	62.4
Price support	5,107.0	5,137.8	2,547.8	83.1	57.4	37.6
Total	6,145.7	8,948.9	6,768.2	100	100	100

Source: EU (2001)

García Alvarez-Coque (2003) included some estimates for the total transfers in 1998 (Table 3.8). Surprisingly, the figures were closer to the precedent estimates for the year 1994. In any case, the paper gives additional information, in the sense that it computes some relative information. The total support represented in 1998 a 46% of the total gross added value.

Table 3.8 Composition of total transfer to agriculture, 1998

	Total (€millions)	% total support	% GAV
Price support	4,885.4	54.1	25.4
Direct support	4,145.1	45.9	21.6
Total Support	9,030.5	100.0	47.0

Source: García Alvarez-Coque (2003)

The results presented in Shucksmith *et al.* (2005) are referred to 1999. They conclude that the market price support tended to benefit to richer regions (when analysing the MPS per hectare) and that showed a concentration in northern areas of Europe (when considering the MPS per unit of labour). In this case, some areas of northern of Spain are among the highest beneficiaries, showing the relative disparities that could be found at regional level.

4 THE AUTONOMOUS COMMUNITY OF NAVARRE

4.1 Introduction

The Autonomous Community of Navarre is located in the north of Spain and limits to the north with France, and with the autonomous regions of the Basque Country to the west, Aragon to the east and La Rioja to the south.

It has got an area of 10,391 square kilometres, which represents around 2.1% of the total Spanish area. It is a region that presents a great heterogeneity due to its geographical position that extends from mountainous areas in the Pyrenees to semiarid areas of Mediterranean climate in the south. This is the reason to explain its big biological diversity, because we can find 45 of the 100 types of existing forests²⁵ at national level, 3,000 of the 7,000 species of the peninsular flora, and 190 of the 250 birds that nest in the peninsula (Sánchez-Robles, 1999).

It is divided in seven agricultural counties (comarcas) that are usually grouped in three areas: the Mountain area (that includes counties I Noroccidental and II Pirineos), the medium area (counties III Cuenca de Pamplona, IV Tierra Estella and V Navarra Media) and the so-called Ribera in the south (counties VI Ribera Alta-Aragón and VII Ribera Baja). They are represented in the Map 4A.1.

It is one of the seventeen Autonomous Communities that make up the Spanish state. It has a particular administrative and tax system called “regimen foral”, which was adapted in 1982 to the new constitutional regime. After this regime, the foral status allows to enjoy a large degree of autonomy in legislative and administrative competencies in an important number of areas, among which there are quite a few ones related to rural development (agriculture and animal farming, mountainous areas, woodlands of public ownership, protected natural lands, organization of the territory, scientific and technical research, promotion and organization of tourism, regulation of the protected label of origin, social assistance, health, etc.).

4.2 General evolution of the regional economy

The first point to consider is the relatively small size of the regional economy. In the Spanish context, it represents less than the 2% of the national economy. This small size is one of the reasons that can help to understand its high level of openness, in the sense that the extra-regional relationships have a bigger importance than in other regions (Rapún, 1990).

With the information about the real GDP (see tables A4.1 and A4.2), we have elaborated the next Figure, where the rate of growth of this magnitude is shown. In order to have a comparative element, we have also included the figures corresponding to Spain and the UE-15²⁶.

As it can be seen there, the regional evolution has a similar trend to the observed one for the Spanish and European economies²⁷. That is to say, at the beginning of the eighties the rates of growth were small and even negative at regional level, indicating the late impact

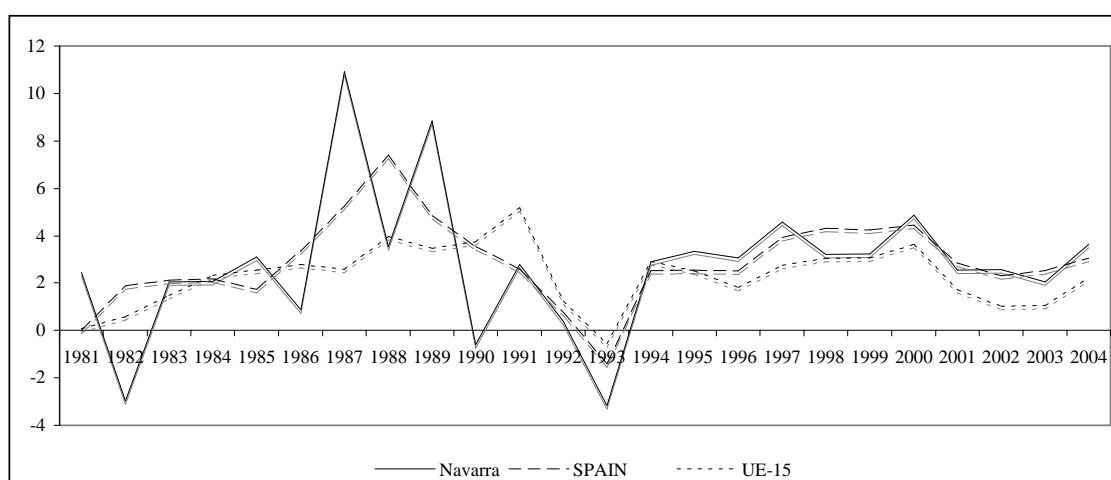
²⁵ The 33% of the national beech forests are located in the region (Lázaro, 2002).

²⁶ For the three territorial units we have used the same database used by Cambridge Econometrics (see Ezcurra and Iraizoz, 2007).

²⁷ In this comparison it must be taken into account that the bigger is the analysed economy, the smaller will be the observed rate of changes, mainly because the territories have different trend, so some of them compensate others resulting in a smoother trend.

of the economic crisis derived from the rise of the oil prices. After that, the regional economy, following the trend of the national economy and the first positive impulses coming from the integration of Spain into the EU, presents big rates of growth. This behaviour is present until the nineties when a new economic crisis affected the national and regional economy. Later, a period of economic stability (with the exception of the beginning of the new century, with smaller rates of growth) can be observed. An interesting point to consider here is that in many occasions, the rate of growth of the regional economy is above the national and European average²⁸. Nevertheless, the average cumulative rates of growth in all the period have been 2.7% in the case of Navarra, 3% in Spain and 2.3% in Europe 15.

Figure 4.1 Real GDP rate growth, Navarra, Spain and UE15, 1981-2004



Source: Ezcurra and Iraizoz (2007)

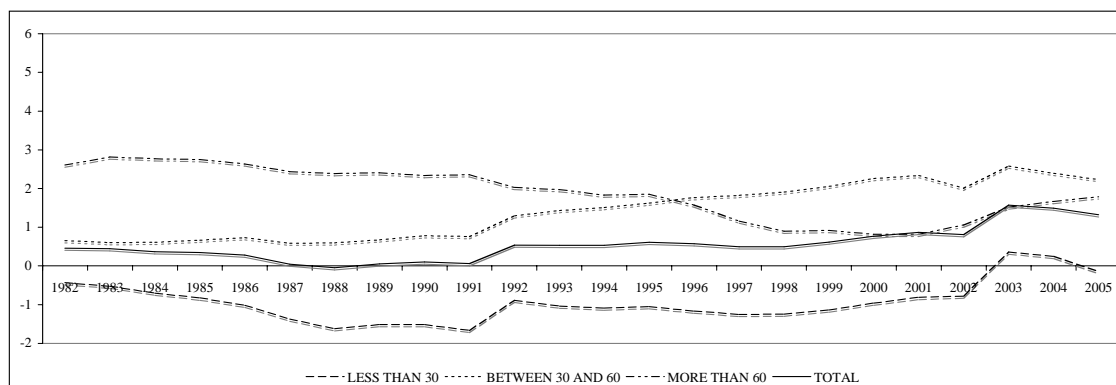
The second element to consider for computing the welfare level of the regional population is the evolution of the number of inhabitants (see Table A4.3 and Table A4.4). The number of inhabitants in Navarra went from around 508,000 in 1981 to more than 580,000 in 2005, which represents an average cumulative growth of 0.55% every year, a bit smaller than the aforementioned national average. In any case, it could be said that the population growth has been very moderate. If the annual evolution is analysed (Figure 4.2) it can be observed that during the first years of the period the annual rates were very small, even it was negative in 1988. But, at the beginning of the nineties there was a change in the trend and the rate of growth starts to be increasing.

If the analysis is made using the information relative to the age groups, some interesting points are derived. First, the annual growth rate of the population aged under 30 is always negative, except the years 2003 and 2004 when it presents a very small positive value. Second, the population aged over 60 has positive rates of growth every year, and in the first fourteen years this group has the biggest rate of growth. These two trends suppose that the regional population is undergoing an important ageing process, as it is represented

²⁸ During this period of eleven years (1994-2004) the regional economy presents in seven years bigger rates of growth than the national economy, and in ten years bigger than the EU average rate.

in the Figure 4.3, where the distribution of the population among the three groups is represented.

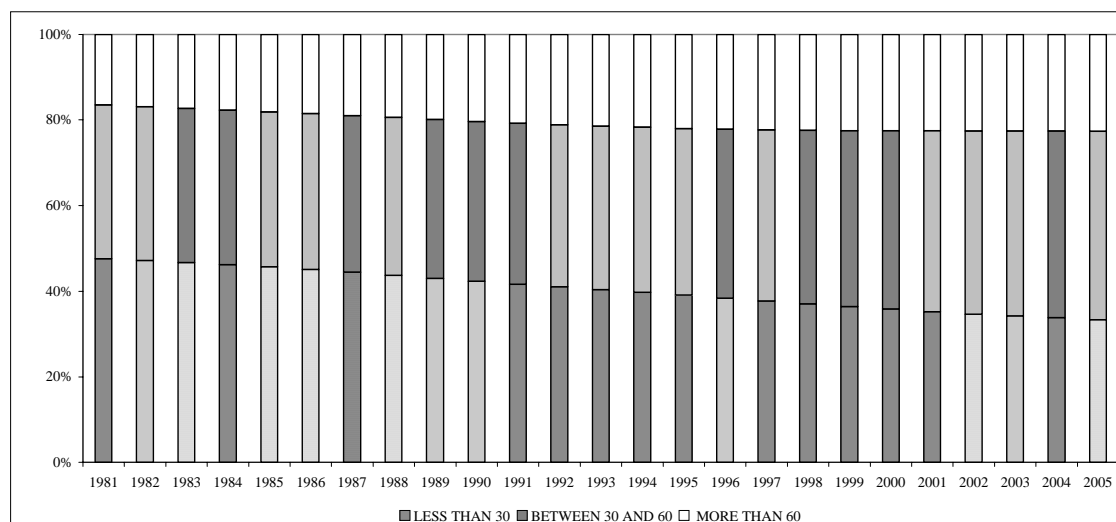
Figure 4.2 Annual growth rates. Total population and by age groups, Navarre



Source: Author's elaboration based on INE

The data show a very similar pattern to the national one (see Figure 1.3), but in the case of the regional population a hardly increasing ageing process can be detected. In any case, it could be said that the increase of aged people and the decrease of the young people could be a problem in the future, although the trend seems to have changed in the last years, mainly due to the process of immigration.

Figure 4.3 Distribution of the population by age groups, Navarre



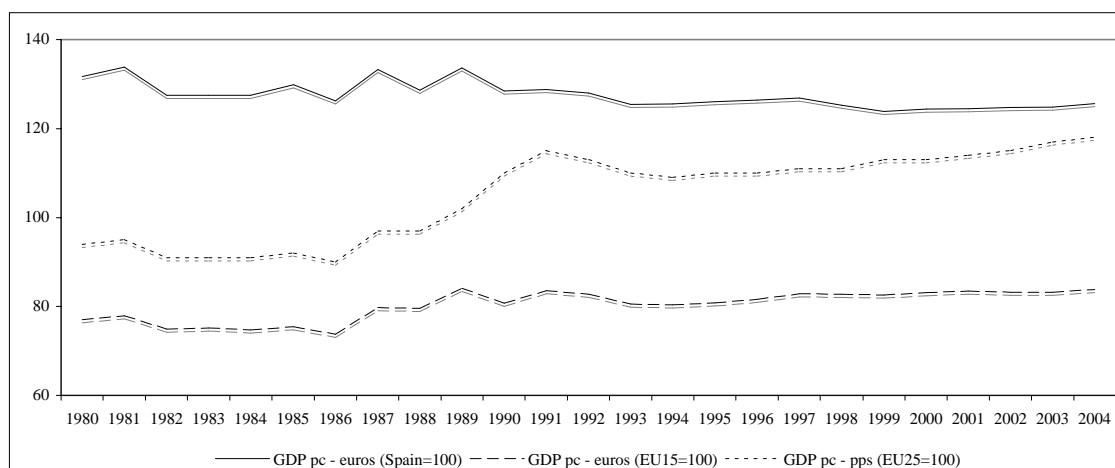
Source: Author's elaboration based on INE

As the number of inhabitants has remained stable, the observed trend for the per capita GDP (see Table A4.5) is very similar to the previously mentioned one for the total GDP. The average cumulative rate of growth has been 2.08% in Navarre, 2.28% in Spain and 1.7% in Europe 15. As a consequence of these different behaviours, the regional economy has

got closer to the European average. In the next Figure (elaborated using the information included in the Table A4.6) the situation of Navarre respecting the national and European average is represented. The first derived conclusion is that in the national background, the level of welfare in Navarre is superior to the average. This has constituted a constant characteristic of the regional economy (Uriel and Maudos, 1998), although in the last years a decreasing trend could be observed. So, at the beginning of the period the level of the regional GDP per capita was superior to the national average in around 30%, and at the end of the period it was also superior but around 25%.

If the comparison is made with the countries included usually in the group named EU15, the regional figure supposes more than 75% of the European average for most of the years (that is why Navarre is not included among the region belonging to Objective 1 of the Structural Funds). In this case, the percentage has an increasing trend indicating the relative improving situation of the regional economy. If the comparison is made with the countries included in the EU25, the relative regional situation is even better, and again, the trend is favourable to Navarre.

Figure 4.4 Process of convergence with Spain and the EU



Source: Ezcurra and Iraizoz (2007)

To this respect it is worth noting that the first years after the integration of Spain into the EU that was accompanied by an expansive cycle of the economy, the region presented a growth rate superior to the national and European average that implied that from 1985 an increasing trend is observed. This result confirms the fact that the best-positioned economies tend to take advantage of the opportunities and the aids coming from outside (Leoz, 1998), as it was the case of the economy of Navarre after the integration process (Rapún, 1993). Nevertheless, the process of convergence with Europe stopped during the crisis at the beginning of the nineties, and it continued with a smoother but increasing trend since the middle of the nineties.

Some additional and positive characteristics of the regional economy, compared with the national one, are related to the labour market. As it can be seen in the Table 4.1, in general, the activity rate²⁹ is superior in the regional economy, which at the same time is accompanied by a rate of occupation that is always superior to the national average. This implies that the unemployment rate has been, except for the first analysed years, smaller than the national average.

In relation to the evolution of these indicators, some regional advantages are also observable. First, the regional activity rate has grown more than the national one. And, what is more important, the unemployment rate has decreased in the period reaching to the last years smaller rates than 6% when the national mean was bigger than 9% in 2005. If the intermediate figures are compared, it could be seen how the economic crisis that took place at the beginning of the eighties and nineties affected on a bigger scale to the national employment (in the two occasions, the national unemployment rate reached figures superior to 21%), and the process of recovering has been faster in the regional economy.

Table 4.1 Evolution of the basic indicators of the labour market (1)

Indicators	Navarre					
	1980	1985	1990	1995	2000	2005
Activity rate	51.5	52.3	49.0	50.5	55.1	59.6
Rate of occupation	45.4	42.5	43.2	43.9	52.0	56.2
Unemployment rate	11.9	18.9	11.7	13.1	5.6	5.6
Indicators	Spain					
	1980	1985	1990	1995	2000	2005
Activity rate	50.2	47.5	49.4	51.0	53.6	57.4
Rate of occupation	44.5	37.0	41.3	39.3	46.1	52.1
Unemployment rate	11.4	21.9	13.3	22.9	13.9	9.2

Source: Instituto Nacional de Estadística, Encuesta de Población Activa (Survey of Economically Active Population)

Notes: (1) All of them are expressed in percentage

The situation of men and women in relation to these indicators is not the same. Using the data related to 2005, the activity rate is almost 70% for men and 50% for women, and the unemployment rate is 4.3 and 7.6% respectively, all figures showing a less favourable relative situation of women. Compared to the national figures, the labour market is more favourable for the women living in Navarre (for the same year, in Spain the female activity rate is 46.4% and the unemployment rate 12.2%). Anyway, it is important to recognize that the situation has improved a lot in the last 25 years, both at national and regional level.

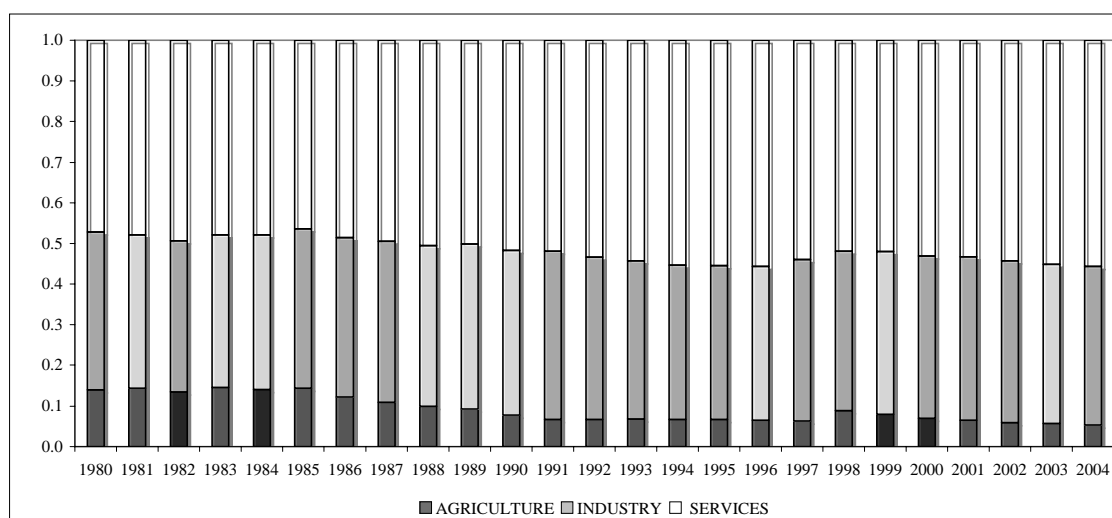
²⁹ The activity rate is measured as the ratio between the number of economically active people and the number of people with more than 16 years of age. The rate of occupation is computed as the relationship between the occupied people and the number of people with more than 16 years of age, and the unemployment rate is elaborated as the ratio between the number of unemployed people and the number of economically active people.

Additionally, now the regional economy has another characteristic that makes it different from other Spanish regions and from the national average, characteristics that are the result of a process of specialization of the region. It is related to the distribution of the economic activity among sectors. The Figures 4.5 and 4.6 have been elaborated, using the data about the gross value added at constant prices and the number of occupied people (Table A4.7). They show the participation of every sector in the respective magnitude.

In both Figures it can be seen that the services sector is the most important one, accounting for around the 45% of the occupied people in 1980 and around the 55% in 2004. Its evolution in relation to the real GVA is a bit different and it has to do with the mentioned different evolution of the sectoral prices. Its participation in the real GVA has kept almost constant, as it is around 55%.

The industrial sector is the second one in order of importance. It represents around 40% of the regional occupied people and real GVA. In the last years, a displacement of employment from the industrial sector to the services sector has been detected, that in part could be explained by the externalization process of some services (legal advices, cleaning, etc.) that has taken place in the industrial establishments (Ardaiz and Cebrian, 2005).

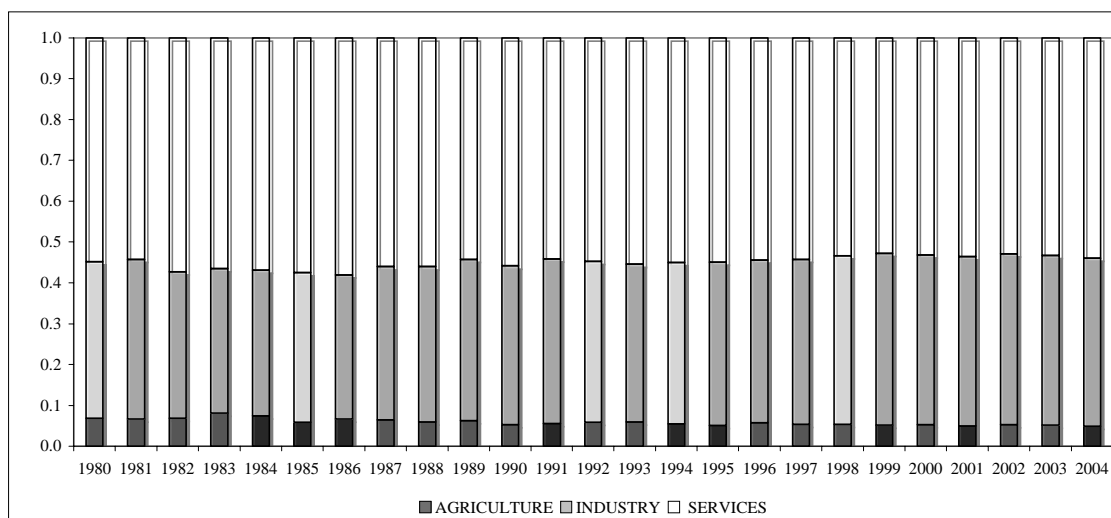
Figure 4.5 Distribution of the occupied population among sectors



Source: Ezcurra and Iraizoz (2007)

Finally, the agricultural sector presents different behaviour depending on the analysed variable. If we consider occupied people, the participation has decreased from around 14% in 1980 to 5% in 2004. But, if the real GVA is taken into consideration, the evolution is a bit different, and the sector shows a decreasing trend, from a 7% to a 5%.

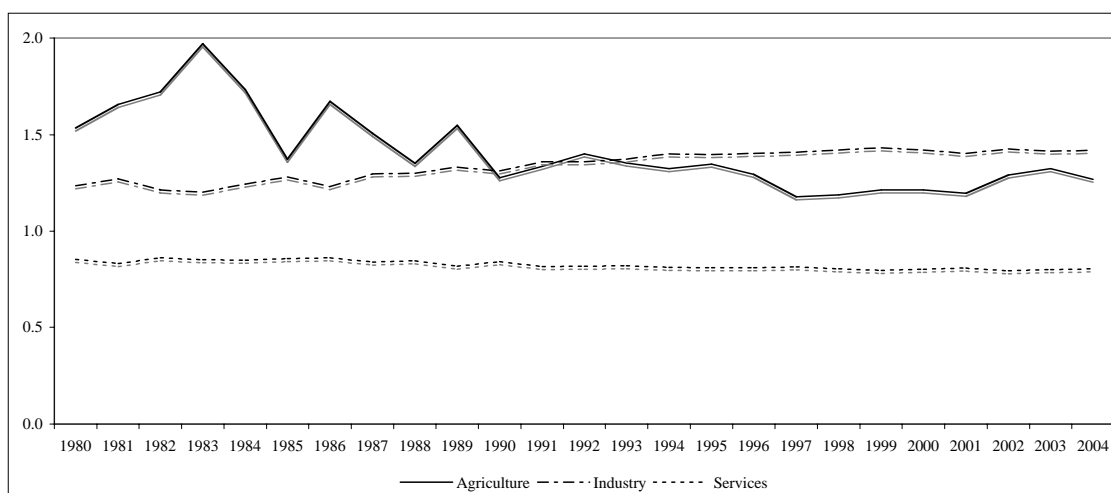
Figure 4.6 Distribution of the real GVA among sectors



Source: Ezcurra and Iraizoz (2007)

In the regional case, it could be observed some relative specialization mainly in the industrial activities and hardly in the agricultural ones. The services sector has a smaller level of participation in the economic magnitudes than in the Spanish economy. In the Figure 4.7, the estimated specialization indices³⁰ are presented, and they have been computed using the real GVA. It can be seen that at the beginning of the period the situation was very different, with an important level of specialization in the agricultural sector, that has been diminishing along all the period.

Figure 4.7 Specialisation indices



Source: Ezcurra and Iraizoz (2007)

³⁰ They are computed as $Specialization\ index\ sector\ i = \frac{\% \text{ real GVA in Navarre in sector } i}{\% \text{ real GVA in Spain in sector } i}$

However, the level of specialization in the industrial activities, being important at the beginning of the period, has been increasing during the analysed years, becoming the sector in which the region has the biggest specialisation index³¹. Finally, and according to the preceding results, the level of specialization in the services sector has been decreasing. In this sense, it could be said that some polarization in the level of regional specialization could be observed.

4.3 The regional agricultural sector

The importance of the agricultural sector in the regional context has been highlighted, taking into account the relative bigger participation of the sector in the regional economic magnitudes. Of course, this importance is much bigger in the rural areas.

4.3.1 Factor endowment

In relation to the endowment of production factors, the evolution of the regional UAA (Table 4.2) shows that in the region there are around 615 thousand hectares, from which around the 40% are occupied by pastures and the rest corresponds to arable land, mainly herbaceous crops.

Table 4.2 Evolution of the uses of land in Navarre (000 ha)

Uses of the land	1980	1985	1990	1995	2000	2005
Arable land	363.5	373.4	370.6	355	359.8	358.7
Herbaceous crops	243.1	250.8	275.3	253.2	239.6	248.9
Ligneous crops	37.4	34.1	33.2	29.7	32.4	39.1
Fallows	83.0	88.5	62.1	72.1	87.8	70.7
Pastures	285.5	287.5	286.8	259.2	258.2	257.2
UAA	649.0	660.9	657.4	614.2	618.0	615.9
% of irrigated UAA	10.3	10.1	10.7	13.3	13.5	14.9

Source: Gobierno de Navarra (various years) and Instituto de Estadística de Navarra

The available hectares of UAA in 2005 are inferior to the quantity available at the beginning of the period in around 5%. This decrease is mainly due to the reduction in the hectares dedicated to pastures.

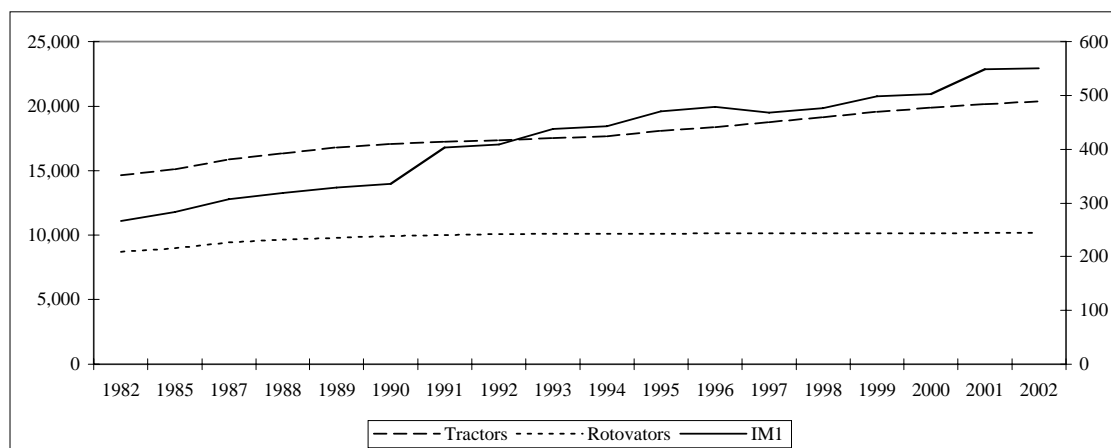
The quantity of irrigated land has increased from 67,000 hectares to more than 92,000, representing in 2005 around 15% of the total UAA. As in the Spanish case, an important effort has been made in order to improve the quality of the cultivated land through the irrigation.

But it is important to consider also the behaviour of the agricultural regional sector in reference to the other primary inputs. In relation to the capital, some information is available about the use of machinery (Table A4.8). The number of tractors has passed from almost 15,000 in 1982 to more than 20,000 in 2002, showing an annual cumulative growth rate of 1.7%. The available relative capitalization index (horses of power of tractors and

³¹ The importance of the industrial sector in the region is not only based on its participation in the regional magnitudes, but also on its role as driving force of the regional economy, as it has been pointed by some authors (Rapún et al., 1995, Rapún and Pascual, 1998).

Rotavators for every hectare) is in all the period much bigger than the national average. So, in 1982 in Navarre it was 267 and the Spanish average was 155.3, and in 2002 the figures were, respectively, 550 and 319. It has been shown that there is a relationship between this index and the size of the farms, logic that is not translated to an optimal behaviour from a microeconomic point of view (Rapún, 1988).

Figure 4.8 Information about the level of mechanization. Navarre (1)



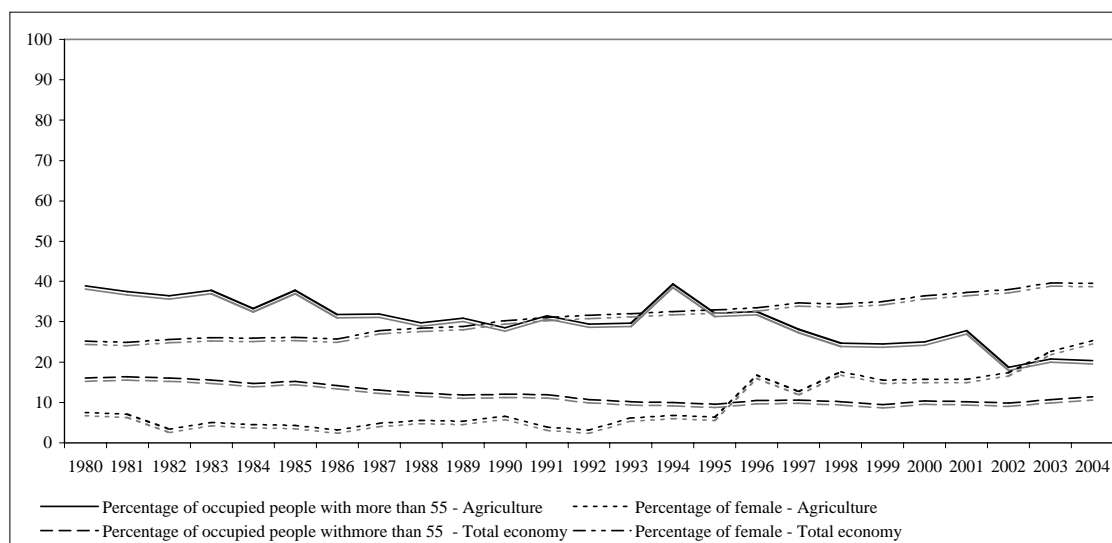
Source: Author's elaboration based on MAPA

Notes: (1) The number of tractors and Rotavators are represented in the left axe, and the mechanization index in the right one

The third factor, the labour force, has suffered a similar process to the Spanish case. That is to say, it has a decreasing trend. Using the information coming from the Encuesta de Población Activa (EPA, Survey of Economically Active Population), the number of occupied people has gone down from around 24,000 people in 1980 to 14,730 in 2004, with an annual cumulative decreasing rate of almost 2%.

As in the national case, there is some concern about the possibility to have problems in the future due to the elevated age of the working people. In order to account for this situation (Table A4.9), in the next Figure the percentage of occupied people in the last phase of the economically active life, with more than 55 years of age, in the agriculture and in the economy as a whole are represented. As it can be seen, the percentage is bigger in the agricultural sector than in the economy as a whole. It is also superior to the existing one in the Spanish agriculture (where it has been never bigger than 30%), but the regional trend is in this sense very positive, because at the end of the period the figures show a situation similar to the national average (around 20%).

Figure 4.9 Information about the level of mechanization. Navarre (1)



Source: Author's elaboration based on INE

Additionally, the percentage of occupied women in agriculture could be analysed. In this case, the regional situation at the beginning of the period is again behind the national average, with a ratio smaller than 8% when the Spanish average was 26%. But, whereas at national level the situation has been almost unchanged, at regional level there has been an important increase of the participation of women reaching at the end of the studied period the national average (around 25%). If the comparison is made with the total regional economy, the disadvantage of the agricultural sector is again present, although the growth rate in the last case has been bigger and then the differences are decreasing.

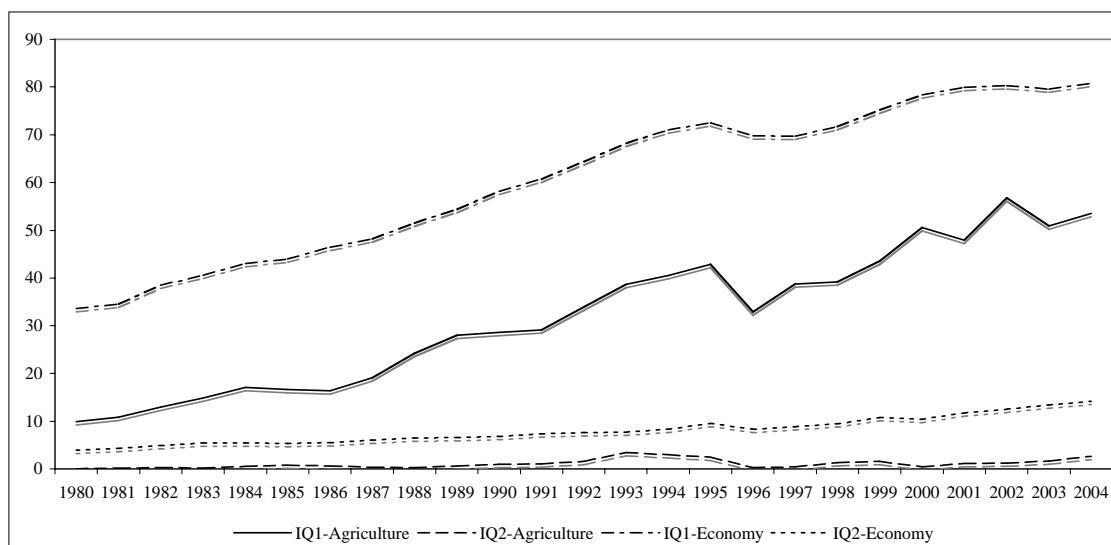
In relation to the level of qualification of the labour force (Table A4.10 and Figure 4.10), it can be seen that an important improvement has taken place during the last 25 years. If we consider the percentage of occupied people in the agricultural sector with at least secondary studies (IQ1), it has changed from nearly 10% to more than 53%, and the percentage of occupied people with a university degree has passed from nearly 0% to 2.6%, reflecting both indicators a very positive evolution of the human capital used in the sector. But again, and as it happened in the Spanish case, the comparison with the level of formation of the total occupied people is discouraging, in the sense that in the last case it is very superior, using any of the indicators. However, if the comparison is made with the national average, we find some regional advantages³² in this respect, mainly if the IQ2 indicator is used (Uriel and Maudos, 1998).

In relation to this point, the region has had for more than 25 years the actual two technical institutes named Technical Institute of Agricultural Management (Instituto Técnico de Gestión Agrícola, ITGA) and Technical Institute of Livestock Management (Instituto Técnico

³² It is worth mentioning that despite of its small relative size, the region has two universities, one private (Universidad de la Iglesia Católica de Navarra, belonging to the Opus Dei) which started its activities in 1952, and the public one (Universidad Pública de Navarra) which started its activities in 1989. Jointly, they account for more than 20,000 students, most of which come from the very region.

de Gestión Ganadero, ITGG), which have contributed to the increase and the improvement of the formation of the active agricultural population. From 1989, more than 18,000 people (farmers, holders of rural tourist houses, etc.) have received training and formation in these centres (Echarri, 2005). Moreover, in 1980 the regional government established some agricultural studies in two educative centres, and during these 25 years, more than 2,500 students have received professional training (Arrizabalaga, 2006). This is a model in which the research, the experimentation and the education are incorporated and put at the farmers' disposal (Rapún and Iraizoz, 1999).

Figure 4.10 Qualification indices. Total economy and agriculture



Source: Author's elaboration based on IVIE

4.3.2 Agricultural macro-magnitudes

In the regional case, we found the same concerns that appeared in the national case about the availability of data are. This means that we will use data from 1980 to 1990 elaborated accordingly to SEC-79³³ and data from 1990 to 2003 elaborated following the SEC-95 (see pages 18-19 of this document).

As in the Spanish case, we are going to analyse the information in nominal and real terms, using the same deflators that are used at national level, because of the impossibility to find the complete series of prices indices at regional level. The magnitudes expressed at current prices are included in the Appendix (Tables A4.11 and A4.12). Here we will try to present a general idea about the trend of the most important magnitudes, as it has been done if the chapter 2 for the Spanish agriculture.

The main magnitudes show that the regional agriculture has had growing figures (Table 4.3), both in nominal and real terms. In the first case, the total output goes from €291 million in 1980 to €771 million in 2003 indicating that it multiplied almost by three. As the use of intermediate consumption and fixed capital has grown in a smaller proportion, the

³³ In this case, the Spanish method was used, and this implies that the forest production is also considered in the figures. But, this last activity only accounted for not more than 4.5% of the sectoral production.

gross and net values added have multiplied by three in the analysed period. In real terms (using the level of prices of 1980) logically the figures present more stable values, but in any case, they are growing.

Table 4.3 Main agricultural indicators (1) (annual average, €million)

Magnitudes	1980-85	1986-90	1991-95	1996-00	2001-03
	CURRENT PRICES				
Total output	291.1	437.9	575.9	696.3	771.2
Intermediate consumption	130.1	206.4	206.3	280.4	312.6
Gross value added	160.9	231.5	369.6	415.9	458.6
Fixed capital consumption	21.5	36.9	49.7	62.4	53.3
Net value added	139.5	194.6	319.8	353.5	405.4
	CONSTANT PRICES				
Total output	258.4	243.2	288.5	308.9	329.2
Intermediate consumption	104.9	103.2	93.8	113.1	118.1
Gross value added	127.9	140.1	194.7	195.8	211.1
Fixed capital consumption	15.8	18.3	20.4	21.1	15.8
Net value added	112.1	121.8	174.3	174.7	195.3

Source: Author's calculations based on MAPA

Notes: (1) The magnitudes are obtained using different methodologies before and after 1990

In order to have a better idea about the temporal evolution, in the next table (Table 4.4) the average annual rates of change of the same magnitudes are presented. As it can be seen, the regional behaviour has a similar trend to the national evolution. In current terms, the best five-year period is the first one, previous to the integration into the EU, with the production growing to an annual average bigger than 12%. In this period, the intermediate consumptions and the fixed capital consumption present a bigger average annual rate of change, and so, the added value grows to a smaller percentage. The second best five-year period is the one between 1996 and 2000, but in this case, the use of factors of production grows to a lesser extent, and in consequence the added value grows faster.

If the analysis is made using the real figures, the regional agriculture in the first ten years can be characterised as stagnated (Solchaga, 1988). The best period is the one between 1996 and 2000, where all the magnitudes had important rates of growth. The only exception is the fixed capital consumption, which presented a negative average annual rate of change. With no doubt, as in the national case, the worst period is the last one, with negative rates of growth.

In relation to the productive specialization of the regional agriculture (Table 4.5), the starting situation showed a bigger percentage of participation of the crop products than in the national sector, but along the considered period, the crop participation has been decreasing, reaching in the final years a bit more than 52%. This is different from the behaviour of the national sector, where, as it has been previously pointed out, the crop output has grown its percentage of participation.

Table 4.4 Annual growth rates of the regional agriculture magnitudes (1) (%)

Magnitudes	1980-85	1986-90	1991-95	1996-00	2001-03
CURRENT PRICES					
Total output	12.1	4.3	4.4	6.3	1.5
Intermediate consumption	18.2	4.3	3.7	4.7	2.9
Gross value added	7.7	5.4	5.1	9.6	1.8
Fixed capital consumption	13.4	6.8	4.4	-2.2	-1.4
Net value added	6.95	5.4	5.4	13.0	3.4
CONSTANT PRICES					
Total output	1.6	0.7	1.0	6.3	-0.6
Intermediate consumption	4.3	2.5	1.1	2.9	1.5
Gross value added	0.1	0.1	1.4	9.8	-1.1
Fixed capital consumption	1.5	1.5	0.8	-5.2	-4.8
Net value added	0.03	0.01	1.7	12.2	-0.4

Source: Author's calculations based on MAPA

Notes: (1) The magnitudes are obtained using different methodologies before and after 1990

Inside the crop productions, it is remarkable, compared to the national standard, the bigger participation of cereals, although with a decreasing percentage. In any case, the region is usually considered as specialised in these crops (MAPA, 2003). The horticultural products were very important before the integration into the EU representing more than 16% of the total production, but, again with a different trend from the evolution at national level, its representation is diminishing.

Table 4.5 Percentage of participation of different products agricultural output (annual average, %)

	1980-85	1986-90	1991-95	1996-2000	2001-05
Crop output	58.4	54.2	51.8	53.6	52.6
Cereals	22.4	21.4	23.0	20.7	18.3
Potatoes	2.5	1.2	0.8	0.4	0.5
Industrial crops	1.5	1.2	1.7	1.8	1.3
Horticultural products	16.2	14.0	14.8	14.5	12.6
Fruits	3.0	2.5	3.5	3.8	5.3
Wine	3.7	3.8	2.2	6.6	3.3
Olive oil	0.2	0.2	0.3	0.5	0.6
Other crop products	9.0	9.0	5.4	5.4	10.5
Animal output	36.6	39.4	44.1	42.1	43.3
Animals	25.8	26.4	33.6	31.1	30.9
Cattle	4.8	6.3	6.9	7.0	6.1
Sheep and goats	5.0	4.7	6.9	6.0	5.9
Pigs	9.7	10.9	10.4	10.4	12.4
Poultry	5.2	3.8	4.2	5.8	5.6
Equines	0.2	0.1	0.3	0.3	0.3
Other animals	1.0	0.7	4.9	1.6	0.6
Animal products	10.8	12.9	10.5	11.0	12.3
Milk	6.2	8.6	7.0	7.0	7.6
Eggs	2.9	2.9	3.3	3.7	4.4
Other animal products	1.7	1.4	0.2	0.4	0.3
Agricultural services output	-	-	1.1	1.1	0.6
Other activities	5.1	6.5	3.0	3.2	3.5

Source: Author's calculations based on MAPA

The animal output has a growing contribution to the sectoral production, going from around 37% to 43%. Apart from the fact that in the Spanish case this percentage is decreasing, the participation of every animal output is very similar in the two territorial areas, with the biggest percentages corresponding to the pig and milk productions.

In the regional case, some specialization in livestock production (cattle and milk) can be seen, as it happens in the northern regions of the country, where this kind of production is better adapted to their bio-climatic conditions. In any case, it can be seen a process of substitution between milk and cattle for meat productions, as it has happened in other Spanish regions.

The intermediate consumptions (Table 4.6) account each time for a smaller participation in the total production of the sector³⁴. The amount dedicated to feedingstuffs is the most important one, quantitatively speaking, and it has a growing trend, as it corresponds to a growing animal production. At the end of the analysed period, this consumption represents almost 57% of the total intermediate consumptions, ten points higher than the national correlative figure.

Table 4.6 Participation of different consumption in total intermediate consumption (annual average, %)

	1980-85	1986-90	1991-95	1996-2000	2001-03
Intermediate consumption /Agricultural production	40.6	42.5	32.6	36.8	35.9
Seeds and planting stock	3.5	5.1	3.2	5.2	5.9
Energy	7.4	7.0	8.5	6.9	7.8
Fertiliser	18.7	9.6	13.7	11.9	6.6
Plant protection products	3.3	2.9	4.6	5.1	2.7
Veterinary expenses	1.7	1.8	3.6	3.8	4.2
Feedingstuffs	47.2	52.7	49.4	50.2	56.9
Maintenance of materials and buildings	13.4	14.9	10.6	11.2	10.7
Other expenses	4.8	5.9	6.5	5.8	5.3

Source: Author's calculations based on MAPA

The second place is occupied by the expenses on fertilizers, but with a significant fall along the period, in such a way that at the end of the analysed period, this concept only accounts for the 6.6% of the intermediate consumptions. In that moment, the second place is reached by the expenses related to the maintenance of materials and buildings that account for around 11% of the total consumptions. The energy costs are also relatively important, and they maintain a participation of around 7% along the whole period.

The evolution of all these analysed magnitudes conditions the evolution of the agricultural income, the net added value at cost prices (Table 4.7). In nominal terms, this magnitude almost quadrupled in the analysed period, and in real terms it went from an annual average in the first five-year period of €112 million to €207 million in the last three-year period. The biggest annual average rate of growth is found in the period between 1996 and 2000. The worst one, with negative rate of growth in real terms, is the last one, as it happens in agriculture on a national scale.

In relative terms, and considering the occupied people in the sector³⁵, the income per worker has grown faster, due to the decreasing trend in the number of occupied people.

³⁴ In relation to the discontinuance observed for the period 1991-95, the same comment that in the Spanish case can be applied.

³⁵ It was not possible to find information about the utilised labour in the regional agriculture expressed as Annual Work Units (AWU). The available information makes reference to the occupied people, data coming from the Survey of Economically Active Population, elaborated by the National Institute of Statistics (Instituto Nacional de Estadística, INE), data that are not free of controversy.

So, in nominal terms, it goes from an annual average in the first five-year period of €6,229 to €29,520 at the end. In real terms, the increase is also remarkable, from almost €5,000 to more than €13,600. The biggest rate of growth can be seen in the period after the integration of Spain into the EU.

In this case, we have also computed the income obtained from every hectare of land (UAA). The observed increase is also very important, being again the best five-year period the one between 1996 and 2000, with annual average growth rates superior to 12%. In real terms there are two periods with negative average rate of change, the first and the last one.

Table 4.7 Annual average of agricultural income and its annual average rate of growth

Year	Total agricultural income (€million)		Income per worker (€)		Income per hectare (€)	
	Nominal	Real	Nominal	Real	Nominal	Real
1980-1985	142.7	112.1	6,229	4,994	220.1	176.7
1986-1990	214.1	121.8	11,592	7,039	325.5	199.3
1991-1995	329.5	177.8	28,351	15,282	529.5	285.5
1996-2000	371.8	180.5	21,766	10,555	601.2	291.7
2001-2003	448.8	207.2	29,520	13,611	723.4	334.1
	Rate of growth					
1980-1985	7.1	0.04	6.8	-0.6	6.8	-0.3
1986-1990	7.6	1.7	16.9	10.7	7.7	1.8
1991-1995	5.9	2.0	12.5	8.9	7.4	3.5
1996-2000	13.0	12.1	8.7	7.7	12.9	12.0
2001-2003	3.0	-0,6	7.5	3.4	3.0	-0.6

Source: Author's calculations based on MAPA

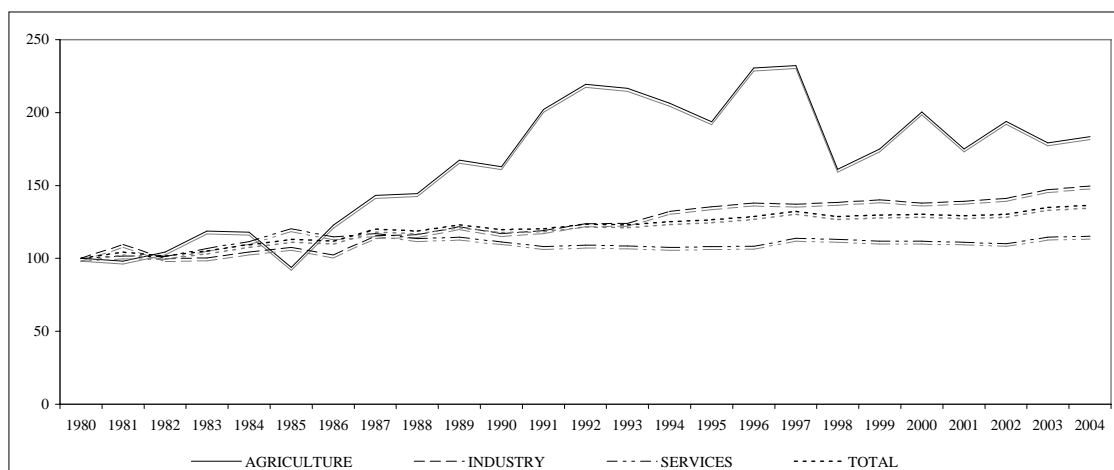
The above presented results show an increase of the agricultural productivity in real terms. In order to have a reference to test whether it is a lot or not enough, we have computed such magnitude for other regional sectors and the Spanish and European agricultural sector, but using homogeneous data for all of them. The labour productivity indices, obtained using the gross value added and the number of occupied people, are included in the Table A4.13. In the next Figure 4.11, the relative regional situation is depicted.

In the regional case, the analysis of the evolution of the regional agricultural productivity reveals that the sector has not too bad results compared to other sectors. Taking 1980 as a reference, the agricultural sector has the highest rate of growth, even considering the

Rapún and Pascual (1997) pointed out that the increase in the number of employed people in the regional agriculture in 1996 (from 11,700 to 17,400) was very surprising, and without economic meaning, being the only possible explanation the change in the methodology in the way of elaboration of the Survey of Active Population, as it has been suggested by GAP (2005) and Gobierno de Navarra (2003).

mentioned increase of occupied people accounted by the Survey of Economically Active Population in the last nineties. In this sense, it could be said that the sector has had a good behaviour, but it is not convenient to forget that it is the sector with the smallest productivity. The mentioned behaviour has made its relative situation improve a lot in the period, and it has allowed the agricultural productivity to move up from 49% of the total regional average in 1980 to more than 66% in 2004.

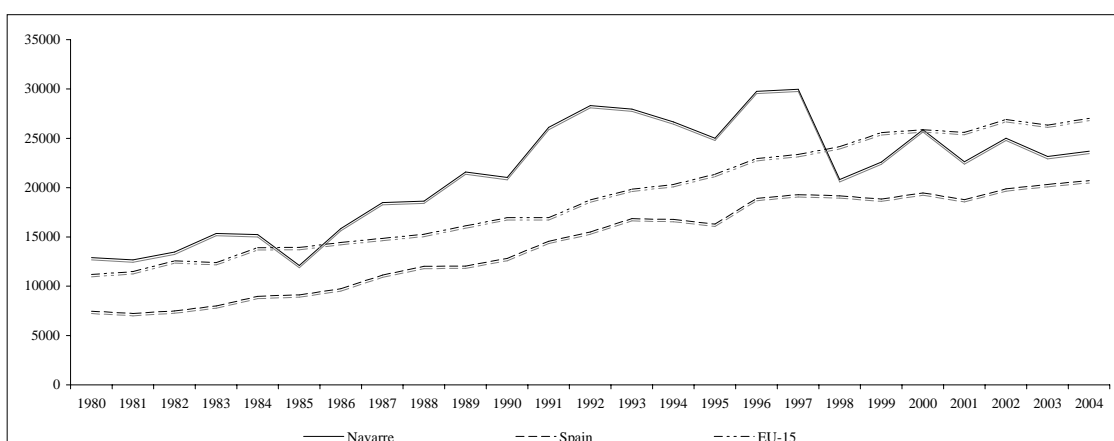
Figure 4.11 Regional productivity by sectors



Source: Ezcurra and Iraizoz (2007)

Another way to have a reference for the regional agricultural sector is by comparing it with the same sector in other territorial spaces, as for example the Spanish or European ones. This comparison is included in the Figure 4.12.

Figure 4.12 Regional, Spanish and European agricultural productivity (1995 prices)



Source: Ezcurra and Iraizoz (2007)

As it can be seen there, the relative situation is also favourable to the regional agriculture³⁶. Respecting the Spanish agriculture, the regional sector has always obtained a better ratio, and until the last nineties, the trend pointed to a growing difference between the two areas. The final worsening of the regional productivity seems to be more related to the mentioned statistical problem with the number of occupied people. In relation to the European agriculture, the evolution is very similar to the aforementioned, but the differences are smaller, and in the last years the regional agriculture obtained less added value per occupied person than the European one.

4.3.3 Farm Structure

To analyse the structure of the farms at regional level we will use the information coming from the three available censuses and the Survey of the Agricultural Holdings. The main variables coming from the two sources are included in the tables A4.14 to A4.18.

Using the information coming from the censuses, it can be seen that the number of farms decreased from more than 42,500 in 1982 to 25,400 in 1999, that is to say, the 40% of the farms existing at the beginning of the period disappeared in these seventeen years, being the structural adjustment bigger in the second covered period³⁷. Considering furthermore the change in the quantity of land, that is not very relevant, the average physical size increased from 12 to 23.7 hectares of UAA (Table 4.8). This shows that the liberated land by the outgoing farms has not been abandoned, but it has contributed to the increase of the size of the farms that have maintained. However, there has not been the same concentration in the tenancy of the land, and this has implied an important increase in the volume of rented land (it has gone up from 10.6% in 1989 to 25.7% in 1999). The change in these figures has been superior to the national average, especially in 1999, showing that the adjustment process has been bigger at regional level.

³⁶ Analysing the regional Spanish agricultures in the period 1962-1989, Fernández and Herruzo (1996) showed that the total factor productivity of the agriculture of Navarre had the smallest rate of growth. Iraizoz et al. (2000) estimated that in the period 1978-86 the improvement of the regional total factor productivity was inferior to the national average, but this trend changed, and in the period 1987-94 its agricultural productivity grew at a bigger rate than the Spanish average. Finally, Ezcurra et al. (2007) analysing the spatial distribution of the European regional agricultural productivity, showed that in the period 1980-1983 and 1998-2001, Navarre was included in the second quartile, and so, among the regions with relatively small agricultural productivity.

³⁷ Aldanondo et al. (2007) shows that this adjustment process supposed that the farms that went out of the sector were the smallest ones in terms of land used, with young and aged holders, and farther from the urban centres. Among these last farms, it is very important the fact that the farmer had another occupation to understand that they continue in the agricultural activity. In this sense, the authors pointed out the importance of the diversification of the farms as an important element to maintain the rural population in those areas.

Table 4.8 Structural indicators obtained from the Agricultural Censuses

Indicator	1982	1989	1999	Change (%)	
				1989-1982	1999-1989
Total land per farm	22.69	23.24	37.49	2.4	61.3
UAA per farm	12.15	15.49	23.67	27.5	52.9
AWU / farm	0.48	0.47	0.65	-2.5	37.1
AWU / hectare of UAA	0.04	0.03	0.03	-23.5	-10.3
SGM / farm	5.35	5.94	12.76	10.9	115.1
SGM / hectare of UAA	0.44	0.38	0.54	-13.0	40.7
SGM / AWU	11.05	12.57	19.72	13.8	56.9

Source: Author's calculations based on INE and MAPA

The labour factor shows also a decreasing trend, and it went down from 20,614 in 1982 to 16,445 in 1999. This decrease does not compensate the reduction in the number of holdings, in such a way that the average moved from 0.48 AWU per farm to 0.65. In this respect, the increase is bigger than at national level, and in 1999 the two averages are very similar.

The economic result of the farms, measured through the number of ESU of SGM, has increased in the two temporal periods, mainly in the second one. Again, considering the reduction in the number of farms, this implies a very important improvement of the average economic results of the farms. In this sense, the ratio SGM per farm has more than doubled. In the three analysed census, this ratio is favourable to the regional average compared to the national average. For example, in 1999, the ratio in the region was superior to the national one in more than 45%.

Another aspect to be considered is the distribution of the farms according to their economic size. As in the national case, the biggest percentage of farms corresponds to the stratum of smaller farms, but the situation is improving, and the groups of farms with a SGM smaller than 8 ESU are losing relative weight, both referring to the percentage of farms included and with reference to the percentage of SGM. Correlatively, the groups that accounted for the biggest farms are gaining relative importance, mainly in terms of the SGM.

Using the classification proposed by Regidor (2000), Porcal (2002) computed the distribution of farms accordingly to their perspectives of future. The obtained results show that the 57% corresponds to marginal familiar holdings, 21% to familiar holdings that could improve their situation, and only 14% can be classified as viable familiar farms. The other 8% is made up by bigger non-familiar farms (it concentrates the 58% of the regional UAA) with good perspectives for the continuity in the activity.

Table 4.9 Participation of different class size in the number of farms and SGM

Economic size	1982		1989		1999	
	% farms	% SGM	% farms	% SGM	% farms	% SGM
Less than 2 ESU	49.0	6.0	52.4	2.2	39.6	2.2
From 2 to 8 ESU	32.0	26.0	26.0	17.1	27.5	9.5
From 8 to 16 ESU	12.2	25.4	11.7	21.4	13.1	11.8
From 16 to 40 ESU	5.5	23.5	7.9	30.7	12.5	24.6
From 40 to 100 ESU	1.0	11.1	1.6	15.0	5.6	26.3
More than 100 ESU	0.2	8.1	0.4	13.6	1.7	25.7

Source: Author's calculations based on MAPA

The regional specialization mentioned in the previous section is also present when analysing the distribution of farms according to the type of farming (Table A4.16). The farms specialized in cereals, oleaginous and leguminous plants present the biggest percentage, but their participation has decreased a lot. The horticulture and mixed farming have also relative importance at regional level. Among the other crop farms, it is worth noting the increase in the participation of the viticulture and olive grove farms. Respecting the animal farms, the percentage accounted by the of sheep farms it is remarkable, although with a decreasing trend. It is also interesting the existing change between milk specialization and cattle for meat specialization, with a decreasing trend for the first one and an increasing one for the second.

The results obtained from the census are very similar to the obtained ones using the data coming from the Survey of the Agricultural Holdings (Table 4.10). The only advantage of this last source of information is that it reaches a more recent year. In the considered fifteen years the same trends can be found: a reduction in the number of farms, labour and land used, and an increase in the SGM. In this sense, the structural adjustment is continuing in the last years, but more slowly than in the previous years. As a result of this process, the average regional agricultural holding has a bigger amount of available land, uses more labour per farm and obtains more SGM.

Table 4.10 Structural indicators obtained from the Survey of the Agricultural Holdings

Indicator	1990	1993	1995	1997	2000	2003	2005
UAA per farm	20.02	22.32	24.47	25.09	29.23	30.77	33.09
AWU / farm	0.59	0.75	0.78	0.77	0.77	0.80	0.84
AWU / hectare of UAA	0.029	0.034	0.032	0.031	0.026	0.026	0.026
SGM / farm	7.49	13.86	11.10	14.51	15.67	18.55	21.70
SGM / hectare of UAA	0.37	0.62	0.45	0.58	0.54	0.60	0.66
SGM / AWU	12.78	18.45	14.29	18.76	20.40	23.32	25.70

Source: Author's calculations based on INE and Eurostat

Using the information available in the Survey it is also possible to know the relative importance of less favoured areas³⁸. In the regional case, around 66% of the agricultural area belongs to less favoured areas. The number of holdings located in these areas is growing, from 55% in 1990 to 62% in 2005. The percentages corresponding to mountain areas are in the last year 36% and 40%, respectively. These figures are smaller than the national ones, indicating that the region has a better relative situation.

In relation to the part-time dedication of farmers (Table 4.11), and considering the holdings where the holder is a physical person, its evolution has not been constant. In the first five years there is a growing trend in the participation of the holders with total work time dedicated to the farm, from 48% to 62%. In the last years this trend changed and the percentage went down to 55% in 2005. It is worth mentioning that this behaviour is similar to the national case, but in this case, the average is smaller, indicating a higher importance of the part-time dedication within the region.

Farm labour force comes mainly from the family. At the beginning of the period family labour force accounted for more than 80% of the total AWU, a much higher participation than at the national level. In recent years, this figure went down to 67%, percentage that is closer to the national average.

Another concern about the regional holdings is the ageing of their holders. Using the information of the survey, it can be seen how the youngest holders' percentage declined from around 10% at the beginning of the 1990s to 7% in 2005. The largest group includes the holders aged between 55 and 64, although with a decreasing percentage. Taking into account that the most aged group (65 or more years of age) has also an important and increasing participation, it can be said that ageing is taking place among the regional agricultural holders.

Table 4.11 Part-time participation and farm holders' age

Indicators	1990	1993	1995	1997	2000	2003	2005
Work time > 0 to < 25%	11.2	9.5	7.7	8.5	8.8	9.1	7.7
Work time > 25 to < 50%	13.2	10.1	10.6	11.5	10.9	9.7	14.8
Work time > 50 to < 75%	14.5	6.2	7.7	8.4	9.7	11.7	12.3
Work time > 75 to < 100%	13.2	16.3	11.6	10.8	14.4	10.9	9.8
Work time 100%	48.0	58.0	62.3	60.9	56.4	58.6	55.3
Age < 35 years	9.7	8.5	10.2	8.9	12.2	8.4	6.9
Age 35 to 44 years	16.2	15.2	11.2	15.0	19.4	17.9	18.0
Age 45 to 54 years	26.2	26.6	28.4	27.4	22.9	21.1	24.6
Age 55 to 64 years	37.0	34.1	29.7	28.6	26.7	29.7	27.5
Age 65 and over	10.8	15.6	20.5	20.1	18.8	22.9	23.0
% of family labour force	81.4	80.6	80.4	76.8	71.0	69.8	66.8

Source: Author's calculations based on Eurostat

³⁸ At regional level, 52.5% of the municipalities, 54% of the total area and 14% of the population in 2001 were considered as mountain areas. Moreover, 24% of the municipalities, 25% of the total area and 13% of the population in 2001 belonged to other less favoured areas.

But, the behaviour of the farms in the seven regional counties is different. Using the last available information at municipality level (Agricultural Census, 1999), we have obtained the main characteristics of the regional seven counties in relation to the structure of the farms (Tables 4.12, A4.19 and A4.20).

The concentration of farms, utilised agricultural area and labour is not homogeneous in all the territory as a consequence of the different productive orientation of the counties and their different size. The Ribera Alta and Baja are the two counties with the biggest participation in these magnitudes. The county Pirineos has an important percentage of the regional UAA, but in other variables its participation is one of the smallest ones.

In reference to the size, the differences are also significant, although the picture changes depending on the variable used as a relevant measure of the size. If the land is used, the biggest ones are located in the counties Pirenaica, Pamplona and Navarra Media. But if we use the labour factor, the biggest ones are those belonging to counties Noroccidental and Ribera Alta. These results shows how the use of factors of production changes in the areas, being the relationship between land and labour smaller than the average in the counties Ribera Alta and Noroccidental, and the biggest one corresponds to Pirineos.

Table 4.12 Characteristics of farms by county

County	Average farm size			Distribution of farms by economic size (UDE)			
	UAA	AWU	UAA/AWU	less 8	8 to 16	16 to 40	more 40
I Noroccidental	16.8	0.98	21.5	71.6	14.9	9.6	3.9
II Pirineos	53.1	0.66	109.5	66.0	13.5	15.1	5.4
III Cuenca de Pamplona	31.9	0.55	67.2	58.8	19.1	16.3	5.9
IV Tierra Estella	25.8	0.49	60.1	66.7	12.8	13.2	7.4
V Navarra Media	43.2	0.64	74.9	67.5	11.9	11.7	8.9
VI Ribera Alta-Aragón	20.9	0.69	29.9	62.9	12.8	13.7	10.7
VII Ribera Baja	17.1	0.61	27.2	70.7	11.6	11.2	6.4
Total	30.5	0.66	58.8	67.0	13.1	12.5	7.4

Source: Author's calculations based on Instituto de Estadística de Navarra

If we consider the economic size, the distribution of the farms among the four considered groups (very small, small, medium size and big farms) according to the magnitude of the obtained standard gross margin, in all the counties the group formed by the smallest farm is the most important, but specially in the Noroccidental and Ribera Baja. The largest proportion of big farms can be found in the counties Ribera Alta and Navarra Media.

The specialization of the counties in some agricultural activities could help to explain the observed differences in the size. The pattern of specialization changes from the north to the south as the bio-climatic conditions change from Atlantic climate in the northwest to Mediterranean in the south. In the northern counties, the most frequent type of farming is related to animal production, mainly sheep, goats and other herbivores (in these counties more than 65% of those farms are located). In the Noroccidental area, livestock farms have

also an important participation, and in this county are located more than 85% of milk farms, more than 58% of cattle for meat farms and 75% of mixed cattle farms. The Pirineos county is characterised by having a more mixed sector, and we can find there an important participation of cereal, oleaginous and legumes farms combined with animal farms. The counties corresponding to the middle area present a bigger specialization in agricultural products, mainly cereals and viticulture farms, with some mixed farms. In this respect the Cuenca de Pamplona stands out, because the 55% of the farms is included in the cereal, oleaginous and legumes type of farming. Finally, the counties located in the south have a more coincident structure with the Mediterranean pattern, standing out the participation of the horticulture (mainly in irrigated lands), viticulture, fruit and olive grove farms.

4.3.4 The agro-food industry

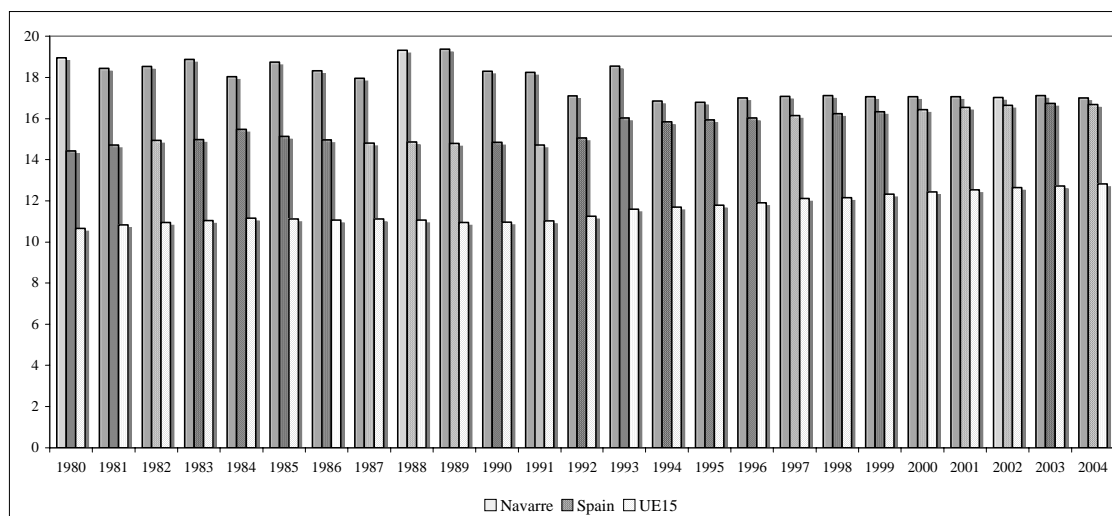
It has been pointed out by some authors the importance of the agro-food industry for the development of rural areas (García, 2002). In the regional case, this sector has had traditionally a remarkable importance, compared both with the Spanish and European standard, and taking into account that the industry sector is relatively more important in the regional case (see Table 4A.21 for the main data of the sector in the three mentioned areas). In the last available years, this sector accounted for more than 13,000 jobs.

Using the employment as a relevant variable, in the next Figure we can see the evolution of the percentages of participation of the sector in the industry as a whole. Its participation in the regional industrial magnitudes is significant, and bigger than in other regions and areas. But, in the last years it is losing importance, and at national level it is gaining it. In any case, the sector represents around 17% of the industrial magnitudes.

The regional agro-food industry has some structural problems, as for example the relatively small size of the establishments. In the analysed period, there has been a process of concentration, mainly after the integration of Spain into the EU (Rodríguez-Zuñiga and Sanz, 1994), and it can be observed that it continues but at a slower pace.

Moreover, it presents worse results than other industrial activities in terms of labour productivity, variable that in many occasions is used as a proxy of the competitiveness of the analysed economic agents. But, compared with the same sector in other territorial areas, it is not badly placed. It seems that the low productivity could be related with the small amount of capital per worker (Myro, 1997) and to the important weight of the primary sectors, those included in the agro-food industry that carry out the first transformation of the agricultural products, activities that in general incorporate little added value and that frequently do not use advanced technologies (Iráizoz *et al.*, 2001).

Figure 4.13 Participation of agro-food sector in the industrial employment



Source: Ezcurra and Iraizoz (2007)

Table 4.13 shows that the regional agro-food industry is specialised in vegetable production. These activities use more than 40% of the sectoral employment but obtain around 35% of the added value, indicating that their labour productivity is lower than the average.

There are also important agro-food activities linked to the animal productions, mainly meat but also milk, although the last one has suffered an important decrease in the considered period, which partially can have been due to the reduction in the regional milk production. The meat industry accounts for more than 10% of the agro-food employment. Finally, it is remarkable the participation of beverages industries, with an increasing trend, being relatively important the contribution made by the industry of wine.

But, the regional agro-food industry plays a very important role because it is the main destiny of the production of the agricultural sector. Using the information coming from the available regional input-output tables (1980, 1995 and 2000) some indicators can be obtained to be used to examine the interdependence in production structures. The measures, including backward and forward linkages, are used for identifying the sectors creating above average impacts upon an economy³⁹. In the regional case, it is interesting to point out the importance of the agricultural and animal productions as suppliers of intermediate consumptions to the agro-food industry although with a decreasing trend (because the industry every time has more intermediate consumptions coming from the services sectors) and the role played by the vegetable and wine industries as users of inputs coming from the agricultural sector.

One additional issue, related in many cases to the competitiveness of the sector, makes reference to the capacity to compete in foreign markets. In this sense, it could be interesting to know the situation of the sector in relation to the international trade (A4.22). Navarre has been a region with an exporting vocation, and in the analysed period it has a positive behaviour to this respect. From 1983 to 2006, the trade balance was positive for the region, and with an increasing magnitude (Figure 4.14).

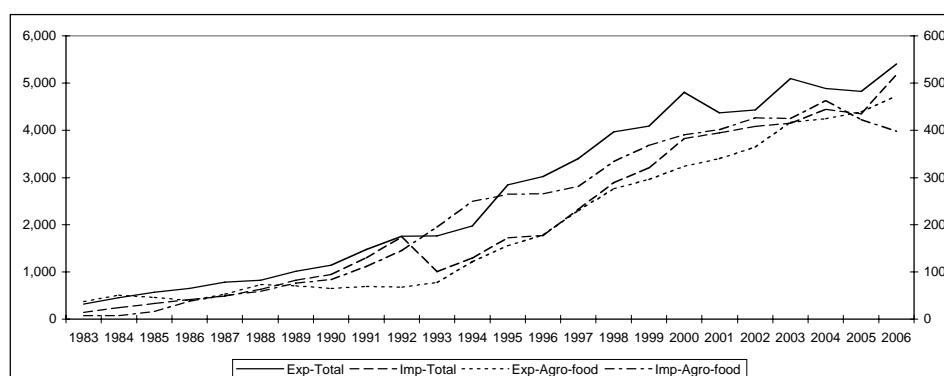
³⁹ For a detailed analysis of these results see Iraizoz and Rapún (2001) and Iraizoz (2004).

Table 4.13 Figures for different agro-food industries

	1985	1990	1995	2000	2005
Employment					
Total	10,173	11,747	9,532	10,141	12,795
Meat	1,591	1,875	1,120	1,359	1,467
Vegetables	3,939	4,808	4,210	4,763	5,279
Milk	736	802	451	182	391
Beverages and tobacco	895	851	1,014	1,475	1,710
Other	3,012	3,411	2,738	2,362	3,949
Production (000 Euros, current prices)					
Total	594,105	941,323	1,340,256	1,627,872	2,578,585
Meat	104,257	178,376	194,781	252,858	350,252
Vegetables	134,798	243,851	439,543	567,353	796,981
Milk	76,277	121,015	98,425	41,963	79,516
Beverages and tobacco	57,481	77,773	236,452	408,415	442,179
Other	221,293	320,308	371,055	357,283	909,657
Added value (000 Euros, current prices)					
Total	148,340	164,887	298,045	374,903	609,028
Meat	25,402	39,407	33,121	40,596	56,766
Vegetables	36,449	64,105	95,506	126,664	219,344
Milk	17,016	28,816	21,939	7,390	19,073
Beverages and tobacco	18,279	26,772	71,362	115,071	131,803
Other	51,194	5,788	76,116	85,183	182,041

Source: Gobierno de Navarra and Instituto de Estadística de Navarra

Figure 4.14 Imports and exports. Total regional and agricultural and food products (€million, current prices) (1)



Source: Author's elaboration based on Marin (1988) and Gobierno de Navarra

Notes: (1) The total exports and imports are represented in the left axe and the agricultural ones on the right axe

The exports of agricultural products have had an augmenting trend, but in a lesser way than the total ones. These two behaviours have made that the agricultural participation in the regional exports has diminished from being more than 10% at the beginning of the eighties to less than 5% in the nineties, and after some recovering period, to around 9% in the last years. In relation to the type of exported products, it is worth mentioning the participation of vegetal products, obtained both in the farms and in the agro-food industry (vegetables and wine).

The imports of agricultural products have had also an increasing trend, and they have grown faster than the corresponding exports. As a consequence the agricultural trade balance started to be negative in the first nineties and this situation has maintained until recent years, when the imports have diminished allowing the improvement of the net balance.

These imports represented less than 5% of the total regional imports at the beginning of the period, but its participation grew a lot reaching almost 20% in the nineties. However, in the last years, a change can be observed, and its participation decreased. The products with more weight in the regional agricultural and food imports are the obtained in the agro-food industry and cereals.

One question that is related to the agro-food industry is the production of products of quality. In this sense, in Navarre there were some quality labels related to the origin, that include some regional products (Gobierno de Navarra, 2005a). There are seven protected designations of origin: wine Rioja, wine Navarra, cheeses Roncal and Idiazabal, pepper Piquillo de Lodosa (1987), sparkling wine cava (1991) and olive oil⁴⁰ of Navarra. There are five protected geographical indications: artichoke of Tudela, asparagus of Navarra, beef of Navarra, lamb of Navarra and liqueur Pacharán Navarro. Additionally there are three more quality labels: integrated agriculture, artisanal food of Navarra and organic agricultural production of Navarra.

In relation to this last production it is important to point out the increasing figures that can be observed in the last fifteen years (Table A4.23). The number of hectares under organic production has gone up from 21 in 1991 to more than 19,000 in 2005, and the number of farmers from 5 to 580.

4.4 The regional rural areas

According to the definition of rural areas used in Spain, and using the information coming from the censuses of population and the municipal registers (Tables A4.24 and A4.25), we can say that the regional situation has changed a lot in the last forty five years (Table 4.14).

In 1960, more than 70% of the population was living in municipalities with fewer than 10,000 inhabitants, which represented the 99% of the total. In fact, only two municipalities could be included in the urban category, the regional capital, Pamplona, and an urban concentration in the South of the region, Tudela.

But, as it can be observed, a process of immigration occurred in the sixties and seventies toward the main industrial centres, mainly Pamplona and Tudela. The population that concentrates in rural and intermediate municipalities moved down to 50% in 1981, and since then, these numbers have maintained relatively constant, due to the fact that there has been a certain transfer of inhabitants from rural municipalities to intermediate ones. In the last available year the number of urban municipalities rose up to eight, but they are

⁴⁰ This designation of origin is now undergoing the necessary procedures for its official recognition, and it is waiting for its approval in the UE.

municipalities that make-up the urban surrounding area of the capital, Pamplona. The demographic regional trend shows a concentration of the population in the areas surrounding the cities and along the communication axes, and the depopulation of the remotest and mountainous areas (Ugalde, 2002).

Table 4.14 Distribution of population by municipalities according to their size

	1960	1970	1981	1991	2001	2005
Number of inhabitants (thousands)						
Rural	135.6	106.9	97.1	94.0	100.9	94.6
Intermediate	152.1	166.2	150.0	153.0	166.6	184.7
Urban	114.3	191.8	260.2	272.0	288.7	314.2
Total	402.0	464.9	507.3	519.0	556.3	593.5
Percentage of population in every group						
Rural	33.7	23.0	19.1	18.1	18.1	15.9
Intermediate	37.8	35.7	29.6	29.5	30.0	31.1
Urban	28.4	41.3	51.3	52.4	51.9	52.9
Number of municipalities						
Rural	218	213	215	214	221	216
Intermediate	45	48	43	44	44	48
Urban	2	4	6	7	7	8
Total	265	265	264	265	272	272
Percentage of municipalities in every group						
Rural	82.3	80.4	81.4	80.8	81.3	79.4
Intermediate	17.0	18.1	16.3	16.6	16.2	17.6
Urban	0.8	1.5	2.3	2.6	2.6	2.9

Source: Author's calculations based on Instituto de Estadística de Navarra

Given the number of municipalities classified as rural, and compared with the national average, it can be pointed out that Navarre is a region with a rural character, disperse in a big number of municipalities, although there is an important concentration of its inhabitants in the capital (in the year 2005 it accounted for the 33% of the total regional population, and if we add the adjoining municipalities, that represent extensions of the capital, we reach the number of 50%).

Additionally, according to the definition of rural area made by the OECD, and using the data coming from the municipal register in 2005, Navarre could be classified as a region considerably rural, because around 44% of the population is living in municipalities with a density of population smaller than 150 inhabitants by square kilometre (Gobierno de Navarra, 2007, OECD, 2005).

In this sense, we have tried to check out until what point the two classification methods coincide. In order to do it, we have grouped the regional municipalities in groups according to the two variables and we have crossed them. The results show that the 99% of the municipalities with fewer than 2,000 inhabitants has a density under 150 inhabitants by

square kilometre. More than 75% of the municipalities with a number of inhabitants between 2,000 and 10,000 has a density smaller than 150. Finally, more than 70% of the biggest municipalities has a density of population higher than 150. So, in the case of Navarre, the two criteria lead to similar results⁴¹ (in the Table A4.26 the resulting tables are shown).

In order to go deeper in the knowledge of the differences among the considered areas (rural, intermediate and urban), we have used the available information by municipality coming from the three censuses of population (1981, 1991 and 2001). These figures are included in the Table A4.27.

The first question is the distribution of the occupied people by sector of activity. As it has been pointed out in many occasions, the rural areas are characterized by having an important percentage of the economic activity concentrated in the agricultural sector. Using the occupied people as a proxy variable, it can be seen how in 2001 in the rural areas more than 17% was working in the agricultural sector, whereas in the urban ones only the 2% of the occupied people was working in this activity. The loss of importance of the sector to this respect is evident when analysing the evolution of this ratio, mainly in the rural and intermediate municipalities. In these areas, in 1981 the percentages of population occupied in the primary activities were 33.6 and 26.7% respectively, and they diminished until 17.2 and 8.9%. Correlatively, the services activities have gained relevance. But, again we find important differences among areas, being the urban ones where the services sector has a bigger participation.

In this respect, and taking into account the importance conferred to the tourist activities in the rural development process, it can be interesting to know some figures about the evolution of this activity in the regional context. Navarre has a small significant role in tourist activities having a percentage of participation that does not reach 3% of the national figures (Sariego and Pons, 2003). But in the last twenty years it has suffered an important increase, mainly joined to the rural areas. As it can be seen in the Table A4.28, the increase in the number of rural houses has been very important, being the first contemplated period (1990-96) the one with biggest rates of growth. It is interesting to see how at the beginning the most important modality was the rooms for hire. After some time, the increase in the number of houses to be rented as a whole has been more important, representing in the last years almost 93% of the total offered places. This change has taken place because the last ones are more profitable and are not so work demanding (Echamendi, 2002).

Again, we found here some unbalance among counties, in both the offer and the demand (Table A4.29). There are two counties, Noroccidental and Pirineos, which jointly represent more than 85% of the total rural establishments and places on the side of the offer, and more than 84% on the side of the demand (measured as the number visiting people in such establishments). Along the last six years for which there are available disaggregated information by counties, besides the increase in the number of rural houses and rural tourists in all the counties, a redistribution of the received flow of tourists can be observed. The two mentioned counties concentrate more than 75% of the visitors, but in these years they have lost a 10% of the regional figures. Other destinies start to become important, mainly those in the middle of the region, that in the last year accounted for percentages of participation bigger than 15%.

⁴¹ We have tested the results of the cross of the two classifications by means of a Chi-square statistic, which is statistically significant in all the cases.

Considering all kinds of tourist establishments, Sariego and Pons (2004) elaborate an index to quantify the diversity of tourist accommodation, trying to measure the complexity of the tourist offer, which is an indicator of its level of development. Their results show how such index reaches the biggest value in the north of the region and is decreasing as we move towards the southern counties. In this sense, the mountain areas of the two northern counties are the ones with the most developed tourist sector, in accordance with the last trends in the demand of these services, that increasingly is looking for a higher quality tourism, with smaller level of overcrowding and with more environmental awareness.

Another question about rural areas is the high proportion of aged people, problem that can imply the existence of problems for the social and economic development of those areas. In the regional case, and taking into account the observed ageing process occurred in the region, the participation of the aged people is always bigger in rural areas than in urban ones, whereas the participation of the youngest people is always inferior. For example, in 2001, people aged over 65 represented in rural areas almost 28% of the population, in intermediate ones the 18.6% and in urban areas the 13.9%. The corresponding figures for the group of people under 15 years of age are 9.7%, 14.0% and 15.7%, respectively.

An additional issue, already mentioned in the Spanish analysis, is the imbalance between the number of men and women in rural areas, mainly due to the bigger participation of rural women in the migration process towards urban areas. In the regional case the differences among types of municipalities in relation to the male index are very important, and they are increasing, in such a way that in 2001 this index was 116 for rural areas when the regional average was 99.

Related to this last question is the participation of women in the labour market. As it can be seen, women in rural areas account for a smaller percentage of the total occupied people. In all the types of municipalities, these percentages are growing, according to the social and demographic changes that have taken place in the last twenty-five years, but the mentioned increase has been more important in urban areas, indicating that the incorporation of women to the labour market has taken place with some delay in rural areas. But the importance varies a lot depending of the sector of activity. In general, women have bigger participation in the services sector, representing in 2001 more than half of the occupied people.

Finally, it is interesting to point out that there are also important differences in relation to the level of studies of the population. As it has been mentioned before, the level of formation of the regional population has improved a lot in the last years, but, again, the rural areas are in a disadvantageous position in this respect. In the last available census, the percentage of population⁴² with university studies was 18.6% in urban municipalities, 10.4% in intermediate ones and 11.2% in rural ones. These are the results of at least three circumstances. The first is that the population of rural areas encounters more difficulties in gaining access to study centres (for example, universities are located in the capital). The second is related to the migration process, as in rural areas has affected particularly the people with a higher level of education (Porcal, 2002). The third is that in cities a concentration of more qualified jobs is present (Ugalde, 2002).

Before finishing this section, it is important to take into account that the region has not a homogeneous behaviour and that a great diversity of areas can be found. In order to have an idea of this situation, we have analysed the distribution of the municipalities of the seven counties among the three identified types of areas (Table 4.15, and additional information obtained from the census of population in 2001 is included in Table A4.30).

⁴² The information makes reference to the population aged over 16 and that are not studying.

As it can be seen, there are three counties without urban municipalities, the two northern counties and one in the south. However, this last one has a big percentage of intermediate municipalities. The county with the biggest percentage of urban municipalities is the one where the capital and its area of influence are included, named Cuenca de Pamplona.

Table 4.15 Distribution of municipalities of every county by type of areas, 2001

Counties	% of municipalities			Number of municipalities	Density of population
	Rural	Intermediate	Urban		
I Noroccidental	86.8	13.2	0	53	49.5
II Pirineos	100	0	0	46	9.7
III Cuenca de Pamplona	68.3	22.0	9.8	41	1,232.6
IV Tierra Estella	96.7	1.7	1.7	60	31.9
V Navarra Media	90.0	6.7	3.3	30	19.9
VI Ribera Alta-Aragón	43.5	56.5	0	23	59.4
VII Ribera Baja	31.6	63.2	5.3	19	84.3
Total	81.3	16.2	2.6	272	53.5

Source: Author's calculations based on Instituto de Estadística de Navarra

Analysing the density of population, three counties stand out for their low magnitude, one corresponding to the Pirineos and two located in the middle of the region. These are mountainous areas, with small villages, mainly specialized in agricultural activities, with an aged population. These restrict the possibilities of development for these areas. In contrast, the county including the capital has a high density of population. It is the most dynamic county in demographic and economic terms, with the biggest concentration of population, with a higher level of education and with the biggest percentage of labour force working in the services sector.

Finally, it is interesting to show some figures about the protected areas in the region. Navarra includes three bio-geographic regions (Alpine, Atlantic and Mediterranean) and, it can be said that it has an important biodiversity that is highly protected. The network of protected natural areas is made up by three natural parks (jointly they have an area of 61,942 hectares), three integral areas (557 hectares), two natural recreational areas (447 hectares), 38 natural reservations (9,178 hectares), 28 natural enclaves (910 hectares), 17 areas of special protection of birds (79,950 hectares), 14 areas for the protection of wild fauna (2,789 hectares), one protected landscape (1,729 hectares) and 42 sites of community importance (255,484 hectares).

4.5 Rural policy

Following the structure of the previous chapter, this section will focus on the most significant agricultural and rural development policies that are managed at regional level over the three programming periods (e.g. operational programme, single document,

Leader initiative). A short overview regarding rural policy prior the integration of Spain into the EU is also presented.

4.5.1 Until the first programming period

As in the national case, the rural policy was not a priority for the governments before 1985. Anyway, during the first eighties there was a process of adaptation of the national policies to the European ones. In the case of Navarre, and due to their particular adopted regime (with the foral status), the level of financial autonomy was very high.

After the integration of Spain into the EU, the ERDF intervened in the regional policy in Spain, but in the first year only six CCAA (afterwards it extended until nine) received aids coming from these funds (the less developed ones, among which Navarre was not included). But in 1987 a new map of interventions is accepted in the European Commission. In Navarre, the area of intervention occupied 6,394 km² (61.4% of the territory) and 157,800 inhabitants (31% of the regional population). The area corresponds to the northern area (mainly counties I and II). This intervention of the ERDF in Navarre is based on the document “Regional Development Program” presented in 1986 and covering the temporal period 1987-1990. The amount of found received by this European fund was €44.6 million. Also the ESF and the EAGGF intervened with aids to different activities, with €1.6million and €8.4 million, respectively.

In relation to the expenses of the EAGGF Guidance, in the Table 4.16, its distribution among measures is included. The structural measures with more available resources were related to infrastructures and transformation and commercialization of agricultural products. The increasing trend of the volume of resources received by the region could be also observed.

Table 4.16 Distribution of EAGGF Guidance expenses, 1986-1989 (€ million)

Measure	1986	1987	1988	1989	TOTAL
Agricultural research and development	-	-	-	0.02	0.02
Infrastructures: concentration of land plots and irrigated land	-	0.03	1.12	-	1.15
Improvements of the effectiveness of the agricultural structures	0.08	0.44	0.77	1.49	2.78
Transformation and commercialisation	-	-	1.18	1.07	2.25
Animal health and protection	-	0.14	0.07	0.16	0.36
Management of forest resources	-	0.01	0.19	0.16	0.36
Income policy	0.40	0.27	0.34	0.46	1.47
TOTAL	0.47	0.87	2.58	4.48	8.40

Source: Cebrian (1994)

In 1991, the White Book of the Agriculture of Navarre (Quasar, 1991) was presented, where a diagnosis of the regional agricultural sector was done. The main policies affecting the agricultural sector were also analysed. The main conclusions were that the offer of agricultural structural policy in Navarre could be characterised as “diversifying”, that is, the total used funds were shared out among different programmes: agricultural structures,

research and extension and management, protection of natural habitat, agrarian associating, commercialization and industrialization, and support farm incomes. In the same situation was Cataluña. The two regions were those with best results in relation to the agricultural productivity. Nevertheless, the authors pointed out the small concentration of the expenses in the increase of irrigated land and in the concentration of land plots.

4.5.2 The first programming period

Navarre was not considered as region Objective 1 because, as it has been previously shown, its income per capita was superior to the 75% of the European average. But, some parts of the region were included in the Objectives 2 and 5b.

Concretely, 205 municipalities were included in the objective 2, with the 59.7% of the regional population and 74.3% of the area. The Objective 5b affects to 4.040 km² (41,7% of the territory), to 101 municipalities (38% of the region), 70.501 inhabitants (13.7% of the population), with a population density of 17,5 inhabitants by square kilometre (the regional average was 50 inh./km²), with the 23% of the occupied people working in agriculture (13% regional average) and with a loss of inhabitants of 12.000 people between 1960 and 1986. There were 42 municipalities that were considered in the Objective 2 and 5b.

4.5.2.1 The Operational Program of area Objective 5b in Navarre

The main drawbacks of the area 5b were that it was a mountain area, with a low population density, a high ageing of the population, a high participation of agriculture and a scarce development of the services activities. The agricultural sector presented a dual structure with a high participation of small farms and with difficulties to improve the commercialization of its productions. There were some environmental problems, as a high risk of forest fires, soil erosion, dumping of cattle raising waste, or water contamination. Additionally, there was a lack of infrastructures in areas of tourist attraction, crisis in some industrial sectors present in the area (iron and steel industry and timber industry) and deficits in the provision of some services. All these characteristics shaped a weak productive structure, scarcely diversified and with an important territorial discontinuity, despite of being situated in a rural space relatively homogenous (Legarrea, 1996).

The Development Plan of the Pyrenean Area of Navarre for the period 1990-93 was approved, area that corresponds with the northern part of the region. The European funds that participate were EAGGF Guidance, ERDF and ESF. The plan tried to have an effect in the medium and long term on the dynamic of the area and to change the trend of loss of participation of the rural habitat in the region.

The general objective was to increase the living standard of the inhabitants and their living conditions and to increase the employment rate. And as intermediate objectives, the program tried to improve the productive system, to develop the process of commercialization, to obtain adequate endowment of infrastructures, conservation and protection of rural areas, and to increase the human capital through some professional training.

The measures were included in four sub-programmes:

Improvement of the agricultural structures and diversification of the agricultural sector: co-financed by the EAGGF Guidance, it was directed to modify the agricultural structures through the change in the size of the farms and their infrastructure.

Conservation and exploitation of natural resources: co-financed by the EAGGF Guidance, it had as objective to obtain a rational use of the forest resources, to improve these resources and the knowledge of the nature.

Diversification of the economic activity and improvement of the infrastructures: co-financed by ERDF, with the objective of obtaining a tourist offer of quality, professional training, to adequate the basic infrastructures to support the economic diversification.

Valuation of human resources: co-financed by the ESF. It tried to improve the living standard through the professional training of the active population.

Table 4.17 Measures financed for Objective 5b areas of Navarre, 1990-93, (€millions)

Sub-program/Measures	Public financing		Total expense
	Total	EU	
Sub-program I	18.13	8.16	34.19
I.1. Concentration of land plots	4.55	2.05	8.87
I.2. Pilot centres of agricultural diversification	1.58	0.71	3.39
I.3. Improvement of grazing land	5.50	2.47	10.27
I.4. Early retirement	0.94	0.42	1.39
I.5. Improvement of the rural habitat	5.57	2.50	10.27
Sub-program II	20.08	9.04	42.49
II.1. Afforestation	11.27	5.07	23.48
II.2. Support for the Pyrenean natural park	4.50	2.03	10.17
II.3. Forest infrastructure	4.31	1.94	8.84
Total EAGGF (I+II)	38.21	17.19	76.68
Sub-program III	8.34	3.75	18.29
III.1. Rural tourism and support to small tourist and artisanal enterprises	5.65	2.54	12.40
III.2. Gas-fying process in Navarre	0.91	0.41	1.99
III.3. Productive and economic diversification infrastructures	1.26	0.57	2.76
III.4. Rural telephone system	0.52	0.23	1.14
TOTAL ERDF (III)	8.34	3.75	18.29
Sub-program IV	2.44	1.10	5.03
IV.1. Training	2.44	1.10	5.03
TOTAL ESF (IV)	2.44	1.10	5.03
TOTAL	48.98	22.04	100.00

Source: Santafé (1995)

The measures included in every sub-program and the funds dedicated to them are included in the Table 4.17. The most important measures, in terms of the quantity of funds

invested, were those included in the sub-programmes one and two, that is to say, the measures financed by the EAGGF Guidance, which represented almost the 80% of the total expense. Concretely, the measures with the biggest volume of investment were afforestation (23%) and improvement of grazing land (11.2%). Respecting the measures financed by the ERDF and the ESF, the most important one was the related one to rural tourism and small business (11.5%).

The territorial distribution of the public financing (Table 4.18) shows that the county I concentrates a big proportion of the funds (62%). However, as it is the area with the biggest density of population, the amount received by inhabitant is smaller and the one by square kilometre is bigger than the received in the other county.

Table 4.18 Distribution of public funds between counties (€million)

Indicator	I Noroccidental	II Pirineos	Total
Public financing (millions of euros)	29,8	18.5	48,3
Public financing (%)	61.68	38.32	100
Inhabitants	55,588	13,213	68,801
Area	1,990	2,134	4,124
Public financing/inhabitant (euros)	536	1,400	702
Public financing /km ²	14,975	8,669	11,712

Source: FBG (1999)

Additionally, it can be analysed how the funds were distributed among sectoral activities (Table 4.19). It can be seen that the main concentration is present in the primary activities, that is to say, agricultural and forest sectors, which jointly concentrate more than 60% of the total funds. The next activities, in order of importance, are tourism and infrastructures. Finally, with less than 2% of the funds, are training and environmental activities.

Table 4.19 Distribution of financial support among activities

Sector	Public financing (%)
Agricultural activity	29.6
Forest activity	31.8
Infrastructures	17.1
Tourism	18.9
Training	1.0
Environmental correcting actions	1.7

Source: FBG (1999)

4.5.2.2 LEADER I

This initiative could be applied in the regions included in the Objectives 1 and 5b. In the case of Navarre a local program of rural development was elaborated in 1991. A Local

Action Group, named Cederna-Garalur (Centro de Desarrollo Rural de Navarra, Centre of Rural Development of Navarra), was created to manage the initiative, where the majority of the economic and social agents were integrated.

The main objective of the regional program was to stimulate an integrated rural development in Navarra, by means of a triple strategy that was based on revitalization of the economic and social network of the area, the support to local initiatives and the protection of the rural habitat. This was concentered in seven particular objectives, that were: creation of a permanent structure of integrated rural development, creation of employment and qualification of the natural resources, knowledge of the demand for leisure in the area and development, in qualitative and quantitative terms, the offer of rural tourism, increase and diversification of the non-agrarian production, promotion of the local agricultural products, conservation and valuation of the cultural heritage, and improvement of the welfare of the population.

The information relative to the distribution of the funds is presented in the table 4.20. As it can be seen there, the public contribution was around 73% of the total expense. The two most important measures, in relation to the assigned funds, were the promotion of rural tourism and the valuation and commercialization of agricultural products, which jointly accounted for more than 60% of the total budget.

Table 4.20 Total funds for LEADER I (€millions)

Measures	Total expense	Public financing						Private financing
		Total	EU	National financing			Regional	
				Total	Central	Local		
1. Technical support to rural development	0.98	0.77	0.25	0.52	-	0.05	0.48	0.21
2. Professional training and aids to employment	2.18	1.76	0.09	1.67	1.13	0.09	0.46	0.42
3. Promotion of rural tourism	4.60	3.16	0.63	2.53	-	1.86	0.67	1.45
4. Small artisanal enterprises and local services	1.86	0.50	0.02	0.47	-	0.15	0.32	1.36
5. Valuation and marketing of agricultural products	5.41	4.45	0.58	3.87	-	-	3.87	0.96
6. Valuation of natural and cultural heritage	0.80	0.78	0.17	0.62	-	0.17	0.45	0.02
7. Working of the group	0.41	0.40	0.18	0.22	-	0.11	0.12	0.01
TOTAL	16.25	11.82	1.91	9.91	1.13	2.42	6.36	4.42

Source: Legarrea (1996)

4.5.3 The second programming period

In this period, some parts of Navarre were again included inside the areas of Objectives 2 and 5b. This last Objective presented an important increase in the covered area in the region: 181 municipalities with 118,721 inhabitants (22.9% of the region) and covering 6,955 km² (66.7% of the regional area). The way of programming in this period in the Objective 5b areas was through a Single Programming Document.

The distribution of the area among the different counties in the region is included in the Table 4.21 (see Map A4.3). The 181 municipalities are grouped in three geographic areas and in five sub-areas, with different characteristics. These divisions allow defining different types of measures according to the problems and necessities of every sub-area.

Table 4.21 Objective 5b Areas of Navarre

Area	Sub-area	No. municipalities	Surface (km ²)	Population (1991)	Density of population (1991)
Mountain (<i>Montaña</i>)	Cantabrian (<i>Cantábrica</i>)	25	1,064	18,911	17.8
	Pyrenean (<i>Pirenaica</i>)	38	1,880	11,215	6.0
Midlands (Zona media)	Midwest (Media occidental)	68	1,386	24,398	17.6
	Mideast (Media oriental)	29	1,207	20,296	16.8
Ribera	Ribera	21	1,214	43,901	36.2
Total		181	6,571	118,721	17.6

Source: FGP (2001)

4.5.3.1 Single Programming Document - Objective 5b in Navarre

According to Gobierno de Navarra (1995), the characteristics of the area included in the Objective 5b were a smaller economic development than the regional average (87% of the European average GDP per capita when the regional average was 96%), a bigger percentage of agricultural active population (25,8% respecting the regional average of 9,9%) and a smaller agricultural productivity (75% of the European average when the regional situation was 77.8%). Regarding the population, the area had smaller density of population (17 inhabitants per square kilometre, when the regional average was 50), and the population index in 1991 respecting 1970 was 83 in the area 5b and 113 for the whole region. Additionally, and as a consequence of the process of emigration of young people to urban areas and the diminishing of the birth rate, the area had a bigger proportion of ageing people and smaller proportion of women.

The main difficulties of the area can be summarised as an inadequate productive structures (mainly in the agricultural sector due to the small size of the farms and the excessive division of land into plots, with productions hardly oriented to quality, and little developed structures of transformation and commercialization), deficiencies in the industrial sector in general (small size with high levels of indebtedness) and in the food industry in particular (low levels of innovation and high seasonal nature of the supplies), some environmental problems (soil erosion, shortage of wooded lands in the south, contamination of water due to urban and industrial waste), and lack of infrastructures.

In this context, the general objective of the program was stopping the demographic retreat by means of the increase of labour opportunities, at the same time improving the working and living conditions of the rural population, trying to put them on a level with those of the rest of Navarre. That is to say, to drive the structural adjustment and the development of the area trying to correct its backwardness respecting other areas, and contributing to reinforce the economic and social cohesion of the region.

The measures were grouped in four sub-programmes. They were the next ones:

Sustainable development of the rural habitat (co-financed by the EAGGF Guidance): the main measures were the protection and improvement of the environment (vegetal covering) and the rural infrastructure.

Structural improvement and economic diversification (co-financed by ERDF), standing out the measures of support to rural tourism, to small business and to infrastructures needed for rural development.

Valuation of human resources (co-financed by ESF), where the measures relative to professional training were included.

Technical support (co-financed by the EAGGF Guidance)

The distribution of the funds among sub-programmes and measures is presented in the Table 4.22. The two first sub-programmes represent more than the 90% of the total expenses and around 88% of the public financing. Among all the measures, the rural infrastructures, the protection and improvement of vegetation, the renovation and development of rural villages and rural tourism and training of employed people stand out in quantitative terms respecting the participation in the public financing. In terms of total expense, it is also mentionable the participation of the measure of localization of productive investments (measure that has bigger private financing participation).

Therefore, it could be pointed out that there is a concentration of funds in the primary sector (agriculture and forest), whereas the other ones are less considered. Moreover, it could be said that the conservation of the environment has an important dedication of funds in this programming period.

Additionally, the measures were also grouped by priority axes. In order to have a better idea about the regional priorities, in the Table 4.23 the distribution of the funds among them is shown.

Table 4.22 Distribution of funds among measures, 1994-1999 (€million)

Sub-program/Measures	Public financing		Total expense
	Total	EU	
Sub-program I	77.6	38.8	82.5
I.1. Rural infrastructures	22.8	11.4	22.8
I.2. Agricultural diversification	7.3	3.6	10.3
I.3.1. Fight against desertification and erosion	2.0	1.0	2.0
I.3.2. Conservation of biodiversity	10.0	5.0	11.8
I.3.3. Protection and improvement of vegetation	22.3	11.2	22.3
I.4. Renovation and development of rural villages	13.2	6.6	13.2
Sub-program II	24.9	12.5	69.7
II.1.1. Basic and support infrastructures	1.7	0.9	1.7
II.1.2. Telecommunication	2.0	1.0	2.0
II.2.1. Localization of productive investments	5.2	2.6	32.0
II.2.2. Rural tourism	8.5	4.2	22.2
II.2.3. Research and development	1.1	0.5	2.7
II.3. Environmental actions	5.1	2.5	7.6
II.4. Infrastructures to impulse local development	1.4	0.7	1.4
Sub-program III	13.2	6.7	13.7
III.1. Professional training	4.4	2.2	4.4
III.2. Training of employed people	8.8	4.5	9.4
Sub-program IV	1.1	0.8	1.1
IV.1. Technical support	1.1	0.8	1.1
Total	116.8	58.8	166.9

Source: FBG (2001)

The most important axe is the diversification of economic activity and the creation of employment with a total expense of €67 million, more than 40% of the total funds, but only 18.8% of public financing (in this axe it is important the contribution of private agents, that accounts for around the 67% of the total expense). In second place, we find the measures related to the natural resources and environment, with the 26% of the total expense, but almost 34% of the public contribution. And in third place, the axe related to basic infrastructures, with 16% of the total budget and 22.7% of the public financing.

In relation to the territorial distribution of the fund coming from the public sector (Table 4.24), the Midwest area receives almost 20% of the total funds. In second place the two counties that were included in the previous programming period in the Objective 5b are situated, with a participation of around 16% of the funds. However, when the analysis is carried out with relative figures the situation of the sub-areas changes. So, the county with the biggest quantity of resources by inhabitant is the Pyrenean one, but this is the area with smaller density of population. The Ribera is the area with worst ratio by inhabitant, because it is the most densely populated area.

Table 4.23 Distribution of funds by axes, 1994-1999, (€million)

Measures	Total cost	Public financing					Private financing
		Total	EU	National financing			
				Centr al	Loc al	Region al	
1. Basic infrastructures needed for the economic development	26.5	26.5	13.3	0.0	1.0	12.3	0.0
2. Diversification of the economic activity and creation of employment	67.2	22.0	11.0	0.4	0.0	10.6	45.2
3. Natural resources and environment	43.7	39.4	19.7	0.0	0.0	19.7	4.3
4. Improvement of rural habitat	14.6	14.6	7.3	0.0	0.0	7.3	0.0
5. Human resources	13.7	13.2	6.8	0.0	0.0	6.4	0.6
6. Technical support	1.1	1.1	0.8	0.0	0.0	0.3	0.0
TOTAL	166.9	116.8	58.9	0.4	1.0	56.6	50.1

Source: FBG (2001)

Table 4.24 Territorial distribution of funds

Sub-area	Public financing		Euros/Inhabitant (1)	Euros/km ²
	€Million s	%		
Cantabrian	18.6	15.9	988.1	17,482.4
Pyrenean	19.5	16.7	1,795.8	10,348.0
Midwest	23.2	19.8	970.3	16,717.1
Mid-east	17.9	15.4	900.2	14,869.1
Ribera	14.6	12.5	336.8	12,050.0
Other	23.0	19.7	-	-
Total	116.8	100	999.4	17,779.8

Source: FBG (2001). (1) The figures are relative to 1996

Moreover the funds are concentrated in some activities (Table 4.25). As it is shown in the next table, again the primary sector receives the biggest proportion of public financing, being the agriculture the most benefited activity of the public aids. In this programming period, the infrastructures also take up an important percentage of the budget. Respecting the previous programming period there are some important changes. First, the loss of importance of the tourist activities in the participation in the public expenses, and the increase observed in the percentage dedicated to training and environmental actions.

Table 4.25 Distribution of support by type of activity

Sector	Public financing (%)
Agricultural activity	24.88
Forest activity	15.50
Industry	7.21
Infrastructures	18.70
Tourism	8.80
Training	11.24
Environmental correcting actions	6.17
Others	7.50

Source: FBG (2001)

4.5.3.2 LEADER II

The program was a continuation of the previous one, but applied to the area Objective 5b. In this period, four local action groups were operative, that is to say, three new groups incorporated to this initiative. The new groups covered different areas incorporated in this programming period to the regional area Objective 5b.

The main characteristics of the areas covered for the LAG (see Map A4.3) are presented in the next table. The first one, Cederna-Garalur, which started in the previous programming period, is the most important one in terms of number of municipalities, number of people and total area. It represents, respectively, the 57.4%, 43.6% and 61.7% of the figures of Leader II in Navarre. The covered area by this group is located in the north of the region and it has the smallest population density, with 15.4 inhabitants by square kilometre.

The EDER (Consortio para las Estrategias de Desarrollo de la Ribera, Consortium for Development Strategies of Ribera) group is responsible for the initiative in the south of the region. In this area there are almost 30,500 inhabitants in 815 km². It is the area with biggest density of population inside the area 5b of Navarre. It is worth mentioning that the percentage of active population dedicated to agriculture is very large, more than 27%, taking into account that the average in the LEADER area is 18.4% (the regional average was 9.8%), showing that it is a county with an eminently agricultural character.

Table 4.26 Main characteristics of areas corresponding to every LAG

LAG	Area action	of Population (1996)	Surface (km ²)	Density (Inh./km ²)	N° Municipalities	% agricultural active population
CEDERNA-GARALUR	Montaña	76,630	4,990.8	15.4	124	18.0
EDER	South	30,446	815.8	37.3	15	27.1
TEDER	Tierra Estella	47,570	1,619.0	29.4	66	19.8
ZONA MEDIA	Zona media	21,003	665.4	31.6	11	14.0

Source: UPNA (2001)

TEDER (Centro de Desarrollo Rural de Tierra Estella, Centre of Rural Development of Tierra Estella) is the group managing the initiative in the mid west of the region. It is the second one in terms of the magnitude of the area, population and number of municipalities.

Finally, the Zona Media (Consortio para el Desarrollo de la Zona Media, Consortium for the Development of Zona Media) group takes charge of the program in the mid part of the region, being responsible for only 11 municipalities.

The total cost of the initiative is much smaller than the program in the Objective 5b area. The distribution among measures (Table 4.27) shows that more than 95% is directed towards the rural innovations programmes. And concretely in rural tourism and small business, accounting for 44% of the public financing and more than 82% of private financing, showing that in both measures, jointly with the valuation and commercialization, there is a big proportion of participation of the private initiative.

It is remarkable the participation of the public financing for the measure of conservation of the environment (30% of national contribution and 22% of European subsidies), where, however, the private participation is negligible.

These funds are distributed among 582 projects. The distribution among the four participant LAG is shown in the Table 4.28. Again, the group Cederna-Garalur manages the biggest number of projects and, correspondingly, the biggest budget (more than 50%).

Table 4.27 Distribution of compelled funds by measures, 1994-1999 (€million)

Measure	Total cost	Public financing		Private financing
		National	UE	
A. Acquisition of capacities	0.29	0.12	0.13	0.03
B. Rural innovations programmes	31.71	9.62	5.48	16.61
B1. Technical support to rural development	1.65	0.83	0.82	-
B2. Professional training	1.05	0.39	0.46	0.20
B3. Rural tourism	10.92	2.90	1.52	6.49
B4. Small business and artisanal activities	9.96	1.94	0.80	7.23
B5. Valuation and commercialization	3.49	0.48	0.53	2.48
B6. Conservation of environment	4.63	3.08	1.35	0.20
C. Trans-national cooperation programmes	0.86	0.41	0.40	0.05
D. Monitoring and evaluation.	0.06	0.03	0.03	-
Total	32.91	10.18	6.04	16.69

Source: UPNA (2001)

In relation to the relative figures, it can be seen that in the mountain area the cost per inhabitant is bigger than the average, but the cost by km² is the smallest one. The south area, managed by the EDER group, gets the biggest quantity of funds by square kilometre.

Table 4.28 Main characteristics of areas corresponding to every LAG

LAG	Number of projects		of Compelled funds		Cost/Inhabitant (Euro)	Cost/km ² (Euro)
	B	C	€Million	%		
CEDERNA-GARALUR	289	11	16.7	50.7	217.5	3,339.7
EDER	58	4	5.6	17.0	183.7	6,856.6
TEDER	153	5	8.0	24.3	167.6	4,923.6
ZONA MEDIA	60	2	2.6	8.0	125.0	3,944.8
Total	560	22	32.9	100	187.1	4,061.0

Source: UPNA (2001)

4.5.3.3 A comparison with the average national behaviour

Using the available information in the third chapter of this document relative to the distribution of the funds among rural development measures in Spain, it is possible to compare the regional behaviour to the national average, and also to the average of the regions not included in the Objective 1, as is the case of Navarre.

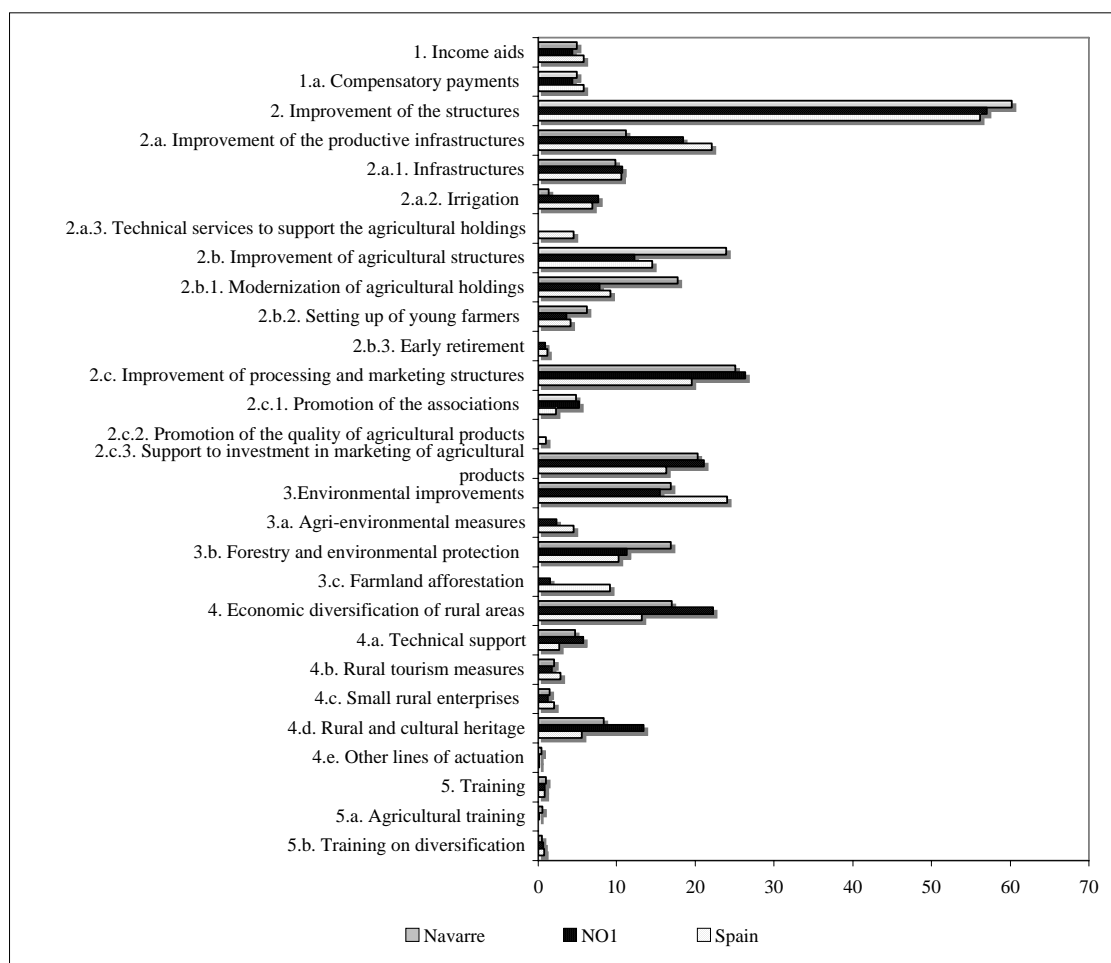
Concretely, with the information included in the tables A3.5 and A4.31, we have elaborated the next Figure, where the percentage of the total funds spent in every measure is represented for the three territorial areas considered, Navarre, regions non-objective 1 (NO1) and Spain.

In all the three cases the most important measures are related to the improvement of infrastructures, but in the regional case it has a bit more participation. Inside this group of measures it is noticeable the existing differences in the measure of improvement of agricultural structures (modernization of agricultural holdings and setting up of young farmers), because, whereas in the regional case almost 24% of the total expense is dedicated to it, in the other non objective 1 regions and at national level, the percentage does not reach the 15%. Correlatively, there are other measures whose participation is smaller at regional level, as in the case of the improvement of productive infrastructures, irrigation mainly.

Respecting the measures trying to obtain environmental improvements, at regional level the percentage of participation is smaller than the national average, however the measures related to forestry and environmental protection have a bigger attention at regional level (17% of the total funds).

The economic diversification measures concentrate more proportion of budget at regional level than at national level, but less than in the other non objective 1 regions, mainly due to the scarce expense directed towards the rural and cultural heritage.

Figure 4.15 Distribution of funds among measures, Navarre, 1994-1999



Source: Author's elaboration based on MAPA

4.5.4 The third programming period

After the changes introduced by the Agenda 2000 in the definition of the regional objective areas, all the area of Navarre was included in the Objective 2, with the exception of the regional capital Pamplona and its conurbation⁴³ and Tudela. That is to say, the municipalities with bigger urban character and level of development of industrial and services activities have been excluded, but the 95% of the regional surface is considered inside the Objective 2. As the most important urban centres have been excluded, the proportion of the population in the objective 2 area is only 51% of the total regional.

Accordingly to Gobierno de Navarra (2001), there are 264 municipalities included in the area objective 2, of which 221 (almost 84%) have less than 2,000 inhabitants, that is to say, they have a rural character. In total they account for only the 37.7% of the inhabitants of the population of the area objective 2. The rest of the municipalities present also the

⁴³ The next six municipalities: Burlada, Ansoain, Barañain, Villava, Berriozar and Cizur Mayor.

typical characteristics of the rural areas and the agriculture has an important participation in the economy.

The way of programming in this period in the Objective 2 areas was through a Rural Development Program, as is the case in Navarre.

4.5.4.1 Rural development program in Navarre

The program is financed by the EAGGF guarantee fund, as in the regions non objective 1. Besides, the area benefited from the aids coming from the ERDF fund through the operational program. Finally, and on a horizontal basis, the area could benefit from funds from the ESF.

The rural development program has the following objectives, disaggregated depending on their focus. First, the social objectives mainly concentrated on the improvement of the living and working conditions of the agricultural population of rural areas, to slow down the demographic deterioration of the rural areas through the increase of the labour opportunities and to give incentives to the leading role of women in the economic activities. From an economic point of view, the program tried to impel the agricultural and food sector to be more competitive, to support a professional agriculture with proficient farmers, contributing at the same time to the maintenance and creation of jobs in rural areas through economic diversification. Additionally, the program tries to reach some environmental goals, as the promotion of a sustainable development of the rural area, trying the economic activities to be compatible with the environment, the conservation of nature, the recovering of natural resources and the well-being of the animals.

The total public financing exceeded €285 million, of which €143 million were provided by the EAGGF Guarantee. The measures are articulated around five priority axes: improvement of the effectiveness of agricultural holdings, food industry, agricultural infrastructures, accompanying measures and natural habitat and landscape. The distribution of the funds among axes and measures is included in the next table.

In this programming period the most important axe was the one related to the agro-food industry, the support to processing and marketing of agricultural products that received the 39% of the total cost of the program, although the percentage on the total public financing was only around 20% (this was because in these measures the private financing represents around 75% of the total cost). The second axe, according to its participation in the total cost, was the improvement of the efficiency of agricultural holding, and in this case, the private contribution was much smaller than in the previous case. Finally, the accompanying measures have an important participation in the public contribution to rural development in the region (around 30%).

In relation to the distribution of the funds among different areas, we can distinguish zones according to the membership to the area Objective 2, to areas with specific limitations and to different counties. In the next table, the main available figures coming from the interim report (FBG, 2003) are summarised.

As it can be observed, the mountain and ordinary areas concentrate a big proportion of funds. However, the relative figures show that in the two limited areas the investment by inhabitant is above the one in the ordinary area, which accounts for more than 73% of the regional inhabitants. In contrast, when the relative figure is obtained using the number of km², the mountain area receives a smaller quantity of funds. This last area concentrates more than 50% of the total funds assigned to Axis 1 - Improvement of the effectiveness of the agricultural holdings. This can also be seen in the case of the less favoured area and Axis 3 - Agricultural infrastructures. Finally, the ordinary area receives more than 85% of the funds directed towards the food industry.

Table 4.29 Distribution of funds amongst measures, 2000-2006 (€millions)

Axes/Measures	Public financing		Total expense
	Total	EU	
Axis 1: Improvement of the efficiency of agricultural holdings	52.4	22.8	109.8
1.1. Investment in agricultural holdings	34.4	13.8	91.8
1.2. Establishment of young farmers	18.0	9.0	18.0
Axis 2: Agri-food industry	49.6	31.0	206.6
2.1.1. Improvement of processing and marketing agric. products	47.9	29.9	199.5
2.1.2. Improvement of processing and marketing forest products	1.7	1.1	7.2
Axis 3: Agricultural infrastructures	52.2	26.1	52.2
3.1. Land Re-parcelling	52.2	26.1	52.2
Axis 4: Accompanying measures	83.9	41.9	90.2
4.1. Early retirement	14.0	7.0	14.0
4.2.1. Less favoured areas	23.7	11.8	23.7
4.2.2. Areas with environmental limitations	3.0	1.5	3.0
4.3. Agri-environmental measures	18.0	9.0	18.0
4.4. Farmland afforestation	25.2	12.6	31.5
Axis 5: Forestry, natural habitat and countryside	36.9	18.4	40.2
5.1. Forestry	30.2	15.1	33.5
5.2. Maintenance of environmental values	6.7	3.4	6.7
Other actions	10.6	3.6	10.6
Total	285.5	143.9	509.6

Source: Gobierno de Navarra (2003)

The area outside the objective 2 hardly has any participation in the public financing of the rural development program (the relative figure by square kilometre results significant because it has scarce area). The 55% of the total public spending goes to rural Objective 2 areas, figure that is below the proposed objective in the program (66.9%). As these areas are less populated, they obtain bigger quantity of funds per inhabitant. It seems that the investment by inhabitant is higher in the areas with low population density. These areas concentrate more than 60% of the funds assigned to every axe, with the exception of the axe related to food industry that is directed mainly (84%) to the industrial area Objective 2.

The counties with biggest shares in the public financing are Ribera Alta, Noroccidental and Tierra Estella. The county with the smallest share is logically the corresponding to the regional capital, Pamplona, the area with the biggest urban character. The relative figures show that the most extensive county, Pirineos, receives less than half the regional average by km². Concluding the territorial analysis, it could be said that the Ribera Alta county is

the one with biggest level of intervention, in absolute and relative terms. On the other side is the Pirineos county, with a low degree of intervention.

The analysis of the distribution of the funds taking into account the different axes shows that the Noroccidental and the Ribera Alta counties concentrate the 34.7% and 19.8%, respectively, of the funds assigned to the axe of improvement of effectiveness of agricultural holdings. The two Ribera counties receive around the 80% of the funds dedicated to the food industry, and 47% of the ones corresponding to the accompanying measures. The public financing of the agricultural infrastructures is clustered in the mid and south part of the region, Tierra Estella, Navarra Media and Ribera Alta counties, that jointly received more than 75% of the available quantity of funds. Finally, the forest and natural resources funds are located in the north part of the region, Noroccidental and Pirineos counties.

Table 4.30 Territorial distribution of funds

Areas	Public financing	Population (1)	Surface (km ²)	Euros/inhabitant	Euros/km ²
Ordinary area	37.58	419,445	2,160	90	17,398
Less developed area	29.69	73,467	2,615	404	11,354
Mountain area	41.89	76,716	5,617	546	7,457
Outside Objective 2	0.13	76,327	14	2	8,871
Objective 2 industrial	48.46	400,842	3,492	121	13,878
Objective 2 rural	60.56	92,459	6,885	655	8,797
I Noroccidental	20.17	53,906	1,903	374	10,597
II Pirineos	10.81	14,241	2,304	759	4,691
III Pamplona	6.62	299,009	777	22	8,522
IV Tierra Estella	17.00	36,019	1,542	472	11,027
V Navarra Media	12.45	30,931	1,302	402	9,561
VI Ribera Alta	26.50	56,381	1,225	470	21,631
VII Ribera Baja	15.60	79,141	1,329	197	11,733
Total	109.15	569,628	10,391	192	10,504

Source: FBG (2003)

Notes: (1) The figures make relation to 2002

4.5.4.2 LEADER +

The entire region fulfils as a whole, at NUTSII and III level, the conditions to be considered as rural area in decline, because its density of population is around 50 inhabitants by km², and because its unemployment rate was 11.3 in the period 1995-97, superior to the Communitarian average. But it was decided to concentrate the aids coming from the initiative in the area Objective 2.

The local action groups that participated in this initiative were the same as those that participated in LEADER II. Additionally, another programme named Prepirieno was shared

with the Autonomous Community of Aragón, but which was included in the national programme.

The general objective was to boost the social and economic development of the rural areas, using an approach of sustainability in the strategies of development. Concretely, the objectives can be summarised in the next ones: valuation of the natural and cultural heritage, improvement of the economic background, improvement of the organization capacities, and development of endogenous potential through putting into practice strategies with a pilot character.

All these measures were articulated around four priority axes. One of these was the network creation, that has not contribution at regional level because it is the responsibility of the Ministerio de Agricultura, Ganadería y Alimentación (Gobierno de Navarra, 2001). As it is shown in the Table 4.31, the cost of the program is concentrated on the first axe, strategies of development.

Focusing on the most important axis, the main measure is again tourism, which concentrates more than 20% of the funds dedicated to the first axe. The next positions are occupied by valuation of cultural heritage, small enterprises and valuation of agricultural products. The four mentioned measures account for three quarters of the available funds.

Table 4.31 Distribution of funds among axes in Leader + (€millions)

Axes	Public financing		Private	Total
	Total	EU		
1. Strategies of development	16.08	8.04	15.5	31.58
2. Cooperation	0.8	0.4	0.08	0.88
4. Management and evaluation	0.12	0.06	0	0.12
Total	17.00	8.50	15.58	32.58

Source: Gobierno de Navarra (2001)

Table 4.32 Distribution of funds among measures included in Priority Axis 1

Measures	Total funds (€million)	%
1.1. Acquisition of capacities	0	0
1.2. Costs of management and technical assistance	2.54	7.90
1.3. Services to the population	1.61	5.02
1.4. Natural heritage	3.48	10.83
1.5. Valuation of agricultural products	5.24	16.29
1.6. Small enterprises	5.71	17.75
1.7. Valuation of cultural heritage	5.76	17.90
1.8. Tourism	6.58	20.47
1.9. Other investments	0.36	1.11
1.10 Training and employment	0.88	2.74

Source: Idom Consultoría (2005)

The distribution of funds among LAG is shown in the next table. Again, the most benefited group is CEDERNA-GARALUR, with almost 32% of the total budget. The group working in the Ribera has the second biggest percentage of participation in the funds.

Table 4.33 Distribution of funds between LAGs (€million)

LAG	Axe 1	Axe 2	Total	%
CEDERNA-GARALUR	10.27	0.32	10.59	31.87
EDER	8.89	0.22	9.11	27.41
TEDER	7.77	0.21	7.98	24.00
Zona Media	5.42	0.13	5.56	16.72
TOTAL	32.36	0.88	33.24	100

Source: Idom Consultoria (2005)

4.5.4.3 A comparison with the average national behaviour

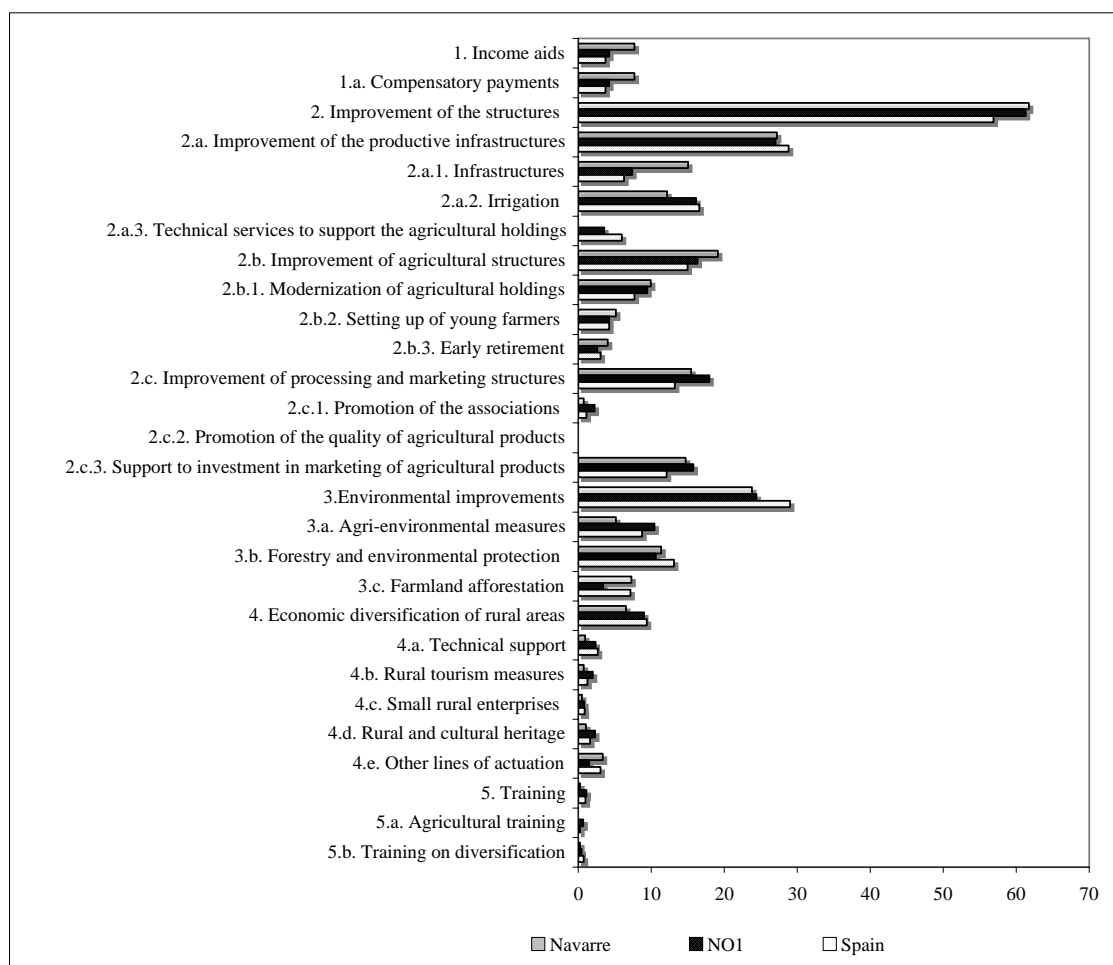
As in the previous programming period, a comparison with the average national behaviour can be made, using the information about the distribution of funds among measures provided by the Tables A3.5 and A4.29. The next Figure has been elaborated with such information.

The comparison of the shown percentages leads to similar conclusions that were reached in the previous one. That is to say, in the three analysed territories the biggest percentage corresponds to the improvement of structures, mainly productive infrastructures. In Navarre the funds dedicated to the improvement of infrastructures have more weight, whereas in the other two territories the assigned funds to improvement of infrastructures of irrigation presents bigger participation. Additionally, in Navarre the rural development policy is more oriented towards the improvement of the agricultural holdings. Correspondingly, it has fewer funds assigned to environmental improvements (only farmland afforestation presents a bigger concentration of funds than it has in the other areas) and economic diversification.

Compared to the previous period, the main changes are the following ones. First, an important increase in the percentage of funds directed towards the improvement of the productive infrastructures (mainly irrigation, measure that at regional level goes from 1.3% of the total funds to 12.1% and at national level from 6.9 to 16.6%). At regional level it is worth mentioning the increase of the participation of the early retirement and the decrease of the modernization of agricultural holdings.

The measures related to environmental improvements received more relative attention in the last programming period, mainly in Navarre and in other Non-Objective 1 regions. Finally, the measures directed to increase the economic diversification of rural areas diminish their percentages of participation in the rural development funds, affecting mainly to the measures related to technical support and rural and cultural heritage.

Figure 4.16 Distribution of funds among measures, Navarre, 2000-2006



Source: Author's elaboration based on MAPA

5 SUCCESS FACTORS IN MANAGEING RURAL CHANGES

Considering the behaviour of the entire region, we have seen that during the analysed period the economic evolution has presented good indicators. In general, the GDP per capita is bigger than the national average with significant growth rates, in some stages bigger than the corresponding national or European average. However, in the last years, the differential growth rate that used to be favourable to the region has reversed, and the region is having a similar path growth present in other considered territorial units.

Anyway, the average wellbeing of the regional inhabitants has grown, as it was indicated by the figures about the level of convergence. Comparing the situation of the region with the European average, the improvement of the relative regional situation is evident, improvement that was more important in the first years after the integration of Spain into the EU. Nowadays, Navarre, being a region with an important participation of the agricultural sector in its economy, presents higher levels of economic development than the Spanish and European averages.

In relation to the employment, the situation has been similar to the Spanish average. Using a criterion based on the growth rate of this variable in order to classify the European regions among lagging, middle and leading ones, Bollman *et al.* (2004), analysing the period 1980-2000, reach a similar conclusion. In this sense, Navarre can be considered as an intermediate rural region with a middle behaviour.

The regional agricultural sector has better structural characteristics than the national sector. However, as it was shown in the previous chapter, the behaviour is not homogeneous within the region. Previous chapter showed how different counties present a different character in relation to the urban-rural classification, and how the economic activity and its evolution also vary between different regional areas. The differences make reference to economy in general, and the agricultural sector in particular. These allow us to go deeper in the analysis of the factors that may have had an effect on the evolution of such areas.

The objective of this chapter consists of obtaining, through the analysis of the evolution of the rural areas and the applied policies, the main success factors that explain the aforementioned results. The chapter will be based on two kinds of information. The first one makes reference to the evaluation reports of the different rural development programmes applied along the three programming periods. The second one is based on the interviews made to some people related in different ways (academics, members of regional local action groups, evaluators, etc.) to rural areas and rural development programmes.

5.1 Brief description of the evaluation reports of Spanish rural development programmes

As an answer to the requirement of the European Commission, the different rural development programmes have had its corresponding evaluation report. The evaluations have to obtain enough information to allow the improvement of the definition and implementation of the programmes and policies and to value the social and economic impact of the measures (Viladomiu and Rosell, 1998). Although the obtained results are not very convincing, and there are some limitations, its utility cannot be scorned (Esparcia, 2001).

In our case, and taking into account that there are three programming periods with their evaluation reports⁴⁴, it can be said that the quality of those reports has improved along the time, in relation to the applied methodology and in relation to the evaluated matters. The information included in the reports has increased along the analysed period. In general, the impacts are grouped depending on the studied variable as social-demographic, economic, environmental and territorial⁴⁵ ones.

5.1.1 First programming period

The final evaluation report⁴⁶ of the operational program of the area 5b in Navarre was presented in 1999 (FBG, 1999). More than the 80% of the public funding was evaluated.

In relation to the demographic evolution, the report concluded that the population of the affected area decreased between 1991 and 1996 around 1%, while in the same period, in Navarre the population increased 0.4%. Nevertheless, it is worth noting that the decreasing trend was much smaller than the one present in previous periods. At the same time, a process of ageing in the population of the area was observed.

Respecting the socio-economic impact, the document makes some differences between the two counties included in the area 5b. In the Noroccidental county the active and occupied population decreased, having an increase in the unemployed population. In the Pirineos county, the three indicators increased. Anyway, the unemployment rate in the area 5b was always smaller than the regional average.

An increase in the participation of women in the active and occupied population was observed, although the final rates are inferior to the regional mean. In this respect it is interesting to point out that the unemployment rate of women in the area 5b increase, whereas it decreases in Navarre.

It seems that the program had an interesting impact on the agricultural sector, where an enlargement and modernization of the farms were observed. This was the base for an increase in the receipts, a decrease of the costs and an increase of the agricultural incomes, contributing therefore to the increase of the profitability of the farms.

During these years, the services sector and construction activities increased their participation in the sectoral distribution of the economic magnitudes. In any case, the agricultural sector keeps on showing higher figures than the regional average. Respecting the livestock sector, the milk production had a decreasing trend and the cattle production an increasing one, revealing the existence of a change of orientation in the livestock farms. An increase was also present in the sheep production.

The tourist sector presented an important increase in its figures. The offer of accommodation had a spectacular increase, mainly in the county Noroccidental. It is worth mentioning that this sector had an important role in the integration of women in the labour market. Most of the created jobs were occupied by women. A negative aspect is that the majority of the created employment was part-time and seasonal.

Globally considered, the economic direct and indirect⁴⁷ impacts of the program, measured through the effect on the GDP of the area Objective 5b using input-output analysis, were estimated to be around 5% of the GDP.

⁴⁴ The only evaluation report we could not have access to is the corresponding to the LEADER I initiative, but in other ones we found some information about its main results.

⁴⁵ The territorial distribution of the aids has been included in the previous epigraph as part of the descriptive information relative to every program.

⁴⁶ This evaluation was not compulsory, but the regional government decided to carry it out, and it was elaborated by an independent consultancy enterprise.

The environmental impact was at the same time negative and positive. The increase in the number of tourists with the corresponding increase of risk of fires, etc. was attenuated by means of the application of some measures to restrict the access to some areas. The derived negative impacts from the intensification of the farms and the increase of cattle residues were lessened through the improvement on the management of the residues. It seems that during this period the inhabitants in this area became aware of the importance of the environment for the survival of the rural world.

Additionally, through the results of a qualitative survey made in the affected areas, it could be said that there was some consensus among the inhabitants of such areas about the positive impact in the size and profitability of the farms, the increase in the number of tourists, and the increase in the income, quality of life, roads and habitat improvement. But, there is also consensus about the scarce impact of the program in relation to the maintenance of the agrarian active population, to the change of trend in ageing of the rural population, and to the incorporation of young people to the job market. An interesting conclusion of the evaluation report is that it has not been possible to put into practice a new dynamic of participative rural development, that it is considered of great importance in order to have better results in the rural development process.

During this period, the LEADER I initiative was applied in the same area. The available information (FGP, 1999) about the impact of the initiative was positive, in the sense that there was an important creation of employment (193 jobs and the consolidation of 245 additional ones), mainly in the tourism sector where the investment was so important. Anyway, the effect in the agricultural sector was also important, through the creation or improvement of installations of some agro-food industries in order to improve both the production and commercialization of agricultural products.

5.1.2 Second programming period

The evaluation of the measures adopted in the single programming document for the areas Objective 5b in Navarre during the period 1994-1999 was concluded in July 2001 (FBG, 2001). In relation to the degree of fulfilment of the objectives, it does not reach the 100% in four of the total number of indicators considered as main ones, that is to say, in the 30% of the cases. The priority axe 2, diversification of activity and creation of employment, is the only one that reaches all the foreseen objectives.

The economic objectives have been partially reached, and the program has contributed to the increase of the economic and social cohesion of the region. In the area Objective 5b there has been a bigger increase in the participation of the services sector in the economy and in the agricultural productivity. In this case, using the Input-Output model, the global impact in the economy of the area has been estimated to be 7.7% of the total gross value added, 5.8% directly and the rest indirectly.

The improvement of the agricultural infrastructures has had an effect on the incomes, specially valued by the beneficiaries. But, both the concentration of plot lands and the modernization of irrigation farming have contributed significantly to the diminishing of the time dedicated to the farm and to a substantial improvement of the labour conditions. These are considered as very important in order to guarantee the generational renewal.

In the industrial sector, the measures were directed to the improvement of the scarce capacity of investment and innovation. There were some measures that helped the sector

⁴⁷ In this estimation the induced effect (the increase in the consumption derived from the increase in the income) is not included.

to increase the orientation of the production to the differentiation of the products and to the improvement of the quality.

In relation to the diversification of the rural economy, the forest sector has started to be considered as a potential source of additional income, and the program has helped to the creation of new business and some jobs. In the tourist sector, the development has been important and well considered by the implied agents. The measures have contributed to the maintenance and creation of enterprises. Moreover, some of them were directed towards the improvement of infrastructures and the cultural and natural heritage, actions that increase the tourist appealing of the rural areas. Anyway, it keeps on being an activity with a high participation of women (75% of the jobs was occupied by them), and with a high seasonal component. But, as in other regions, the environmental issue is envisaged as a potential source of conflict although until now it has hardly been considered (FBG, 1998). In relation to women, the evaluation report values the complementarity of the gender perspective of the program. The conclusion shows that only three measures (representing 18.8% of the public spending) could be qualified as positive in this matter, that is to say, they integrate at least one objective related to equal opportunities for both men and women. These measures are included in Axis 5 (valuation of human resources) and Axis2 (diversification of economic activity). On the other hand, there are six measures qualified as negative or without any effect in this respect, but with a high participation in the total budget (58.7%).

The impact on the environment is not valued very positively. There have been some measures that have had an important impact (less contamination derived from urban waste) but in other cases, the territorial impact has been small (measures of fire control). In any case, the impact of many of such measures must be expected in the medium and long term.

The perceptions about the improvement of quality of life seem to be positive, mainly due to the increase in the endowment of infrastructures and the recuperation of some degraded areas. However, and in the same way it happened in the previous programming period, there is no impact in the objective of maintenance of the population in the area. The same dynamic has been observed for the young people, and again, the abandonment of the area by these people is mainly due to the lack of availability of appealing jobs. In the best-communicated areas the population has maintained and the phenomenon of second homes has been favoured (Garcia, 2002).

Additionally, the managers of the actions have perceived the program as a sum of measures, that although it has a global perspective, it is not the result of a common diagnostic. They miss an integral perspective in its conception and its working.

In relation to the LEADER II initiative, and according to the evaluation report (UPNA, 2001), during this period, the investments related to the initiative are estimated to have led to the creation of 490 jobs and the consolidation of 561 additional ones. These figures are positively considered, as the bottom-up approach used in the initiative, that jointly with the autonomy of the groups to manage the projects allow the adaptation to the characteristics of every area. But, the report suggests the need to obtain a bigger degree of knowledge and implication of the population, because in this programming period it seems that not many people knew the initiative.

5.1.3 Third programming period

The interim evaluation report of the rural development program of Navarre for the period 2000-06 (FBG, 2003) points out the difficulties inherent to the realization of the evaluation

at the beginning of the programming period. Therefore, the results presented here must be carefully analysed, until the final report is available.

The report indicates that the social objectives are almost reached, as for example the maintenance of the population in rural and in less favoured areas. But, there are others that would need some effort to be reached before the end of the programming period, as for example the increase purposed for the women activity rate. In this respect, the evaluation has made clear that the program has not an adequate integration of the principle of equality of opportunities between men and women. This was the reason to carry out a specific evaluation that was finished in May 2005 (Idom Consultoría, 2005). The main obtained conclusions are that the rural development program has not included guidelines directed towards favouring the participation of women and neither has adopted measures of positive action with the same objective. In order to have an idea about the participation of women, in the last execution report (Gobierno de Navarra, 2007a) it is pointed out that women account for around 20% of the people benefited by the program.

In relation to the economic objectives, the report points out that the indicators used to measure the reach of them seem to have a backward step respecting the initial situation. For example, the agricultural income by annual work unit has reached only the 58% of the initial objective.

Finally, the level of efficacy reached in the environmental objectives is high in relation to the organic agriculture and in the actuations on protected areas, but it is low in forest interventions and the maintenance of autochthonous breeds. Anyway, it seems to be a necessity to reinforce the actuations that favour the environmental sustainability of the agricultural activity due to the increase of the risk of negative environmental impacts (because of the intensification process, the restructuring to orientations with bigger consumption of inputs, and the increase of the size of the farms).

As in the case of the rural program, the final evaluation of the LEADER + initiative has not finished, but the interim evaluation and its revision (Idom Consultoría, 2003 and 2005) are available. Using the information presented in these documents, it could be said that the financial execution of the program was for the period 2000-2004 around 25% of the total programmed one for such period (15.6% if considering the total period), and the reason for this low level of execution was the delay in its approval. Anyway, it seems that there would be no problem to reach the established objectives. For the time being, 157 projects have been developed (153 corresponding to axe 1 strategies of development).

About the impact of the intervention, and taking into account that the analysis was carried out before the end of the programming period, the reports present a partial analysis. The main conclusions obtained are that the initiative has had a significant impact on the territorial cohesion of the benefited areas, it has favoured the development of alternative economic activities, it has contributed to the improvement of the endowment of basic services and it has encouraged association in the rural habitat.

All these circumstances have led to an improvement of the situation of rural areas, especially in relation to the maintenance of the population in these areas. This change in the trend of rural exodus has been mainly related to the contribution of the program to encourage the business initiative, helping besides to the increase in the endowment of public services and to the development of alternative economic activities.

Anyway, the reports pointed out some problems that would need attention in the next programming periods: the demographic unbalance, the higher rate of unemployment in rural areas, the potential increase in the future of the rural exodus due to the high incidence of the unemployment among young people, the existence of gender inequalities

in the job market, the still reduced diversification of economic activities and the scarce number of professional farmers.

5.2 Success factors - Experts' View

In order to have a comprehensive view about main factors that could help to understand the differential behaviour of the rural areas, we have included among the surveyed stakeholders some representation of different groups engaged in rural areas and policies (Table A5.1). First of all, there are representatives of different groups related to rural development at regional level: institutional representation, academic and people working near rural agents (such as local action groups or technicians of different areas). Additionally, and in order to have a more general vision about the rural situation, there are some surveyed people that have an opinion in a wider territorial context. We have tried to have at least one opinion of every one of the considered groups that could have potential importance from a rural development perspective. In order to have a better idea about the differences among them, we will make reference to three groups: the academic group, the evaluator one and the group of experts related directly to the rural areas (LAC, techniques, etc.). We have five people in every group.

One of the questions made to the stakeholders was related to the evolution of the rural areas along the analysed period in this report, that we have divided in five stages: before the integration of Spain into the EU, the stage between the integration and the starting point of the first programming period, and the stages corresponding to the three programming periods. In general, and according to the results previously shown by the evaluation reports, the best period for the rural areas was considered the last one, between 2000 and 2006. On the other side, the corresponding period previous to the integration of Spain into the EU was considered the worst one

When they are asked about the reasons of such choice, most of them agree in speaking about two factors. The first one is the total volume of funds assigned to rural areas. They agree that in the last programming period the amount of resources was the most important, and that before the integration into the EU, those quantities were not significant. To have an idea about the accuracy of such notion, in the Table 5.1 the total spending of the three programming period is included. As many of the stakeholders suggest, the volume of the expenses included in the different programmes is increasing, in such a way that in the last period it accounted for more than five times the available quantity in the first one, although the participation of the public sector has varied a lot. To this respect, the most important contribution took place in the last programming period, but if we take into consideration the participation in the total expenses, the public effort was bigger in the second programming period.

The second factor mentioned and related to the good evolution of the rural areas is the general economic evolution of the economy or of other sectors different from the agricultural one. That is to say, the rural areas perform with a similar pattern to the observed ones in other sectors of the economy. This opinion means that it is very important to have a healthy economy. But according to the data included in the previous chapter the best periods in this respect were the one after the integration into the EU and the last nineties, result that seems to contradict the mentioned opinions. But, if we consider the level of the GDP or per capita GDP, both indicators present a verified improvement, and then, the last years were the best ones. Moreover, the worst period was the one previous to the integration into the EU, the one pointed out as the one when the rural areas present the worst evolution. Therefore, there is some consistency in the answers of the experts.

Table 5.1 Distribution of funds for the programming periods

€Million	1990-1993		1994-99		2000-06	
	Operational Program	LEADER I	Single Program	LEADER II	Rural Program	LEADER +
Total	100.0	16.3	166.9	32.9	509.6	32.6
Public	49.0	11.8	116.8	16.2	285.5	17.0
EU	22.0	1.9	58.8	6.0	143.9	8.5
Other	26.9	9.9	58.0	10.2	141.6	8.5
Private	51.0	4.4	50.1	16.7	224.1	15.6

In %	1990-1993		1994-99		2000-06	
	Operational Program	LEADER I	Single Program	LEADER II	Rural Program	LEADER +
Total	100	100	100	100	100	100
Public	49.0	72.7	70.0	49.3	56.0	52.2
EU	22.0	11.8	35.2	18.4	28.2	26.1
Other	26.9	61.0	34.8	30.9	27.8	26.1
Private	51.0	27.3	30.0	50.7	44.0	47.8

Source: Own calculations

As a result of such evolution, most of the experts consider that the situation of the rural areas is normal or good. In relation to the main advantages or strong points of such areas, the stakeholders pointed out mainly two, the endowment of natural resources and related to it, the level of conservation of the environment. Additionally, some of them pointed out as an additional positive point the contribution of the tourist activities to the rural economy. All of them are not related to the agricultural sector, showing that the agrarian perspective is losing importance when speaking about the situation of the rural areas, more focused now on the diversification of the rural economies, mainly through tourism.

The aspects included as possible weaknesses that could influence the future development of the rural areas are related to the endowment of general infrastructures, and a demographic problem underlined in the previous chapter. Concretely, the scarce capacity that those areas have shown to maintain the young people has been mentioned by many experts. The derived problem is the increasing ageing of the rural population, taking into account that at the same time the population lost is the best qualified one. That is to say, the rural areas have lost young people and human capital. It is interesting to indicate that all the stakeholders related directly to the region agree with this statement, so it is evident that this is one of the problems in the regional rural areas that has not been solved along the period, as it has been shown before. It is also mentioned for some of them, as additional weaknesses, the deficiencies found in the commercialization structures of the agricultural products and the difficulties of such areas in adapting to the institutional and general changes.

Is the evolution and actual situation of the rural areas depending on the rural policies applied along this period of time? The question makes reference to the effectiveness of the rural policies. In general, the answer is positive, and therefore, the stakeholders think that

there is some margin for the public interventions trying to impulse the development of such areas.

The consideration of other sectors different from the agricultural one is considered as one of the most important aspects related to the rural development policies, whereas the use of an approach oriented to the agricultural sectors in some cases is seen as a limitation of some of the measures, because there is not enough confidence in this sector as the key participant of the rural development process. In this sense, it is obvious the need of impelling the diversification of the rural activities as a way to boost the rural development. This result is in line with the last trends in rural development declared by some international organisms. For example, for the OCDE (2006), the agricultural sector is still important in shaping the rural landscape, but it has a minor role in economic terms. For this institution, for the time being, the public policies in rural areas have been focused mainly in agricultural activities, and taking into account that agriculture represents a small percentage of the GDP, the ability of such public interventions to influence well-being across all the rural population is limited. Additionally, agricultural support has been mostly to be concentrated on wealthier regions where farms are large and productive.

In accordance with the aforementioned idea, the measures oriented towards the conservation and recovering of the environment are very well considered by the experts. Again, the focus of the rural development is oriented to new areas of interest, in many cases, linked to activities different from agricultural ones.

It is also highly valued by many of the experts the use of a territorial and integral approach for the design and implementation of such rural development measures. Allocation of rural funds should be based on needs of rural areas, in particular to those with the biggest problems, and not to the most dynamic ones, as it has been happening in the past. In this sense, it should be interesting to obtain a better territorial targeting to address the specific problems of lagging rural areas more efficiently (Nunez, 2005). In this respect, there is some disagreement with the last changes in the public policies with possible effect on rural areas.

During the analysed period, the used approach has changed. First, the orientation of the change was from a sectoral perspective to an integral and more territorial one. But in the last years, there have been some changes in some measures that have counteracted the previous trend (for example, the LEADER initiative has passed from being able to be applied only in some rural areas to a possible application in all the European rural areas, losing some of its territorial character). The fact that the rural policy started to be managed through only one fund could be a limitation, because the problems of rural areas affect diverse areas, which asks for an integral approach. In the case of Navarre, in the first two programming periods, the overview of the rural problems was more uniform, because all the structural funds participate. In these periods, also questions related to the formation, general infrastructure and actions in other sectors were tackled. In the last programming period, the program focused more on the primary (agricultural and forest) sector (Garcia, 2002), as only one fund (EAGGF) was involved. This result agrees with the point of view of Mantino (2005) for whom the separation of rural development from other cohesion policies seems to be negative, because this implies that it will be isolated from other policies, and then divided into sectors. This would reduce the diversification component of the programmes.

As a positive aspect of the rural development policies in relation to the national and regional rural areas, it is pointed out the importance of the implication of the regional and local authorities, and also other local agents, in the design and implementation of the rural development programmes. However, there also some negative aspects considered by

the group of experts. One of them is the elevated level of bureaucratization that means that many actors (benefited from the aids, local action groups, local and regional authorities) need to spend a lot of time solving administrative questions, instead of dedicating their time to more productive tasks.

The question of the need of co-financing for the measures included in the rural development programmes was also discussed. In the literature we found some authors who pointed out that in the poorest regions the rural development measures are least used because of the lack of enough regional or national funding (Mantino, 2003a, Shucksmith *et al.*, 2006). However, in our case, the obtained answers lead to conclude that in the regional analysed case this is not a problem. These answers could be justified because Navarre is one of the richest Spanish regions, and it is not badly situated in the European context. Therefore, the existing problem in the poorest regions probably is not present in our case.

One of the concerns about the rural development policy has been that it has been focused on the rural areas as a block, as if all of them were homogeneous with similar problems and opportunities, without taking into account the diversity of rural areas (Pezzini, 2001). In particular, in the case of the European policies, there are not differentiated policies in relation to territorial typologies, although there are in the intensity of funding (Noguera *et al.*, 2004). This has made that the most dynamic rural regions have benefited on a bigger extent from the measures proposed in the rural policies, as it has been shown in the results obtained by Shucksmith *et al.* (2006) where it was pointed out that the support coming from the CAP (pillars I and II) is not focused on the most disadvantaged regions of the EU. This is also pointed out in our study, because many of the stakeholders consider that there has been an elevated concentration of the aids coming from the rural development programmes in those more dynamic regions, and it is considered as a negative consequence of the way the rural policy is designed.

In line with this question, it seems to be a general agreement about the different pattern that the rural areas have had. There are some areas that have made some progress, some that have got stuck and others that even have gone backwards. And it seems that this differential behaviour has been, to some extent, related to the applied rural policies. It is true that in every region not all the economic, demographic, social and environmental features have performed in the same way.

The economic characteristics considered to respond in different way on a bigger scale are the increase in the endowment of infrastructures, the participation of the services sector in the economic magnitudes and, correspondingly, the creation of jobs. In a second level, the importance of the tourist activities and the access to new technologies are also mentioned.

There is also some level of agreement about the different behaviour of the demographic characteristics. In this respect, the maintenance of the population in rural areas seems to have the most differentiated behaviour, and, as a consequence of it, the level of the ageing process. In the rural areas where there has been a deep process of abandonment, the people staying put in the rural areas have grown older. Asked about the possible differences in the presence of seasonal population or in the reception of immigrants, the experts agree on its small importance.

In relation to the social features, the obtained answers suggest that the living conditions in rural areas have changed at a different speed in different rural areas. It is also considered that the business initiative of local people in such areas has increased more in some regions than in others. But there are significant social concerns that have behaved with no differences among areas. In this group, questions such as the participation of women in the

job market, the increase of the human capital, the participation of local agents in social activities or even incentives to form any kind of association, are included.

Finally, the experts agree on the way that rural areas have a differential behaviour respecting the environmental concerns. Considering three sides in the sustainability triangle (social, economic and environmental development) for Beaufoy (2003) there has been considerable progress on the first two aspects, but the environmental challenge requires a change in the behaviour of local people, mainly farmers as well as investment in new infrastructure and new actions on the part of the regional and local governments. The environmental development needs investment in people who will promote the established objectives for rural policies because human and organizational capacity at local level is necessary (Beaufoy, 2003). Additionally, it has been pointed out by other authors that the environmental support shows a bias towards northern states in the EU, being the poorest regions the ones which prioritise agricultural development (Dwyer *et al.*, 2002). In general, two types of regions can be distinguished. The Mediterranean ones where the main objective is the modernization of the agricultural holdings, because the structural problem is the most important for them (the weight of small farms is bigger than in other areas), and the North-European countries where the main concern is related to environmental issues (Mantino, 2003b and 2005). This seems to be the opinion of the stakeholders, because most of them consider that there are a lot of differences among regions, mainly in questions as the revaluation of natural resources of some rural areas and the recognition of the leading role played by the rural areas in the conservation of the natural and cultural heritage. However, there is also some agreement about the small changes observed among the population in relation to the increase in the environmental sensibility, which is at the same time considered as an important positive effect of this kind of intervention.

In relation to the environmental concerns, one additional effect of the rural development programmes has been the increase in the intensification level of the agricultural holdings, as it was pointed out in the evaluation reports. This idea was also supported by many of the experts, who pointed out that this is one of the most negative effects of some of the measures of the rural policies. The growing intensification level can have important negative incidence on the environmental resources in some areas, where exploitation of the natural and environmental amenities is important. The mentioned behaviour can therefore limit the possible future development of some alternative economic activities in rural areas.

These people also indicate that the increase of the tourist activities have had a negative effect on the environment as the human pressure increases. This has been also shown by other authors (Cánoves *et al.*, 2004) for whom even though the tourism contributes to income and employment opportunities in the rural areas, it has important costs. Among the environmental ones, it can be mentioned that the presence of large numbers of tourists and the provisions of facilities to match their needs may even destroy the countryside, the increase of pollution and how the growth of the activity level may negatively affect the biological and ecological ecosystems. Among the cultural ones the risks of conflicts between local and visiting people or the changes in the local and cultural traditions can be included.

As we have seen before, many of the stakeholders consider that the rural areas do not perform equal in relation to many of the analysed questions. This was the reason to ask them about the factors that they consider the most important in order to explain the differences in the behaviour among rural areas. The question was which ones were the factors that could help to understand the success of the most dynamic areas or regions,

taking into account that the problem is complex and its causes are many and very often rooted on historical circumstances (Roberts, 2002).

With the answers of the experts, it can be pointed out that the main factor shaping the development of successful rural areas is the endowment of general infrastructures. This result agrees with the statement made by the OECD (2003), organism that attributes the main difference between lagging and leading rural areas to the level of available infrastructures.

But it seems that this explaining factor could be related to the second most frequent question mentioned by the experts. This is a factor considered as very important by many authors working in the rural development policies. In this sense, Noguera *et al.* (2004), speaking about types of territories, suggests that peripherality is considered a handicap for development, bearing in mind peripherality as the lack of accessibility to urban and economic centres. Additionally, the distance from an urban centre in many occasions is related to the difficulty of establishing the necessary producer services and investments to support economic development, and on this context, the entrepreneurs have additional difficulties to start up new enterprises in those areas (Pezzini, 2001). Besides, the amount of funds towards rural development is positively correlated with accessibility, indicating that more accessible regions tend to obtain higher levels of support (Shucksmith *et al.*, 2006). All these circumstances may provoke that some rural areas, located in an urbanising environment could be benefited from it (Bryden and Bollman, 2000), but it is not the key in all cases neither it appears as a sufficient condition to explain the differential behaviour of some regions (OECD, 2006).

The improvement of the transport communications infrastructures has allowed expanding the area of influence of urban centres, enabling people to work in such areas whereas they are living in rural areas, and at the same time it has allowed to attract to rural areas investments and workers, and then growth tends to be concentrated on the most accessible rural areas. These factors have contributed to change the demographic trend in some rural areas (OECD, 2006). For some of the surveyed stakeholders, the proximity of rural areas to the urban centres is the most important element in order to explain the differential development process.

Specifically, and speaking about the regional rural areas (counties), there is some consensus about the difficulties that the most remote rural areas (mountain areas) have to confront. Oliva and Camarero (2002) using cluster analysis show the existence of two clusters, including remote mountain municipalities where the agriculture has been the main activity but without possibility of retaining young people and with the corresponding depopulation and ageing. Through an analysis of principal components using municipal data Aldanondo *et al.* (2007) reach similar conclusions, obtaining one axe related to the level of urban character of the municipalities and another one, inversely related to the first one, which accounts for the distance to the main roads and the capital.

Until recently, the method used to get rural areas closer to urban ones was through the investment in the improvement of the transports infrastructures, but nowadays the new technologies have started to be considered as very important. In this sense, it could be interesting to take into account that the development of the information and communication technologies has meant a new way to bring the rural areas closer to the urban and economic centres. This is also the idea of the regional government (Gobierno de Navarra, 2005b) when approving the territorial strategy of the region. In that document the focus is put mainly on the mountain areas, where the development of these instruments can help the increase of the amount and quality of the tourism services

offered by these areas. But this new opportunity could have the contrary effect if the necessary investments are delayed in rural areas.

Another endowment that could make some regions to be successful in the development process is the one related to natural resources and rural amenities. In this respect, the regional evidence is not clear, and maybe it has to do with the idea pointed out by Terluin (2003). This author found that there is not relationship between the quantity of available natural resources and being a leading region, but it could be important the level to which this kind of assets are valued in such a way that they are able to generate added value. In this respect, the stakeholders think that this endowment is not important, and this idea agrees with the regional situation. The mountain remote areas are the ones best endowed in this respect, but they are the ones with a biggest demographic worsening.

In this respect, there are also some complaints in these regional rural areas about the legal requirements established in order to safeguard the natural and environmental resources. Sanz (2007), through a qualitative research in the Pyrenees area, concludes that in this area an important percentage of the population has the idea that their territory will be turned into a “natural museum” to be used for the enjoyment of urban tourists, so that they will use some of their spare time without any price. In contrast, the inhabitants in the mentioned areas must charge all the costs, as they have more difficulties to develop their business (mainly livestock and sheep) due to the increasing environmental requirements. Complaints go beyond the increasing costs of keeping up with the environmental regulations. As the continuation of the agricultural activity is more difficult, and as new business opportunities are not easy to start⁴⁸, depopulation and abandonment of the area will recur.

Some of the stakeholders have manifested their agreement with the previous statements. For some of them, the rural and agricultural policies applied in the region have used different approach in different areas. In the south, the goal has been to reach an competitive and intensive agricultural sector with very important investments in agricultural infrastructures, including some which have been very controversial from an environmental and economic point of view. However, in the north of the region the idea has been the mentioned before, with the corresponding limitations to develop the agricultural sector.

In this respect, some of the experts have declared that the rural policies have had more impact to sensitize the visiting population than the own population to the environmental and natural value of the rural areas. Maybe, some of the aforementioned behaviour of the rural population is related to a lack of awareness and conscience about the values of some of the available rural resources.

Some authors (Mantino, 2005; Bryden and Bollman, 2001) have suggested that the local development depends on other aspects different from the typical objectives of the rural development policies (enhancing structural change in agriculture, developing of income diversification, creating favourable conditions for internal and external investments, encouraging linkages among sectors and improving living conditions for rural population). Concretely, these authors mention factors such as historical ones because the development process is influenced by the pre-existing structural and cultural factors, social capital as combination of skills, social networks and attitudes, innovation and local institutions. The role of policies promoting rural development will depend on the institutional and social

⁴⁸ It is important to remember that the population of these areas present three characteristics that limit in an important way its business initiative capacity. They are the elevated male index, and joined to it, the elevated proportion of singles, among an ageing population.

ability of all kinds of participants to use such policies in the best possible way (Mantino, 2005).

Also Terluin (2003) recommends adjusting administrative structures, the linkage among different levels of authorities in order to stimulate the bottom-up initiatives and, as a consequence, to stimulate employment and economic growth in rural areas. Then, it could be interesting to know the opinion of the experts about the possible influence of a good coordination among authorities in the success of some areas. In general, the experts do not consider this aspect as very relevant, being academic and evaluator experts who specially value it. In this sense, the aforementioned work of Sanz (2007) shows the difficulties of communications that arise among the regional authorities and the local ones and the inhabitants in some areas of the Pyrenees. There seems to be a lack of understanding that hinders the start and execution of some measures.

These ideas lead to the next question, which has been shown by the evaluation reports: the scarcity and even the lack of participation and implication of rural population in putting into effect the rural programmes applied along these years. Many authors have pointed out the importance of these circumstances in the process of local development. This was the reason to ask the experts about the possible effect on development of the differential behaviour of population in the analysed rural areas. It is considered as very important, but again we found some differences among the groups of experts. The academic and evaluator group values this factor as one of the most important ones, whereas the people working closer to rural population include other factors as more important.

One additional question that has been considered as important in order to explain the different evolution of the rural areas has been the endowment of human capital, and also related to it the development of innovative initiatives and the participation of local entrepreneurs in the rural development process. In general the three mentioned questions are considered to be important factors in helping to explain the different responses of rural areas.

To this respect, it was also considered as an important aspect the participation of the population in some social and economic structures implying some degree of compromise with other people and with the area. In the regional case the participation of many farmers in some cooperatives (grouping the demand of some inputs or the offer of some products) has been considered as a very positive point in order to gain some market competitiveness and therefore better economic results, but also as a source of social cohesion. This kind of legal institution is considered as very important in order to promote the social participation and in many cases the formation, and to maintain the cultural traditions and to provide services to the rural population (MAPA, 2003). According to this source of information at the beginning of this century, more than 65% of the regional farmers belongs to one of the cooperatives of first level, and the 97% of the regional cooperatives belongs to a second level cooperative. To show its relative importance, it could be enough to say that its volume of sales is bigger than 60% of the regional final agricultural production. But, there is a bigger concentration of such cooperatives in the most developed areas. In the northern mountainous ones, because of different reasons, the development of such type of organization is not so important.

Some of the surveyed people pointed out the importance of the availability of basic services at similar level as in urbanized areas, and in this sense they agree with the OECD's position that the most successful strategy is a development based on the creation of an urbanised countryside (OECD, 2003). Again the importance of getting closer to more urban areas was emphasized as an alternative to the availability of such services in the rural

areas. Some of the stakeholders suggest that this is a basic condition to succeed in making the young people to remain in rural areas, jointly with the increase of job opportunities. The experts stand out, among others, the importance of the availability of health and education services as a way to attract population to rural areas, and the social services (as nurseries) in order to maintain in the rural areas some collectives as women. In this sense, some rural municipalities that have started to have enough offers of such services have started to recover from the depopulation process.

Another source of differential behaviour among rural areas pointed out by some authors is the reception of newcomers (Terluin, 2003). The different attitude of these new rural inhabitants allows them to be able to mobilize local actors or even act as local leaders. This idea was also formulated to the group of experts. Most of them think that the impact of the rural policies in the reception of this kind of population has not been very important, and correspondingly, this is not a circumstance that could help to explain the different level of development among rural areas.

Finally, some of the stakeholders appreciate the positive impact of the bottom up approach adopted by the LEADER initiative, as other authors have suggested (Nunez, 2005, Schucksmith *et al.*, 2005). But the scarcity of funds makes this program to have a marginal repercussion, although it has contributed to the improvement of the initiative capacity of the rural inhabitants, as it has been also mentioned in the evaluation reports.

6 CONCLUSIONS

The Spanish economy has undergone a series of structural changes in the last twenty-five years that led the country to be comparable with other EU economies. Among the most important are the increase in the openness level of the country and the level of integration with other economies. This has been related to both the process of democratization after the dictatorship period and the process of integration into the European Union.

At the same time, there has been an important development process, as it is pointed out by the comparison of the growth rate in Spain and other economies. That was translated into the decrease of the wellbeing gap between the Spanish population and other EU member states. The convergence process showed how the Spanish GDP per capita increased from nearly 70% of the EU average (EU-15) to more than 90% in recent years.

One of the structural characteristics that is associated with the development process, in general, is the decline in importance of the agricultural sector within the economy as a whole. This is also the Spanish case, where agriculture's contribution declined from more than 16% of the labour force and 7% of the gross value added to around 5% and 3%, respectively. At the same time, the modernization process that started during the 1960s has continued and after Spain's integration into the EU. This has implied an increase in the level of mechanization, on the irrigated land and also in the human capital used in the agricultural sector (although a big difference with the rest of the economy is still present nowadays). Moreover, a change in the sectoral specialization has taken place. But one of the main changes has been in the structural characteristics of the agricultural holdings, with the disappearance of almost 600,000 farms and more than 300,000 annual work units. This evolution has allowed the agricultural productivity to improve significantly. The farms that remain in the activity have diversified their sources of income.

The evolution of the rural areas shows an important trend of depopulation: whereas the Spanish population has grown, the population of the rural areas has diminished. However, at the beginning of the nineties it slowed down and even, in some areas, a certain recovering process was observed. Depopulation is accompanied by an increase of the aged population and an increase of the imbalance between the number of men and women. Both would limit the opportunities for future development in rural areas.

After the integration of Spain into the EU, these changes have been accompanied by important measures of rural but mainly agricultural policies. In general, and confirmed by many authors, the main intervention has corresponded to the market and income support policies. Rural development measures had a smaller participation in the programming periods and, above all, the amount of funds allocated has been marginal. Because of that, the policies (including the rural development measures) had a sectoral approach. Therefore within the rural areas, the Spanish farmers have been the main beneficiaries. In this sense, the other rural inhabitants have been almost neglected.

However, the available figures show that there has been some increase in the level of the diversification of the rural activities. It is interesting to point out the amount that some of the programmes have dedicated to the promotion of the rural tourism and the improvement in the commercialisation of the agricultural and rural products. In this respect, the role played by the LEADER (and in Spain also the PRODER) initiative it has been very interesting. Additionally, these initiatives have contributed to the necessary change in the approach used in the rural development process. Such programmes have changed from a sectoral approach to a more territorial one, trying at the same time to motivate rural population to participate in the rural development process. Finally, it is worth noting that the environmental measures have not been profusely applied, as it has

happened in other Mediterranean countries where the main objective has been the improvement of the agricultural structures.

The evolution of the Autonomous Community of Navarre must be analysed in this context. This is a region that has not been included among the Objective 1 regions in the EU regional policy. That is to say, in the twenty-five analysed years the regional GDP per inhabitant has been always superior to the 75% of the EU average. This means that the financial support received has been smaller than the Spanish average.

The regional economy has better results than the national level, and in the last years even better than the EU average. The relative level of wellbeing increased quickly in the first years after the integration of Spain into the EU, but in the last years, the growth rate has been held back.

The largest proportion of the region's GDP region is due to the services sector, as it corresponds to a developed region. However, in the national and European context, the region is relatively specialized in industrial and agricultural activities. The agricultural sector still represents around 5% of the occupied population and gross value added. These figures are related to a lower level of development.

The regional agricultural sector presents a bigger level of mechanization than the national level, similar proportion of irrigated land, more human capital used in the sector and the productive structure of the holdings better adapted to the market requirements. This means that, at least in the national context, the sector could be characterized as competitive and productive. The agricultural regional labour productivity has been superior to the Spanish and EU levels mainly for the entire analysed period. Nevertheless, it is important to have in mind that the sector, compared with other regional activities, has the smallest labour productivity. An additional positive characteristic of the regional agriculture is its high degree of integration with the agro-food industry, which moreover represents an important percentage of the industrial sector. This has contributed to the development of many quality labels.

Using the method proposed by the OECD, the region can be classified as an intermediate rural area. With the national criteria, it can be said that more than 45% of the population is living in rural or intermediate municipalities (more than 95% of the regional municipalities). These figures mean that the region has a more rural character than the national average. As in the national case, the rural areas are characterised by an aged population with a larger participation of men and with less human capital than in the urban areas.

The applied agricultural and rural policies have followed the national path, with the necessary regional adaptations. In this respect it can be said that the region presents some bias towards the measures related to the improvement of infrastructures and to the improvement of the agricultural holdings. The environmental and diversification measures have received less attention, although along the period the dedicated funds have been gaining participation.

The evaluation reports of the different applied rural programmes (including the LEADER initiative) show that the measures oriented towards the agricultural sector have received more attention, so that they have had a positive impact in the economic situation of the rural areas. The diversification measures have been mainly oriented towards the promotion of rural tourism activities, and there has been some concentration of funds in such measures. But other aspects of the rural development, such as the social or environmental issues, have been less attended, thus the impacts have been smaller.

Currently, and due, among other things, to the funds received from the different rural policies, the regional rural areas, in general, have a good situation. In spite of the little

attention that the environment has had until the last years, it is one of the main strong points of the region, jointly with their good state of conservation. The qualitative and quantitative contributions of the tourism to the rural economies are also very well considered. The main weaknesses are the demographic situation and the endowment of general infrastructures.

The latter has been considered as the most important factor explaining the behaviour of the most dynamic rural areas, also related to the closeness of such areas to urban and economic centres. In this sense, there seems to be a high level of agreement about the importance of increasing the proximity of rural areas. Until recent years this objective was obtained through the improvement of the transport infrastructures. Nowadays, and from a policy perspective, the measures must focus on investments on infrastructures relative to new information and communication technologies that are considered as one possible instrument to reach the closeness of the rural areas allowing at the same time to develop new ways for diversifying the economic activities.

Additionally, it would be desirable, that the agricultural sector to lose its role as a key participant in the future policy measures. With no doubt it has been an important element in order to explain the rural development path. But there has been a development of other activities that are able to profit from some rural resources with an increasing participation in the economic figures. These other activities, most of which are related to the natural and environmental resources, need to receive more attention from a policy point of view. In this sense, the cultural and environmental capital must be improved through the necessary preservation and conservation policies, because they are increasingly more important due to the growing importance of tourism and recreational activities in rural areas.

In order to guarantee that the assumed objectives for the previous measures are reached, the necessary investment in human capital must be done. It is important that the rural population has enough level of training in order to be able to benefit from such measures. From the analysis of the regional case, the importance of creating the necessary networks between regional and local authorities and between all of them and the rural population can be also derived. In the first case, it will be important to improve the management of the rural policies, and secondly, to avoid possible conflicts of interests, as it has happened in the regional case. That is to say, the human and social capital need to be considered as main focuses on the rural development measures and policies.

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