# Public financial support to investments in rural areas: The case of the region of Thessaly in Greece

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**Abstract**

*Greek governments have supported investments to rural areas financially either by covering part of the investment and/or offering advantages with respect to interest rate loans or tax advantages. This support had been tendered either by nationally financed programs, called Development Laws, or by other programs, mainly financed by the European Union. The financial support depended on the area where the investment took place, as well as the sector and the nature of the investment. Additionally, another program, the LEADER initiative, was developed. It was financed mainly by the European Union, in order to support investments in rural areas and promote the development and the structural adaptation of the less developed European regions.*

*This paper examines public financial support for investments in rural areas in the case of the region of Thessaly, one of the 13 regions in Greece. Its aim is to point out the importance of investments in the sectors of tourism, industry and agriculture. The region of Thessaly presents obvious interest because of the development of these sectors at different levels, depending on local production characteristics. The time period is the 2000s, when important investments were undertaken in the region, supported financially by Development Laws and the LEADER initiative.*

**Keywords:** Financial support, investments, rural areas, Thessaly, Greece

**JEL Classification:** G32, H54, R51

## 1. Introduction

During the 1990s, Greek governments encouraged investments by partially financing them and/or offering other financial incentives with regard to the interest rate of loans or tax incentives. These initiatives were in the form of nationally financed programs and other programs, mainly financed by the European Union (EU).

National initiatives were defined by the so-called Development Laws (DL). In the 1990s, the first DL to be applied was 1892/1990; it was replaced by DL 2601/1998. Later,

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in the 2000s, two more DLs were applied, DL 3299/2004 and DL 3522/2006. This financial support for investments was applied to several sectors in almost all geographical regions of Greece. They primarily financed investments by supporting part of the total invested capital. The financial support depended on the geographic area, the sector and the type of investment. These initiatives did not focus exclusively on rural development.

Parallel to these financial support initiatives, a program financed mainly by the European Union was implemented to support investments in rural areas. This program, known by the acronym LEADER (Liaisons Entre Actions de Développement de l' Economie Rurale i.e. Links Between Actions for the Development of the Rural Economy), was an EU initiative to promote the development and the structural adaptation of the less developed European regions. The LEADER initiative was launched in 1991 as the LEADER I initiative for the period 1991-1994. In June 1994, the European Commission approved the LEADER II initiative for the time period 1994 to 2001. It was followed by the LEADER + initiative, which spanned 2002 to 2008. The LEADER initiatives were based on the active participation of the local population, particularly local companies, associations, cooperatives and local authorities (European Commission, 2000). Greek governments used the LEADER initiatives in their regional policy since they represented a substantial funding source for investments in the less developed rural areas of Greece.

The development of rural areas was the objective of all investment initiatives launched by the Greek state and supported by public finance. This support varied depending on the philosophy and the targets of the initiative. This paper examines public financial support for investments in rural areas, studying the case of Thessaly, one of the 13 regions in Greece. It examines the investments financed by public support respecting the different sectors, agriculture, industry and tourism, but also the various geographic areas of the region and the philosophy of public investment initiatives.

The time period is the 2000s, when important investments were undertaken in the region, supported financially by both national and EU programs, through Development Laws 2601/1998, 3299/2004, 3522/2006 and the LEADER + initiative. These investments influenced the region's production. A comparative analysis, between investments and production by sector and geographic area, is then offered. Production is examined by sector and prefecture in the region of Thessaly between 2000 and 2007 (last available data).

Following the introduction, previous studies are discussed in section 2. Section 3 presents the region of Thessaly through some macroeconomic aspects while section 4 presents the public investment initiatives. Section 5 discusses the results of the investments, including the impact on the region's production, by means of a sector and prefecture analysis. Finally, conclusions are presented in section 6.

## 2. Previous studies

With very few exceptions, development initiatives through public financing of investments, at least in Greece, have not been the object of scientific studies (contrary to studies focusing on private financing, see for example Arvanitis et al. (2012), the autofinancing through activities' profits, see Silva (2011), or the mobilization of the local savings, see Bairamli et al. (2010). Karafolas (2007), examined the development initiatives for the case of the region of West Macedonia during the 1990s. He found that the LEADER II initiative has been the most appropriate program for the development of the rural area in this region. Emanuel and Papadopoulou (2004) described the general framework for the application of European programs in Greece. Georgiou (1999) examined the role of Community Support for Greece regarding the regional convergence during the early 1990s. The author concluded that allocation of funds was necessary in order to develop the regions of Greece which lie outside its two core regions, Athens and Thessaloniki. In this way, the intense regional inequalities between these two regions and the rest of Greece could be reduced. The author placed the region of Thessaly with the rest of Greece, in accordance with its development level and structural problems. Regarding the region of Thessaly in particular, only a few reports and business plans exist that offer interesting conclusions as far as the region's problems and opportunities, especially in the rural areas, are concerned. One of these points out some problems for the region's rural areas; among these are: migration to urban areas, ageing populations, the lack of job opportunities in rural areas (Region of Thessaly 2003). The same study points out the change in agricultural policy from a sectoral to a spatial approach; the latter could include the multi-activity in rural areas related to tourism. Thus agro-tourism activities could be exercised in addition to agricultural ones. These studies do not refer, however, to the main issue of this paper, the interest in public finance for the region's investments. When the question concerns specific funding programs, there appears to be an absence of references to national funding programs, such as the Development Laws, with the exception of Karafolas (2007). Notwithstanding, the LEADER initiatives have been examined in Greece and other countries as a financial instrument for rural development. In the case of Greece, a study on LEADER + showed that rural tourism was the sector most benefited, since it attracted the majority of investments (Karafolas, 2009). In the case of rural tourism, LEADER initiatives had a very positive impact on development by financing investments in the Wine Roads network in Greece (Karafolas, 2007a). A study based on a sample of 11 local action groups in Greece (Efstratoglou and Mavridou, 2003), concluded that LEADER II had had a positive impact on rural development. Another study, on rural coastal areas of the North and South Aegean (Loizou et al., 2010), found that the positive impact of the LEADER initiatives was limited because of its insufficient financial sources. The LEADER initiatives relating to agricultural policies were examined on an historic basis by Chatzitheodoridis et al. (2006).

## 3. The region of Thessaly

Thessaly is one of the 13 Greek regions. It lies in the heart of Greece and borders the regions of Central Macedonia, West Macedonia in the north, Epirus in the west, Central Greece in the south and the Aegean Sea in the east. Thessaly occupies almost 11% of the total Greek area. The region consists of four prefectures: Karditsa, Larisa, Magnesia and Trikala. In compliance with the new administrative reform, implemented in 2011, the region is divided into 5 peripheral units, the four above plus a new unit consisting of the Sporades islands (Wikipedia, 2011). Be that as it may, the examined programs have been applied under the old administrative formation of four prefectures. The region's population represented 6,8% of the total Greek population in 2011 (Table 1). The population breakdown is 44% urban, 40% agrarian and 16% semi-urban, with the agrarian population declining while the semi-urban increases (Wikipedia, 2011).

**Table 1: Macroeconomic data of prefectures of the region of Thessaly**

| | Population* | | GDP** | | Deposits*** | |
|---|---|---|---|---|---|---|
| | | (%) | Meuros | (%) | Meuros | (%) |
| Larisa | 284.420 | 2,6 | 4.049 | 1,9 | 3.782 | 1,6 |
| Magnisia | 203.540 | 1,9 | 3.447 | 1,6 | 2.744 | 1,2 |
| Trikala | 129.700 | 1,2 | 1.511 | 0,7 | 1.801 | 0,8 |
| Karditsa | 113.070 | 1,0 | 1.190 | 0,6 | 1.248 | 0,5 |
| Thessaly | 730.730 | 6,8 | 10.197 | 4,8 | 9.574 | 4,0 |
| Greece | 10.787.690 | 100,0 | 213.205 | 100,0 | 237.531 | 100,0 |

**Source:** Hellenic Statistic Authority (2011), Bank of Greece (2011), Epilogi (2010),
*Temporary data of census of 2011, ** Gross Domestic Product on 2006, *** Deposits end of 2009

The region produced on average 5,0% of the country's gross domestic product (GDP) during the period 2001-2007. This production ranked the region fourth among the 13 regions of Greece (Epilogi, 2010). The region accumulated 4% of deposits in Greece (Table 1). The income per capita in the region of Thessaly is somewhat lower than the national one, being 71,7% of the national average in 2007. Unemployment is higher than the national average, with 8,4% in 2008, against 7,7%, which was the national average (Epilogi, 2010). Within the region, one needs to distinguish the prefectures of Larissa and Magnesia, which are more densely populated (67% of the total population) and have the greater part of the region's GDP (73,5% of total GDP) from the prefectures of Karditsa and Trikala, which are less densely populated (33% of the total population) and have only 26,5% of the region's GDP (calculations from Table 1).

On a sectoral basis, at the beginning of the investigated period, 2000, Public Administration and Construction produced the greater part of Gross Value Added (GVA). Nevertheless, the GVA of agriculture was much higher in the region of Thessaly in comparison to the national average; agriculture offers 17% of the GVA in the region against only 7% for the country as a whole. The Agriculture GVA was higher in the prefectures of Karditsa and Larissa in comparison to the region's average; it was significant, but lower than the region's average, in the prefecture of Trikala. The prefecture of Magnesia is characterized more as an industrial and tourist area (calculations from Table 8). Rural areas in Thessaly faced problems such as migration to urban centers, mainly Larissa and Athens, the aging rural population, unemployment, the absence of job opportunities and tight funding (Region of Thessaly, 2003). Additionally, rural areas in Thessaly, and generally in Greece, are influenced by multi-activity. Many farming families, in order to increase their agricultural income, resorted to other activities and occupations. Up until the 1980s, agricultural policies did not consider this eventuality. Multi-activity for the rural population began in the mid-1990s and any policy concerning rural areas should consider this likelihood. Subsequently, it was advocated, especially by Law 1257/1999 and the application of the LEADER initiatives (Region of Thessaly, 2003). As a result of these developments, populations that had migrated to urban areas could return to rural areas in search of occupation either in agricultural activities or in agro-tourism. Programs funding rural areas and regional development should focus on or at least take into consideration this contingency. Any policy should have an appropriate structure if it is to be applied successfully. Bontron (2003), working in France and Belgium, and Shucksmith (2000) and Mc Dowell (2003), working in the UK, concluded that the role of infrastructures in the application of development initiatives was of high importance; on infrastructures positive effect see also Adonat et al. (2011). Further, the governance of companies can play a very significant role (see Gstraunthaler et al. (2008) and Milos et al. (2008)).

In Greece, local authorities and collective schemes like agricultural cooperatives didn't accomplish their role; more often than not, they were manipulated by governments and political parties. This was the case not only in Thessaly but also throughout Greece (Patronis, 1999). European Union policies on agriculture and local development, in relation to the inefficiency of the Greek state to apply those policies, favoured the creation of intermediary entities to accomplish this task; these are mainly Local Development Agencies whose responsibility it was to apply and execute funding programs mainly in rural areas.

## 4. Public Programs financing development investments in Greece

### 4.1 Investment Laws 2601/1998, 3299/2004 and 3522/2006

Investment initiatives by the Greek state were applied through measures that determined the form of public financial support, as well as the region and sector where these initiatives would be applied. During the 1990s, these measures were defined by Development Law 1892/1990 for the period 1990-1998, and Development Law 2601/1998, which replaced the previous law, for the period 1999-2004 (Journal of Government, 1998). Law 2601/1998 was replaced by Law 3299/2004 (Journal of Government, 2004). Law 3299/2004 presented some differences from the previous law; the new law introduced the motif of grant for the creation of employment posts; it made no distinction between new and old investors as did the previous, thus offering more possibilities for grants; it expanded the grants to include new entrepreneurial activities; it focused on tourism and special investments; it offered more favorable arrangements for the allocation of grants (e.g., investing in leased land). On the other hand, it demanded a minimum amount for the investment and minimum self participation of 25%. Part of Law 3299/2004 has been modified by Law 3522/2006 in order to facilitate investments (Journal of Government

2006). Law 3522/2006 introduced a new regional aid map that divided the territory into 3 areas; the aid ceiling was 40%, applied to area C, the most benefited. The new law gave the opportunity for small and very small enterprises to receive additional grants, up to 10 and 20 units respectively. It also allowed the new grant scheme to be exploited by new small business and those that were in the first stage of development. Furthermore, it facilitated eligibility and the investment's checking process.

The three last laws were applied during the decade of 2000s. Financial support could either be a grant covering part of the investment, a subsidy on interest paid for loans related to the investment, or income tax allowances up to a certain percentage of the investment. Development laws divided Greece into geographic areas, for which different levels of grants were applied. Criteria were related to the current level of economic development in each area. According to Law 1892/1990, the level of grants for investments could vary from 15% to 45% of the investment's budget. Laws 3299/2004 and 3299/2006 aimed to attract investments higher than 100.000 euros in all sectors of the economy, especially in emerging ones, and applied across the entire country, focusing on small and medium enterprises (SMEs). For the application of the provisions of the law, Greece was divided into three zones, the first including the richest prefectures of Greece (such as Athens, the capital of Greece, and Thessaloniki), while the third zone incorporated the poorest ones. The whole region of Thessaly was placed in the second zone, which included the majority of prefectures; this zone was between the smallest and the biggest beneficiary regarding grants and tax allowances. Incentives for investment plans offered by zone and category of activity were divided into subsidies, grants and tax allowances. Grants for investment ranged from 15% to 40% of the investments, in relation to category and zone. Tax allowance ranged between 50% and 100%, depending on the category of activity and the geographic zone. The management and supervision of development laws was divided between the national level, exercised by the Ministry of National Economy, and the regional level, exercised by the regional and prefectural authorities.

All development laws applied during the 1980s, 1990s and 2000s have been objects of criticism on economic development, especially at regional levels. While economic growth in Greece was indisputable during this period, disparities were obvious between regions, especially between major urban areas (Athens and its peripheral areas, Thessaloniki) and other semi-urban areas (Ministry of Regional Development and Competitiveness, 2012).

### 4.2 The LEADER + initiative

Contrary to development laws that were applied with a top-down philosophy, the LEADER initiatives were characterized by a bottom-up philosophy. LEADER initiatives were drawn up from what regions, especially administrative districts, decided to develop; that could permit a more efficient application of the program since local needs are better knowing (to similar results on banking credit, arrived a study by Djedidi Kooili in the French case, 2012). The application of the LEADER + initiative in Greece adopted general EU rules targeting the development and the structural adaptation of the less developed regions. Within these principal targets, the initiative had to contribute to economic and social cohesion, sustainable development, the growth of employment and environmental conservation. In Greece, the LEADER + initiative was applied to mountain regions (classified by the 75/268/CEE directive) and island regions, which are the least developed agricultural areas in Greece. The initiative could also be applied to other less developed neighboring regions if they had structural problems but showed development prospects; the initiative was applied to environmentally sensitive areas, such as NATURA 2000 (Ministry of Rural Development and Foods of Greece and European Union, 2006).

The national LEADER + initiative had 3 principal priority Axes. These were: Axe 1 "Pilot strategies for rural development", Axe 2 "Support for cooperation among rural areas" and Axe 3 "Clusters". Every axe was divided into measures that had been specified by several actions. A fourth axe concerned the program's management. The main measure (measure 1.2) aimed at interventions for rural tourism and small businesses in the rural sector. Investments through this measure rose to 236,4 million euros, corresponding to 64% of LEADER + investments. Another important target of this program was the conservation and promotion of the natural environment (measure 1.4.) Investments through this measure rose to 50,4 million euros, corresponding to 13,7% of LEADER + investments (Karafolas, 2009).

The LEADER + initiative was, first and foremost, public financing. This financing varied, covering from 55,5%, in the case of strong private participation, up to 100%, in the case of infrastructure projects. This public financing may be considered higher in comparison to that of LEADER II (Karafolas, 2007). The European Union, the principal finance source of LEADER +, contributed half of the total budget and benefactors covered 30,6%, while the Greek state contributed only 18,9% (Table 2).

**Table 2: Financial source of LEADER + investments, by axe and measure (*)**

| | Amount (in Keuros) | Part of EU (%) | Part of Greek state (%) | Part of Private share (%) |
|---|---:|---:|---:|---:|
| Total | 368.243 | 50,5 | 18,9 | 30,6 |
| Axe 1 | 349.227 | 49,5 | 18,7 | 31,8 |
| Measure 1.1. | 53.491 | 74,3 | 24,8 | 1,0 |
| Measure 1.2. | 236.377 | 39,3 | 16,3 | 44,5 |
| Measure 1.3. | 8.956 | 61,0 | 20,3 | 18,6 |
| Measure 1.4. | 50.403 | 69,2 | 23,2 | 7,6 |
| Axe 2 | 9.678 | 61,2 | 20,4 | 18,4 |
| Axe 3 | 1.973 | 75,0 | 25,0 | 0,0 |
| Axe 4 | 7.365 | 75,0 | 25,0 | 0,0 |

**Source:** Karafolas (2009)
* M.1.1. Technical support to L.A.G., M. 1.2. Investment subsidies-Support for Entrepreneurship, M. 1.3. Support measures, M. 1.4. Protection, Promotion and Exploitation of natural and Cultural Heritage.

Financial contribution was not homogenous. Measures related to private investments received a strong private contribution that rose to 44,5%, as in the case of Measure 1.2. Projects related mostly to infrastructure were funded mainly by the European Union and the Greek state (Table 2 and Karafolas, 2009).

The management and supervision of the LEADER + initiative at a national level was performed by the Ministry of Rural Development and Food. At a regional level, the management was assigned to Local Action Groups (LAG) consisting of local collective parties such as local government, unions, municipal enterprises, agricultural cooperatives and other social and professional bodies. Their legal status is normally that of a Limited Company, and is aimed at local rural development.

In the region of Thessaly, four Local Action Groups were formed in accordance with the priorities of the region and the prefectures. In the prefecture of Magnesia, a major marine tourism destination, the LEADER + initiative focused on the development of Mount Pelion and the initiative was managed by the Pelion Development Agency. The target was to attract investments in the locality of Mount Pelion and the North Sporades Islands, which, compared to the rest of the prefecture, are less developed rural areas. Similarly, in the biggest prefecture of the region, Larisa, the LAG was created in order to develop the rural area of Elassona (a small rural area), and Mount Kissavos (the Elassona – Kissavos Development Agency). Priority was given to keeping the local population in this area by increasing local development and exploiting local resources and potential. The two other LAGs also focused on rural mountain areas, the Karditsa Development Agency focusing on the mountain regions of Karditsa, Fthiotida and Southern Larissa, and the Kalampaka-Pyli Development Centre focusing on the mountain areas of Kalambaka and Pyli.

The LEADER + initiative was established on a regional basis with targets to be financed in relation to local needs and priorities. The application of the initiative was undertaken by the LAG's (as the four LAGs in the region of Thessaly). The LAGs then proceeded to call for expressions of interest, offering any possible help and information. They received, examined, evaluated and approved the submitted proposals (Larissa Prefecture Development Company 2012). The whole process meant that the decision makers were based locally and proceeded on the basis of local needs, which had already been defined before the application of the initiative.

Procedures regarding priorities, evaluation and application of programs are quite different in the case of national development laws. Decisions on the program's priorities, public funding, the evaluation process and the final approval of projects are decided centrally, usually by the Ministry of Finance and Economy and the Ministry for Development. Local authorities can only make proposals, mainly with reference to grants; the final decision remains the privilege of the national authorities. Therefore, development laws are based on policies and priorities at a national level and not on specific local priorities and particularities. If an investment responds to local specificities, this is because of the investor's decision and not the consequence of a centrally oriented policy on such specific investment.

## 5. Comparative results of the financial support programs

Our analysis refers to the number of projects and the total budget of investments that have been approved. Data were provided mainly by the local and national authorities managing those programs (General Secretariat for Investments and Development, Region of Thessaly, LAG's in Thessaly)

The analysis is based on the support program or initiative, the sector of investment and the geographic area indicated by prefectures. It discusses whether a concentration of investments exists in some sectors and if a concentration of investments appears within prefectures of Thessaly. It examines the characteristics of these investments with respect to activities and budget allocations. Investments are examined in comparison to the region's production on a sectoral and geographic basis.

### 5.1 An examination by support program

Development Law 2601/1998 received the majority of projects during the examined decade 2000-2010, and it was followed by those of Law 3299/2004 (Table 3); it was estimated that some parts of the projects were not completed (General Secretariat for Investments and Development, 2011). On the contrary, however, projects concerning the LEADER + initiative were completed in their totality. The reasons for the non-completion of projects may be related to insufficient business opportunities for the companies concerned and the high risks undertaken because of the substantial budget of the investment. Conclusions were similar in the case of West Macedonia (Karafolas, 2007).

As is evident from Table 3, the average budget of approved projects within Development Law 3299/2004 and Development Law 3522/2006 approached one million euros, which was much higher compared to other programs, especially the LEADER + initiative. The LEADER + initiative appeared very attractive for small companies owing to the additional incentive of strong financial support, surpassing 60% of the total budget (Table 3). The other programs received considerably lower financial support (Table 3). In the region of Thessaly, Development Law 3299/2004 attracted the biggest budget of investments within all public financing programs (Table 3). The positive prospects of the Greek economy during the first half of the 2000s and the expectations created by awarding the 2013 Mediterranean Games to the town of Volos in the prefecture of Magnesia are factors that favored these investments.

**Table 3: Public financed investments in the region of Thessaly, by financial program (number of projects and investments)**

| | Number of projects | Total budget (Meuros) | Average budget (Meuros) | Total grants (Meuros) | Grants/ Budget |
|---|---|---|---|---|---|
| Development Law 2601/98 | 324 | 170,8 | 0,53 | 47,6 | 28% |
| Development Law3299/04 | 309 | 254,4 | 0,82 | 104,4 | 41% |
| Development Law 3522/06 | 217 | 182,3 | 0,84 | 71,0 | 39% |
| Leader + Initiative | 137 | 15,9 | 0,12 | 9,7 | 61% |

**Source:** General Secretariat for Investments and Development (2011) and Region of Thessaly (2012)

The number of projects realized through the LEADER + initiative (approaching the totality of approved projects), shows the program's popularity in the region of Thessaly. This can be explained by the higher financial support and the program's orientation towards small investments, which are more appropriate to the region's enterprises (mainly small enterprises). Additionally, the LEADER + initiative seemed to respond better to the needs of the regional economy by creating the appropriate infrastructure to boost the rural economy through rural and alternative tourism related to culture, mountain and lake activities and local gastronomy. This area began to develop in Greece during the 2000s, receiving financial support on a regional or sectoral basis, such as the case of Wine Roads (Karafolas, 2007a; Vlachvei & Notta, 2009). The absence of facilities relating to these local activities and the need for their creation encouraged appropriate investments with a relatively small budget. Investments through the other development laws were not directed at these specific targets in rural areas and they did not favor small budget investments (Table 3).

### 5.2 A sectoral examination

Industry has been the main beneficiary of investments through the examined development laws, which favored relatively big projects (Table 4). Such projects could be realized by industry. Projects related to tourism had lower budgets while agriculture received the smallest part of the total budget and mainly concerned investments in livestock.

Contrary to the above development laws, investments through the LEADER + initiative were very much oriented towards tourism, particularly agro-tourism. Table 4 illustrates the fact that tourism received 67% of total investments against 31% for small industries for the production of local products. Investments in cultural events and in residential and natural environments also had a positive influence on rural tourism. This initiative appeared more attractive to small companies since investments in this initiative demanded smaller budgets in comparison to those of the other development laws. These

**Table 4: Public financed investments in the region of Thessaly, by financial program and sector: A/ in Meuro, B/ Part of each sector in total budget (%)**

| A/ | Development Law 2601/98 | Development Law3299/04 | Development Law 3522/06 | Leader + Initiative | Total |
|---|---|---|---|---|---|
| Tourism | 31,0 | 77,4 | 42,8 | 10,7 | 161,9 |
| Industry | 125,2 | 172,9 | 98,9 | 4,9 | 401,9 |
| Agriculture | 14,5 | 4,1 | 40,6 | | 59,2 |
| New technologies | | | | 0,3 | 0,3 |
| Total | 170,8 | 254,4 | 182,3 | 15,9 | 623,4 |
| **B/** | | | | | |
| Tourism | 18,2% | 30,4% | 23,5% | 67,4% * | 26,0% |
| Industry | 73,3% | 68,0% | 54,2% | 30,7% | 64,5% |
| Agriculture | 8,5% | 1,6% | 22,3% | | 9,5% |
| New technologies | | | | 1,9% | 0,0% |
| Total | 100,0% | 100,0% | 100,0% | 100,0% | 100,0% |

**Source:** Development Agency of Elassona-Kissavos (2011), Development Agency of Karditsa (2011), Development Centre of Kalampaka – Pyli (2011), Pelio Development Agency (2011), General Secretariat for Investments and Development, Directorate General for Private Investments (2011)
*Agro tourism

observations are close to the conclusions drawn regarding West Macedonia in the 1990s, which were presented in a comparative study on two Development Laws and the LEADER II initiative (Karafolas, 2007).

## 5.3 An analysis by prefecture

If we examine investments in the region of Thessaly for the total support programs over the whole period, no concentration appears in any one prefecture, regarding total projects and budgets approved (Table 5). The Prefecture of Magnesia seems to be a relatively larger beneficiary in terms of number of projects and budget while the prefecture of Larisa seems to receive a relatively more substantial budget per project (about 0,9 million euros per project against 0,6 million, the region's average) (Table 5). If we specify by financial program and period, it appears that the period of investments and the support program influenced both projects and budgets for every prefecture. Moreover, at least in the beginning, the existing infrastructure in some sectors, such as agriculture and industry, seems to have influenced investments for the profit of the biggest prefecture, Larisa (Table 1), and the second prefecture, Magnesia, which had the most substantial industrial GVA in the 2000s (Table 8). Thus, these two prefectures attracted more than 73% of projects and budget, which were approved through DL 2601/1998 (Table 5).

An opposing image was presented with the projects approved through the next DL, 3299/2004, since the prefectures of Trikala and Karditsa received the majority of investments. A more balanced image was presented for the investments approved through DL 3522/2006. Contrary to the above Development Laws, in the case of the LEADER + initiative, the prefectures of Trikala and Karditsa were the main beneficiaries since they accumulated 72.3% of projects and 60.1% of the total budget (Table 5).

**Table 5: Public financed investments in the region of Thessaly, by prefecture and financial program**

| | Karditsa | Larisa | Magnisia | Trikala | **Thessaly** |
|---|---|---|---|---|---|
| **Development Law 2601/98** | | | | | |
| *Number of projects* | 19 | 105 | 133 | 67 | 324 |
| *Budget (Meuros)* | 12,9 | 68,1 | 56,6 | 33,2 | 170,8 |
| *Average budget (Meuros)* | 0,68 | 0,65 | 0,43 | 0,50 | 0,53 |
| **Development Law 3299/2004** | | | | | |
| *Number of projects* | 92 | 32 | 74 | 111 | 309 |
| *Budget (Meuros)* | 26,4 | 68,3 | 78 | 81,8 | 254,4 |
| *Average budget (Meuros)* | 0,29 | 2,13 | 1,05 | 0,74 | 0,82 |
| **Development Law 3522/2006** | | | | | |
| *Number of projects* | 34 | 64 | 67 | 52 | 217 |
| *Budget (Meuros)* | 29,6 | 53,8 | 52,1 | 46,7 | 182,3 |
| *Average budget (Meuros)* | 0,87 | 0,84 | 0,78 | 0,90 | 0,84 |
| **Leader + Initiative** | | | | | |
| *Number of project* | 83 | 24 | 37 | 76 | 220 |
| *Budget (Meuros)* | 9,2 | 6,9 | 5,9 | 10,1 | 32,1 |
| *Average budget (Meuros)* | 0,11 | 0,29 | 0,16 | 0,13 | 0,15 |
| **Total** | | | | | |
| *Number of projects* | 228 | 225 | 311 | 306 | 1.070 |
| *Budget (Meuros)* | 78,1 | 197,1 | 192,6 | 171,8 | 639,6 |
| *Average budget (Meuros)* | 0,34 | 0,88 | 0,62 | 0,56 | 0,60 |
| ***Part** in Thessaly's projects* | 21,3% | 21,0% | 29,1% | 28,6% | 100,0% |
| ***Part** in Thessaly's budget* | 12,2% | 30,8% | 30,1% | 26,9% | 100,0% |

**Source:** Development Agency of Elassona-Kissavos (2011), Development Agency of Karditsa (2011), Development Centre of Kalampaka – Pyli (2011), Pelio Development Agency (2011), General Secretariat for Investments and Development, Directorate General for Private Investments (2011)

The need and the potential for the development of rural areas in these prefectures (especially in agro-tourism, which was a main objective of the LEADER + initiative) may explain the concentration of investments through this initiative. As we can see on Tables 8 and 9, in these two prefectures, the GVA of agriculture was superior to that of industry. Investments through these initiatives could cover major issues, such as job opportunities in rural areas, by developing multi-activities in these areas using agro tourism, as well as the manufacture and promotion of local products (Region of Thessaly, 2003). Furthermore, these investments could develop innovative production processes and productivity growth through the technological upgrading, since the region of Thessaly is characterized by a considerable number of small family or individual businesses with low productivity (Region of Thessaly, 2000).

### 5.4 The structure of investments by sector, area and funding program

An examination of investments funded by the various development laws on a sector basis shows that investments in agriculture were concentrated in the prefectures of Trikala and Larisa, which accumulated more than 80% of the approved budget within all examined development laws (Table 6). In the case of industry, a more even allocation of funding appears, shared mainly between the prefectures of Larisa, Magnesia and Trikala. In the case of tourism, not including agro-tourism, a concentration of investments was observed in the prefecture of Magnesia since more than 57% of approved investments in tourism were in this prefecture.

**Table 6: Structure of investments through development laws, per sector and prefecture**

| | D.L.2601/1998 | D.L.3299/2004 | D.L.3522/06 |
|---|---|---|---|
| Agriculture | | | |
| • Karditsa | 1,3% | 13,7% | 9,7% |
| • Larisa | 64,2% | 14,0% | 31,1% |
| • Magnesia | 11,6% | 0,0% | 9,8% |
| • Trikala | 22,9% | 72,3% | 49,4% |
| Total | 100,0% | 100,0% | 100,0% |
| Industry | | | |
| • Karditsa | 9,2% | 13,8% | 18,0% |
| • Larisa | 46,8% | 27,2% | 31,6% |
| • Magnesia | 30,5% | 18,8% | 27,6% |
| • Trikala | 13,5% | 40,2% | 22,8% |
| Total | 100,0% | 100,0% | 100,0% |

| | | | |
|---|---:|---:|---:|
| Tourism | | | |
| • Karditsa | 1,7% | 6,9% | 22,6% |
| • Larisa | 3,6% | 16,3% | 19,7% |
| • Magnesia | 74,9% | 51,6% | 45,4% |
| • Trikala | 19,8% | 25,2% | 12,2% |
| Total | 100,0% | 100,0% | 100,0% |

**Source:** Idem. Tables 3, author's calculations

With regard LEADER + initiative agro-tourism received the main part of investments for all the examined prefectures (Table 7).

**Table 7: Structure of investments through LEADER + initiative, per sector and prefecture**

| | Karditsa | Larisa | Magnesia | Trikala |
|---|---:|---:|---:|---:|
| Agro tourism | 54,2% | 51,4% | 49,0% | 52,8% |
| Small enterprises, handicraft | 23,3% | 37,7% | 13,7% | 40,4% |
| Residential environment | 18,4% | 3,1% | 31,0% | 3,5% |
| New technologies | 0,7% | 2,2% | 3,6% | 1,1% |
| Natural environment | 1,4% | 4,2% | 1,9% | 1,3% |
| Cultural events | 1,9% | 1,4% | 0,7% | 0,8% |
| Total | 100,0% | 100,0% | 100,0% | 100,0% |

**Sources:** Development Agency of Elassona-Kissavos (2011), Development Agency of Karditsa (2011), Development Centre of Kalampaka – Pyli (2011), Pelio Development Agency (2011).

Substantial amounts were invested in small enterprises and handicraft workshops for the manufacture of local products. The whole program and investments focused on rural economy either through agro-tourism and manufacture of local products or, indirectly, by creating the necessary infrastructure for promoting the local cultural heritage, for example, by investing in the renovation of old buildings, such as churches, vineyards, museums and also in the organization of cultural events.

We can see an example through the tourism and services investments financed by the LEADER + initiative and DL 3299/2004 in the prefecture of Larisa. In the case of the DL 3299/2004, 3 projects were approved for the creation or renovation of hotels, with an average budget of 780.000 euros; in addition, 3 centers for health rehabilitation were approved with an average budget of 1.700.000 euros (Region of Thessaly 2012). In the same area and sector, through the LEADER + initiative, five projects for the creation of small hotels and rooms to let, with an average budget of 350.000 euros, and 11 projects for the creation of traditional taverns and cafes, with an average budget of 111.000 euros were approved (Development Agency of Elassona-Kissavos, 2011). Therefore, not only the budget but also the philosophy is different since the LEADER + initiative focused on small investments of family or individual character, much more integrated into the local scene. On the other hand, DL focused on big investments, such as big hotels and rehabilitation centers, that could be realized by, for example, a stockholder company.

### 5.5 Evolution of regional production

Investments have an impact on a region's production. Production can be expressed by Gross Value Added (GVA) measured by the national statistical service. Two years have been considered, 2000 and 2007 (last available data). Data refer to a large number of sectors, thus permitting a sectoral examination as well. This analysis focuses on: a) the evolution of the GVA, as a sum total and by sector, and b) the structure of the GVA by sector in 2000 and 2007. This enables one to compare whether one sector benefited more than others during this period, not only within the region of Thessaly but also nationwide. It should be noted that there may be a time gap between the accomplishment of the investment and the production that will result, and, therefore, the GVA that ensues.

Between 2000 and 2007, the GVA produced in the region increased by 53%; this was lower than the Greek average, 66% (Table 10). The evolution of GVA was not homogenous within the region. It was higher for the prefectures of Magnesia and Trikala and lower for the two other prefectures (Table 10). In particular, in the case of Karditsa, this evolution was influenced by the fall GVA in the agricultural sector.

In a sectoral analysis, it becomes evident that the manufacturing industry had the highest growth of GVA; between 2000 and 2007 its GVA doubled in the region, while the average growth nationwide was 62%. Thessaly's GVA growth was the result of investments in industry in the region; industry concentrated 65% of its investments in the region through the examined programs of this period (Table 4); these findings are in accordance of part of results of a study on Greek manufacturing for the period 1995-2004 (Papadogonas et al., 2010). On the other hand, a serious fall in the GVA of agriculture is apparent; it is much higher than the country's average: 16% against 3% nationwide; it is even higher for some prefectures, especially Karditsa and Magnesia (Table 10). This is the result of limited investments in agriculture, only 9,5% in the examined period; it may also be related to circumstantial reasons because of bad weather conditions during the period 2006-2007 (PASEGES 2011). We have to single out, however, investments in agro-tourism. If we consider GVA for hotels we observe a substantial growth of 39% for the region, which is quite close to the national average of 45%. This growth is even more substantial, 54%, for the prefecture of Karditsa, which profited from sizeable investments in agro-tourism through the LEADER initiative (Table 7). Investments may also have benefited trade indirectly, since this sector presented a high growth of 82%, analogous to the national one, 93% (Table 10).

This evolution had consequences on the productive structure of the region of Thessaly between 2000 and 2007. For some sectors, these changes were much higher in comparison to the national average. The participation of agriculture in the region's GVA, which was double the national average in 2000, no longer had the same significance in 2007. Its proportion in the region's GVS was only 9% in 2007 against 17% in 2000 (Tables 8 and 9). This evolution was influenced by a drop in production in the prefectures of Karditsa (from 26% in 2000 to 12% in 2007) and Larisa (from 22% in 2000 to 13% in 2007). Nevertheless, it remains, quite substantial in comparison to the national average and, beyond that, to the European average (in 2009, the Greek GVA from agriculture was 5,6%, against only 2,7% for the EU average, see PASEGES (2011)). The fall in the significance of agriculture is compensated by the strong growth of the GVA from industry. Contrary to the stagnation at national level, in the region of Thessaly, the GVA from industry grew. It rose from 14% of the region's GVA in 2000 to 19% in 2007. This structure is evident in all prefectures of the region and in particular to those of Magnesia, Karditsa and Trikala (Tables 8 and 9). Within other sectors, we should take note of the growth in commerce, in particular in the prefecture of Karditsa (Tables 8 and 9).

These results show that, during the examined period, investments influenced the evolution of the GVA and caused a number of changes in the productive structure not only of the region but also of the prefectures. The most significant was the decrease in agricultural productivity for the benefit of industry, which received the great majority of investments.

**Table 8: Gross Value Added (GVA) at 2000: Sector's part on total, per NUT II, III(%)**

| | Agriculture Fishing | Manufacture Mining Electricity | Construction Real estate | Trade | Hotels | Finance | Administration Education Health | Transport Storage Communication | Total GVA |
|---|---|---|---|---|---|---|---|---|---|
| Greece | 7% | 14% | 22% | 15% | 8% | 6% | 22% | 8% | 100% |
| Thessalia | 17% | 14% | 22% | 10% | 6% | 5% | 23% | 2% | 100% |
| Karditsa | 26% | 8% | 22% | 9% | 4% | 5% | 25% | 1% | 100% |
| Larisa | 22% | 12% | 22% | 10% | 4% | 5% | 23% | 2% | 100% |
| Magnisia | 9% | 22% | 22% | 9% | 9% | 5% | 20% | 2% | 100% |
| Trikala | 15% | 9% | 20% | 14% | 6% | 5% | 28% | 3% | 100% |

**Table 9: Gross Value Added (GVA) at 2007: Sector's part on total, per NUT II, III(%)**

| | Agriculture Fishing | Manufacture Mining Electricity | Construction Real estate | Trade | Hotels | Finance | Administration Education Health | Transport Storage Communication | Total GVA |
|---|---|---|---|---|---|---|---|---|---|
| Greece | 4% | 14% | 20% | 17% | 7% | 5% | 24% | 10% | 100% |
| Thessalia | 9% | 19% | 19% | 12% | 6% | 4% | 28% | 3% | 100% |
| Karditsa | 12% | 12% | 20% | 13% | 4% | 4% | 33% | 2% | 100% |
| Larisa | 13% | 14% | 20% | 13% | 4% | 3% | 30% | 3% | 100% |
| Magnisia | 4% | 30% | 19% | 11% | 8% | 3% | 23% | 3% | 100% |
| Trikala | 9% | 13% | 19% | 15% | 5% | 5% | 32% | 2% | 100% |

**Table 10: Evolution of Gross Value Added (GVA) per sector and NUTS II, III, 2007-2000 (%)**

| | Agriculture Fishing | Manufacture Mining Electricity | Construction Real estate | Trade | Hotels | Finance | Administration Education Health | Transport Storage Communication | Total GVA |
|---|---|---|---|---|---|---|---|---|---|
| Greece | -3% | 62% | 52% | 93% | 45% | 38% | 85% | 107% | 66% |
| Thessalia | -16% | 100% | 36% | 82% | 39% | 12% | 88% | 89% | 53% |
| Karditsa | -37% | 108% | 32% | 100% | 54% | 13% | 85% | 117% | 40% |
| Larisa | -7% | 64% | 36% | 79% | 42% | 10% | 96% | 107% | 49% |
| Magnisia | -29% | 119% | 35% | 87% | 36% | 3% | 82% | 82% | 61% |
| Trikala | -8% | 137% | 48% | 75% | 38% | 35% | 79% | 52% | 59% |

**Source:** Hellenic Statistical Authority, 2008 and 2010

## 6 Conclusion

Greek governments have encouraged investments by partially financing budgets, offering tax advantages and waiving interest rates of loans. This support was tendered though several investment initiatives financed by the Greek state and the European Union. During the 2000s these initiatives were tendered by Development Laws that were applied with the philosophy of supporting sizeable investments in all sectors, agriculture, industry and tourism. Another initiative, the LEADER initiative, mainly financed by the European Union, focused on rural areas, in order to help less developed regions; the most supported area in this program was agro-tourism. While Development Laws supported programs elaborated and applied on a national central basis, LEADER + initiative was determined and applied on a regional basis.

Judging by the case of the region of Thessaly, it is evident that the LEADER + initiative focused on smaller budgets in specific areas related to rural area activities, such as agro-tourism and manufacture of local products. Investments through the other initiatives were mostly industry oriented while tourism investments focused mainly on areas by the sea.

Geographic distribution of investments showed a clear concentration on the rural areas of Karditsa and Trikala by the LEADER + initiative. On the contrary, the most densely populated prefectures of Larisa and Magnesia received investments mostly through the other investment support programs.

The examined investments influenced local production, especially industry. Agro-tourism and commerce were influenced positively, especially in the areas that benefited more from the LEADER + initiative. On the other hand, the agricultural production, which received minor investments, fell significantly. This evolution reflected the structure of the region's production in favor of industry and against agriculture. Results show that, during the 2000s, industry was the most favored sector of the region's development planning. A second meaningful conclusion is the successful impact of the LEADER + initiative on agro-tourism, since the hotel business's GVA increased in the non-tourist areas, such as Karditsa, Larisa and Trikala.

These observations may give some idea of the results of such investment policies. They make development trends in different rural areas comprehensible. They could be an instrument to understanding how efficient support programs can be and thus to understanding the limitations of regional and national policies for local development. Further development of such a study could examine whether these investments created leverage effects and how sustainable these investments, especially in the middle of an economic crisis, have been.

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