Tourism and Agro-Food as a Growth Stimulus to a Rural Economy: The Mediterranean Island of Crete[1]

By

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Abstract

This paper purports to assess the role of Tourism and Agro-Food as a set of combined activities triggering economic growth in the rural economy of Crete. The Generation of Regional Input-Output Tables (GRIT) technique was applied to generate regional Input-Output Tables for the Cretan economy, in order to derive alternative impact estimates. The results suggest that the joint development of Tourism and Agro-Food would promote economic growth in the local economy of Crete, since both sectors have demonstrated high output, income and employment impacts, indicating strong interdependence with the rest of the local sectors.

1. Introduction

It has been argued that agro-food activities[2] constitute the major foundations for triggering economic growth in a rural region, underlining a most crucial and decisive issue: the dovetailing of the main economic activities in a particular rural economy. The premise in this work is simple and straightforward: the economic growth of a rural economy hinges not only on the expansion of the agro-food activity, but also on the expansion of a combined set of regional activities. It is extremely important (particularly today, when poor economic performance and increasing unemployment rates are issues affecting every European country) to strengthen the rural economy by means of a very efficient rate of growth. Input-Output analysis presents a very powerful tool to assess both the impact of certain strategies upon the whole rural economy, and the anticipated changes due to expansion or contraction of a set of economic sectors. Although Input-Output analysis has been used extensively in

[2] As Agro-Food or Tourism activity is defined any business activity related either to agro-food or to the tourism sector respectively. In particular, all the sectors appeared in the first section of Table 2 are considered as agro-food activity.

regional economics over the last thirty years, only a few studies dealing with specific economic activities can be pinpointed (Mattas and Shrestha, 1989; McGregor and McNicoll, 1991; Psaltopoulos and Thomson, 1993; Midmore, 1993; Khayum, 1995).

In this paper, Agro-Food industry and Tourism activities are considered as very closely connected activities, both having a wide-ranging effect upon the rural economy. These effects are explored and measured, following an Input-Output approach. Furthermore, by estimating the direct and indirect impacts, the interaction among seemingly disparate economic sectors (Agro-Food/Tourism/rest of the economy) is demonstrated. With hindsight, fresh insights regarding the alternative available Input-Output indices are gained by employing the methodology in a very secluded and demarcated region: the Mediterranean island of Crete.

The present study is organised as follows: First, a cursory review of the available non-survey adjustment techniques is provided; a section sketching the rural economy of Crete is then developed, and the data and estimation procedures are explained. Ultimately, the paper proceeds to the main conclusions with a succinct review of the results.

2. Theoretical Background

The development of regional Input-Output models dates as far back as the early 50s (Isard, 1951; Moore and Petersen, 1955). Ever since then, Input-Output analysis has been rapidly assimilated into applied work in order to explore a wide range of regional issues[3]. The main problem with any Input-Output regional application is the construction of a regional transaction table, since the whole process is extremely time-consuming and costly. Thus, several *Non-Survey* techniques were devised, to cope with data selection problems and Input-Output building expenses.

Considering both the advantages and disadvantages of non-survey techniques, analysts argued that non-survey techniques offer reliable results when research interests are centred on sectoral potentials and relative direct and indirect impacts of a certain policy. In this study, a hybrid technique —the Generation of Regional Input-Output Tables (GRIT)— was used; contemplating the particular aims of this inquiry and the recent extensive utilisation of the GRIT technique (Psaltopoulos and Thomson, 1993).

The GRIT procedure was developed at the University of Queensland, Australia, by R.C. Jensen and others (1979). It is a formalised non-survey method of compilation, allowing the user to insert superior data at any stage of the compilation procedure in sectors of particular interest. Thus, on the one hand, the shortcomings of non-survey techniques are lessened, and on the other hand, an efficient use of time is achieved. GRIT[4] technique estimates inter-industry flows by applying an employment-based

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[3] A good reference for the interested reader on regional studies can be found in Dewhurst *et al.*, 1991.

[4] In the present study GRIT technique was incorporated in the GAUSS mathematical computer package (version 3.2.23) which allows easy data handling and matrix manipulation, while the software module can be monitored step by step.

Cross Industry Location Quotient (CILQ) to the corresponding elements of the national matrix[5].

One of the major contributions of Input-Output analysis is its ability to assess the effect of changes in elements that are considered as exogenous to a regional economy. Several summary measures derived from the elements of Leontief's inverse matrix are often employed in impact analysis. These measures are widely known as *multipliers*, *forward* and *backward linkages* and *elasticities*. Though each one of the above measures fulfils a different objective, their particular use and interpretation is perplexing to analysts.

Traditionally, impact analysis is carried out through multipliers of output, employment and income, since it is generally acknowledged that multipliers provide the most comprehensive information concerning the economic impact of any change in the level of economic activity in any particular country, nation or region[6]. The multiplier measures the total change in output (income or employment) resulting from a unit change in a sector's output (income or employment). Whether or not household income is considered endogenous, multipliers are distinguished as type I or type II.

On the other hand, the linkages introduced by Hirschman in 1958, indicate the degree of structural interdependence in an economy, and the extent to which the growth in one sector can provide stimulus to expansion in others. Linkages are distinguished as *backward* and *forward*. Backward linkages indicate the interconnectedness between a particular sector and the sectors from which it purchases inputs; while forward linkage indicates a sector's relation with the sectors where its output is sold. As forward linkages do not indicate the sector's potentials to generate impacts, analysts have mainly estimated backward linkages in order to identify key sectors and assess relative employment and output generation potentials (Jones, 1976; Henry and Schluter, 1985; Alauddin, 1986). Backward linkages generally measure the total change in the economy due to a unit change of a sector's final demand.

Although multipliers and linkages are the most widely used measures, they neglect the relative magnitude of a sector in terms of total sales to final demand. That means that multipliers do not always reflect appropriately the importance of the sectors to the economy, and mislead decision-makers about the potential of a sector to generate output, employment or income within the economy. This weakness can be considerably lessened by estimating Input-Output *elasticities* of output, employment and income as an alternative approach of assessing sectoral growth potentials of an economy (Mattas and Shrestha, 1991). Elasticities incorporate information on the size of the economic sectors whose impacts are analysed and reveal a percentage change in the total output, employment or income due to percentage changes in the final demand of any sector. The associated formulae are as follows:

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[5] Introductory discussions, details and some applications on GRIT technique can be found in Jensen *et al.* (1979) and Johns and Leat (1987).

[6] Introductory discussions on multipliers can be found in, among others, Richardson (1972, Ch. 3). Analytical discussions on problems with some conventional definitions of multipliers can be found in Miller and Blair (1985) and Round (1989).

for output

$$OE_{xyj} = \sum_i b_{ij}(y_j/x)$$ (1)

for employment,

$$EE_{xy_j} = \left[\sum_i (l_i/x_j)b_{ij}/(l_j/x_j)\right](y_j/x)$$ (2)

and for income

$$IE_{xij} = \left[\sum_i (h_i/x_j)b_{ij}/(h_j/x_j)\right](y_j/x)$$ (3)

where b_{ij} is the i th element of the Leontief matrix, y_j is the j th element of the final demand vector, l_i is the i th element of the employment vector, h_i is the i th element of the household vector and x_j is the j th element of the total output vector. Detailed definitions or descriptions of the various terms and concepts associated with the computation of the multipliers or elasticities can be found in Mattas and Shrestha (1991). Therefore, elasticities take into account both backward linkages and the relative size of the economic sectors, and provide an additional indicator of the relative importance of a particular sector. Moreover, sectoral rankings based on elasticities also reflect the capacity of a sector to generate impacts, taking into account the relative magnitude of a sector and thus providing different prospects for the sectors.

Without doubt, the choice among the various indicators hinges on the particular objectives of the research. Elasticities are the most appropriate forms of measurement when sectoral priorities are to be specified, in order to plan the expansion of the final demand; while multipliers are most suitable when the dynamics of each individual economic sector are attempted to be assessed. Conclusively, all the aforementioned indices (multipliers, backward linkages and elasticities) measure the total changes in the output (income or employment) of an economy resulting from a given change either in a sector's final demand (backward linkages and elasticities) or in the output, income or employment level of a certain sector. Thus, the information given is substantially different and sequentially the interpretation leads to different implications.

3. A Case in Point

3.1. The Region

The Mediterranean island of Crete constitutes 8.16% of the total Greek agricultural area; while the island makes up 6.31% of actual Greek territory. Approximately 50.8% of the total labour force is employed in agriculture (including all primary activities), compared with 29.2% at the national level. The contribution to Gross National Product by the Cretan services sector, where tourism activities are incorporated, is proportional

Table 1: Crete's Profile in Figures[a]

	Crete	Greece	Share[b] (%)
Total Area (km^2)	8,335	131,957	6.31
Agricultural Area (km^2)	3,148	38,564	8.16
Population	552,000	10,820,000	5.11
Labour Force	207,385	3,771,973	5.44
Agriculture	50.8%	29.2%	
Manufacture	17.6%	30.5%	
Services&Trade	31.6%	40.3%	
Regional GNP[c] (Drs)	18,261	439,639	4.16
Agriculture	26.7%	14.5%	
Manufacture	22.3%	32.5%	
Services&Trade	51%	53%	
Per Capita Income (Drs)	191,878	213,562	89.85
Investments (ml Drs)	17,026	395,260	4.31
Agriculture	3.35%	8.15%	
Manufacture	39.07%	67.82%	
Services&Trade	57.58%	24.03%	

source: Centre of Planning and Economic Research, (KEPE, 1991).
[a] Data refers to year 1991.
[b] Figures in this column indicate Crete's share in the correspondent values for Greece.
[c] Exchange rate (1995) 1ECU=287.90 Drs.

to that of the whole nation, despite its lower share of the labour force of Crete (Table 1). The figures in Table 1 reflect the structure of the local economy, which is less diverse than that of the national economy, and is based mainly on agricultural and tourism activities. In addition, the island accounts for approximately 30% of the nation's olive-oil and grape production. Moreover, in Crete, vegetable greenhouse enterprises constitute a flourishing industry, as climatic conditions favour off-season vegetable production.

Nevertheless, agriculture, despite technological progress over the last decade, faces serious economic and structural problems, as do the other southern regions of Europe. The fact that the primary sector attracts only a small share of investment, indicates the

insufficient improvements in the necessary infrastructure of agriculture. On the other hand, the degree of tourism activity is significant. The number of foreign visitors to Crete during the last 15 years has increased at a staggering annual rate of 20%, while the national rate of increase has averaged 6.1% (Greek Tourism Organization, 1992). Furthermore, over the last decade, 25% of national investment has been directed toward Crete, and a significant part of this (60%) has been lured by the tourism industry. Thus, in the same time period, the number of beds in hotels has doubled, representing the greatest increase among all the regions of Greece. Consequently, agriculture and tourism could constitute not only the main income and employment sources, but also the threshold for further development of the rural economy.

3.2. The Dynamics of Food-Processing and Tourism

The basis of the present analysis was the 185-sector Input-Output Tables of the Greek economy[7] (Mylonas, 1989). The first task to be carried out was the aggregation of the 185-sector table of the Greek economy, to an appropriately aggregated 42-sector scheme that manifests the rural economy and its structural interrelations. Next, the table was updated[8] to 1988 (Mattas et al., 1984). Subsequently, superior data for the sectors of particular interest, Agriculture, Tourism and Agro-Food, were selected and entered in the corresponding rows of the regional table. The rate of the gross capital formation for the region was assumed to be identical to that of the nation and, therefore, it was estimated by multiplying the coefficients of the capital flow matrix for the nation with the private expenditures on durable goods in the region (Mattas et al., 1984, pp. 34-38). The household row was estimated according to the national average monthly salaries for most of the sectors. Furthermore, it was estimated in advance that exports of construction and banking are zero, since small regions do not export the services of these sectors (Sasaki and Shibata, 1984). For the rest of the regional sectors import and export vectors were computed, using the corresponding national figures and data from several secondary regional and national sources. The Gross Output for the agricultural sectors was obtained from the Agricultural Statistics of Greece for the year 1988 (N.S.S.G., 1988a). The private and public consumption vectors were mainly obtained from the National Accounts of Greece, and only the services sector was estimated using information from regional GNP since services and, in particular, public services are concentrated in Athens (N.S.S.G., 1988c). The main source for employment data was the Census of Employment (N.S.S.G., 1988b). Sequentially, the present study proceeded to the computation only of the type I output, income and employment multipliers (Table 3).

Table 3 demonstrates the output, employment and direct export and import coefficients of the most significant regional economic sectors. In the first section agriculture, and its direct or indirect related industries, are presented in the sense that

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[7] The use of the 1980 tables was necessary, since the most recent 1989 tables are not yet available in a detailed form.

[8] The year 1988 was chosen as the base year, since employment and output data at this year are available for most industries.

Table 2: Sectoral Output, Employment and Direct Input Coefficients for Imports and Exports of the Cretan Economy

Sector	Output		Employment	Direct Input Coef.	
	bn Drs	%	%	Imports	Exports
Direct Transactions with Agriculture					
Agriculture	84.54[a]	12.70	40.33	0.09	0.73
Vegetable&Animal Oil	56.91	8.55	0.64	0.05	0.82
Livestock	27.10	4.07	10.08	0.26	0.53
Distilleries&Beverages	12.69	1.91	0.82	0.07	0.69
Canned&Preserved Food	9.45	1.42	0.55	0.25	0.51
Starch Products	5.07	0.76	0.19	0.18	0.41
Confectionery	4.88	0.73	0.66	0.10	0.31
Dairy Products	4.02	0.60	0.10	0.33	0.59
Animal Feed	2.16	0.32	0.04	0.03	0.59
Fishing	0.36	0.05	0.19	0.37	0
Total	207.18	31.11	53.6		
Direct Transactions with Tourism Activities					
Construction	102.92	15.46	6.59	0.25	0
Trade	63.01	9.46	9.54	0.02	0.07
Renting&Real Estate	61.59	9.25	1.71	0.04	0.80
Hotels and Catering	34.38	5.16	8.07	0.11	0.66
Recreational Services	5.43	0.82	2.82	0.08	0.36
Total	267.33	40.15	28.73		

[a] As Agriculture is considered the whole raw agricultural sector excluding livestock and fishing.

they have significant sales and/or purchases from agriculture. The second section consists of industries which have a direct relation to tourism activities in the region, according to their transactions in the regional table. As is shown, the Cretan economy is highly concentrated in these sectors, indicating once again, the low level of diversification within the region. In particular, agriculture and its related industries form a significant part of the total regional output, 31.11% or 207.18 bn Drs. On the other hand, tourism related service sectors are relatively more important in the region,

Table 3: Sectoral Ranking in Terms of Multipliers or Elasticities[a]

Sector	Output		Income		Employment	
	Multipliers	Elasticities	Multipliers	Elasticities	Multipliers	Elasticities
Agriculture[b]	41 (1.03)	6 (0.064)[c]	39 (1.05)	6 (0.064)	39 (1.02)	9 (0.063)
Livestock	31 (1.13)	9 (0.037)	33 (1.13)	10 (0.041)	27 (1.17)	11 (0.049)
Fishing	39 (1.08)	41 (0.001)	34 (1.10)	41 (0.001)	40 (1.01)	41 (0.001)
Dairy Products	14 (1.45)	20 (0.006)	5 (1.67)	14 (0.021)	6 (2.02)	13 (0.040)
Veget&Animal Oil	1 (2.47)	2 (0.197)	2 (1.91)	1 (0.135)	2 (2.25)	1 (0.201)
Canned Food	2 (1.88)	13 (0.016)	11 (1.52)	13 (0.023)	1 (2.50)	8 (0.075)
Starch Products	26 (1.25)	24 (0.004)	17 (1.34)	24 (0.009)	13 (1.59)	16 (0.029)
Confectionery	11 (1.51)	14 (0.011)	18 (1.30)	18 (0.014)	17 (1.43)	20 (0.028)
Animal Feed	6 (1.64)	23 (0.005)	15 (1.45)	15 (0.018)	4 (2.12)	5 (0.103)
Beverages	5 (1.66)	10 (0.028)	1 (1.97)	9 (0.043)	5 (2.05)	6 (0.091)
Construction	17 (1.37)	1 (0.242)	13 (1.49)	3 (0.112)	18 (1.33)	2 (0.115)
Trade	18 (1.37)	3 (0.108)	3 (1.89)	4 (0.092)	28 (1.17)	7 (0.082)
Renting&Real Estate	38 (1.09)	4 (0.093)	6 (1.65)	2 (0.127)	8 (1.89)	3 (0.104)
Hotels&Catering	10 (1.53)	5 (0.088)	7 (1.64)	5 (0.075)	7 (1.89)	4 (0.114)
Recreational Svs	25 (1.26)	17 (0.008)	24 (1.25)	24 (0.014)	19 (1.29)	22 (0.010)

[a] Forty one regional sectors were ranked according to the multiplier's, or elasticity's, magnitude.
[b] As Agriculture is considered the whole raw agricultural sector excluding livestock and fishing.
[c] Figures in parentheses indicate the absolute values of multipliers and elasticities.

providing 40.15% of Crete's gross output (267.33 bn Drs). Hence, Agro-food, along with the tourism industry represents, approximately 70 and 80% of the total regional output and employment, respectively. It is evident, therefore, that these sectors form a significant and vital part of the regional economy.

All Food Processing Industries generally exhibit relatively high multipliers and elasticities, since their main supplier (agriculture) is closely connected with the rest of the local economy. The case of Vegetable and Animal Oil Manufacture is quite intriguing, since it is placed at the top of all ranked sectors, in terms of output, income and employment impacts, regardless of the particular alternative index being used. Thus, an additional demand of olive-oil, equal to one million, will be added to the regional economic output, amounting to 2.47 million Drs[9]. To put matters in perspective, let us suppose a ten percent increase in the final demand for oil products; this will cause a total increase in output for the entire regional economy, equal to the

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[9] Of course, the magnitude of the output multiplier is quite big, and it seems to be unrealistic. A close look however, at the corresponding elements of the direct requirements matrix revealed that the high multiplier value does not arise from the sector itself (the diagonal element of the DRM is 0.17, whereas the corresponding element from agriculture, for example, is 0.42).

size of output elasticity (19.7%). A natural place to look for an explanation is the sector's interdependence with the rest of the economy. Vegetable and Animal Oil consists solely of the olive-oil processing industry in this particular region: that is, inputs are mainly procured from Agriculture, a sector depending extensively on, and being highly connected to, the other regional sectors, as well. The latter is further confirmed from the computed direct imports and exports coefficients reported in Table 2. As shown in that table, agriculture, and its direct and indirect related sectors, purchase a significant part of their total outlay from other regional sectors; while, on the other hand they export most of their total output to other regions or countries. In particular, Agriculture, and Vegetable and Animal Oil Manufacturing import only 9 and 5% of their inputs, while the corresponding exports figures are 73 and 83%, respectively.

Significantly, almost all the food processing sectors (Canned Preserved Food, Beverages, Animal Food, Confectionery and Dairy Products) prove to be the most vital sectors for the regional economy, in terms of generating output, income and employment impacts; manifesting the validity of the contention being made herein about the significance of the Food Processing activity for the local economy. Considering the relatively small size of the food processing industry, an expansion of these sectors is feasible and could bring about substantial economic benefits. Nevertheless, although the sectoral ranking based on elasticities is, generally, not substantially different from that based on multipliers, for certain food processing sectors a deviation is observed, indicating that their relative size, in terms of total sales to final demand, significantly influences the potential of the sector to stimulate an overall growth.

Tourism, represented mainly by the Hotels and Catering sector, proves to be a very flourishing industry for the Cretan economy, exhibiting extremely high output, income and employment impacts (Table 3). The Hotels and Catering sector purchases a significant part of its input requirements either from agricultural sectors (themselves strongly embedded in the regional economy), or from other local sectors (Construction, Trade etc.). The corresponding direct imports coefficient for the Hotels and Catering sector is only 0.11, while the direct exports coefficient is 0.66 (Table 2). Accordingly, both the Tourism and Food Processing sectors constitute the up most important economic activities for the Cretan economy.

Finally, the distribution of impacts among the various sectors, due to a 1 million Drs increase in the final demand of the most important sectors of the local economy, was computed (Table 4), and important additional insights were gained. Assuming a given increase in the final demand sales for a certain sector, the impact distribution can be easily cast in an Input-Output framework (Table 4).

Therefore, an expansion in the activities of the Hotels and Catering sector will bring substantial benefits to both raw Agriculture (9.18, 4.14 and 22.08% of the total generated output, income and employment respectively) and Food Processing sectors (almost ten percent of the total generated impacts). Sequentially, raw agriculture garners considerable gains, due to food processing expansion. It is also noteworthy that an enormous portion of the produced impacts due to food processing or tourism expansion is lured by other regional sectors.

Table 4: Distribution of Impacts

		Total	Raw Agriculture	Processed Food	Tourism	Other Sectors
Agriculture	out	1,031,141[a]	98.92[b]	0.03[b]	0.00[b]	1.05[b]
	inc	44,195	96.62	0.08	0.00	3.30
	emp	1,038	99.90	0.00	0.00	0.10
Dairy	out	1,452,339	24.84	71.11	0.01	4.04
Products	inc	92,652	26.12	62.14	0.01	11.73
	emp	434	46.08	51.15	0.00	2.77
Vegetable	out	2,479,359	31.28	50.13	0.02	18.57
Animal Oil	inc	248,807	13.16	64.13	0.02	22.69
	emp	1,920	40.83	54.33	0.00	4.84
Hotels and	out	1,534,925	9.18	10.45	65.17	15.20
Catering	inc	179,365	4.14	10.35	60.73	24.78
	emp	521	22.08	10.94	52.98	14.00
Canned and	out	1,885,419	39.38	57.17	0.00	3.45
Preserved	inc	194,837	23.24	70.79	0.00	5.97
Food	emp	620	55.05	42.84	0.00	2.11

[a] Figures indicate the total absolute output, income or employment growth assuming an increase of one million Drs in the final demand of the correspondent sector.

[b] Shares indicate how the total increase is allocated among the various sectors.

Casting further light on the particular function of the olive oil industry in the Cretan economy, a few additional aspects are worth noting. Vegetable and Animal Oil expansion causes the greatest increase in the economy's output employment or income, while it is strongly linked with agricultural sectors attracting 81.41% (31.28%+ 50.13%) of the initial effect of output change, 77.29% (13.16%+64.13%) of income change and 95.16% (40.83%+54.33%) of the employment change. Moreover, 18.57 % of the total output change is garnered from non-food sectors, and, therefore, these sectors benefit greatly from the increase in the final demand of the vegetable and animal oil sector. Furthermore, the total increase in the economy's output, employment or income which emanates from Vegetable and Animal Oil, is much higher than in any other sector.

Without doubt, agro-food growth dovetails with tourism, strengthening endogenous development patterns in the rural economy of Crete, as is was clearly shown by the magnitude of the various computed Input-Output indices and, in particular, by prioritising the sectors according to the level of the corresponding index.

4. Conclusions

Crete, the largest Greek island in the Mediterranean basin, a mainly rural area, is undergoing significant structural changes, largely due to an influx of tourists and an increasing trend towards urbanization. Viewing certain economic sectors in isolation from the rest of the economy, the regional growth potentials of a sector are definitely miscast. In this respect, herein the joint development of both agro-food and tourism are examined using a general equilibrium analysis and, in particular, by computing regional Input-Output tables for the Cretan economy.

Input-Output relations amongst the region's sectors and estimated alternative indices strongly support the contention that both agro-food activity and tourism form a very important dovetail for the local economy. Juxtaposing the computed levels of effects for forty one sectors, the importance of both agro-food and tourism prevails in terms of output, income and employment impacts. The expansion of tourism stimulates the growth of food processing sectors and, ultimately, the growth of the whole regional economy. On the other hand, agriculture and the local economy derive substantial benefits from the joint expansion of food processing and tourism, making both sectors the most vital ones for the rural economy of Crete.

In particular, the present analysis shows that the food processing sectors have the greatest direct and indirect potentials to increase the region's level of income and employment. The Vegetable and Animal Oil sector, represented mainly by the olive-oil industry, has the greatest potential to create economic activity in the island, since it is placed at the top among all food processing sectors; followed by Canned Preserved Food, Beverages and Dairy Products. The Hotels and Catering sector, as the most indicative sector associated with tourism, demonstrates high output, income and employment effects on the economy of Crete, proving its importance and dynamic role in the rural economy.

As a consequence, high multipliers or elasticities can be the signal for the local and national authorities to interfere through various disposable policy schemes. Sectors with high multipliers and elasticities deserve the greatest attention, since they have strong growth potentials and huge overall growth effects. Sectors with high multipliers could fit better in to long-run sectoral expansion plans, while sectors with high elasticities can respond more effectively to short-term policy interventions[10].

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[10] The selection of the particular measures depends on the level of local government intervention and on the public budget. Certainly, sectoral expansion is strictly related to the capability of the local or foreign market to absorb additional final demand.

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