

A Service of



Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre

Candela, Guido; Figini, Paolo; Scorcu, Antonello E.

# **Working Paper**

The Economics of Local Tourist Systems

Nota di Lavoro, No. 138.2005

# **Provided in Cooperation with:**

Fondazione Eni Enrico Mattei (FEEM)

*Suggested Citation:* Candela, Guido; Figini, Paolo; Scorcu, Antonello E. (2005): The Economics of Local Tourist Systems, Nota di Lavoro, No. 138.2005, Fondazione Eni Enrico Mattei (FEEM), Milano

This Version is available at: https://hdl.handle.net/10419/74138

#### Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

### Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.





# The Economics of Local Tourist Systems

Guido Candela, Paolo Figini and Antonello E. Scorcu

NOTA DI LAVORO 138.2005

#### **NOVEMBER 2005**

NRM – Natural Resources Management

Guido Candela, Paolo Figini, and Antonello E. Scorcu, University of Bologna

This paper can be downloaded without charge at:

The Fondazione Eni Enrico Mattei Note di Lavoro Series Index: http://www.feem.it/Feem/Pub/Publications/WPapers/default.htm

Social Science Research Network Electronic Paper Collection: http://ssrn.com/abstract=855965

The opinions expressed in this paper do not necessarily reflect the position of Fondazione Eni Enrico Mattei

Corso Magenta, 63, 20123 Milano (I), web site: www.feem.it, e-mail: working.papers@feem.it

# **The Economics of Local Tourist Systems**

# **Summary**

In this paper we analyse the Local Tourist System (LTS) as a particular case of Marshallian Industrial District. The LTS allows the identification of more effective policy tools for managing tourism. First, through the concept of LTS, the policy maker can take into account the complexity of tourism, characterised by a strong heterogeneity of goods, services and subjects involved; second, LTS helps promote a stronger coordination between the public and the private sector, by identifying a homogeneous territory and recognising its importance in tourists' decisions; third, through the LTS the policymaker can analyze the externalities and promotes the idea of collaborating networks in a context of local development. In the LTS framework, the anticommon problem can be analysed and contrasted. As the tourist has to buy different but intertwined goods which compose the holiday package, the failure in one of the markets can lead to the overall failure of the package. A LTS policy has to: i) co-ordinate the price policy of the different firms supplying "single components" of the tourist product; ii) fix the price of the whole product; iii) impute a price to each component. We demonstrate that, through price policy co-ordination and under general conditions, the LTS can increase the size of tourism and the firms' profits, thereby reaching a more effective and efficient target in tourism policy. The recent introduction of LTS in the Italian legislation can be seen as a positive attempt of improving co-ordination in a complex sector such as tourism.

**Keywords:** Local tourist systems, Tourism policy

**JEL Classification:** L83, Q26

This paper was presented at the Second International Conference on "Tourism and Sustainable Economic Development - Macro and Micro Economic Issues" jointly organised by CRENoS (Università di Cagliari and Sassari, Italy) and Fondazione Eni Enrico Mattei, Italy, and supported by the World Bank, Chia, Italy, 16-17 September 2005. The usual disclaimers apply.

Address for correspondence:

Guido Candela
Department of Economics
University of Bologna
Piazza Scaravilli 2
40126 Bologna
Italy

Phone: +39 051 2098020 Fax +39 051 221968

E-mail: guido.candela@unibo.it

#### 1. Introduction

The theoretical approach to Tourism Economics is based on the systemic nature of tourism, stemming both from the heterogeneity of the tourist package, and from the existing complex interactions among firms, tourists and residents. The tourist product is composed by several heterogeneous but complementary goods and services supplied by firms belonging to different industries which are mainly, but not exclusively, located in the tourist destination.

Recently, this systemic nature has also been recognised by the Italian legislation (*Legge Quadro sul Turismo*, No. 135/2001) by means of the creation of an economic policy instrument, namely *Local Tourist System*:

"We call local tourist systems, homogeneous or integrated tourist environments, which comprise territories also belonging to different regions, and which are characterized by the integrated supply of cultural, environmental goods and tourist attractions, including typical agricultural and local handicraft products, or those characterised by a widespread presence of individual or associated tourist firms" (National Tourist Law Reform, *Law 29 March 2001 No. 135*, Our Translation).

Moving from the assumption that a tourist firm has some specific characteristics which distinguish it from other typologies of firm, on one hand such a public intervention in the tourist sector assures support and development to tourist firms but, on the other hand, opens up potential consequences on market competition and equilibrium.

The systemic nature of tourism and the identification with its geographical representation, that is, the destination, calls for the introduction of what we can call *Local Tourist System* (LTS). The LTS, as a matter of fact, highlights a potential *trade-off* problem: on one hand they potentially increase effectiveness of the "tourist system" as a whole, by raising their competitiveness with respect to other tourist destinations; on the other hand, they bring about a possible increase in prices and a fall in demand. These consequences are due to the fact that the LTS shares some similarities to both the *Industrial District* (ID) model, that complies with firms' tendency of localizing in the same region, and the *Cultural District* (CD) model based on the integration in the same region (that can be of very different sizes, from metropolitan to neighbourhoods) of artistic and cultural activities that, given the territorial identification, acquire their own idiosyncrasy.<sup>2</sup>

Each type of district aims to increase the efficiency of production and promotes the overall development of the local territory<sup>3</sup> (wherein the territory can be identified with the municipality, the county or the region); however – as it will be shown – although there are common goals, there are relevant differences, too.

Therefore, for the theoretical analysis, a model which allows to emphasize the differences and the similarities between LTS, ID and CD has to be introduced. This will be done in the Section 2, where these three different forms of district are introduced and analyzed in terms of prices, profits

.

<sup>&</sup>lt;sup>1</sup> Among the several works on industrial districts, see Becattini (1989 and 2000). Industrial districts are very relevant to the Italian economy, whose industrial organisation, particularly in the Centre-North, is characterised by a high number of small and medium size firms which are geographically located in limited and hyper-specialised territories. Such a characteristic is considered one of the successful features of the Italian economic development of the last decades. Among the most known industrial districts, footwear in the Marche region, Sassuolo and Carpi pottery, Prato textiles, iron rods of Brescia, furniture factory in Brianza, eyeglasses in Cadore have to be mentioned as few of the many examples.

<sup>&</sup>lt;sup>2</sup> On this point see Cuccia and Santagata (2003), and Santagata (2004). The development of the cultural *filière* as a possible (economic) specialisation of a geographical area is due to the Greater London Council case, based upon the integration between cultural activities and relevant sectors of the tourist system. The birth of CD may be a spontaneous process, as in the West End of London, the Greenwich Village in New York or the Rive Gauche in Paris; else, they may be the result of a development program or an urban refurbishment, as in Glasgow or in the Museum Quarter of Vienna (see Candela and Scorcu, 2004).

<sup>&</sup>lt;sup>3</sup> Someone calls them "territorial policies" and especially "territorial policies for tourism" (Costa *et al.*, 2001), pp. 38-39.

and local population welfare – will be outlined. In Section 3, the reasons for State intervention in LTS will be analyzed. The focus will be, in particular, on coordination failures since, due to the systemic nature of the tourist good, an *anticommon* puzzle, similar but specular to the *common* one, arises. Section 4 outlines the economic policy discussion.

# 2 A simplified model of districts

# 2.1 Definitions and symbols

In order to study the theoretical aspects of industrial districts (ID), cultural districts (CD) and Local Tourist Systems (LTS), a simplified model with two regions, k = 1, 2, and two goods, j = x, y, has to be introduced. Moreover, two working hypothesis as regards geographical organisation of production, has to be considered:

- a) non systemic production: Region 1 only produces good x, with  $y_1 = 0$ , while region 2 only produces good y, with  $x_2 = 0$ ;
  - b) system: the whole Region (1,2) produces both goods, and it is defined a system.

Assuming that every externality of production is being internalized by the local policy maker, the group of firms, which coincides with the region itself, can be considered a regional monopolist.

The local demand for goods x and y, approximated in a linear and separable form, in the case of non systemic production, is:

$$x = f(p_x) \approx a - bp_x$$
 demand for good x, with price  $p_x$  [1a]

$$y = g(p_y) \approx m - np_y$$
 demand for good y, with price  $p_y$ . [1b]

Three district typologies previously are introduced.

A) The Industrial District. In the ID constituted by the whole Region (1,2), demand functions for goods x and y – which are represented by eqs. [1] – do not change. However, an effect occurs with respect to costs; namely, externalities due to Marshallian agglomeration economies are internalised into the cost function of both goods. Hence, total costs  $C_i(.)$  of firms pertaining to a sector also depend on the production level of firms of the other sector, as in eq. [2] that we assume for both goods x and y in these particular specifications:

$$C_x = H(x, y) \approx x^2 - y^2$$
 [2a]  
 $C_y = K(x, y) \approx y^2 - x^2$  [2b]

$$C_{v} = K(x, y) \approx y^{2} - x^{2}$$
 [2b]

B) The Cultural district. On the contrary, if Regions (1,2) constitutes a CD, there is a change in demand for goods x and y with respect to case of separation between Regions 1 and 2. This is due to the idiosyncratic effect stemming from the quality surplus identified into the cultural good. Effects on the cost side, on the contrary, can be ignored since externalities are a typical industrial effect, not a characteristic of cultural production; by promoting the comparison and competition among artists, the CD increases quality and creativity of its own artistic good, but it would not necessarily increase productivity. Therefore, it follows that eqs. [1] can be augmented with by a parameter  $\theta$  in the consumer's reserve price, as in eqs. [3]:

$$x = f'(p_x; \theta) \approx \theta a - b p_x$$
 [3a]

$$y = g'(p_y; \theta) \approx \theta m - np_y$$
 [3b]

where we assume that the effect  $\theta > 1$  is common and equal for both goods characterizing the CD.

Since we assumed that interaction does not produce any effect on the production side, cost functions in CD are separated, as in [4] that we assume for both goods x and y in these particular specifications:

$$C_x = H(x) \approx x^2 \tag{4a}$$

$$C_{\rm v} = K(y) \approx y^2 \tag{4b}$$

- C) The Local Tourist System. Tourist demand can be represented by the quantity of goods demanded in the destination by tourists, function of N, for example the number of nights (or stays) spent in the destination. Of course, if there are two separate regions, tourists will have at their disposal a tourist good "monotonous" in each region, while the tourist product in LTS will include both goods offered, becoming *heterogeneous*. According to these different hypotheses, we have:
- a) tourist demand in Region 1 is:  $N_x = A Bv_1$ , with  $v_1 = hp_x$ , since the region offers in its tourist product just h unity of good x per night spent;
- b) tourist demand in Region 2 is:  $N_y = A Bv_2$ , with  $v_2 = kp_y$ , since the region offers in its tourist product just k unity of good y per night spent;
- c) tourist demand in the LTS composed of Region (1, 2) is:  $N_x^{LTS} = \sigma A Bv_1$  and  $N_v^{LTS} = \sigma A$  $-Bv_2$ .

Since the region offers a tourist product of higher quality compared to the one supplied by the two separate regions, one can assume that:

$$\sigma > 1$$
 [5]

Since LTS firms produce goods (x and y) that enter into the tourist product, respectively for the amount of h and k, total demand for each good is the sum of indigenous and tourist demands, which we assume independents.<sup>5</sup> Therefore, the overall demand for goods x and y, in Regions 1 and 2 respectively, are the following:

$$X = x + hN_1 = f(p_x) + hN_1 = (a + hA_1) - (b + h^2B)p_x$$

$$Y = y + kN_2 = g(p_y) + kN_2 = (m + kA_2) - (n + k^2B)p_y$$
[6]

$$Y = y + kN_2 = g(p_y) + kN_2 = (m + kA_2) - (n + k^2B)p_y$$
 [7]

In the LTS composed by the Region (1,2), because of the higher quality hypothesis, local plus tourist demands are:

$$X = x + hN_{x}^{LTS} = f(p_{x}) + hN_{x}^{LTS} = (a + h\sigma A) - (b + h^{2}B)p_{x}$$

$$Y = y + kN_{y}^{LTS} = g(p_{y}) + kN_{y}^{LTS} = (m + k\sigma A) - (n + k^{2}B)p_{y}$$
[6a]

$$Y = y + kN_{\rm v}^{\rm LTS} = g(p_{\rm v}) + kN_{\rm v}^{\rm LTS} = (m + k\sigma A) - (n + k^2 B)p_{\rm v}$$
 [7a]

Obviously, since the tourist product is a combination of different goods, local firms enjoy Marshallian agglomeration economies; hence, the positive externality effect on production costs occurs in the LTS, as well as within the ID. Therefore, total production costs of firms of one sector also depend on the production of the other sector, confirming for the LTS the same cost structure [2a] and [2b] of the ID, for which we assume the same specification:

<sup>&</sup>lt;sup>4</sup> An example might illustrate this assumption. If the good x is the "board",  $p_x$  is the price of daily board price and includes two meals a day. We can assume that tourists consume one meal per day in a restaurant (for instance, in case of a "half-board" stay, because the other meal is already included in the lodging): the demand  $N_1 = A_1 - Bv_1$ , with  $v_1 = hp_x$ , takes on, in that case, the value  $h = \frac{1}{2}$ . The overall demand X = x + hN is consequently made up by a local component (x) and by the tourist component given by nights spent N weighted for h = 1/2 taking into consideration that tourists consume just one meal per day and not two meals.

<sup>&</sup>lt;sup>5</sup> That is, we leave out externalities between tourists and residents (see Candela, Castellani and Dieci, 2004).

$$H = x^2 - y^2$$
;  $K = y^2 - x^2$ .

All the key elements to assess the optimal policy of ID, CD and LTS are at a glance, since regions can be considered as monopolistic firms where the policy maker aims at maximising the overall profit. Moreover, we can also assess the welfare effect on the local community of each of the three cases considered. The simplest way to do so it is to introduce the i-th representative agent's utility function, a Cobb-Douglas, defined on both goods x and y:

$$U_i = \Theta_i x_i^{\alpha} y_i^{1-\alpha}$$
 [8]

where  $0 < \alpha < 1$ , and  $\Theta_i > 0$  is a quality parameter which measures the satisfaction that the *i-th* agent gets from the goods. Given disposable income  $Y_i$  and prices  $p_x$  and  $p_y$ , the consumer maximises eq. [8] by allocating a fixed share of his own income to each good, according to the elasticity of the utility function:

$$U_i = \Theta_i (\alpha Y_i / p_x)^{\alpha} [(1 - \alpha) Y_i / p_y]^{1-\alpha} = \Theta_i Y_i (\alpha / p_x)^{\alpha} [(1 - \alpha) / p_y]^{1-\alpha}$$

To estimate the change in welfare for the *i-th* agent, we compute the total differential of the U<sub>i</sub>:

$$dU_i = (U_i / \Theta_i)d\Theta_i + (U_i / Y_i)dY_i - \alpha(U_i / P_x)dP_x - (1 - \alpha)(U_i / P_y)dP_y$$
[9]

# 2.2 Industrial regions and industrial district

Let us consider model A of previous section, for industrial regions, organised or not as industrial districts, and compute market equilibria and welfare of the local population in the different cases.

Referring to the more general case of an *Industrial district* (1,2) producing goods x and y, production goal for the ID coincides with the joint profit maximisation of both firms which, being a district, avoid the market failure by internalizing the externality effect:

$$\max_{\text{px,py}} \Pi_{12} = xf(p_x) + yg(p_y) - H(x, y) - K(x, y) = = ap_x - bp_x^2 + mp_y - np_y^2 - (x^2 - y^2) - (y^2 - x^2)$$
[10]

If Region 1 produces only good x (for  $y \equiv 0$ ,  $K(.) \equiv 0$ ) the production goal for Region 1 reduces to the profit maximisation of firms producing good x:

$$\max_{px} \Pi_1 = ap_x - bp_x^2 - x^2$$
 [10a]

If Region 2 produces only good y (for  $x \equiv 0$ ,  $H(.) \equiv 0$ ) the production goal for Region 2 reduces to the profit maximisation of firms producing good y

$$\max_{py} \Pi_2 = mp_y - np_y^2 - y^2$$
 [10b]

From the first order conditions of eqs [10] we obtain the prices of regions:

- in Region 1:  $p_x = a / 2b + x$
- in Region 2:  $p_y = m / 2n + y$  in the ID (1, 2):  $p_x^{ID} = a / 2b$  and  $p_y^{ID} = m / 2n$

<sup>&</sup>lt;sup>6</sup> The Cobb-Douglas has constant utility elasticities therefore the consumer spends for each good a constant income share.

Obviously the emergence of the ID brings a reduction in prices with respect to the non systemic production;  $p_x > p_x^{ID}$  e  $p_y > p_y^{ID}$ , and hence an increase in the quantity of the two goods supplied by the market.

Such results are due to the positive externality effect on both production costs stemming from geographical agglomeration, an effect that can not be internalised if the two industrial regions are separated and independent.

With respect to the welfare effect, eq. [9] shows that consumers always gain by the emergence of the ID, since the lower prices and the consequent increase in quantity is a sufficient condition bringing to (with  $d\Theta_i = dY_i = 0$ ) an increase in the consumer indirect utility level,  $dU_i > 0$ .

#### 2.3 Cultural regions and cultural district

Let us consider model B of section 2.1, for regions which can be either organised or not as cultural districts, and compute market equilibrium and welfare of the local population in the different cases.

In the case of the Cultural district (1,2) producing goods x and y under the same brand, the production goal for the CD is the joint profit maximisation of (cultural) firms, which discount a positive quality effect  $\theta$  on their respective products, recognised as parts of the same cultural package:

$$\operatorname{Max}_{px, py} \Pi_{12} = xf'(p_x) + yg'(p_y) - H(x) - K(y) = \theta ap_x - bp_x^2 + \theta mp_y - np_y^2 - x^2 - y^2$$
[11]

If Region 1 specializes in cultural cultural good x (for  $y \equiv 0$ ,  $K(.) \equiv 0$  and  $\theta = 1$ ) the previous expression reduced to:

$$\max_{px} \Pi_1 = ap_x - bp_x^2 - x^2$$
 [11a]

whereas if Region 2 specializes in good y (for  $x \equiv 0$ ,  $H(.) \equiv 0$  and  $\theta = 1$ ) the corresponding expression is:

$$\max_{py} \Pi_2 = mp_y - np_y^2 - y^2$$
 [11b]

From the first order conditions of eqs [11] we obtain the prices of regions and CD:

- in Region 1:  $p_x = a / 2b + x$
- in Region 2:  $p_y = m / 2n + y$ in the CD (1, 2):  $p_x^{CD} = \theta a / 2b + x$  and  $p_y^{DC} = \theta m / 2n + y$

In this case the emergence of the CD brings about an increase in prices with respect to the non systemic production,  $p_x < p_x^{CD}$  e  $p_y < p_y^{CD}$ , due to the idiosyncratic effect recognised for cultural goods of the district. In the CD, prices increase as a result of the quality improvement,  $dp_x > 0$  e  $dp_y$ > 0, hence bringing about a reduction in the consumer's utility. However, the quality improvement brings about an increase in utility,  $d\Theta_i > 0$ . Then, in case income remains unchanged,  $dY_i = 0$ , consumers gain from CD only if the following condition is verified:

$$(U_i / \Theta_i) d\Theta_i > \alpha (U_i / p_x) dp_x + (1 - \alpha)(U_i / p_y) dp_y$$
 [12]

Nevertheless, [12] is often the expected outcome, since it is the micro-economic precondition supporting the assumption that the CD "protects" the market for cultural goods. If [12] is not verified, the representative consumer would "reject" the district organisation and demand functions [3a] and [3b] would show  $\theta$ < 1. Therefore, the existence of a CD is likely to be related to an higher consumer's welfare.

# 2.4 Tourist-industrial destinations and Local Tourist Systems

Consider now model C in section 2.1, for regions which can be either organised or not as Local Tourist Systems. The goal of *Local Tourist System* (1,2) is profit maximisation of the joint production of goods x and y, supplied to both tourists and residents:

$$\max_{\text{px,py}} \Pi_{12} = Xp_x + Yp_y - H(X, Y) - K(X, Y) =$$

$$= (a + h\sigma A)p_x - (b + h^2B)p_x^2 + (m + k\sigma A)p_y - (n + k^2B)p_y^2 - X^2 + Y^2 - Y^2 + X^2$$
[13]

If we have the *Tourist-industrial region* 1 ( $Y \equiv 0$ ,  $K(.) \equiv 0$ ) the overall goal for Region 1 is profit maximisation from the production of good x, supplied to tourists and residents:

$$\max_{px} \Pi_1 = (a + hA)p_x - (b + h^2B)p_x^2 - X^2$$
 [13a]

whereas in the *Tourist-industrial region* 2 ( $X \equiv 0$ ,  $H(.) \equiv 0$ ) the overall goal is profit maximisation from the production of good y, supplied to tourists and residents:

$$\max_{py} \Pi_2 = (m + kA)p_y - (n + k^2B)p_y^2 - Y^2$$
 [13b]

From the first order conditions of eqs [13] we obtain the prices of tourist-industrial regions and LTS:

- in Tourist-industrial region 1:  $p_x = [(a + hA)/2(b + h^2B)] + X$
- in Tourist-industrial region 2:  $p_y = [(m + kA)/2(n + k^2B)] + Y$
- in the LTS (1, 2):  $p_x^{LTS} = (a + h\sigma A) / 2(b + h^2 B)$  and  $p_y^{LTS} = (m + k\sigma A) / 2(n + k^2 B)$

In this case the LTS does not produce any certain effect on prices, with respect to the two independent destinations. In fact, the following differences are not univoquely defined:

$$p_x^{LTS} - p_x = hA(\sigma - 1)/2(b + h^2B) - X$$
  
 $p_y^{LTS} - p_y = kA(\sigma - 1)/2(n + k^2B) - Y$ 

since, for eq. [5],  $\sigma > 1$ . This conclusion stems from a twofold effect of LTS: on one hand, agglomeration economies reduce the average cost of goods; on the other hand, the *quality improvement in the tourist product brought about by its completion* increases tourist demand.

Therefore, the LTS shows similarities to both ID (the tourist good is a bundle of goods that enjoys the advantages of external returns to scale) and CD (the tourist good can be assimilated to a cultural good and hence it takes profit from the idiosyncratic image of the destination). The LTS is therefore a complex system: it is not only an ID, since the territorial aggregation also has an effect on the demand side; it is not only a CD, since the aggregation also has an effect on the average costs of production. Therefore, the LTS does not provide neither a unique result on the price system, nor – as we now highlight – on total welfare of local population.

In principle, we have to distinguish two cases: if the LTS brings about a price reduction, the local consumer – as in the ID case – surely takes advantage of it. But if prices increases, the change in utility of the agent i depends on whether or not she takes part in the distribution of profits generated by tourism itself; in fact if we assume that resident i.th of the destination, which demands

<sup>&</sup>lt;sup>7</sup> Nevertheless, unlike industrial districts, tourism districts need a widespread supply also of cultural and environmental goods, as well as tourist attractions, typical crafts and agricultural products, etc.

are [1a] and [1b], do not consume the local tourist product, she do not take advantage from its quality improvement,  $d\Theta_i = 0$ .

Alternatively, if the representative agent receives income from the Local Tourist System,  $dY_i > 0$ , she will have an increase in her own indirect utility if:

$$(U_i/R_i)dY_i > \alpha(U_i/p_x)dp_x + (1-\alpha)(U_i/p_y)dp_y$$
[14]

Otherwise, if the resident gets a job in some other sector and does not get any income from the Local Tourist System,  $dY_i = 0$ , there exists not such a condition to make eq. [9] positive: the local consumer who does not take part in the distribution of income generated by tourism – or who receives an insignificant share such that eq. [14] would not be fulfilled – does not get any improvement from the LTS and suffers a reduction in his welfare,  $dU_i < 0$ .

To sum up, while in our framework ID increases consumer's welfare, and while we may suppose that CD is likely to produce an increase in welfare, with respect to LTS the answer is not clear. When LTS is associated with an increase in prices, the welfare change is not uniquely defined and local families' gains depend on the way income, generated from extra-tourism attracted by the better quality of the tourist product in the destination organised as a LTS, 8 is distributed.

#### 3. The state role in LTS: coordination of tourist firms

### 3.1 The role of the destination authority

Public intervention in the tourist sector is needed for two fundamental reasons: i) to finance tourist public goods: those structures and infrastructures needed to complete the tourist product and to increase the competitiveness of the whole destination and for which the private market fails; ii) to solve a potential coordination problem arising when private firms supply different goods and services, that compose the whole tourist product. This latter issue, which can be considered an *anticommon* problem, is analysed in this section, with particular reference to the role that the public authority of the tourist destination may play.

We develop a very simple model. In the destination there are just two types of firms: hotels, offering accommodation but any board, and restaurants, offering board, but which are not in a position to offer accommodation. Under these conditions, tourists intending to spend a holiday in the destination have to buy services from both firms, which can individually exclude the tourists by denying them board or accommodation. In the tourism sector, whose product combines heterogeneous goods supplied by various and different firms, this situation easily occurs. This condition is known as *anticommon*, a situation in which there is property fragmentation <sup>10</sup> – opposed to the *common* condition, characterised by the lack of property rights. <sup>11</sup>

<sup>&</sup>lt;sup>8</sup> This rationale leads to the issue of tourist *enclaves* and to the income distribution of local communities in developing countries specialized in tourism. We know that these communities do not enjoy the advantages of the tourist multiplier, but we have now demonstrated that they may also suffer a damage from the increase in prices due to tourist arrivals. Nevertheless, this effect may also occur in developed country destinations: families of local workers employed in sectors which are not connected to tourism do not get any additional income; on the contrary, they may suffer the increase in prices of, for example, real estates and building lands. Hence, the LTS leads us directly to the inequality issue and, from here, to the problem of social sustainability of the development model based on tourist specialization.

<sup>9</sup> See Candela and Figini (2005), chap. 11.

Obviously, this problem arises to where different firms produce "components" which contribute to the production of the final good.

<sup>&</sup>lt;sup>11</sup> The *anticommon* concept has been introduced by Michelman (1982) and has been developed by Heller (1998 and 1999). See Parisi *et al.* (2000) and Parisi *et al.* (2004). The *common* good is a good for which property rights are not precisely defined, being this way at everyone's disposable (Hardin 1968).

If  $p_a$  and  $p_b$  are respectively the accommodation and the board price, the tourist product, composed by one unit of each service per day, will have the price v equal to  $v = p_a + p_b$ . Tourist demand is expressed by the number of nights spent N and, in this case, can be considered equal to:

$$N = a - v = a - p_a - p_b$$

If we assume, by the sake of simplification, that production costs are null, the profit maximisation problem for the accommodation and restaurant firms are, respectively:

$$\max_{pa} \pi_a = p_a N = p_a (a - p_a - p_b)$$
 [15]

$$\max_{\mathsf{pb}} \pi_{\mathsf{b}} = p_{\mathsf{b}} N = p_{\mathsf{b}} (a - p_{\mathsf{a}} - p_{\mathsf{b}}) \tag{15a}$$

and the corresponding first order conditions from which we get the accommodation equilibrium and the board equilibrium prices are:

$$p_a = (a - p_b) / 2$$
 [16]

$$p_b = (a - p_a) / 2$$
 [16a]

We can solve system [16] and [16a] by substitution and, in the specification of our example, we get the following equilibrium prices:

$$p_b^* = p_a^* = a / 3 \tag{17}$$

Therefore, a tourist demanding the tourist product N supplied by the destination, and composed by one unit of accommodation and board per day, pays a total price v equal to:

$$v^* = 2a/3$$

which implies a quantity level of equilibrium equal to  $N^* = a / 3$ . In this situation, firms get the following profits:

$$\pi_a^* = \pi_b^* = (a/3)(a/3) = a^2/9$$
 [19]

Can there be any improvement from this situation? Let us assume now that there is a unique firm offering board and accommodation at the same time, eventually coordinated by a destination authority, that assume the role of a policy maker for tourism sector. That is as much as to say that the supply problem can be analysed focusing on the profit maximisation of the whole destination. By considering the same demand function N = a - v we get:

$$\max_{\mathbf{v}} \pi = \mathbf{v} N = \mathbf{v} (a - \mathbf{v})$$
 [20]

and from the first order condition we get the equilibrium price for the destination is:

$$v^{**} = a / 2$$

Comparing eq. [21] with eq. [18], we note that  $v^* > v^{**}$  whereas  $N^{**} = a / 2 > a / 3 = N^*$ . Therefore, without the coordination of the destination authority, the price of the tourist product is as a whole too high and consequently tourist nights spent in the destination are too low.

Since we assume that both hotels and restaurants of this example are symmetric as regards costs (both null), the policy maker of the destination can decide the optimal structure of prices for

both accommodation and board,  $p_a^{**} = p_b^{**} = a / 4$ . These *posted prices* imply, by means of eqs. [15], that profits for both firms are:

$$\pi_a^{**} = \pi_b^{**} = (a/4)(a/2) = a^2/8$$
 [22]

Profits shown in eq. [22] are obviously higher that those in eq. [19] since  $a^2 / 8 > a^2 / 9$ ; we can conclude that in the LTS, when the local government solves the coordination problem by imposing (or proposing) the optimal price structure, both the accommodation and the catering firms increase their profits, together with a positive effect on tourists, who can gain from lower prices.

Therefore, in the LTS, the policymaker should: i) coordinate firms producing the goods which enter the tourist package; ii) fix the price of the whole product; iii) impute the price for each component of the tourist product, such as to suggest a coordination of posted prices. Coordination is needed since the tourist product turn out to be an *anticommon*, in which property is shared among several firms supplying different parts of the final good. In other words, there is an excess of property rights in the economic sense. Coordination intervention by the policy maker leads to both an increase in profits for all firms, and to a greater number of nights spent by tourists.

# 3.2 The role of the tour operator between the destination authority and the tourist firm

The positive role in solving the coordination problem is not an exclusive prerequisite of the public authority: if the policy maker refuses the coordination responsibility, the *anticommon* problem could find a solution in the establishment of a "centralised" tourist firm: the *tour operator*. <sup>12</sup>

The *tour operator* offers to local firms a "vuoto per pieno" contract at the discounted price  $(p_j - d)$ , with the same discount d applied to both tourist firms. The "full board" package is offered directly by the tour operator at price v. The non-coordinated equilibrium price constitutes a constraint for the tour operator in determining the contract, which must be accepted by the local tourist firm. Its program is therefore:<sup>13</sup>

$$\max_{v,d} \pi_{to} = vN - (p_a - d)N - (p_b - d)N = (v - p_a - p_b + 2d)N$$
 [23] s.c.  $N = a - v$   $(p_a - d)N \ge a^2/9$  participation constraint for the accommodation firm  $(p_b - d)N \ge a^2/9$  participation constraint for the restaurant

as  $a^2/9$  is the profit which the firms will gain in the case of a direct offer to the tourists, without intermediation (and in the case of rent of their full production capacity).

Without the tour operator, the equilibrium price [17] will be  $p_a = p_d = a/3$  and the two different participation constraints collapse into the same inequality. As usual in the agency models, if we assume that the principal gives the agency the minimum acceptable profit, from the constraints we get the (provisional) value of d:

$$d = a/3 - a^2/9(a - v)$$
 [24]

Having substitute [24] in the *tour operator* profit function, we obtain:

\_

<sup>&</sup>lt;sup>12</sup> The *tour operator* signs "insurance" contracts with hotels, restaurants, air companies, etc., which accept a lower but certain price by transferring risk to the tour operator (see Mussoni (2004), Castellani and Mussoni (2004)). Firms accept the coordination role of the tour operator if, although accepting a lower price, they end up with equal or higher profits. Therefore, also the *tour operator* can play a positive role in the LTS, by imposing a private solution – automatic and with no public intervention – to the *anticommon* failure. The analogy with the case of common goods, which "tragedy" may be avoided by giving property rights to either public or private monopoly, is therefore complete.

$$\max_{\mathbf{v}} \pi_{to} = v(a - \mathbf{v}) - 2a^2 / 9$$
 [25]

The first order condition [25] defines the solution  $v_{to} = a / 2 = v^{**}$ , the same optimal offer selected by the policymaker (see [21]). However, even if the *tour operator* solution mimics the social optimum, the profit for the two firm is different: by construction the *tour operator* reaps of the whole increase in profits:<sup>14</sup>

$$\pi_a = \pi_b = a^2 / 9$$
 and  $\pi_{to} = 5a^2 / 9$  being  $d = 2a / 9$ 

Obviously, several intermediate solutions are possible, but always arises a distributive conflict between the local tourist firm and the tour operator, as this latter agent tries to fill the gap left by the policymaker.

#### **4 Conclusion**

Industrial, Cultural and Local Tourist Systems all emerge for one reason: to create an economic advantage due to a geographical integration. Nevertheless, the simple models presented in this paper demonstrate that these common objectives should not hide crucial differences with regard to characteristics, effects and strategies.<sup>15</sup>

The ID arises as a consequence of important positive externalities, in terms of reduction of the average costs enjoyed by firms located in the same area. Firms perceive the advantage of a common localisation, cost reduction and profit increase: economic rationality leads firms to such industrial agglomeration. In the Marshallian perspective, public intervention is unnecessary to manage industrial districts, since congestion and decay of the territory (external diseconomies) would replace economies, making unprofitable the over-localisation in an ID. As ID allow firms to access more efficient production organisations and techniques, they also advantage consumers, who share the average cost reduction by means of a price reduction.

CD, on the contrary, arise from the need of cultural identification of the territory; consequently the territory recognises a idiosyncratic aspect in its cultural product; the CD goal is to make the product promptly recognizable (and certified) by connoisseurs and cultural consumers, therefore increasing their reservation price. <sup>16</sup>

"One of the institutional conditions that favoured the economic growth of highly integrated territories, has been the assignment of collective property rights on local resources. Collective *property rights* (territorial, product, as well as cultural labels, etc.) are a way to offer efficient economic incentives and better development perspectives to local producers. Furthermore, these collective rights protect from counterfacting and dumping. In the end, they represent a great contribution to the construction of the public perception of the site" (Santagata *et al.*, 2004, p. 60. Our own translation).

Nevertheless, the establishment of a CD does not automatically break out as in the ID case. Actually, the CD develops a territorial brand from which all local cultural firms wish to be covered, with the risk of "playing down", through overproduction, the image itself of the cultural district: the

\_

 $<sup>^{14}</sup>$  In the more general case the solution requires the Khun-Tucker approach..

<sup>&</sup>lt;sup>15</sup> The previous quantitative results are not robust, being dependent upon very specific (and ad hoc) assumptions. (separability, specific functional forms,...). A natural extension of this framework should be the computation of a GE model, grounded on strong microeconomic principles. Most of our qualitative results, however, should remain unaffected.

<sup>&</sup>lt;sup>16</sup> See Candela and Scorcu (2004).

CD typically presents a *common* problem.<sup>17</sup> From this point of view, CD needs public intervention to deal with the distribution of rights to enjoy product brand (Cuccia and Santagata 2003). In the end, CD, if successful, leads to an increase in the consumer surplus, since the positive change in utility induced by a better quality more than compensate for the sacrifice of higher prices.

The LTS comes out from the observation that the tourist product is composed by a bundle of heterogeneous different goods and services, complementing to each other in the tourist destination; hence, the LTS solves production coordination and completion. Compared to other industries, coordination rules are needed in tourism since "no activity is more difficult than the tourist one". However, as shown in this paper, such a combination may not automatically develop, since tourist production presents an *anticommon* problem and the policy maker intervention is needed: LTS needs intervention for its definition and implementation, although also a private intervention by a *tour operator* could solve the problem.

In a LTS the role of the public authority is twofold: coordinate interaction among firms, and complete the tourist product by supplying the infrastructures and services needed.

Since the ultimate effect of LTS on prices – pushed down by agglomeration externalities but pushed up by extra demand in tourism due to higher quality – is not uniquely defined, it may happen that total welfare in the destination depends on the way revenue from tourism is locally distributed.

Table 1 sums up our conclusions; it can be argued that there are more diversities than similarities among the three models of local production organization presented in this paper.

Table 1 – A Comparison of industrial, cultural and Local Tourist Systems

Type of district	Reasons for	Need for public	Rationale for public	Local community
	the birth	intervention	intervention	welfare
Industrial district	Externalities	No		Welfare increases
Cultural district	Product	Yes	Remedy to the problem of	Welfare increases in
	idiosyncrasy	res	commons	case of success
<b>Local Tourist System</b>	Goods and	Yes	Remedy to the problem of	Uncertain result
	services		anticommons	depending on the income
	combination			distribution

ID and CD importance in real world economies has been widely recognised for a long time, but also LTS are gaining importance and highlight the relevance of a policy approach based on the destination. In Italy, a sort of LTS has been introduced by the law, explicitly denominated *Sistema Turistico Locale* (STL) in the National Tourist Act (No. 135 of 2001). STLs represent a policy tool aimed at favouring the integrated development of tourism, by taking into consideration the heterogeneity and complexity of the phenomenon, and by favouring firms aggregation and the public and private linkages.

STLs represent a new way to conceive and administrate the territory aiming at overcoming the existing fragmentations of the Italian territory, enhancing the integration between tourism and other industries, and by looking endogenously for the optimal size of the destination. In opting for the institutional introduction of the STL, the policymaker aims at stimulate the development of tourism even to the detriment of possible drawbacks on competition or, rather, competition between STL is favoured to the detriment of competition between single tourist firms.

-

<sup>&</sup>lt;sup>18</sup> Common goods (Hardin, 1968) risk depletion if access is not regulated. To investigate this issue see Balducci *et al.* (2001).

# **Bibliography**

Antonetto, P., 2001. La nuova legge quadro: luci e ombre, La Rivista del Turismo, 5/6:15.

Balducci, R., G. Candela, and A.E. Scorcu, 2001. *Introduzione alla Politica Economica*, Zanichelli, Bologna.

Becattini, G., 1989. Modelli locali di sviluppo, Il Mulino, Bologna.

Becattini, G., 2000. Distretti industriali e sviluppo locale, Bollati Boringhieri, Turin.

Candela, G., M. Castellani and R. Dieci, 2005. *Technology of the Externalities and Economic Policy, Collana "Note e ricerche"*, Biblioteca Centralizzata del Polo Scientifico-Didattico di Rimini, University of Bologna.

Candela, G. and P. Figini, 2005. Economia dei Sistemi Turistici, McGraw-Hill, Milan.

Candela, G., e A.E. Scorcu, 2004. Economia delle Arti, Zanichelli, Bologna.

Castellani, M., and M. Mussoni, 2004. An Economic Analysis of the Tourism Contracts: Free Sale and Allotment, *Collana "Note e ricerche"*, Biblioteca Centralizzata del Polo Scientifico-Didattico di Rimini, University of Bologna.

Costa, P., M. Manente, and M.C. Furlan, 2001. *Politica economica del turismo*, Touring University Press, Milan.

Cuccia, T., and W. Santagata, 2004. Adhesion - Exit: Incentivi e diritti di proprietà collettivi nei distretti culturali, *Studi Economici*, 80:5-30.

Hardin, G., 968. The Tragedy of the Commons, Science, 162:1243-48.

Heller, M.A., 1998. The Tragedy of the Anticommons: Property in the Transition from Marx to Markets, *Harvard Law Review*, 111:621.

Heller, M.A., 1999. The Boundaries of Private Property, Yale Law Review, 108:1163-223.

Michelman, F. I., 1982. Ethics, Economics, and the Law of Property, in J. R. Pennock and J.W. Chapman (eds.), *Nomos XXIV: Ethics, Economics and the Law*, New York University Press, New York.

Mussoni, M. 2004. Il contratto vuoto per pieno: un'analisi economica, *Sistemaeconomico*, 2:17-51.

Myrdal, G., 1957. Economic Theory and Underdeveloped Regions, London 1957.

Parisi, F., B. Depoorter, and N. Schultz, 2000. Duality in Property: Commons and Anticommons, *Law and Economics Resarch Paper Series*, N. 00-32, University of Virginia School of Law.

Parisi, F., N. Schultz, and B. Depoorter, 2004. Simultaneous and Sequential Anticommons, *European Journal of Law and Economics*, 17:175-90.

Santagata, W, 2004. Cultural Districts and Economic Development, in V. Ginsburgh e D. Thorsby (eds.), *Handbook of the Economics of Art and Culture*, Elsevier, Amsterdam.

Santagata, W., P.L. Scandizzo, and P. Valentini, 2004. Ora ci vogliono i numeri per rimanere nella lista Unesco del patrimonio mondiale, *Il Giornale dell'arte*, Settembre, p. 60.

# NOTE DI LAVORO DELLA FONDAZIONE ENI ENRICO MATTEI

# Fondazione Eni Enrico Mattei Working Paper Series

# Our Note di Lavoro are available on the Internet at the following addresses:

http://www.feem.it/Feem/Pub/Publications/WPapers/default.html http://www.ssrn.com/link/feem.html http://www.repec.org

# NOTE DI LAVORO PUBLISHED IN 2004

IEM	1.2004	Anil MARKANDYA, Suzette PEDROSO and Alexander GOLUB: Empirical Analysis of National Income and So2 Emissions in Selected European Countries
ETA	2.2004	Masahisa FUJITA and Shlomo WEBER: Strategic Immigration Policies and Welfare in Heterogeneous Countries
PRA	3.2004	Adolfo DI CARLUCCIO, Giovanni FERRI, Cecilia FRALE and Ottavio RICCHI: Do Privatizations Boost
		Household Shareholding? Evidence from Italy  Vistor CINSBURGUL and Shlowe WERER. Languages Disanfronchisement in the Evaporer Union
ETA ETA	4.2004 5.2004	Victor GINSBURGH and Shlomo WEBER: Languages Disenfranchisement in the European Union Romano PIRAS: Growth, Congestion of Public Goods, and Second-Best Optimal Policy
CCMP	6.2004	Herman R.J. VOLLEBERGH: Lessons from the Polder: Is Dutch CO2-Taxation Optimal
PRA	7.2004	Sandro BRUSCO, Giuseppe LOPOMO and S. VISWANATHAN (1xv): Merger Mechanisms
PRA	8.2004	Wolfgang AUSSENEGG, Pegaret PICHLER and Alex STOMPER (lxv): IPO Pricing with Bookbuilding, and a
PRA	9.2004	When-Issued Market Pegaret PICHLER and Alex STOMPER (lxv): Primary Market Design: Direct Mechanisms and Markets
		Florian ENGLMAIER, Pablo GUILLEN, Loreto LLORENTE, Sander ONDERSTAL and Rupert SAUSGRUBER
PRA	10.2004	(lxv): The Chopstick Auction: A Study of the Exposure Problem in Multi-Unit Auctions
PRA	11.2004	Bjarne BRENDSTRUP and Harry J. PAARSCH (lxv): Nonparametric Identification and Estimation of Multi- Unit, Sequential, Oral, Ascending-Price Auctions With Asymmetric Bidders
PRA	12.2004	Ohad KADAN (lxv): Equilibrium in the Two Player, k-Double Auction with Affiliated Private Values
PRA	13.2004	Maarten C.W. JANSSEN (lxv): Auctions as Coordination Devices
PRA	14.2004	Gadi FIBICH, Arieh GAVIOUS and Aner SELA (lxv): All-Pay Auctions with Weakly Risk-Averse Buyers
		Orly SADE, Charles SCHNITZLEIN and Jaime F. ZENDER (lxv): Competition and Cooperation in Divisible
PRA	15.2004	Good Auctions: An Experimental Examination
PRA	16.2004	Marta STRYSZOWSKA (lxv): Late and Multiple Bidding in Competing Second Price Internet Auctions
CCMP	17.2004	Slim Ben YOUSSEF: R&D in Cleaner Technology and International Trade
NRM	18.2004	Angelo ANTOCI, Simone BORGHESI and Paolo RUSSU (lxvi): Biodiversity and Economic Growth: Stabilization Versus Preservation of the Ecological Dynamics
a	40.0004	Anna ALBERINI, Paolo ROSATO, Alberto LONGO and Valentina ZANATTA: Information and Willingness to
SIEV	19.2004	Pay in a Contingent Valuation Study: The Value of S. Erasmo in the Lagoon of Venice
NDM	20.2004	Guido CANDELA and Roberto CELLINI (lxvii): Investment in Tourism Market: A Dynamic Model of
NRM	20.2004	<u>Differentiated Oligopoly</u>
NRM	21.2004	Jacqueline M. HAMILTON (Ixvii): Climate and the Destination Choice of German Tourists
NRM	22.2004	Javier Rey-MAQUIEIRA PALMER, Javier LOZANO IBÁÑEZ and Carlos Mario GÓMEZ GÓMEZ (Ixvii):
111111		Land, Environmental Externalities and Tourism Development
NRM	23.2004	Pius ODUNGA and Henk FOLMER (lxvii): Profiling Tourists for Balanced Utilization of Tourism-Based
	24 2004	Resources in Kenya  Low Logues NOWAK Mondhon SAIII Land Progrado M. SCRO (hyvii) Toyriam. Trade and Domestic Welford
NRM	24.2004	Jean-Jacques NOWAK, Mondher SAHLI and Pasquale M. SGRO (lxvii): Tourism, Trade and Domestic Welfare
NRM	25.2004	Riaz SHAREEF (lxvii): Country Risk Ratings of Small Island Tourism Economies
NRM	26.2004	Juan Luis EUGENIO-MARTÍN, Noelia MARTÍN MORALES and Riccardo SCARPA (lxvii): <u>Tourism and</u> Economic Growth in Latin American Countries: A Panel Data Approach
NRM	27.2004	Raúl Hernández MARTÍN (Ixvii): Impact of Tourism Consumption on GDP. The Role of Imports
	28.2004	Nicoletta FERRO: Cross-Country Ethical Dilemmas in Business: A Descriptive Framework
CSRM		Marian WEBER (lxvi): Assessing the Effectiveness of Tradable Landuse Rights for Biodiversity Conservation:
NRM	29.2004	an Application to Canada's Boreal Mixedwood Forest
		Trond BJORNDAL, Phoebe KOUNDOURI and Sean PASCOE (lxvi): Output Substitution in Multi-Species
NRM	30.2004	Trawl Fisheries: Implications for Quota Setting
aa	21 2004	Marzio GALEOTTI, Alessandra GORIA, Paolo MOMBRINI and Evi SPANTIDAKI: Weather Impacts on
CCMP	31.2004	Natural, Social and Economic Systems (WISE) Part I: Sectoral Analysis of Climate Impacts in Italy
CCMP	32.2004	Marzio GALEOTTI, Alessandra GORIA ,Paolo MOMBRINI and Evi SPANTIDAKI: Weather Impacts on
CCIVIF		Natural, Social and Economic Systems (WISE) Part II: Individual Perception of Climate Extremes in Italy
CTN	33.2004	Wilson PEREZ: Divide and Conquer: Noisy Communication in Networks, Power, and Wealth Distribution
KTHC	34.2004	Gianmarco I.P. OTTAVIANO and Giovanni PERI (Ixviii): The Economic Value of Cultural Diversity: Evidence from US Cities
KTHC	35.2004	Linda CHAIB (Ixviii): Immigration and Local Urban Participatory Democracy: A Boston-Paris Comparison
11110		· /

KTHC	36.2004	Franca ECKERT COEN and Claudio ROSSI (Ixviii): Foreigners, Immigrants, Host Cities: The Policies of
KTHC	37.2004	<u>Multi-Ethnicity in Rome. Reading Governance in a Local Context</u> <u>Kristine CRANE</u> (lxviii): <u>Governing Migration: Immigrant Groups' Strategies in Three Italian Cities – Rome.</u>
KTHC	38.2004	Naples and Bari Kiflemariam HAMDE (lxviii): Mind in Africa, Body in Europe: The Struggle for Maintaining and Transforming
ETA	39.2004	Cultural Identity - A Note from the Experience of Eritrean Immigrants in Stockholm  Alberto CAVALIERE: Price Competition with Information Disparities in a Vertically Differentiated Duopoly
PRA	40.2004	Andrea BIGANO and Stef PROOST: The Opening of the European Electricity Market and Environmental
		Policy: Does the Degree of Competition Matter?  Micheal FINUS (Ixix): International Cooperation to Resolve International Pollution Problems
CCMP	41.2004	· · · · · · · · · · · · · · · · · · ·
KTHC	42.2004	Francesco CRESPI: Notes on the Determinants of Innovation: A Multi-Perspective Analysis
CTN	43.2004	Sergio CURRARINI and Marco MARINI: Coalition Formation in Games without Synergies  Marco ESCRUMENTA VIII A.P.: Coatal Systematical State S
CTN	44.2004	Marc ESCRIHUELA-VILLAR: Cartel Sustainability and Cartel Stability  Schooling REPLYCETS and Nicolag CRAVEL (Invi): A presiding Diversity with an Ordinal Nation of Similarity.
NRM	45.2004	Sebastian BERVOETS and Nicolas GRAVEL (lxvi): Appraising Diversity with an Ordinal Notion of Similarity:  An Axiomatic Approach  Signa ANTHON and Br. HELLESMARK THORSEN (lavi): Octional Affordation Contracts with Assumption
NRM	46.2004	Signe ANTHON and Bo JELLESMARK THORSEN (lxvi): Optimal Afforestation Contracts with Asymmetric Information on Private Environmental Benefits
NRM	47.2004	John MBURU (lxvi): Wildlife Conservation and Management in Kenya: Towards a Co-management Approach
		Ekin BIROL, Ágnes GYOVAI and Melinda SMALE (lxvi): Using a Choice Experiment to Value Agricultural
NRM	48.2004	Biodiversity on Hungarian Small Farms: Agri-Environmental Policies in a Transition al Economy
CCMP	49.2004	Gernot KLEPPER and Sonja PETERSON: The EU Emissions Trading Scheme. Allowance Prices, Trade Flows, Competitiveness Effects
GG	50.2004	Scott BARRETT and Michael HOEL: Optimal Disease Eradication
CTN	51.2004	Dinko DIMITROV, Peter BORM, Ruud HENDRICKX and Shao CHIN SUNG: Simple Priorities and Core
CIN	31.2004	Stability in Hedonic Games
SIEV	52.2004	Francesco RICCI: Channels of Transmission of Environmental Policy to Economic Growth: A Survey of the Theory
SIEV	53.2004	Anna ALBERINI, Maureen CROPPER, Alan KRUPNICK and Nathalie B. SIMON: Willingness to Pay for Mortality Risk Reductions: Does Latency Matter?
NRM	54.2004	Ingo BRÄUER and Rainer MARGGRAF (lxvi): Valuation of Ecosystem Services Provided by Biodiversity Conservation: An Integrated Hydrological and Economic Model to Value the Enhanced Nitrogen Retention in Renaturated Streams
NRM	55.2004	Timo GOESCHL and Tun LIN (lxvi): Biodiversity Conservation on Private Lands: Information Problems and
		Regulatory Choices
NRM	56.2004	Tom DEDEURWAERDERE (lxvi): Bioprospection: From the Economics of Contracts to Reflexive Governance Katrin REHDANZ and David MADDISON: The Amenity Value of Climate to German Households
CCMP	57.2004	· · · · · · · · · · · · · · · · · · ·
CCMP	58.2004	Koen SMEKENS and Bob VAN DER ZWAAN: Environmental Externalities of Geological Carbon Sequestration Effects on Energy Scenarios
NRM	59.2004	Valentina BOSETTI, Mariaester CASSINELLI and Alessandro LANZA (lxvii): <u>Using Data Envelopment</u> Analysis to Evaluate Environmentally Conscious Tourism Management
NRM	60.2004	Timo GOESCHL and Danilo CAMARGO IGLIORI (lxvi): Property Rights Conservation and Development: An
CCLAD	c1 2004	Analysis of Extractive Reserves in the Brazilian Amazon  Barbara BUCHNER and Carlo CARRARO: Economic and Environmental Effectiveness of a
CCMP	61.2004	Technology-based Climate Protocol
NRM	62.2004	Elissaios PAPYRAKIS and Reyer GERLAGH: Resource-Abundance and Economic Growth in the U.S.
NRM	63.2004	Györgyi BELA, György PATAKI, Melinda SMALE and Mariann HAJDÚ (lxvi): Conserving Crop Genetic Resources on Smallholder Farms in Hungary: Institutional Analysis
		E.C.M. RUIJGROK and E.E.M. NILLESEN (lxvi): The Socio-Economic Value of Natural Riverbanks in the
NRM	64.2004	Netherlands
NRM	65.2004	E.C.M. RUIJGROK (lxvi): Reducing Acidification: The Benefits of Increased Nature Quality. Investigating the
ETA	66.2004	Possibilities of the Contingent Valuation Method Giannis VARDAS and Anastasios XEPAPADEAS: Uncertainty Aversion, Robust Control and Asset Holdings
GG	67.2004	Anastasios XEPAPADEAS and Constadina PASSA: Participation in and Compliance with Public Voluntary
		Environmental Programs: An Evolutionary Approach
GG	68.2004	Michael FINUS: Modesty Pays: Sometimes!  Trond BJØRNDAL and Ana BRASÃO: The Northern Atlantic Bluefin Tuna Fisheries: Management and Policy
NRM	69.2004	Implications I and Ana BRASAO: Ine Northern Atlantic Bluefin Tuna Fisheries: Management and Policy
CTN	70.2004	Alejandro CAPARRÓS, Abdelhakim HAMMOUDI and Tarik TAZDAÏT: On Coalition Formation with Heterogeneous Agents
IEM	71.2004	Massimo GIOVANNINI, Margherita GRASSO, Alessandro LANZA and Matteo MANERA: Conditional Correlations in the Returns on Oil Companies Stock Prices and Their Determinants
IEM	72.2004	Alessandro LANZA, Matteo MANERA and Michael MCALEER: Modelling Dynamic Conditional Correlations
CIEV	72 2004	in WTI Oil Forward and Futures Returns  Margarita GENIUS and Elisabetta STRAZZERA: The Copula Approach to Sample Selection Modelling:
SIEV	73.2004	An Application to the Recreational Value of Forests

		Rob DELLINK and Ekko van IERLAND: Pollution Abatement in the Netherlands: A Dynamic Applied General
CCMP	74.2004	Equilibrium Assessment
ETA	75.2004	Rosella LEVAGGI and Michele MORETTO: <u>Investment in Hospital Care Technology under Different</u>
		Purchasing Rules: A Real Option Approach Salvador BARBERÀ and Matthew O. JACKSON (lxx): On the Weights of Nations: Assigning Voting Weights in
CTN	76.2004	a Heterogeneous Union
CTN	77.2004	Àlex ARENAS, Antonio CABRALES, Albert DÍAZ-GUILERA, Roger GUIMERÀ and Fernando VEGA-
		REDONDO (lxx): Optimal Information Transmission in Organizations: Search and Congestion
CTN	78.2004	Francis BLOCH and Armando GOMES (lxx): Contracting with Externalities and Outside Options Rabah AMIR, Effrosyni DIAMANTOUDI and Licun XUE (lxx): Merger Performance under Uncertain Efficiency
CTN	79.2004	Gains
CTN	80.2004	Francis BLOCH and Matthew O. JACKSON (lxx): The Formation of Networks with Transfers among Players
CTN	81.2004	Daniel DIERMEIER, Hülya ERASLAN and Antonio MERLO (lxx): <u>Bicameralism and Government Formation</u> Rod GARRATT, James E. PARCO, Cheng-ZHONG QIN and Amnon RAPOPORT (lxx): <u>Potential Maximization</u>
CTN	82.2004	and Coalition Government Formation
CTN	83.2004	Kfir ELIAZ, Debraj RAY and Ronny RAZIN (lxx): Group Decision-Making in the Shadow of Disagreement Sanjeev GOYAL, Marco van der LEIJ and José Luis MORAGA-GONZÁLEZ (lxx): Economics: An Emerging
CTN	84.2004	Small World?
CTN	85.2004	Edward CARTWRIGHT (lxx): Learning to Play Approximate Nash Equilibria in Games with Many Players
IEM	86.2004	Finn R. FØRSUND and Michael HOEL: Properties of a Non-Competitive Electricity Market Dominated by
KTHC	87.2004	Hydroelectric Power  Elissaios PAPYRAKIS and Reyer GERLAGH: Natural Resources, Investment and Long-Term Income
CCMP	88.2004	Marzio GALEOTTI and Claudia KEMFERT: Interactions between Climate and Trade Policies: A Survey
IEM	89.2004	A. MARKANDYA, S. PEDROSO and D. STREIMIKIENE: Energy Efficiency in Transition Economies: Is There
GG	90.2004	Convergence Towards the EU Average?  Rolf GOLOMBEK and Michael HOEL: Climate Agreements and Technology Policy
PRA	91.2004	Sergei IZMALKOV (lxv): Multi-Unit Open Ascending Price Efficient Auction
KTHC	92.2004	Gianmarco I.P. OTTAVIANO and Giovanni PERI: Cities and Cultures
KTHC	93.2004	Massimo DEL GATTO: Agglomeration, Integration, and Territorial Authority Scale in a System of Trading
CCMP	94.2004	Cities. Centralisation versus devolution  Pierre-André JOUVET, Philippe MICHEL and Gilles ROTILLON: Equilibrium with a Market of Permits
CCMP	95.2004	Bob van der ZWAAN and Reyer GERLAGH: Climate Uncertainty and the Necessity to Transform Global
ceim	<i>)</i> 3.2004	Energy Supply Francesco BOSELLO, Marco LAZZARIN, Roberto ROSON and Richard S.J. TOL: Economy-Wide Estimates of
CCMP	96.2004	the Implications of Climate Change: Sea Level Rise
CTN	97.2004	Gustavo BERGANTIÑOS and Juan J. VIDAL-PUGA: Defining Rules in Cost Spanning Tree Problems Through
CTN	98.2004	the Canonical Form Siddhartha BANDYOPADHYAY and Mandar OAK: Party Formation and Coalitional Bargaining in a Model of
		Proportional Representation  Hans-Peter WEIKARD, Michael FINUS and Juan-Carlos ALTAMIRANO-CABRERA: The Impact of Surplus
GG	99.2004	Sharing on the Stability of International Climate Agreements
SIEV	100.2004	Chiara M. TRAVISI and Peter NIJKAMP: Willingness to Pay for Agricultural Environmental Safety: Evidence
GIET.	101 2004	from a Survey of Milan, Italy, Residents Chiara M. TRAVISI, Raymond J. G. M. FLORAX and Peter NIJKAMP: A Meta-Analysis of the Willingness to
SIEV	101.2004	Pay for Reductions in Pesticide Risk Exposure
NRM	102.2004	Valentina BOSETTI and David TOMBERLIN: Real Options Analysis of Fishing Fleet Dynamics: A Test Alessandra GORIA e Gretel GAMBARELLI: Economic Evaluation of Climate Change Impacts and Adaptability
CCMP	103.2004	in Italy
PRA	104.2004	Massimo FLORIO and Mara GRASSENI: The Missing Shock: The Macroeconomic Impact of British
		Privatisation  John BENNETT, Saul ESTRIN, James MAW and Giovanni URGA: Privatisation Methods and Economic Growth
PRA	105.2004	in Transition Economies
PRA	106.2004	Kira BÖRNER: The Political Economy of Privatization: Why Do Governments Want Reforms?
PRA	107.2004	Pehr-Johan NORBÄCK and Lars PERSSON: Privatization and Restructuring in Concentrated Markets Angela GRANZOTTO, Fabio PRANOVI, Simone LIBRALATO, Patrizia TORRICELLI and Danilo
SIEV	108.2004	MAINARDI: Comparison between Artisanal Fishery and Manila Clam Harvesting in the Venice Lagoon by
		Using Ecosystem Indicators: An Ecological Economics Perspective  Sandah LAUDh. The Congressive Theory of Two Sided Metabing Problems: A Regional Sandah Sand
CTN	109.2004	Somdeb LAHIRI: The Cooperative Theory of Two Sided Matching Problems: A Re-examination of Some Results
NRM	110.2004	Giuseppe DI VITA: Natural Resources Dynamics: Another Look
SIEV	111.2004	Anna ALBERINI, Alistair HUNT and Anil MARKANDYA: Willingness to Pay to Reduce Mortality Risks:  Evidence from a Three-Country Contingent Valuation Study
KTHC	112.2004	Valeria PAPPONETTI and Dino PINELLI: Scientific Advice to Public Policy-Making
SIEV	113.2004	Paulo A.L.D. NUNES and Laura ONOFRI: The Economics of Warm Glow: A Note on Consumer's Behavior
		and Public Policy Implications  Patrick CAYRADE: Investments in Gas Pipelines and Liquefied Natural Gas Infrastructure What is the Impact
IEM	114.2004	on the Security of Supply?
IEM	115.2004	Valeria COSTANTINI and Francesco GRACCEVA: Oil Security. Short- and Long-Term Policies

IEM	116.2004	Valeria COSTANTINI and Francesco GRACCEVA: Social Costs of Energy Disruptions
IEM	117.2004	Christian EGENHOFER, Kyriakos GIALOGLOU, Giacomo LUCIANI, Maroeska BOOTS, Martin SCHEEPERS, Valeria COSTANTINI, Francesco GRACCEVA, Anil MARKANDYA and Giorgio VICINI: Market-Based Options
HEM	110 2004	for Security of Energy Supply David FISK: Transport Energy Security. The Unseen Risk?
IEM	118.2004	* **
IEM	119.2004	Giacomo LUCIANI: Security of Supply for Natural Gas Markets. What is it and What is it not?
IEM	120.2004	L.J. de VRIES and R.A. HAKVOORT: The Question of Generation Adequacy in Liberalised Electricity Markets
KTHC	121.2004	Alberto PETRUCCI: Asset Accumulation, Fertility Choice and Nondegenerate Dynamics in a Small Open Economy
NRM	122.2004	Carlo GIUPPONI, Jaroslaw MYSIAK and Anita FASSIO: An Integrated Assessment Framework for Water
11111	122.2001	Resources Management: A DSS Tool and a Pilot Study Application
NRM	123.2004	Margaretha BREIL, Anita FASSIO, Carlo GIUPPONI and Paolo ROSATO: Evaluation of Urban Improvement on the Islands of the Venice Lagoon: A Spatially-Distributed Hedonic-Hierarchical Approach
ETA	124.2004	Paul MENSINK: Instant Efficient Pollution Abatement Under Non-Linear Taxation and Asymmetric Information: The Differential Tax Revisited
		Mauro FABIANO, Gabriella CAMARSA, Rosanna DURSI, Roberta IVALDI, Valentina MARIN and Francesca
NRM	125.2004	PALMISANI: Integrated Environmental Study for Beach Management: A Methodological Approach
PRA	126.2004	Irena GROSFELD and Iraj HASHI: The Emergence of Large Shareholders in Mass Privatized Firms: Evidence from Poland and the Czech Republic
G G1 475		Maria BERRITTELLA, Andrea BIGANO, Roberto ROSON and Richard S.J. TOL: A General Equilibrium
CCMP	127.2004	Analysis of Climate Change Impacts on Tourism
CCMD	129 2004	Reyer GERLAGH: A Climate-Change Policy Induced Shift from Innovations in Energy Production to Energy
CCMP	128.2004	Savings
NRM	129.2004	Elissaios PAPYRAKIS and Reyer GERLAGH: Natural Resources, Innovation, and Growth
PRA	130.2004	Bernardo BORTOLOTTI and Mara FACCIO: Reluctant Privatization
SIEV	131.2004	Riccardo SCARPA and Mara THIENE: Destination Choice Models for Rock Climbing in the Northeast Alps: A
212 .	101.200	Latent-Class Approach Based on Intensity of Participation
SIEV	132.2004	Riccardo SCARPA Kenneth G. WILLIS and Melinda ACUTT: Comparing Individual-Specific Benefit Estimates for Public Goods: Finite Versus Continuous Mixing in Logit Models
IEM	133.2004	Santiago J. RUBIO: On Capturing Oil Rents with a National Excise Tax Revisited
ETA	134.2004	Ascensión ANDINA DÍAZ: Political Competition when Media Create Candidates' Charisma
SIEV	135.2004	Anna ALBERINI: Robustness of VSL Values from Contingent Valuation Surveys
CCMP	136.2004	Gernot KLEPPER and Sonja PETERSON: Marginal Abatement Cost Curves in General Equilibrium: The
cenn	150.2001	Influence of World Energy Prices
ETA	137.2004	Herbert DAWID, Christophe DEISSENBERG and Pavel ŠEVČIK: Cheap Talk, Gullibility, and Welfare in an Environmental Taxation Game
CCMP	138.2004	ZhongXiang ZHANG: The World Bank's Prototype Carbon Fund and China
CCMP	139.2004	Reyer GERLAGH and Marjan W. HOFKES: <u>Time Profile of Climate Change Stabilization Policy</u>
NRM	140.2004	Chiara D'ALPAOS and Michele MORETTO: The Value of Flexibility in the Italian Water Service Sector: A Real Option Analysis
PRA	141.2004	Patrick BAJARI, Stephanie HOUGHTON and Steven TADELIS (lxxi): Bidding for Incompete Contracts
PRA	142.2004	Susan ATHEY, Jonathan LEVIN and Enrique SEIRA (lxxi): Comparing Open and Sealed Bid Auctions: Theory
PRA	143.2004	and Evidence from Timber Auctions  David GOLDREICH (lxxi): Behavioral Biases of Dealers in U.S. Treasury Auctions
PRA	144.2004	Roberto BURGUET (lxxi): Optimal Procurement Auction for a Buyer with Downward Sloping Demand: More
PKA	144.2004	Simple Economics  Ali HORTACSU and Samita SAREEN (lxxi): Order Flow and the Formation of Dealer Bids: An Analysis of
PRA	145.2004	Information and Strategic Behavior in the Government of Canada Securities Auctions
PRA	146.2004	Victor GINSBURGH, Patrick LEGROS and Nicolas SAHUGUET (lxxi): How to Win Twice at an Auction. On the Incidence of Commissions in Auction Markets
PRA	147.2004	Claudio MEZZETTI, Aleksandar PEKEČ and Ilia TSETLIN (lxxi): Sequential vs. Single-Round Uniform-Price
PRA	148.2004	Auctions  John ASKER and Estelle CANTILLON (lxxi): Equilibrium of Scoring Auctions
		Philip A. HAILE, Han HONG and Matthew SHUM (lxxi): Nonparametric Tests for Common Values in First-
PRA	149.2004	Price Sealed-Bid Auctions
PRA	150.2004	François DEGEORGE, François DERRIEN and Kent L. WOMACK (lxxi): Quid Pro Quo in IPOs: Why Bookbuilding is Dominating Auctions
CCMP	151.2004	Barbara BUCHNER and Silvia DALL'OLIO: Russia: The Long Road to Ratification. Internal Institution and
		Pressure Groups in the Kyoto Protocol's Adoption Process  Carlo CARRARO and Marzio GALEOTTI: Does Endogenous Technical Change Make a Difference in Climate
CCMP	152.2004	Policy Analysis? A Robustness Exercise with the FEEM-RICE Model
PRA	153.2004	Alejandro M. MANELLI and Daniel R. VINCENT (lxxi): Multidimensional Mechanism Design: Revenue Maximization and the Multiple-Good Monopoly
ETA	154.2004	Nicola ACOCELLA, Giovanni Di BARTOLOMEO and Wilfried PAUWELS: Is there any Scope for Corporatism
	2200 !	in Stabilization Policies?
CTN	155 2004	Johan EYCKMANS and Michael FINUS: An Almost Ideal Sharing Scheme for Coalition Games with
CCMP	155.2004 156.2004	Externalities  Cesare DOSI and Michele MORETTO: Environmental Innovation, War of Attrition and Investment Grants

CCI ID	155 2004	Valentina BOSETTI, Marzio GALEOTTI and Alessandro LANZA: How Consistent are Alternative Short-Term
CCMP	157.2004	Climate Policies with Long-Term Goals?
ETA	158.2004	Y. Hossein FARZIN and Ken-Ichi AKAO: Non-pecuniary Value of Employment and Individual Labor Supply William BROCK and Anastasios XEPAPADEAS: Spatial Analysis: Development of Descriptive and Normative
ETA	159.2004	Methods with Applications to Economic-Ecological Modelling
KTHC	160.2004	Alberto PETRUCCI: On the Incidence of a Tax on PureRent with Infinite Horizons
IEM	161.2004	Xavier LABANDEIRA, José M. LABEAGA and Miguel RODRÍGUEZ: Microsimulating the Effects of Household
		Energy Price Changes in Spain
		NOTE DI LAVORO PUBLISHED IN 2005
CCMP	1.2005	Stéphane HALLEGATTE: Accounting for Extreme Events in the Economic Assessment of Climate Change
CCMP	2.2005	Qiang WU and Paulo Augusto NUNES: Application of Technological Control Measures on Vehicle Pollution: A Cost-Benefit Analysis in China
CCMP	3.2005	Andrea BIGANO, Jacqueline M. HAMILTON, Maren LAU, Richard S.J. TOL and Yuan ZHOU: A Global Database of Domestic and International Tourist Numbers at National and Subnational Level
CCMP	4.2005	Andrea BIGANO, Jacqueline M. HAMILTON and Richard S.J. TOL: The Impact of Climate on Holiday Destination Choice
ETA	5.2005	Hubert KEMPF: Is Inequality Harmful for the Environment in a Growing Economy?
CCMP	6.2005	Valentina BOSETTI, Carlo CARRARO and Marzio GALEOTTI: The Dynamics of Carbon and Energy Intensity
		in a Model of Endogenous Technical Change  David CALEF and Robert GOBLE: The Allure of Technology: How France and California Promoted Electric
IEM	7.2005	Vehicles to Reduce Urban Air Pollution
ETA	8.2005	Lorenzo PELLEGRINI and Reyer GERLAGH: An Empirical Contribution to the Debate on Corruption
CCI ID	0.2007	<u>Democracy and Environmental Policy</u> Angelo ANTOCI: Environmental Resources Depletion and Interplay Between Negative and Positive Externalities
CCMP	9.2005	in a Growth Model
CTN	10.2005	Frédéric DEROIAN: Cost-Reducing Alliances and Local Spillovers Francesco SINDICO: The GMO Dispute before the WTO: Legal Implications for the Trade and Environment
NRM	11.2005	Debate
KTHC	12.2005	Carla MASSIDDA: Estimating the New Keynesian Phillips Curve for Italian Manufacturing Sectors
KTHC	13.2005	Michele MORETTO and Gianpaolo ROSSINI: Start-up Entry Strategies: Employer vs. Nonemployer firms  Clara GRAZIANO and Annalisa LUPORINI: Ownership Concentration, Monitoring and Optimal Board
PRCG	14.2005	Structure
CSRM	15.2005	Parashar KULKARNI: Use of Ecolabels in Promoting Exports from Developing Countries to Developed Countries: Lessons from the Indian LeatherFootwear Industry
KTHC	16.2005	Adriana DI LIBERTO, Roberto MURA and Francesco PIGLIARU: How to Measure the Unobservable: A Panel
		Technique for the Analysis of TFP Convergence
KTHC KTHC	17.2005 18.2005	Alireza NAGHAVI: Asymmetric Labor Markets, Southern Wages, and the Location of Firms Alireza NAGHAVI: Strategic Intellectual Property Rights Policy and North-South Technology Transfer
KTHC	19.2005	Mombert HOPPE: Technology Transfer Through Trade
PRCG	20.2005	Roberto ROSON: Platform Competition with Endogenous Multihoming
CCMP	21.2005	Barbara BUCHNER and Carlo CARRARO: Regional and Sub-Global Climate Blocs. A Game Theoretic
		Perspective on Bottom-up Climate Regimes Fausto CAVALLARO: An Integrated Multi-Criteria System to Assess Sustainable Energy Options: An
IEM	22.2005	Application of the Promethee Method
CTN	23.2005	Michael FINUS, Pierre v. MOUCHE and Bianca RUNDSHAGEN: <u>Uniqueness of Coalitional Equilibria</u>
IEM CTN	24.2005	Wietze LISE: Decomposition of CO2 Emissions over 1980–2003 in Turkey
	25.2005	Somdeb LAHIRI: The Core of Directed Network Problems with Quotas Susanne MENZEL and Riccardo SCARPA: Protection Motivation Theory and Contingent Valuation: Perceived
SIEV	26.2005	Realism, Threat and WTP Estimates for Biodiversity Protection
NRM	27.2005	Massimiliano MAZZANȚI and Anna MONTINI: The Determinants of Residential Water Demand Empirical Evidence for a Panel of Italian Municipalities
CCMP NRM	28.2005 29.2005	Laurent GILOTTE and Michel de LARA: Precautionary Effect and Variations of the Value of Information Paul SARFO-MENSAH: Exportation of Timber in Ghana: The Menace of Illegal Logging Operations
CCMP	30.2005	Andrea BIGANO, Alessandra GORIA, Jacqueline HAMILTON and Richard S.J. TOL: The Effect of Climate
		Change and Extreme Weather Events on Tourism
NRM	31.2005	Maria Angeles GARCIA-VALIÑAS: Decentralization and Environment: An Application to Water Policies Chiara D'ALPAOS, Cesare DOSI and Michele MORETTO: Concession Length and Investment Timing
NRM	32.2005	<u>Flexibility</u>
CCMP	33.2005	Joseph HUBER: Key Environmental Innovations Antoni CALVÓ-ARMENGOL and Rahmi İLKILIÇ (lxxii): Pairwise-Stability and Nash Equilibria in Network
CTN	34.2005	<u>Formation</u>
CTN	35.2005	Francesco FERI (lxxii): Network Formation with Endogenous Decay Frank H. PAGE, Jr. and Myrna H. WOODERS (lxxii): Strategic Basins of Attraction, the Farsighted Core, and
CTN	36.2005	Network Formation Games

		Alessandra CASELLA and Nobuyuki HANAKI (lxxii): Information Channels in Labor Markets. On the
CTN	37.2005	Resilience of Referral Hiring
CTN	38.2005	Matthew O. JACKSON and Alison WATTS (lxxii): Social Games: Matching and the Play of Finitely Repeated
CIN	36.2003	Games
CTN	39.2005	Anna BOGOMOLNAIA, Michel LE BRETON, Alexei SAVVATEEV and Shlomo WEBER (lxxii): The Egalitarian Sharing Rule in Provision of Public Projects
CTN	40.2005	Francesco FERI: Stochastic Stability in Network with Decay
CTN	41.2005	Aart de ZEEUW (lxxii): Dynamic Effects on the Stability of International Environmental Agreements
CIII	41.2003	C. Martijn van der HEIDE, Jeroen C.J.M. van den BERGH, Ekko C. van IERLAND and Paulo A.L.D. NUNES:
NRM	42.2005	Measuring the Economic Value of Two Habitat Defragmentation Policy Scenarios for the Veluwe, The
		<u>Netherlands</u>
PRCG	43.2005	Carla VIEIRA and Ana Paula SERRA: Abnormal Returns in Privatization Public Offerings: The Case of
rkco	43.2003	Portuguese Firms
SIEV	44.2005	Anna ALBERINI, Valentina ZANATTA and Paolo ROSATO: Combining Actual and Contingent Behavior to
212 (	2008	Estimate the Value of Sports Fishing in the Lagoon of Venice
CTN	45.2005	Michael FINUS and Bianca RUNDSHAGEN: Participation in International Environmental Agreements: The
		Role of Timing and Regulation  Lorenzo PELLEGRINI and Reyer GERLAGH: Are EU Environmental Policies Too Demanding for New
CCMP	46.2005	Members States?
IEM	47.2005	Matteo MANERA: Modeling Factor Demands with SEM and VAR: An Empirical Comparison
		Olivier TERCIEUX and Vincent VANNETELBOSCH (lxx): A Characterization of Stochastically Stable
CTN	48.2005	Networks
CTN	49.2005	Ana MAULEON, José SEMPERE-MONERRIS and Vincent J. VANNETELBOSCH (lxxii): R&D Networks
CIN	47.2003	Among Unionized Firms
CTN	50.2005	Carlo CARRARO, Johan EYCKMANS and Michael FINUS: Optimal Transfers and Participation Decisions in
		International Environmental Agreements
KTHC	51.2005	Valeria GATTAI: From the Theory of the Firm to FDI and Internalisation: A Survey Alireza NAGHAVI: Multilateral Environmental Agreements and Trade Obligations: A Theoretical Analysis of
CCMP	52.2005	the Doha Proposal
		Margaretha BREIL, Gretel GAMBARELLI and Paulo A.L.D. NUNES: Economic Valuation of On Site Material
SIEV	53.2005	Damages of High Water on Economic Activities based in the City of Venice: Results from a Dose-Response-
		Expert-Based Valuation Approach
ETA	54.2005	Alessandra del BOCA, Marzio GALEOTTI, Charles P. HIMMELBERG and Paola ROTA: Investment and Time
LIM	34.2003	to Plan: A Comparison of Structures vs. Equipment in a Panel of Italian Firms
CCMP	55.2005	Gernot KLEPPER and Sonja PETERSON: Emissions Trading, CDM, JI, and More – The Climate Strategy of the
ETA	56.2005	EU Maia DAVID and Bernard SINCLAIR-DESGAGNÉ: Environmental Regulation and the Eco-Industry
		Alain-Désiré NIMUBONA and Bernard SINCLAIR-DESGAGNÉ: The Pigouvian Tax Rule in the Presence of an
ETA	57.2005	Eco-Industry
NRM	59 2005	Helmut KARL, Antje MÖLLER, Ximena MATUS, Edgar GRANDE and Robert KAISER: Environmental
INKIVI	58.2005	Innovations: Institutional Impacts on Co-operations for Sustainable Development
SIEV	59.2005	Dimitra VOUVAKI and Anastasios XEPAPADEAS (lxxiii): Criteria for Assessing Sustainable
		Development: Theoretical Issues and Empirical Evidence for the Case of Greece
CCMP	60.2005	Andreas LÖSCHEL and Dirk T.G. RÜBBELKE: Impure Public Goods and Technological Interdependencies Christoph A. SCHALTEGGER and Benno TORGLER: Trust and Fiscal Performance: A Panel Analysis with
PRCG	61.2005	Swiss Data
ETA	62.2005	Irene VALSECCHI: A Role for Instructions
		Valentina BOSETTI and Gianni LOCATELLI: A Data Envelopment Analysis Approach to the Assessment of
NRM	63.2005	Natural Parks' Economic Efficiency and Sustainability. The Case of Italian National Parks
SIEV	64.2005	Arianne T. de BLAEIJ, Paulo A.L.D. NUNES and Jeroen C.J.M. van den BERGH: Modeling 'No-choice'
~	51.2005	Responses in Attribute Based Valuation Surveys
CTN	65.2005	Carlo CARRARO, Carmen MARCHIORI and Alessandra SGOBBI: Applications of Negotiation Theory to Water
		<u>Issues</u> Carlo CARRARO, Carmen MARCHIORI and Alessandra SGOBBI: Advances in Negotiation Theory:
CTN	66.2005	Bargaining, Coalitions and Fairness
KTHC	67.2005	Sandra WALLMAN (lxxiv): Network Capital and Social Trust: Pre-Conditions for 'Good' Diversity?
		Asimina CHRISTOFOROU (lxxiv): On the Determinants of Social Capital in Greece Compared to Countries of
KTHC	68.2005	the European Union
KTHC	69.2005	Eric M. USLANER (lxxiv): Varieties of Trust
KTHC	70.2005	Thomas P. LYON (lxxiv): Making Capitalism Work: Social Capital and Economic Growth in Italy, 1970-1995
KTHC	71.2005	Graziella BERTOCCHI and Chiara STROZZI (lxxv): Citizenship Laws and International Migration in Historical
		Perspective  Elebeth van HVI CV AMA VI IEC (lyvy): Accommodating Differences
KTHC	72.2005	Elsbeth van HYLCKAMA VLIEG (lxxv): <u>Accommodating Differences</u> Renato SANSA and Ercole SORI (lxxv): <u>Governance of Diversity Between Social Dynamics and Conflicts in</u>
KTHC	73.2005	Multicultural Cities. A Selected Survey on Historical Bibliography
		Alberto LONGO and Anil MARKANDYA: Identification of Options and Policy Instruments for the Internalisation
IEM	74.2005	of External Costs of Electricity Generation. Dissemination of External Costs of Electricity Supply Making
		Electricity External Costs Known to Policy-Makers MAXIMA

IEM	75.2005	Margherita GRASSO and Matteo MANERA: Asymmetric Error Correction Models for the Oil-Gasoline Price
ETA	76.2005	Relationship Umberto CHERUBINI and Matteo MANERA: Hunting the Living Dead A "Peso Problem" in Corporate
		Liabilities Data
CTN	77.2005	Hans-Peter WEIKARD: Cartel Stability under an Optimal Sharing Rule Joëlle NOAILLY, Jeroen C.J.M. van den BERGH and Cees A. WITHAGEN (lxxvi): Local and Global
ETA	78.2005	Interactions in an Evolutionary Resource Game
ETA	79.2005	Joëlle NOAILLY, Cees A. WITHAGEN and Jeroen C.J.M. van den BERGH (lxxvi): Spatial Evolution of Social Norms in a Common-Pool Resource Game
CCMP	80.2005	Massimiliano MAZZANTI and Roberto ZOBOLI: <u>Economic Instruments and Induced Innovation: The Case of</u> End-of-Life Vehicles European Policies
NRM	81.2005	Anna LASUT: Creative Thinking and Modelling for the Decision Support in Water Management
CCMP	82.2005	Valentina BOSETTI and Barbara BUCHNER: Using Data Envelopment Analysis to Assess the Relative Efficiency of Different Climate Policy Portfolios
ETA	83.2005	Ignazio MUSU: Intellectual Property Rights and Biotechnology: How to Improve the Present Patent System
KTHC	84.2005	Giulio CAINELLI, Susanna MANCINELLI and Massimiliano MAZZANTI: Social Capital, R&D and Industrial Districts
ETA	85.2005	Rosella LEVAGGI, Michele MORETTO and Vincenzo REBBA: Quality and Investment Decisions in Hospital Care when Physicians are Devoted Workers
CCMP	86.2005	Valentina BOSETTI and Laurent GILOTTE: Carbon Capture and Sequestration: How Much Does this Uncertain Option Affect Near-Term Policy Choices?
CSRM	87.2005	Nicoletta FERRO: Value Through Diversity: Microfinance and Islamic Finance and Global Banking
ETA	88.2005	A. MARKANDYA and S. PEDROSO: How Substitutable is Natural Capital?
IEM	89.2005	Anil MARKANDYA, Valeria COSTANTINI, Francesco GRACCEVA and Giorgio VICINI: Security of Energy
CCMP	90.2005	Supply: Comparing Scenarios From a European Perspective  Vincent M. OTTO, Andreas LÖSCHEL and Rob DELLINK: Energy Biased Technical Change: A CGE Analysis
PRCG	91.2005	Carlo CAPUANO: Abuse of Competitive Fringe
		Ulrich BINDSEIL, Kjell G. NYBORG and Ilya A. STREBULAEV (lxv): Bidding and Performance in Repo
PRCG	92.2005	Auctions: Evidence from ECB Open Market Operations
CCMP	93.2005	Sabrina AUCI and Leonardo BECCHETTI: The Stability of the Adjusted and Unadjusted Environmental Kuznets Curve
CCMP	94.2005	Francesco BOSELLO and Jian ZHANG: Assessing Climate Change Impacts: Agriculture
CTN	95.2005	Alejandro CAPARRÓS, Jean-Christophe PEREAU and Tarik TAZDAÏT: <u>Bargaining with Non-Monolithic Players</u>
ETA	96.2005	William BROCK and Anastasios XEPAPADEAS (lxxvi): Optimal Control and Spatial Heterogeneity: Pattern Formation in Economic-Ecological Models
CCM	07.2005	Francesco BOSELLO, Roberto ROSON and Richard S.J. TOL (lxxvii): Economy-Wide Estimates of the
CCMP	97.2005	Implications of Climate Change: Human Health  Rob DELLINK, Michael FINUS and Niels OLIEMAN: Coalition Formation under Uncertainty: The Stability
CCMP	98.2005	<u>Likelihood of an International Climate Agreement</u> Valeria COSTANTINI, Riccardo CRESCENZI, Fabrizio De FILIPPIS, and Luca SALVATICI: Bargaining
CTN	99.2005	Coalitions in the Agricultural Negotiations of the Doha Round: Similarity of Interests or Strategic Choices?  An Empirical Assessment
IEM	100.2005	Giliola FREY and Matteo MANERA: Econometric Models of Asymmetric Price Transmission
IEM	101.2005	Alessandro COLOGNI and Matteo MANERA: Oil Prices, Inflation and Interest Rates in a Structural Cointegrated VAR Model for the G-7 Countries
KTHC	102.2005	Chiara M. TRAVISI and Roberto CAMAGNI: Sustainability of Urban Sprawl: Environmental-Economic
ETA	103.2005	Indicators for the Analysis of Mobility Impact in Italy Livingstone S. LUBOOBI and Joseph Y.T. MUGISHA: HIV/AIDS Pandemic in Africa: Trends and Challenges
SIEV	104.2005	Anna ALBERINI, Erik LICHTENBERG, Dominic MANCINI, and Gregmar I. GALINATO: Was It Something I
		Ate? Implementation of the FDA Seafood HACCP Program  Anna ALBERINI and Aline CHIABAI: Urban Environmental Health and Sensitive Populations: How Much are
SIEV	105.2005	the Italians Willing to Pay to Reduce Their Risks?
SIEV	106.2005	Anna ALBERINI, Aline CHIABAI and Lucija MUEHLENBACHS: Using Expert Judgment to Assess Adaptive Capacity to Climate Change: Evidence from a Conjoint Choice Survey
CTN	107.2005	Michele BERNASCONI and Matteo GALIZZI: Coordination in Networks Formation: Experimental Evidence on Learning and Salience
KTHC	108.2005	Michele MORETTO and Sergio VERGALLI: Migration Dynamics
NRM	109.2005	Antonio MUSOLESI and Mario NOSVELLI: Water Consumption and Long-Run Urban Development: The Case of Milan
SIEV	110.2005	Benno TORGLER and Maria A. GARCIA-VALIÑAS: The Determinants of Individuals' Attitudes Towards Preventing Environmental Damage
SIEV	111.2005	Alberto LONGO and Anna ALBERINI: What are the Effects of Contamination Risks on Commercial and Industrial Properties? Evidence from Baltimore, Maryland
SIEV	112.2005	Anna ALBERINI and Alberto LONGO: The Value of Cultural Heritage Sites in Armenia: Evidence from a
CCMP	113.2005	<u>Travel Cost Method Study</u> Mikel GONZÁLEZ and Rob DELLINK: <u>Impact of Climate Policy on the Basque Economy</u>
NRM	114.2005	Gilles LAFFORGUE and Walid OUESLATI: Optimal Soil Management and Environmental Policy

NRM	115.2005	Martin D. SMITH and Larry B. CROWDER (lxxvi): Valuing Ecosystem Services with Fishery Rents: A
INKIVI	115.2005	Lumped-Parameter Approach to Hypoxia in the Neuse River Estuary
NRM	116.2005	Dan HOLLAND and Kurt SCHNIER (lxxvi): Protecting Marine Biodiversity: A Comparison of Individual
111111	110.2003	Habitat Quotas (IHQs) and Marine Protected Areas
PRCG	117.2005	John NELLIS: The Evolution of Enterprise Reform in Africa: From State-owned Enterprises to Private
		Participation in Infrastructure — and Back?
PRCG	118.2005	Bernardo BORTOLOTTI: <u>Italy's Privatization Process and Its Implications for China</u> Anna ALBERINI, Marcella VERONESI and Joseph C. COOPER: <u>Detecting Starting Point Bias in</u>
SIEV	119.2005	Dichotomous-Choice Contingent Valuation Surveys
CTN	120.2005	Federico ECHENIQUE and Mehmet B. YENMEZ: A Solution to Matching with Preferences over Colleagues
		Valeria GATTAI and Corrado MOLTENI: Dissipation of Knowledge and the Boundaries of the Multinational
KTHC	121.2005	Enterprise
KTHC	122.2005	Valeria GATTAI: Firm's Intangible Assets and Multinational Activity: Joint-Venture Versus FDI
CCMP	123.2005	Socrates KYPREOS: A MERGE Model with Endogenous Technological Change and the Cost of Carbon
CCIVII	123.2003	Stabilization To the All Market of Table 1 Marke
CCMP	124.2005	Fuminori SANO, Keigo AKIMOTO, Takashi HOMMA and Toshimasa TOMODA: Analysis of Technological
		Portfolios for CO2 stabilizations and Effects of Technological Changes
CCMP	125.2005	Fredrik HEDENUS, Christian AZAR and Kristian LINDGREN: <u>Induced Technological Change in a Limited</u> Foresight Optimization Model
CCMP	126.2005	Reyer GERLAGH: The Value of ITC under Climate Stabilization
PRCG	127.2005	John NELLIS: Privatization in Africa: What has happened? What is to be done?
		Raphaël SOUBEYRAN: Contest with Attack and Defence: Does Negative Campaigning Increase or Decrease
PRCG	128.2005	Voters' Turnout?
PRCG	129.2005	Pascal GAUTIER and Raphael SOUBEYRAN: Political Cycles: The Opposition Advantage
ETA	130.2005	Giovanni DI BARTOLOMEO, Nicola ACOCELLA and Andrew HUGHES HALLETT: Dynamic Controllability
LIA	130.2003	with Overlapping targets: A Generalization of the Tinbergen-Nash Theory of Economic Policy
SIEV	131.2005	Elissaios PAPYRAKIS and Reyer GERLAGH: Institutional Explanations of Economic Development: the Role of
,		Precious Metals
ETA	132.2005	Giovanni DI BARTOLOMEO and Nicola ACOCELLA: Tinbergen and Theil Meet Nash: Controllability in
		Policy Games  A bit on M. ICMACHIV. and Bala B. DELLINK. Maki. Braduct Course for A spiraltonal and Engage Braduction.
IEM	133.2005	Adriana M. IGNACIUK and Rob B. DELLINK: Multi-Product Crops for Agricultural and Energy Production – an AGE Analysis for Poland
		Raffaele MINIACI, Carlo SCARPA and Paola VALBONESI: Restructuring Italian Utility Markets: Household
IEM	134.2005	Distributional Effects
CIEV.	125 2005	Valentina ZANATTA, Paolo ROSATO, Anna ALBERINI and Dimitrios REPPAS: The Impact of Speed Limits on
SIEV	135.2005	Recreational Boating in the Lagoon of Venice
NDM	136.2005	Chi-CHUR CHAO, Bharat R. HAZARI, Jean-Pierre LAFFARGUE, Pasquale M. SGRO, and Eden S. H. YU
NRM	130.2003	(lxxviii): Tourism, Jobs, Capital Accumulation and the Economy: A Dynamic Analysis
NRM	137.2005	Michael MCALEER, Riaz SHAREEF and Bernardo da VEIGA (lxxviii): Risk Management of Daily Tourist Tax
		Revenues for the Maldives
NRM	138.2005	Guido CANDELA, Paolo FIGINI and Antonello E. SCORCI (Ixxviii): The Economics of Local Tourist Systems

(lxv) This paper was presented at the EuroConference on "Auctions and Market Design: Theory, Evidence and Applications" organised by Fondazione Eni Enrico Mattei and sponsored by the EU, Milan, September 25-27, 2003

(lxvi) This paper has been presented at the 4<sup>th</sup> BioEcon Workshop on "Economic Analysis of Policies for Biodiversity Conservation" organised on behalf of the BIOECON Network by Fondazione Eni Enrico Mattei, Venice International University (VIU) and University College London (UCL), Venice, August 28-29, 2003

(lxvii) This paper has been presented at the international conference on "Tourism and Sustainable Economic Development – Macro and Micro Economic Issues" jointly organised by CRENoS (Università di Cagliari e Sassari, Italy) and Fondazione Eni Enrico Mattei, and supported by the World Bank, Sardinia, September 19-20, 2003

(lxviii) This paper was presented at the ENGIME Workshop on "Governance and Policies in Multicultural Cities", Rome, June 5-6, 2003

(lxix) This paper was presented at the Fourth EEP Plenary Workshop and EEP Conference "The Future of Climate Policy", Cagliari, Italy, 27-28 March 2003

(lxx) This paper was presented at the 9<sup>th</sup> Coalition Theory Workshop on "Collective Decisions and Institutional Design" organised by the Universitat Autònoma de Barcelona and held in Barcelona, Spain, January 30-31, 2004

(lxxi) This paper was presented at the EuroConference on "Auctions and Market Design: Theory, Evidence and Applications", organised by Fondazione Eni Enrico Mattei and Consip and sponsored by the EU, Rome, September 23-25, 2004

(lxxii) This paper was presented at the  $10^{th}$  Coalition Theory Network Workshop held in Paris, France on 28-29 January 2005 and organised by EUREQua.

(lxxiii) This paper was presented at the 2nd Workshop on "Inclusive Wealth and Accounting Prices" held in Trieste, Italy on 13-15 April 2005 and organised by the Ecological and Environmental Economics - EEE Programme, a joint three-year programme of ICTP - The Abdus Salam International Centre for Theoretical Physics, FEEM - Fondazione Eni Enrico Mattei, and The Beijer International Institute of Ecological Economics

(lxxiv) This paper was presented at the ENGIME Workshop on "Trust and social capital in multicultural cities" Athens, January 19-20, 2004

(lxxv) This paper was presented at the ENGIME Workshop on "Diversity as a source of growth" Rome November  $18-19,\,2004$ 

(lxxvi) This paper was presented at the 3rd Workshop on Spatial-Dynamic Models of Economics and Ecosystems held in Trieste on 11-13 April 2005 and organised by the Ecological and Environmental Economics - EEE Programme, a joint three-year programme of ICTP - The Abdus Salam International Centre for Theoretical Physics, FEEM - Fondazione Eni Enrico Mattei, and The Beijer International Institute of Ecological Economics

(lxxvii) This paper was presented at the Workshop on Infectious Diseases: Ecological and Economic Approaches held in Trieste on 13-15 April 2005 and organised by the Ecological and Environmental Economics - EEE Programme, a joint three-year programme of ICTP - The Abdus Salam International Centre for Theoretical Physics, FEEM - Fondazione Eni Enrico Mattei, and The Beijer International Institute of Ecological Economics.

(lxxviii) This paper was presented at the Second International Conference on "Tourism and Sustainable Economic Development - Macro and Micro Economic Issues" jointly organised by CRENoS (Università di Cagliari and Sassari, Italy) and Fondazione Eni Enrico Mattei, Italy, and supported by the World Bank, Chia, Italy, 16-17 September 2005.

2004 SERIES

**CCMP** Climate Change Modelling and Policy (Editor: Marzio Galeotti)

GG Global Governance (Editor: Carlo Carraro)

SIEV Sustainability Indicators and Environmental Valuation (Editor: Anna Alberini)

NRM Natural Resources Management (Editor: Carlo Giupponi)

KTHC Knowledge, Technology, Human Capital (Editor: Gianmarco Ottaviano)

IEM International Energy Markets (Editor: Anil Markandya)

**CSRM** Corporate Social Responsibility and Sustainable Management (Editor: Sabina Ratti)

PRA Privatisation, Regulation, Antitrust (Editor: Bernardo Bortolotti)

ETA Economic Theory and Applications (Editor: Carlo Carraro)

**CTN** Coalition Theory Network

**2005 SERIES** 

CCMP Climate Change Modelling and Policy (Editor: Marzio Galeotti )

SIEV Sustainability Indicators and Environmental Valuation (Editor: Anna Alberini)

NRM Natural Resources Management (Editor: Carlo Giupponi)

KTHC Knowledge, Technology, Human Capital (Editor: Gianmarco Ottaviano)

IEM International Energy Markets (Editor: Anil Markandya)

**CSRM** Corporate Social Responsibility and Sustainable Management (Editor: Sabina Ratti)

**PRCG** Privatisation Regulation Corporate Governance (Editor: Bernardo Bortolotti)

**ETA** Economic Theory and Applications (Editor: Carlo Carraro)

CTN Coalition Theory Network