



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

**The Determinants of Individuals'
Attitudes Towards Preventing
Environmental Damage**

Benno Torgler and Maria A. Garcia-Valiñas

NOTA DI LAVORO 110.2005

SEPTEMBER 2005

SIEV – Sustainability Indicators and Environmental
Valuation

Benno Torgler, *Yale Center for International and Area Studies
Leitner Program in International & Comparative Political Economy*
Maria A. Garcia-Valiñas, *Department of Economics. University of Oviedo*

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=822044>

The Determinants of Individuals' Attitudes Towards Preventing Environmental Damage

Summary

This paper investigates empirically the determinants of individuals' attitudes towards preventing environmental damage in Spain using data from the World Values Survey and European Values Survey for the periods 1990, 1995 and 1999/2000. Compared to many previous studies, we present a richer set of independent variables and found that strongly neglected variables such as political interest and social capital have a strong impact on individuals' preferences to prevent environmental damage. An interesting aspect in our study is the ability to investigate environmental preferences over time. The results show strong differences over time. Finally, using disaggregated data for Spanish regions, we also find significant regional differences.

Keywords: Environment, Regional and time Preferences, Political interest, Social capital

JEL Classification: Q260, R220, Z130, I210

For advice and suggestions, thanks are due to Doris Aebi and an editor of FEEM.

Address for correspondence:

Benno Torgler
Yale Center for International and Area Studies
Leitner Program in International & Comparative Political Economy
34 Hillhouse Avenue
P.O. Box 208206
New Haven
CT 06520
USA
E-mail: benno.torgler@yale.edu

I. INTRODUCTION

There is a wide range of studies that have valued environmental preferences. Interest in environmental attitudes began in the early 1970s (Bord and O'Connor 1997). The preferences for protecting environmental goods has been a controversial issue in the last few years. The majority of those studies focused on specific and limited environmental goods or areas (Whitehead 1991, Stevens et al. 1994, Danielson et al. 1995, Cameron and Englin 1997, Blomquist and Whitehead 1998, Carlsson and Johansson-Stenman 2000, Popp 2000, Bulte et al. 2004, Dupont 2004).

Thus, it is difficult to find contributions related to a country or a group of countries and considering an environmental damage perspective as a whole (Engel and Pötchske 1998, Witzke and Urfei 2001, Israel and Levinson 2004). They furthermore have the disadvantage of an excessive simplification, because individuals are asked about the environment in general. As Witzke and Urfei (2001, p. 208) pointed out, this is likely to bias downwards environmental preferences, because people did not know what they should pay for. However, with a general perspective, embedding effects which are usually linked to specific environmental commodities, can be avoided (Diamond and Hausman 1994).

It is a promising line to consider empirically citizens' environmental preferences and search for factors that shape it. Relatively new surveys such as the *World Values Surveys* or the *European Values Survey* allow to find a proxy for and thus to check the impact on environmental attitudes. This attempt is in line with the growing inclination among economists to use surveys (see, e.g., Knack and Keefer 1997, for social capital studies, or Frey and Stutzer 2002, who intensively investigated happiness, or Torgler

2005, focusing on tax morale). One reason might be that survey research now uses more sophisticated statistical techniques and designs compared to early years. Furthermore, a main advantage is that surveys include many control variables. We will take advantage of it and use a rich set of independent variables to investigate in detail what shapes individuals' environmental values in Spain. Another main advantage in this study is to work with several datasets collected at three different points in time, which allows us to observe trends over time and thus assess the robustness of our results.

A clear advantage of national studies in this field is the possibility to design country-level environmental initiatives. It also allows to go from a general perspective to a local one, assuming that regional information is available. Such an approach would allow, for example, to design optimal fiscal decentralization policies (Shapiro 1996)¹.

A cross country and cultural comparison with a single item measure as the one used as dependent variable in this paper can pose some problems, as values are not free from cultural or institutional influences. Focusing on one country, Spain, and thus conducting a country case study helps to reduce such problems.

Before considering the findings in detail, Section II of the paper first introduces the way individuals' environmental attitudes are defined, provides information about the World Values Surveys and the European Values Survey, introduces the model, and presents our hypotheses. In Section III we present the empirical findings, and Section IV finishes with some concluding remarks.

¹ It has been argued that if there is heterogeneity among jurisdictions, centralization is suboptimal (Peltzman and Tideman 1972, Oates and Schwab 1996). This is because strong differences in preferences among governments could lead to important efficiency losses for some jurisdictions (Burtraw and Porter 1991, Dinan et al. 1999).

II. THEORETICAL APPROACH AND TESTABLE PREDICTIONS

1. Data

The data used in the present study are taken from the World Values Survey (WVS, years 1990, 1995, 2000) and the 1999 European Values Survey (EVS)². The World Values Survey is a worldwide investigation of socio-cultural and political change, based on representative national samples. It was first carried out in 1981-83, and subsequently in 1990-91, 1995-96 and 1999-2001. Data from these surveys are made publicly available for use by researchers interested in how views change with time. However, economists have just started to work with the WVS/EVS. To assess environmental attitudes of individuals in Spain we use the following question from these data sets throughout the whole paper:

I would agree to an increase in taxes if the extra money were used to prevent environmental damage (0=strongly disagree, 3=strongly agree)

Although we do not conduct a contingent valuation study (CV), the question offers the chance to investigate environmental preferences. However, the question is not free of problems. The statement is relatively vague. “Environmental damage” is not clearly specified. Different people may think of different kinds of environmental damages. The level of improvement and the degree of tax increase are not clarified either. So people are not aware of how much they have to pay³. The consequences of taxation are not mentioned either. No information is provided to which extent income tax, value added tax or other taxes are supposed to increase. Thus, it is not clear who will have the

² A dummy variable has been included to differentiate between WVS and EVS.

³ It has been shown that the preferences to protect the environment (regarding causes and consequences of environmental damages) depend on the level of information the questionnaire includes (Bulte et al. 2004).

highest tax burden. On the other hand, unspecified payment schemes will increase the variance, but may influence the willingness to contribute (Witzke and Urfei 2001). An unspecified statement still helps to measure preferences and values, and to reduce strategic behaviour via influencing the quantity or quality of environmental goods – people might intentionally indicate false willingness to contribute values in order to match their own preferences (Hidano et al. 2005). When neither specific goods nor quantitative values are used, the attributes of the environmental goods in questions do not have to be thoroughly explained to be sure that respondents understand and respond with the appropriate willingness to accept an increase in taxes ⁴.

We take advantage of the scaled structure using ordered probit estimations rather than establishing a voting or referendum situation with a “yes or no” structure. This allows to consider also intermediate values between strong agreement and disagreement, and therefore to make full use of the data available. Our variable furthermore measures the marginal and not the total willingness to accept a tax increase. This implies that the change over time is also influenced by the change of governments’ environmental activities. Environmental improvements over time may reduce that willingness to be spent to prevent environmental damages, as might the current level of the tax burden. Nevertheless, only a limited number of papers investigate environmental preferences over time, controlling in a multivariate analysis for additional factors.

A critical aspect of surveys is the fact that studies can be biased if they do not cover a representative share of the population. A high response rate is therefore essential. We work with well-known data that cover many countries and have been conducted on a regular basis. These surveys pay especial attention to the

⁴ For a detailed discussion regarding possible survey biases see Carson and Mitchell (1995).

representativeness of the data set. Furthermore, the environmental question was only part of a larger survey, which may reduce environmental *framing biases*. We have the advantage to be able to control for many factors in a multivariate analysis, but also the disadvantage that only a limited number of environmental aspects can be investigated. However, in a specific environment survey the expressed environmental attitudes might be overstated if the respondent takes the interviewer to be an environmental activist and would feel guilty if stating a low willingness to accept an increase in taxes; such an upward bias should occur less in the database we use (Witzke and Urfei 2001).

Finally, it can also be discussed whether it is more adequate to use an index instead of a single question to measure environmental values. Many studies that examine environmental attitudes typically measure environmental values using a single item⁵. A single question has the advantage that problems associated with the construction of an index can be avoided. Furthermore, an index might be designed to fit best the theoretical argumentations. As we analyze one specific country, problems based on differences in the interpretation of the question or due to differences in the political institution, which may influence environmental values, do not appear. Working with more than one survey and thus considering different time periods allows to reduce biases due to a “time specific mood”.

2. Model and Hypotheses

In this section we introduce the model and develop the predicted influences of our independent variables. We will pool the available years using time dummy variables and investigate the development over time. Working with several datasets collected at

⁵ For a review see, e.g., Zelezny et al. (2000).

three different points in time allows to observe trends over time and to find robust results. So, the willingness to contribute for preventing environmental damage is specified as follows:

$$\begin{aligned} ENVAT_i = & \beta_0 + \beta_1 \cdot SOCIODEM_i + \beta_2 \cdot EDUC_i + \beta_3 IDEOLOG_i + \beta_4 \cdot ECONSIT_i \\ & + \beta_5 \cdot EMPLOY_i + \beta_6 \cdot SCAPITAL_i + \beta_7 \cdot IDENTIFIC_i + \beta_8 \cdot URBANI_i \\ & + \beta_9 \cdot REGION_i + \beta_{10} \cdot YEAR_t + \varepsilon_i \end{aligned}$$

$ENVAT_i$ measures an individual's attitudes towards preventing environmental damages. The independent variables considered are shown in *Table 1*; the set of variables included in the estimations is much broader than in several previous studies. Additionally, we provide the expected sign for each variable.

First of all, we consider a bundle of *socio-demographic and economic* variables, which have an important influence on preferences for environmental quality. Some factors commonly included in such studies are age⁶ and gender (see, for example, Whitehead 1991, Cameron and Englin 1997, Blomquist and Whitehead 1998, Engel and Pötchske 1998, Witzke and Urfei 2001, Dupont 2004, Israel and Levinson 2004, Hidano et al. 2005).

⁶ An alternative specification related to age has been proposed by Popp (2001), in order to test the existence of weak and strong altruism towards future generations in the context of environmental issues. In his study, he included the individuals' life expectancy, calculated from their age and the life expectancy using the *Statistical Abstract of the United States*.

Table 1: Independent Variables

INDEPENDENT VARIABLE	KIND OF VARIABLE	CATEGORIES	EXPECTED SIGN
<u>Socio-Demographic Factors (SOCDEM)</u>			
AGE	Continuous	---	-
GENDER	Dummy	MALE (reference group) FEMALE	+
MARITAL STATUS	Dummy	MARRIED; DIVORCED; SEPARATED; WIDOWED; SINGLE (r.g.)	+
<u>Formal and Informal Education (EDUC)</u>			
EDUCATION	Continuous	---	+
DISCUSSING POLITICS	Scaled	1 = <i>never</i> to 3 = <i>frequently</i>	+
INTEREST IN POLITICS	Scaled	1 = <i>not at all interested</i> to 4 = <i>very interested</i>	+
IMPORTANCE OF POLITICS	Scaled	1 = <i>not at all important</i> to 4 = <i>very important</i>	+
<u>Ideology (IDEOLG)</u>			
RIGHTIST POLITICAL ORIENTATION	Scaled	1 = <i>left</i> to 10 = <i>right</i>	-
<u>Economic Situation (ECONSIT)</u>			
FINANCIAL SATISFACTION	Scaled	1 = <i>dissatisfied</i> to 10 = <i>satisfied</i>	+
ECONOMIC CLASS	Dummy	UPPER CLASS; UPPER MIDDLE CLASS; LOWER MIDDLE CLASS; WORKING/LOWEST CLASS (r.g.)	+
<u>Occupational status (EMPLOY)</u>			
EMPLOYMENT STATUS	Dummy	FULL TIME EMPLOYED (r.g.); PART TIME EMPLOYED; SELFEMPLOYED; UNEMPLOYED; AT HOME; STUDENT; RETIRED; OTHER	+/-
<u>Social Capital (SCAPITAL)</u>			
TRUST	Scaled	0 = <i>can't be too careful</i> or 1 = <i>most people can be trusted</i>	+
MEMBERSHIP IN A VOLUNTARY ENV. ORG.	Dummy	MEMBER VOLUNT.; NOT A MEMBER (r.g.)	+
<u>Identification (IDENTIFIC)</u>			
NATIONAL PRIDE	Scaled	1 = <i>not at all proud</i> to 4 = <i>very proud</i>	+
PERCEIVED GEOGRAPHICAL GROUP	Dummy	LOCALITY OR TOWN (r.g.); STATE OR REGION; COUNTRY AS A WHOLE; CONTINENT AS A WHOLE; WORLD AS A WHOLE	+
<u>Other Variables</u>			
SIZE OF TOWN (URBAN)	Dummy	UNDER 2,000 (r.g.); 2,000-5,000; 5,000- 10,000; 10,000- 20,000; 20,000-50,000; 50,000-100,000; 100,000-500,000; 500,000 and MORE	+/-
SPANISH REGION (REGION)	Dummy	17 SPANISH AUTONOMOUS REGIONS: MADRID (r.g.)	+/-
TIME (YEAR)	Dummy	SPAIN 1990 (r.g.); SPAIN 1995; SPAIN 1999/2000	+/-

Regarding AGE, we expect the number of individuals who are willing to contribute for additional environmental protection to fall with an increase of age, since older people will not live to enjoy the benefits of preserving resources for later years. There are two age effects, a *life cycle* or *aging effect* due to being at a certain stage of age and a *cohort effect* resulting from belonging to a specific generation. The cohort effect covers the

difference of attitudes between different age-cohorts due to generational differences in socialization, life experiences and economic conditions. People of a similar age have experienced similar historical and economic conditions and thus similar restrictions and possibilities. On the other hand, aging might have the effect that people become more cautious, more risk averse and more conservative, but also the reverse effect, as they expect a lower profit from preserving the environment (see Vlosky and Vlosky 1999). However, in our study we cannot differentiate between these effects.

GENDER is another specific variable. Experimental and empirical studies have shown gender differences in other aspects such as charitable giving, tax morale, bargaining or household decision making (Brown-Kruse and Hummels 1993, Nowell and Tinkler 1994, Andreoni and Vesterlund 2001, Eckel and Grossman 2001, Torgler 2005). It is often argued that traditional gender socialization, cultural norms, the women's roles as caregivers and nurturers, encouragements to be cooperative and feel compassion lead to a higher concern for the maintenance of life and environment. The "traditional" domain of working at home induces a greater likelihood to engage privately in behaviors aiming at the preservation of the environment (for an overview see Hunter et al. 2004). Women have a tendency to be more concerned with the environment than men. Zelezny et al. (2000) find strong evidence that environmentalism does not begin in adulthood, which contradicts the statement that gender differences arise due to motherhood and child protection. Regardless of age, women show more concern for the environment than men. However, literature reviews in the 80s report that the relationship between environmental attitudes and gender is meager and inconsistent (Van Liere and Dunlap 1980, Hines, Hungerford and Tomera 1986-1987, Mohai 1992). The meta-review of Zelezny et al. (2000) covering the years 1988 and 1998 reports that out of 13 studies, 9 found that women are significantly more

active in pro-environmental behaviors than men, 3 found no statistically significant difference between males and females and one study reports a greater participation of men. Davidson and Freudenburg (1996), Bord and O'Connor (1997), Berrens et al. (1997) and Zelezny et al. (2000), Hunter et al. (2004) found higher values for women, while Cameron and Englin (1997), Swallow et al. (1994) and Kealy et al. (1990) found the opposite result. Finally, Brown and Taylor (2000) did not find any gender difference.

It can also be criticized that studies relying on self-reports might be biased if women give more socially desirable responses in surveys. However, Zelezny and Yelverton (2000) report that social desirability is not related to gender. Furthermore, individuals' willingness to accept a tax increase could also be a function of risk attitudes, which was not possible to control for in this study. This would have allowed to gain better insights regarding the variables age, gender, or economic situation, as possible differences between women and men, or between different age groups could rather derive from different risk attitude functions. Controlling for risk aversion may lead to a stronger negative impact of age, as older people are supposed to be more risk averse than younger ones and may lead to a smaller difference between sexes, as according to some authors women are more concerned with the risk a poor environmental quality implies (Stern et al. 1993, Dupont 2004).

Additionally, MARITAL STATUS might influence environmental attitudes as well. Married people are more compliant or more concerned about environmental degradation than others, especially compared to singles, because they are more constrained by their social network and often strongly involved in the community (Tittle 1980). They furthermore might be more concerned with local environmental problems than singles as the "parent effect" makes them seek their children's future welfare (Dupont 2004).

The formal EDUCATION is a key variable. As a proxy for this variable we use the age at which individuals completed or will complete their full time education. In particular, the literature has shown that formal education⁷ has a significant influence on environmental willingness to contribute (Whitehead 1991, Danielson et al. 1995, Blomquist and Whitehead 1998, Engel and Pötchske 1998, Popp 2001, Witzke and Urfei 2001, Israel and Levinson 2004, Veisten et al. 2004). In this respect, it is a general finding that higher levels of education lead to clear preferences for environmental protection.

On the other hand, also informal education matters (Whitehead, 1991, Blomquist and Whitehead 1998, Carlsson and Johansson-Stenman 2000, Hidano et al. 2005). Well-informed citizens who know about environmental problems might have stronger environmental attitudes, because they are better aware of the possible damage (Danielson et al. 1995). Thus, not only formal education should have an impact on the willingness to accept an increase in taxes. One possibility is to measure the individuals' political interest. We will use several proxies to check the robustness of the results (level of: DISCUSSING POLITICS⁸, INTEREST IN POLITICS⁹ and IMPORTANCE OF POLITICS¹⁰). On the other hand, it can be assumed that politically interested people are well-informed and have a high level of current knowledge about what is going on in politics and thus may also be aware of environmental issues and problems which are supposed to lead to a higher willingness to contribute. Compared to other determinants, the aspect of political interest has been widely neglected in the environmental literature.

⁷ The formal education is usually specified by levels or degrees. It has been alternatively approached by means of the number of years (Blomquist and Whitehead 1998).

⁸ Question: 'When you get together with your friends, would you say you discuss political matters frequently, occasionally or never?'

⁹ Question: 'How interested would you say you are in politics?'

¹⁰ Question: 'How important is politics in your life?'

This brings us to a further factor connected to politics. The party individuals vote for (Engel and Pötchske 1998, Witzke and Urfei 2001) and their ideology are important aspects too. For example, voters who choose ‘green’ parties have strong preferences for environmental protection. It has been observed that left parties’ voters show a higher sensitivity for environmental problems (Witzke and Urfei 2001). The latter finding can be explained by the higher preferences for economic growth ‘right-wing’ parties’ voters have. This is a generally quite unexplored question that requires more attention. We use the degree of RIGHTIST POLITICAL ORIENTATION¹¹ as a proxy for ideology.

The economic situation of an individual is a significant aspect too. It can be argued that the protection of the environment or in our case the prevention of environmental damage is not only a public good, but also a normal good. Thus, demand may increase with income (Franzen 2003). Wealthier citizens may have a higher demand for a clean environment and less environmental damages. As a proxy for income¹² we use the individual perception of people’s ECONOMIC CLASS. Investigating also environmental attitudes in different Spanish regions, we find it important to maximize the number of observations and thus to choose an alternative measure of income. Individuals with a higher income have less pressing economic problems and are therefore more willing and able to reduce their standard of living to spend more money on global environmental problems.

But the perception of pressure may depend on the financial satisfaction of an individual and not per se on the level of income. To consider this, we include the

¹¹ Question: ‘In political matters, people talk of "the left" and "the right." How would you place your views on this scale, generally speaking? Scale from 1 to 10’.

¹² In this paper, we include economic situation variables sequentially into the estimations, due to the relatively high number of missing values.

variable FINANCIAL SATISFACTION. Financial dissatisfaction might negatively influence the preference to pay more taxes in order to protect the environment. Such dissatisfaction can create a sense of distress, especially when taxes have to be paid and there is a discrepancy between the actual and the aspired financial situation. Thus, taxes might be perceived as a strong restriction, which increases the incentives not to contribute. As in one case the income variable is integrated in the equation, we can analyze the “stress” component of financial dissatisfaction.

Income has in general been considered in the literature (Whitehead 1991, Stevens et al. 1994, Blomquist and Whitehead 1998, Popp 2001, Witzke and Urfei 2001, Bulte et al. 2004, Dupont 2004, Israel and Levinson 2004, Veisten et al. 2004, Hidano et al. 2005). Usually, a positive relationship between income and environmental preference to contribute has been found. Sometimes, several income categories have been included in the estimations (Israel and Levinson 2004). This fact can be seen as a way to test the Kutznets’ hypothesis¹³.

An additional variable that approaches and complements the economic situation of individuals is their occupational status (EMPLOYMENT STATUS). Witzke and Urfei (2001) found that some labour groups, such as persons engaged in the household or on maternity leave, had higher environmental preferences. Veisten et al. (2004) showed that unemployed people present, occasionally, lower preferences for environmental protection policies. However, the latter relationship sometimes is neither clear nor significant at all (Engel and Pötchske 1998, Witzke and Urfei 2001).

¹³ The so-called Kutznets curve (Selden and Song 1994, Grossman and Krueger 1995) reflects the relationship between pollution and economic activity. That relationship usually is shown as a not linear function, by means of an inverted U-shaped curve. Even an inverted N-shaped curve has been proposed (Holtz-Eakin and Selden 1995, Cole et al. 1997).

An aspect which has been strongly neglected in the literature is social capital. This topic has been studied by many different disciplines. It has advanced to an important concept in social sciences, enforcing the interdisciplinary social discourse among researchers. The rapid growth of the social capital literature underlines a widespread unease with the standard explanations for the differential political and economic performances not only across nations but also across sub-national jurisdictions (see Ostrom and Ahn 2003, Schaltegger and Torgler 2005). According to Paldam (2000, p. 630), there are three families of social capital concepts: trust, cooperation and network. He points out that “most people build *trust* in and *networks* to others and come to *cooperate* with them” (p. 629). Trust and cooperation are closely related. Consequently, trust could be a crucial aspect in explaining also individuals’ attitudes to contribute for environmental protection. In this respect, we have used two social capital proxies. First, we investigate the impact of generalized TRUST¹⁴ and thus the belief to which extent most people can be trusted affects environmental attitudes. As an alternative measurement, the social capital literature uses membership in voluntary organizations. Additionally, it is useful to investigate the MEMBERSHIP IN A VOLUNTARY ENVIRONMENTAL ORGANIZATION as a variable. Some previous studies have used this variable (see, e.g., Whitehead 1991, Blomquist and Whitehead 1998, Carlsson and Johansson-Stenman 2000). It can be expected that individuals who participate actively in environmental institutions have stronger preferences for environmental protection, as one of the major aims in an environmental group is the provision of public environmental goods through voluntary contribution. However, the causality is not clear. There may be a potential *selection bias*. People with strong environmental preferences may choose to participate in a voluntary environmental

¹⁴ Question: ‘Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?’.

organization. Such an argument would imply a reverse causality. To control for such a problem, we will use an instrumental approach in the empirical part to check the robustness of the results.

We also investigate the identification with the state, which may induce a higher cooperation among individuals and a higher preference to preserve a country's environmental conditions. NATIONAL PRIDE¹⁵ can be used as a proxy for national identification. Tyler (2000) argues that in general pride influences people's behavior in groups, organizations and societies. It gives a basis for encouraging cooperative behavior. However, contrary to the trust variables, which have been thoroughly analyzed by *social capital* researchers, the variable pride has been completely neglected¹⁶ in economics although it is a widespread phenomenon (Boulding 1992). We predict that a higher level of pride leads to stronger environmental attitudes.

Close to the concept of national identity are individuals' perceptions to which geographic groups they belong first of all. This is an unexplored issue, so we have considered the perceived GEOGRAPHIC GROUP¹⁷. It is difficult to obtain a clear prediction. Individuals who see themselves as citizens of the world as a whole may have relatively high environmental values, due the fact that in many cases environmental pollution produces high externalities at the world level. On the other hand, individuals strongly attached to the local area are less likely to act as free-riders and have a stronger willingness to reduce environmental damages at the local level and thus a higher willingness to accept higher taxes in order to preserve the environment¹⁸. As our

¹⁵ Question: 'How proud are you to be? Scale from 1 to 4'.

¹⁶ Torgler and Schneider (2005) find empirically a strong correlation between pride and tax morale.

¹⁷ Question: To which of these geographical groups would you say you belong first of all?

¹⁸ However, the willingness to pay higher taxes may dependent on the fiscal autonomy of the locality. A higher fiscal autonomy should enforce such an argument.

dependent variable does not give clear information about the environmental damage, both aspects can have an impact on individuals' environmental attitudes.

The literature has investigated factors such as the city/town size (Carlsson and Johansson-Stenman 2000, Israel and Levinson 2004), the rural/urban character of the place where a household is located¹⁹ (Danielson et al. 1995, Veisten et al. 2004), or the proximity to the damaged area (Bulte et al. 2004). In line with these studies we use a proxy that measures different SIZES OF TOWNS as dummy variables. In general, the expected sign of the relationship is not clear. On the one hand, it can be argued that small towns are more "rural" which may lead to higher environmental values. But, on the other hand, medium and big cities are in general more active in implementing environmental policies, according Local Agenda 21 exigencies²⁰. So, that fact could lead to higher preferences for environment protection.

Additionally, the survey provides the information in which Spanish region an individual lives. Thus, one of the main advantages in this study is the chance to control for regional differences. Witzke and Urfei (2001) point out that 'empirical knowledge about regional differences in demand for environmental goods is usually difficult to come by' (p. 213)²¹. Thus, regional dummies for all 17 SPANISH REGIONS called Autonomous Communities are built. Navarra and the Basque Country are defined as *foral regime communities* or *charter regions*, and the other 15 regions are defined as *common regime communities*. Although Navarra and the Basque Country have the highest financial autonomy among Spanish regions, the remaining communities have

¹⁹ In this respect, Witzke and Urfei (2001) included the variable 'households in the building' as a proxy of the rural/urban character of the town/city.

²⁰ In this respect, Font and Subirats (2000) showed some big and medium size municipalities' experiences to implement Agenda 21 objectives in a local context.

²¹ As an exception see also Cameron and Englin (1997).

obtained additional competences and financial instruments during the last years (Monasterio and Suárez-Pandiello 2005).

Finally, a TIME variable has been included. Franzen (2003, p. 297) argues that the general level of concern for the natural environment has globally increased in the last 50 years. This can also be observed by the rise in international environmental treaties, the number of national environmental ministries and the increase in international nongovernmental organizations. However, the preference to pay higher taxes in order to prevent environmental damage may be strongly connected to the environmental efforts made by the governments. If people are more satisfied with the environmental policy, they may believe that it is not necessary to pay additional taxes to reduce environmental damages. This may lead to a lower willingness to contribute.

After the Rio agreements in 1992 and the approval of the Agenda for the 21st century, the EU developed the V Environmental Program (1993-2000). In that document, several explicit strategies were designed, and members had to adapt their regulations to this Program's framework. In Spain, there was a concentration of initiatives and regulations in the second part of the 90s. During the period 1995-2000 institutions were created to improve the environment, and in special areas such as the reduction of certain emissions or the improvement of several environmental infrastructures, progresses are evident (OECD 2004). At the same time, from 1994 on, Spain began to receive European Structural Funds to finance environmental protection investments. Thus, strong improvements in the second half of the 90s may lead to a higher individual satisfaction with the environmental public policy and thus to a lower willingness to increase the contribution to prevent environmental damage.

Moreover, some specific factors made people more sensitive to solving environmental problems. A good example was one of the most severe drought periods

in Spain from 1992-1996. To cope with this drought, some rationing measures were put into practice, such as cuts in supply or reductions in water pressure. And, usually, the scarce quantity of water was aggravated by quality problems. This kind of environmental problems affects the population directly. They become aware of the necessity to intensify public environmental initiatives, which may have led to an increasing willingness to contribute for environmental protection in Spain, especially in the first half of the 90s.

Furthermore, as mentioned previously, individuals' environmental attitudes are also influenced by the current level of the tax burden. In Spain, an income tax reform in 1998 led to a reduction of the average tax rates by 2% from a static point of view and under a partial equilibrium context (Castañer et. al 2004). Moreover, the disposable income of all taxpayers became on average 2.6% higher.

IV. EMPIRICAL RESULTS

We will use an ordered probit model to analyze the ranking information of the scaled dependent variable. We also estimate weighted ordered probit models to correct the samples and thus to get a reflection of the national distribution. As we pool several years and data sets together we have integrated an additional weighting variable (*weighted var 1*). The original weight variable was multiplied by a constant to get an equal number of weighted observations (around 1500) for each survey (*weighted var 2*). The data sets provide the weighting variables. To measure the quantitative effect of a variable on environmental values, the marginal effects are calculated, as the equation has a nonlinear form. The marginal effect indicates the change in the percentage of citizens (or the probability of) having a specific environmental level value, when the independent variable increases by one unit. For simplicity, in all estimations the

marginal effects are only presented for the highest value. Furthermore, “I don’t know” answers and missing values were omitted in all estimations.

This section reports two groups of estimation results. *Table 2* presents baseline estimation checking the robustness of the results working with or without weighting variables. Furthermore, to reduce possible causality problems, 2SLS estimations are presented. The primary objective in *Table 3* is to investigate the robustness of the informal education or better the impact of political interest on environmental values. To do so, several proxies are developed and tested sequentially. Furthermore, due to the relatively high number of missing values, proxies of the economic situation have also been included in *Table 3* sequentially.

In line with our prediction, we observe a negative correlation between age and environmental attitudes. In almost all estimations the coefficient is statistically significant. Female report a higher preference to contribute than men. The coefficient is statistically not significant in the non-weighted estimations, but significant in the first weighted estimations in *Table 2* and *3*. Estimation 2 indicates that being female rather than male increases the probability of a person to strongly agree to increase taxes to prevent environmental damage by 1.5 percentage points. Interestingly, the coefficient is not statistically significant anymore after controlling for the economic situations of the respondents.

A positive relationship between formal education and environmental attitudes can be observed. However, the coefficient loses its significance when the second weighting variable is used, 2SLS is run and the economic situation of the individuals is included. Informal education has a much stronger impact on individuals’ environmental attitudes. One of the key findings in this study is the fact that political interest is highly correlated with the preferences to contribute. An increase in the level of discussing

politics by one unit increases the share of subjects reporting the highest willingness to contribute between 2.5 and 2.9 percentage points. This result is confirmed when using two further proxies (INTEREST IN POLITICS and IMPORTANCE OF POLITICS), both cases yield marginal effects close the 2 percentage points. Thus, the paper shows that we have to go beyond formal education and include individuals' interest for current political matters. As mentioned in the theoretical part, this aspect has been neglected in previous studies. What about individuals' ideology? In line with our predictions, people with a rightist orientation are less willing to contribute and pay higher taxes to prevent environmental damages. This statement may not be affected by different environmental attitudes only, but also by a general rejection of tax increases. However, the marginal effects are relatively low. Furthermore, it should be noticed that the ideology variable has many missing values, which makes it impossible to include the variable simultaneously in all the regressions.

There are no statistically significant differences among the marital variables and the employment situation. On the other hand, we find evidence that the economic situation matters, as mentioned previously. Due to the relatively high number of missing values these variables have been sequentially included in the last two estimations. The results indicate that a higher financial satisfaction leads to a higher preference to contribute (see Estimation 9). This result remains robust after controlling for individuals' perception of their economic class status, although in both estimations, the marginal effects are not very high. Interestingly, *upper middle class* people show the highest level of environmental preferences, with marginal effects of 3.5 percentage points, followed by the *lower middle class* (3.3 percentage points) and the *upper class* (0.5 percentage, with a coefficient that is not statistically significant). Thus, there is a

non-linear relationship between economic class and environmental attitudes. That fact can be seen as a confirmation of Kuznet's hypothesis at the individual level.

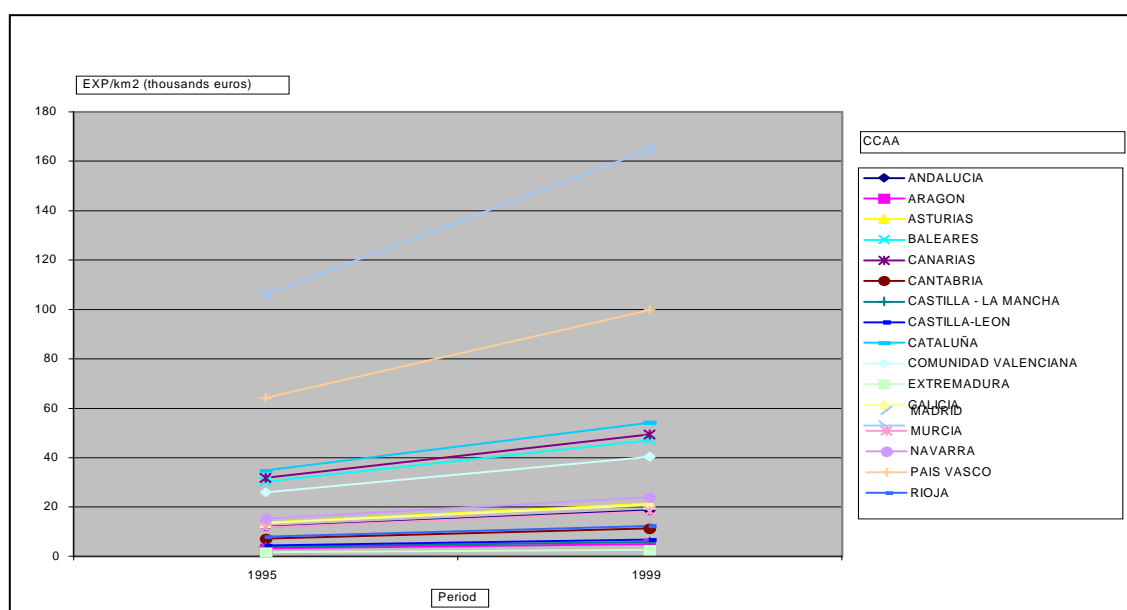
Tables 2 and 3 also show that social capital matters. Trusting others leads to a higher preference for environmental protection. An increase in the trust scale by one unit raises the share of people reporting the highest preference between 3.1 and 3.6 percentage points. Not surprisingly being a member of a voluntary environmental organization leads to a higher willingness to accept a tax increase, the probability of stating the highest values increasing by more than 7.3 percentage points and showing thus the highest marginal effects. This might, however, be due to people with high values choose to participate in a voluntary environmental organization. As the causality is not clear due to a *selection bias*, we apply an instrumental variable technique. A suitable instrument must be contemporaneously uncorrelated with the error term but must be highly correlated with a membership in a voluntary environmental organization. In our case, we use the dummy variable NOT A MEMBER OF A VOLUNTARY ORGANIZATION as an instrumental variable, which covers all possible voluntary organizations and not only environmental ones. The variable is not correlated with the error term ($r=-0.03$) and highly correlated with being a member of a voluntary environmental organization ($r=-0.30$). The 2SLS estimations are presented in the equations 4 and 5 using the two available weighting variables. The equations indicate that the results are consistent with the ordered probit estimations. Therefore we decided to continue with ordered probit estimations to take into account the ranking information of the dependent variable.

A higher level of national pride is also correlated with a higher preferences towards environmental protection, although the coefficient loses its significance in the last three estimations in *Table 3*. However, the lack of significance may be driven by a

significantly lower number of observations. The GEOGRAPHIC GROUP variable shows that people in the reference group (*locality or town*) have the lowest preference to contribute (all coefficients have a positive sign). On the other hand, the group *world as a whole* shows the strongest difference to the reference group and the highest preference for environmental protection, being statistically significant in almost all estimations with marginal effects between 2.6 and 3.8 percentage points. The factor TOWN SIZE shows some interesting implications. People living in a town with less than 2'000 inhabitants have the lowest value. The highest preference can be found in the town size 50'000-100'000. On the other hand, individuals living in a town with 500'000 and more inhabitants show lower values, closer to those from towns with 5-10'000 inhabitants. The relationship is not entirely linear. The high level of environmental attitudes in town sizes of 50'000-100'000 may be due to their not being big enough to induce a strong free-riding mentality in the anonymous city, but big enough to be able to implement strong and active environmental programs.

Figure 1

Environmental Protection Expenditures 1995-1999



Source: INE (2004).

Strong regional differences between Spanish regions are found. To detect a possible reason for this we calculate the environmental protection expenditures per km^2 for the years 1995 and 1999²² (INE 2004). Those values are shown in *Figure 1*.

All in all, regions with negative coefficients in the estimations have relatively higher levels of environmental protection expenditures per km^2 (except the Cantabria Region). In this case, the argument can be similar to the time-factor explanation. The higher the expenditures, the higher citizens' satisfaction with public policies in matters of environmental protection, which leads to a decrease in the preference to pay higher taxes for that "public good". The regional income level can be an additional argument to explain the negative coefficients of some Autonomous Communities (CCAA). Communities like Balears, Comunidad Valenciana or Cataluña are characterized by high GDP per capita levels. This might reflect a trade-off between economic activity and preferences for protecting the environment.

Finally, we take a look at the development over time. The results are largely in line with our expectations. We find a strong increase of the willingness to contribute between 1990 and 1995, a period with new environmental programs launched after the Rio agreement and the development of the V EU Environmental Program. On the other hand, between 1995 and 1999/2000 a very strong decrease is observable. The attitudes towards environmental protection by means of higher taxes in 1999/2000 is statistically significantly lower than in 1990, with marginal effects between 2.5 and 3.2 percentage points. Possible reasons for the decay in the second half of the 90s are the improvements of the environmental infrastructure and institutions as well as the

²² The Ceuta and Melilla Region has been excluded from the graph because it is an outlier. Only information about 1995 and 1999 is available.

financial support from the European Structural Funds to support investments in environmental protection.

In general, if people perceive the environmental damages more closely, they will be willing to pay more money in order to improve the quality of the environment. As discussed in Section II, a good example for this was one of the most severe drought periods in the first half of the nineties (1992-1996). Additionally, the tax burden has not increased between 1995 and 1999/2000. Thus, the development of the tax burden is not a valid argument to explain the decrease of environmental attitudes.

Furthermore, the situation at the end of the 90s does not allow to speak of a real “green” tax reform in Spain. Although having good administrative conditions to implement environmental taxation, the Spanish fiscal system has not included taxes on emissions, and sometimes, environmental taxes are poorly designed and rather used to get additional revenues than to really handle existing environmental problems (Gago and Labandeira 1999). Thus, environmental taxes are not significantly higher in 1999/2000 compared to the other years in the analysis.

Table 2: Determinants of the preferences for environmental protection in Spain

<i>ORDERED PROBIT</i>	<i>unweighted ordered probit</i>			<i>weighted var 1 ordered probit</i>			<i>weighted var2 ordered probit</i>			<i>weighted var 1 2SLS</i>		<i>weighted var2 2SLS</i>	
	<i>Coeff.</i>	<i>z-Stat.</i>	<i>Marg. Effects</i>	<i>Coeff.</i>	<i>z-Stat.</i>	<i>Marg. Effects</i>	<i>Coeff.</i>	<i>z-Stat.</i>	<i>Marg. Effects</i>	<i>Coeff.</i>	<i>t-Stat.</i>	<i>Coeff.</i>	<i>z-Stat.</i>
<i>INDEPENDENT V.</i>	<i>1</i>			<i>2</i>			<i>3</i>			<i>4</i>		<i>5</i>	
<i>Socio-Demographic Factors</i>													
AGE	-0.003**	-2.08	-0.001	-0.003*	-1.92	-0.001	-0.003*	-1.75	-0.001	-0.002**	-2.02	-0.002*	-1.74
GENDER	MALE (r.g.)												
	FEMALE												
MARITAL STATUS	0.049	1.30	0.010	0.085**	2.12	0.017	0.070	1.62	0.015	0.075**	2.39	0.068**	2.01
	MARRIED												
	DIVORCED												
	SEPARATED												
	WIDOWED												
	SINGLE (r.g.)												
<i>Formal and Informal Education</i>													
EDUCATION	0.007**	1.99	0.002	0.007*	1.88	0.001	0.006	1.41	0.001	0.003	0.96	0.002	0.69
DISCUSSING POLITICS	0.123***	4.88	0.025	0.146***	5.36	0.029	0.132***	4.36	0.028	0.099***	4.71	0.089***	3.89
<i>Occupational Status</i>													
EMPLOYMENT STATUS	FULL TIME EMPLOYED (r.g.)												
	PART TIME EMPLOYED												
	SELFEMPLOYED												
	UNEMPLOYED												
	AT HOME												
	STUDENT												
	RETIRED												
	OTHER												
<i>Social Capital</i>													

TRUST		0.147***	4.69	0.031	0.156***	4.64	0.031	0.142***	3.90	0.031	0.115***	4.43	0.100***	3.61
ENVIRON. ORGAN.	MEMBER VOLUNT. NOT A MEMBER (r.g.)	0.338***	3.66	0.083	0.338***	3.56	0.079	0.317***	2.98	0.078	1.125***	3.97	0.977***	3.46
<i>Identification</i>														
NATIONAL PRIDE		0.044**	2.01	0.009	0.046**	1.98	0.009	0.055**	2.18	0.012	0.046**	2.51	0.051**	2.57
GEOGRAPHIC GROUP	LOCALITY OR TOWN (r.g.)													
	STATE OR REGION	0.056	1.35	0.012	0.078*	1.78	0.016	0.075	1.63	0.016	0.061*	1.79	0.058	1.64
	COUNTRY AS A WHOLE	0.059	1.53	0.012	0.063	1.55	0.013	0.027	0.61	0.006	0.051	1.60	0.024	0.68
	CONTINENT AS A WHOLE	0.078	0.99	0.017	0.112	1.30	0.023	0.118	1.24	0.027	0.086	1.32	0.088	1.25
	WORLD AS A WHOLE	0.126*	1.89	0.028	0.129*	1.82	0.027	0.168**	2.04	0.038	0.091*	1.67	0.106*	1.72
<i>Other variables</i>														
SIZE OF TOWN	UNDER 2,000 (r.g.)													
	2,000 - 5,000	0.166**	2.23	0.037	0.104	1.27	0.021	0.112	1.30	0.025	0.063	0.99	0.059	0.88
	5,000 - 10,000	0.120*	1.73	0.026	0.102	1.31	0.021	0.154*	1.83	0.035	0.053	0.87	0.079	1.20
	10,000 - 20,000	0.153**	2.18	0.034	0.128*	1.68	0.027	0.220***	2.74	0.051	0.078	1.32	0.137**	2.24
	20,000 - 50,000	0.107	1.63	0.023	0.171**	2.34	0.036	0.170**	2.14	0.038	0.111*	1.96	0.102*	1.68
	50,000 - 100,000	0.299***	3.90	0.071	0.258***	3.17	0.057	0.301***	3.43	0.073	0.171***	2.72	0.195***	2.89
	100,000 - 500,000	0.178***	2.97	0.038	0.206***	3.13	0.043	0.248***	3.52	0.056	0.137***	2.67	0.158***	2.91
	500,000 and MORE	0.096	1.46	0.020	0.152**	2.13	0.032	0.206***	2.68	0.047	0.089	1.60	0.118**	1.98
SPANISH REGION	ANDALUCIA	-0.129**	-2.06	-0.025	-0.126*	-1.91	-0.024	-0.098	-1.26	-0.020	-0.105**	-2.07	-0.072	-1.22
	ARAGON	0.191*	1.94	0.043	0.153	1.30	0.033	0.170	1.46	0.039	0.101	1.12	0.138	1.57
	ASTURIAS	0.156	1.46	0.035	0.179	1.57	0.039	0.184	1.52	0.043	0.136	1.57	0.154*	1.67
	BALEARES	-0.290***	-2.64	-0.050	-0.256**	-2.06	-0.043	-0.384***	-2.65	-0.065	-0.207**	-2.18	-0.288***	-2.69
	CATALUNA	-0.257***	-4.19	-0.048	-0.332***	-5.22	-0.057	-0.172**	-2.36	-0.034	-0.248***	-5.06	-0.107*	-1.91
	CANARIAS	-0.167*	-1.69	-0.031	-0.169	-1.56	-0.030	-0.008	-0.07	-0.002	-0.163*	-1.93	-0.028	-0.31
	CANTABRIA	-0.337***	-2.66	-0.057	-0.260*	-1.87	-0.044	-0.146	-0.94	-0.028	-0.183*	-1.70	-0.085	-0.73
	CASTILLA-LEON	0.296***	3.94	0.070	0.228***	2.90	0.050	0.275***	3.02	0.066	0.154	2.61	0.192***	2.85
	CASTILLA-LA MANCHA	-0.225**	-2.56	-0.041	-0.184*	-1.83	-0.033	-0.022	-0.18	-0.005	-0.157**	-2.04	-0.028	-0.32
	EXTREMADURA	0.238**	2.12	0.055	0.183	1.62	0.040	0.364***	2.93	0.092	0.111	1.33	0.238***	2.68
	GALICIA	-0.237***	-2.94	-0.043	-0.278***	-3.29	-0.047	-0.097	-0.97	-0.020	-0.213***	-3.31	-0.066	-0.88
	RIOJA	0.069	0.57	0.015	0.004	0.03	0.001	0.093	0.53	0.021	-0.024	-0.23	0.032	0.23

TIME	MADRID (r.g.)													
	MURCIA	0.119	1.11	0.026	0.175	1.51	0.038	0.164	1.14	0.038	0.147	1.62	0.143	1.23
	NAVARRA	-0.041	-0.34	-0.008	-0.140	-1.08	-0.025	-0.078	-0.57	-0.016	-0.094	-0.95	-0.029	-0.28
	PAIS VASCO	-0.067	-0.76	-0.013	-0.019	-0.21	-0.004	0.018	0.18	0.004	-0.008	-0.12	0.035	0.45
	COMUNIDAD VALENCIANA	-0.165**	-2.39	-0.031	-0.247***	-3.29	-0.043	-0.156*	-1.93	-0.031	-0.212***	-3.58	-0.138**	-2.17
	SPAIN 90 (r.g.)													
	SPAIN 95	0.258***	5.84	0.058	0.261***	5.60	0.055	0.249***	5.32	0.054	0.140***	3.42	0.140***	3.53
	SPAIN 1999/2000	-0.138***	-3.16	-0.028	-0.150***	-3.29	-0.029	-0.159***	-3.40	-0.032	-0.106***	-3.04	-0.112***	-3.14
(Pseudo) R2		0.031			0.037			0.035			0.053		0.046	
Number of observations		5226			5226			5226			5226		5226	
Prob > chi2		0.000			0.000			0.000			0.000		0.000	

Dependent variable: environmental morality on a four point scale. *,** and *** denote significance at the 10%, 5% and 1% level. Marginal effect = highest environmental value score (3). Instrument in the 2SLS for MEMBER VOLUNTARY ENVIRONMENTAL ORGANIZATION: NOT A MEMBER OF A VOLUNTARY ORGANIZATION. Data Spain 1999/2000 covers the European Values Survey (EVS) 1999 and the World Values Survey (WVS) data 2000. A dummy variable has been added in the estimations to differentiate between EVS and WVS.

Table 3: Further Factors that Shape Individuals' preferences for environmental protection in Spain

	weighted var 1 ordered probit			weighted var 1 ordered probit			weighted var 1 ordered probit			weighted var 1 ordered probit			weighted var 1 ordered probit		
	Coeff.	z-Stat.	Marg. Effects	Coeff.	z-Stat.	Marg. Effects	Coeff.	z-Stat.	Marg. Effects	Coeff.	z-Stat.	Marg. Effects	Coeff.	z-Stat.	Marg. Effects
<i>INDEPENDENT V.</i>	6			7			8			9			10		
Demographic Factors															
AGE	-0.003*	-1.96	-0.001	-0.003**	-2.00	-0.001	-0.002	-0.91	-3E-004	-0.003**	-2.05	-0.001	-0.003*	-1.78	-0.001
GENDER	MALE (r.g.)														
	0.082**	2.06	0.016	0.078*	1.96	0.015	0.101**	2.23	0.021	0.059	1.32	0.013	0.063	1.37	0.014
MARITAL	FEMALE														
STATUS	0.006	0.13	0.001	0.010	0.22	0.002	-0.008	-0.16	-0.002	-0.007	-0.13	-0.001	-0.032	-0.60	-0.007
	MARRIED														
	-0.145	-0.80	-0.026	-0.118	-0.65	-0.022	-0.226	-1.09	-0.041	-0.208	-0.95	-0.040	-0.217	-0.98	-0.041
	DIVORCED														
	0.016	0.13	0.003	0.009	0.08	0.002	0.100	0.74	0.022	-0.043	-0.35	-0.009	-0.069	-0.54	-0.014
	SEPARATED														
	-0.102	-1.18	-0.019	-0.097	-1.11	-0.018	-0.153	-1.48	-0.029	-0.116	-1.23	-0.023	-0.120	-1.24	-0.024
	WIDOWED														
	SINGLE (r.g.)														
Formal and informal education															
EDUCATION	0.008*	1.94	0.001	0.007*	1.91	0.001	0.008**	1.79	0.002	0.004	0.96	0.001	0.001	0.31	0.0003
DISCUSSING POLITICS							0.131***	4.26	0.027	0.135***	4.47	0.029	0.134***	4.31	0.029
INTEREST IN POLITICS	0.097***	5.18	0.019												
IMPORTANCE OF POLITICS				0.098***	5.08	0.019									
Ideology															
RIGHT POLITICAL ORIENTATION							-0.030***	-2.94	-0.006						
Economic Situation															
ECONOMIC	UPPER CLASS														
SITUACION													0.045	0.43	0.010
	UPPER MIDDLE CLASS														
													0.153***	2.67	0.035
	LOWER MIDDLE CLASS														
													0.148***	3.25	0.033
	WORKING/LOWEST CLASS (r.g.)														
FINANCIAL SATISFACTION										0.027***	2.69	0.006	0.025**	2.33	0.005
Occupational Status															

EMPLOYMENT STATUS	FULL TIME EMPLOYED (r.g.)															
	PART TIME EMPLOYED	-0.080	-1.01	-0.015	-0.071	-0.90	-0.013	-0.100	-1.09	-0.019	-0.085	-0.97	-0.017	-0.095	-1.06	-0.019
	SELFEMPLOYED	0.023	0.35	0.005	0.028	0.43	0.006	0.018	0.25	0.004	-0.002	-0.03	0.000	0.001	0.02	0.000
	UNEMPLOYED	-0.052	-0.82	-0.010	-0.055	-0.86	-0.011	-0.065	-0.90	-0.013	-0.034	-0.47	-0.007	-0.003	-0.05	-0.001
	AT HOME	-0.041	-0.75	-0.008	-0.042	-0.77	-0.008	0.007	0.11	0.001	-0.043	-0.70	-0.009	-0.029	-0.46	-0.006
	STUDENT	0.056	0.75	0.011	0.059	0.79	0.012	0.066	0.78	0.014	0.000	0.00	0.000	0.021	0.24	0.005
	RETIRED	-0.044	-0.68	-0.008	-0.051	-0.78	-0.010	-0.039	-0.53	-0.008	-0.027	-0.37	-0.006	-0.024	-0.32	-0.005
	OTHER	-0.077	-0.41	-0.014	-0.076	-0.40	-0.014	-0.032	-0.14	-0.006	-0.295	-0.40	-0.053	-0.319	-0.43	-0.057
	<i>Social Capital</i>															
TRUST		0.155***	4.61	0.031	0.155***	4.61	0.031	0.166***	4.46	0.035	0.164***	4.35	0.036	0.162***	4.20	0.036
ENVIRON. ORGAN.	MEMBER															
	VOLUNT.	0.322***	3.30	0.075	0.317***	3.24	0.073	0.423***	4.25	0.106	0.340***	3.17	0.086	0.292***	2.66	0.072
	NOT A MEMBER (r.g.)															
<i>Identification</i>																
NATIONAL PRIDE		0.047**	2.04	0.009	0.047**	2.02	0.009	0.040	1.52	0.008	0.011	0.42	0.002	0.007	0.25	0.001
GEOGRAPHIC GROUP	LOCALITY OR TOWN (r.g.)															
	STATE OR REGION	0.074*	1.69	0.015	0.067	1.52	0.013	0.059	1.15	0.012	0.044	0.90	0.010	0.046	0.91	0.010
	COUNTRY AS A WHOLE	0.060	1.46	0.012	0.052	1.28	0.010	0.051	1.11	0.011	0.035	0.75	0.008	0.072	1.50	0.016
	CONTINENT AS A WHOLE	0.121	1.39	0.025	0.123	1.42	0.026	0.106	1.20	0.023	0.043	0.50	0.009	0.032	0.35	0.007
	WORLD AS A WHOLE	0.131*	1.87	0.027	0.125*	1.79	0.026	0.121	1.53	0.026	0.155*	1.84	0.036	0.165*	1.93	0.038
<i>Other variables</i>																
SIZE OF TOWN	UNDER 2,000 (reference group)															
	2,000 - 5,000	0.113	1.39	0.023	0.105	1.29	0.022	0.037	0.38	0.008	0.071	0.82	0.016	0.069	0.78	0.015
	5,000 - 10,000	0.116	1.50	0.024	0.110	1.43	0.023	0.014	0.15	0.003	0.169**	2.05	0.039	0.155*	1.82	0.036
	10,000 - 20,000	0.142*	1.88	0.030	0.144*	1.90	0.030	0.056	0.63	0.012	0.167**	2.07	0.038	0.169**	2.05	0.039
	20,000 - 50,000	0.168**	2.33	0.035	0.165**	2.29	0.035	0.108	1.22	0.023	0.179**	2.27	0.042	0.180**	2.21	0.042

SPANISH REGION	50,000 - 100,000	0.256***	3.16	0.057	0.258***	3.19	0.057	0.209**	2.14	0.047	0.303***	3.49	0.074	0.262***	2.92	0.063	
	100,000 - 500,000	0.215***	3.31	0.045	0.215***	3.31	0.045	0.114	1.44	0.024	0.279***	4.02	0.065	0.263***	3.64	0.061	
	500,000 and MORE	0.149**	2.11	0.031	0.157**	2.22	0.033	0.090	1.07	0.019	0.184***	2.38	0.042	0.182**	2.27	0.042	
	Andalucia	-0.131**	-1.98	-0.024	-0.133**	-2.01	-0.025	-0.153**	-2.07	-0.029	-0.118	-1.53	-0.024	-0.102	-1.28	-0.021	
	Aragon	0.179	1.50	0.039	0.153	1.29	0.033	0.225	1.62	0.052	0.278*	1.93	0.068	0.313**	2.19	0.078	
	Asturias	0.169	1.50	0.036	0.161	1.43	0.034	0.096	0.78	0.021	0.216	1.64	0.052	0.270**	2.00	0.066	
	Baleares	-0.250**	-2.06	-0.042	-0.252**	-2.06	-0.043	-0.183	-1.32	-0.034	-0.280**	-2.21	-0.051	-0.246*	-1.89	-0.046	
	Cataluna	-0.335***	-5.25	-0.057	-0.333***	-5.22	-0.057	-0.403***	-5.62	-0.070	-0.202***	-2.76	-0.040	-0.196***	-2.60	-0.039	
	Canarias	-0.179*	-1.66	-0.032	-0.172	-1.60	-0.031	-0.144	-1.15	-0.027	-0.136	-1.06	-0.027	-0.078	-0.60	-0.016	
	Cantabria	-0.233*	-1.69	-0.040	-0.230*	-1.67	-0.039	-0.090	-0.49	-0.017	-0.155	-1.06	-0.031	-0.128	-0.85	-0.026	
	Castilla-Leon	0.212***	2.70	0.046	0.218***	2.77	0.047	0.169*	1.87	0.037	0.197**	2.25	0.046	0.214**	2.40	0.050	
	Castilla-La Mancha	-0.217**	-2.12	-0.038	-0.215**	-2.09	-0.037	-0.173	-1.57	-0.032	-0.097	-0.83	-0.020	-0.107	-0.89	-0.022	
	Extremadura	0.180	1.58	0.039	0.176	1.56	0.038	0.198	1.50	0.045	0.336***	2.83	0.085	0.357***	2.99	0.091	
	Galicia	-0.287***	-3.40	-0.048	-0.282***	-3.34	-0.048	-0.256***	-2.78	-0.046	-0.068	-0.68	-0.014	-0.032	-0.31	-0.007	
	Rioja	-0.005	-0.04	-0.001	-0.023	-0.17	-0.005	-0.071	-0.44	-0.014	-0.032	-0.21	-0.007	0.0013	0.01	0.0003	
	Madrid (r.g.)																
	Murcia	0.130	1.14	0.027	0.138	1.22	0.029	0.172	1.29	0.039	0.272*	1.93	0.067	0.240	1.64	0.058	
	Navarra	-0.152	-1.18	-0.027	-0.139	-1.06	-0.025	-0.154	-1.02	-0.029	-0.085	-0.65	-0.017	-0.065	-0.49	-0.014	
	Pais Vasco	-0.030	-0.33	-0.006	-0.030	-0.34	-0.006	-0.048	-0.46	-0.010	-0.030	-0.29	-0.006	-0.010	-0.09	-0.002	
	Comunidad Valenciana	-0.251***	-3.33	-0.043	-0.251***	-3.33	-0.044	-0.283***	-3.43	-0.051	-0.284***	-3.31	-0.053	-0.268***	-3.04	-0.051	
TIME	SPAIN 1990 (r.g)																
	SPAIN 1995	0.261***	5.61	0.056	0.249***	5.32	0.053	0.259***	4.78	0.058	0.257***	5.47	0.058	0.303***	5.80	0.069	
	SPAIN 1999/2000	-0.149***	-3.29	-0.029	-0.158***	-3.47	-0.031	-0.154***	-3.02	-0.032	-0.149***	-3.27	-0.031	-0.117**	-2.36	-0.025	
	(Pseudo) R2	0.037			0.037			0.035			0.035			0.037			
	Number of observations	5232			5213			4033			4284			4086			
	Prob > chi2	0.000			0.000			0.000			0.000			0.000			

Dependent variable: environmental morality on a four point scale. *,** and *** denote significance at the 10%, 5% and 1% level. Marginal effect = highest environmental value score (3). A dummy variable has been added in the estimations to differentiate between EVS and WVS. Equation 9 and 10 covers only World Values Survey data. The used proxies on the economic situation were not available in the EVS 1999 data set.

The results obtained can help to design environmental policies in Spain. The most effective degree of decentralization to achieve specific environmental objectives remains a controversial topic. On the one hand side, regional differences are a significant argument to justify a decentralization process in this context. In fact, Spanish regions have obtained more environmental competences in the last few years. However, for some environmental policies in the European Union we observe the trend towards centralization²³. In this respect, it could be adequate to propose some kind of mixed policy, in order not to induce welfare losses in some Spanish regions, and thus to take into account regional differences. A decentralized policy in the Spanish regions, which takes into account European objectives, could be a possible strategy.

IV. CONCLUSIONS

Since the 1970s, the number of studies investigating environmental preferences has been growing. However, we still lack papers analyzing a country and its regions or its development over time. Furthermore, it is a promising line to search empirically for factors neglected in previous studies. This paper aims therefore at reducing such shortcomings. To assess individuals' environmental attitudes in Spain and its different regions over time we use data sets provided by the *World Values Surveys* (WVS) and the *European Values Surveys* (EVS) covering the years 1990 (WVS), 1995 (WVS) and 1999/2000 (WVS and EVS). Regional dummy variables have been added to check for

²³ For example, in the water resources field, the European Framework D2000/60/EC established a common guide for members to improve water quality and quantity aspects. The basic objective of the European regulation is to improve water quality and to achieve a rational use of water resources, in order to reduce pressure on those resources. The European Union is enforcing country members to apply this framework in the next few years. The Spanish central government will have to adapt its regulation to the European Framework.

possible cross-regional variations. The results indeed indicate that there are differences between regions. Furthermore, we find big differences between the first half (strong increase of the environmental attitudes) and the second half of the 90s (strong decrease). A possible reason for regional differences and the development over time is a higher satisfaction with the environmental policy, which may lead to the belief that paying additional taxes is not necessary to reduce environmental damages.

Compared to many previous studies, we present in this paper a richer set of independent variables to better isolate the impact of a specific variable on individuals' environmental attitudes. The results obtained from commonly used variables such as age, gender, formal education, and income are in line with the tendencies reported in the literature. This paper as a novelty shows the relevance of further variables neglected beforehand, such as political interest and social capital. These variables have a strong impact on the environmental attitudes. All three proxies for political interest have a statistically significant positive impact on individuals' attitude to pay higher taxes, with high marginal effects. The rapid growth of the social capital literature inspired our efforts to check the importance of these variables on the environmental attitudes. Generalized trust, which can be seen as one of the key variables of societies' social capital has also a strong impact on the environmental preferences. Not surprisingly, being in a member of a voluntary environmental organization has also a positive impact on environmental attitudes. As the causality is not clear, an instrumental approach has been chosen. We find robust and consistent results.

All in all, investigating citizens' environmental preferences underlines the importance of investigating a rich set of theories to fully understand what influences their willingness to contribute to the environmental protection. Understanding what shapes environmental attitudes still remains a fruitful field for further research.

REFERENCES

- Andreoni, J. and Vesterlund, L. (2001), 'Which Is the Fair Sex? Gender Differences in Altruism', *Quarterly Journal of Economics*, 116, 293-312.
- Berrens, R. P., Bohara, A.K., Kerkvliet, J. (1997). 'A Randomized Response Approach to Dichotomous Choice Contingent Valuation', *American Journal of Agricultural Economics*, 79, 252-266.
- Blomquist, G.C. and Whitehead, J.C. (1998), 'Resource quality information and validity of willingness to pay in contingent valuation', *Resource and Energy Economics*, 20, 179-196.
- Bord, R. J. and O' Connor, R. E. (1997), 'The Gender Gap in Environmental Attitudes: The Case of Perceived Vulnerability to Risk,' *Social Science Quarterly*, 78, 830-840.
- Boulding, K. E. (1992). *Towards a New Economics*. Cheltenham, UK, Edward Elgar.
- Brown, K. and Taylor, L. (2000). Do as you say, say as you do: evidence on gender differences in actual and stated contributions to public goods, *Journal of Economic Behavior and Organization*, 43, 127-139.
- Brown-Kruse, J. and D. Hummels, D. (1993), 'Gender Effects in Laboratory Public Goods Contribution: Do Individuals Put Their Money Where Their Mouth Is?', *Journal of Economic Behavior and Organization*, 22, 255-267.
- Bulte, E., Gerking, S., List, J.A. and De Zeeuw, A. (2004), 'The effect of varying the causes of environmental problems on stated WTP values: evidence from a field study', *Journal of Environmental Economics and Management*, in press.
- Burtraws, D. and Portney, P.R. (1991), 'Environmental policy in the United States', in Helm, D. (ed.) *Economic Policy Towards the Environment*, pp. 289-320, Blackwell Publishers, Oxford, UK.
- Cameron, T.A. and Englin, J. (1997), 'Respondent experience and contingent valuation of environmental goods', *Journal of Environmental Economics and Management*, 33, 296-313.
- Carson, R. T. and Mitchell, R. C. (1995). 'Sequencing and Nesting in Contingent Valuation Surveys', *Journal of Environmental Economics and Management*, 28, 155-173.
- Carlsson, F. and Johansson-Stenman, O. (2000), 'Willingness to pay for improved air quality in Sweden', *Applied Economics*, 32, 661-669.
- Castañer, J., Onrubia, J. and Paredes, R. (2004), "Evaluating social welfare and redistributive effects of Spanish personal income tax reform", *Applied Economics*, 36 (14), 1561-1568.
- Cole, M.A., Rayner, A.J. and Bates, J.M. (1997), 'The environmental Kutznets curve: an empirical analysis', *Environment and Development Economics*, 2, 401-416.

- Eckel, C. C. and Grossman, P. J. (2001), 'Chivalry and Solidarity in Ultimatum Games', *Economic Inquiry*, 39, 171-88.
- Danielson, L., Hoban, T.J., Van Houtven, G. and Whitehead, J.C. (1995), 'Measuring the benefits of local public goods: environmental quality in Gaston County, North Carolina', *Applied Economics*, 27, 1253-1260.
- Davidson, D. J. and Freudenburg, W. R. (1996), 'Gender and Environmental Risk Concerns: A Review and Analysis of Available Research', *Environmental and Behavior*, 28, 302-329.
- Diamond, P.A. and Hausman, J. (1994), 'Contingent valuation: is some number better than no number? *Journal of Economic Perspectives*, 8, 45-64.
- Dinan, T., Cropper, M. and Portney, P. (1999) Environmental federalism: welfare losses from uniform national drinking water standards, in Panagariya, A., Portney, P. and Schwab, R. (eds.) *Environmental and Public Economics: Essays in Honor of Wallace E. Oates*, pp. 13-31. Edward Elgar Publisher, Cheltenham, UK.
- Dupont, D.P. (2004), 'Do children matter? An examination of gender differences in environmental valuation', *Ecological Economics*, 49, 273-286.
- Engel, U. and Pötschke, M. (1998), 'Willingness to pay for the environment: social structure, value orientations and environmental behaviour in a multilevel perspective', *Innovation*, 11(3), 315-332.
- Font, N. and Subirats, J. (2000), *Local y Sostenible: La Agenda 21 Local en España*, Icaria, Barcelona.
- Franzen, A. (2003), 'Environmental Attitudes in International Comparison: An Analysis of the ISSP Surveys 1993 and 2000', *Social Science Quarterly*, 84, 297-308.
- Frey, B. S. and A. Stutzer (2002). *Happiness and Economics*. Princeton: Princeton University Press.
- Gago, A. and Labandeira, X. (1999), *La Reforma Fiscal Verde. Teoría y Práctica de los Impuestos Ambientales*, Mundi-Prensa, Madrid.
- Grossman, G.M. and Krueger, A.B. (1995), 'Economics growth and the environment', *Quarterly Journal of Economics*, 110(2), 353-377.
- Hidano, N., Kato, T. and Aritomi, M. (2005), 'Benefits of participating in contingent valuation mail surveys and their effects on respondent behaviour: a panel analysis', *Ecological Economics*, 52, 63-80.
- Hines, J., Hungerford, H. and Tomera, A. (1986-87). 'Analysis and synthesis of research on responsible environmental behavior', *Journal of Environmental Education*, 18, 1-8.
- Holtz-Eakin, D. and Selden, T. (1995), 'Stoking the fires? CO₂ emissions and economic growth', *Journal of Public Economics*, 57, 85-101.

- Horowitz, J.K. and McConnell, K.E. (2002), 'A review of WTA/WTP studies', *Journal of Environmental Economics and Management*, 44, 426-447.
- Horowitz, J.K. and McConnell, K.E. (2003), 'Willingness to accept, willingness to pay and the income effect', *Journal of Economics Behaviour and Organization*, 51, 537-545.
- Hunter, L. M., Hatch, A. and A. Johnson (2004), 'Cross-National Gender Variation in Environmental Behaviors', *Social Science Quarterly*, 85, 677-694.
- Israel, D. and Levinson, A.(2004), 'Willingness to pay for environmental quality: testable empirical implications of the growth and environmental literature', *Contributions to Economic Analysis & Policy*, 3(1), art.2.
- Kealy, M., Montgomery, M., Dovidio, J. (1990), 'Reliability and predictive validity of contingent values: does the nature of the good matter?', *Journal of Environmental Economics and Management*, 19, 244-263
- Knack, S. and Keefer, P. (1997), 'Does Social Capital Have an Economic Payoff? A Cross-Country Investigation', *Quarterly Journal of Economics*, 4, 1251-1288.
- Mohai, P. (1992). Men, women, and the environment, *Society and Natural Resources*, 5, 1-19.
- Monasterio, C.A. and Suárez-Pandiello, J. (2005), *Manual de Hacienda Autonómica y Local*, Ariel, Barcelona.
- Nowell, C. and Tinkler, S. (1994), 'The Influence of Gender on the Provision of a Public Good', *Journal of Economic Behavior and Organization*, 25, 25-36.
- Oates, W.E. and Schwab, R.M. (1996), 'The theory of regulatory federalism: the case of environmental management', in Oates, W.E. (ed.) *The Economics of Environmental Regulation*, pp. 319-331, Edward Elgar Publisher, Cheltenham, UK.
- OECD (2004) *Environmental Performance Review for Spain*, OCDE: Paris.
- Ostrom, E. and T. K. Ahn (eds.) (2003), *Foundation of Social Capital*. Critical Studies in Economic Institutions. Cheltenham, UK: Edward Elgar.
- Paldam, M. (2000). 'Social Capital: One or Many? Definition and Measurement', *Journal of Economic Surveys*, 14, 629-653.
- Peltzman, S. and Tideman, T.N. (1972), 'Local versus national pollution control: Note', *American Economic Review*, 62, 959-963.
- Popp, D. (2001), 'Altruism and the demand for environmental quality', *Land Economics*, 77(3), 339-349.
- Selden, T.M. and Song, D. (1994), 'Environmental quality and development: is there a Kuznets curve for air pollution emissions?', *Journal of Environmental Economics and Management*, 27(2), 147-162.

- Schaltegger, C. A. and Torgler, B. (2005). Trust and Fiscal Performance: A Panel Analysis with Swiss Data, YCIAS Working Paper, LP08, Yale Center for International and Area Studies, New Haven.
- Shapiro, P. (1996) 'Which level of government should be responsible for environmental regulation? The Federalist versus Calhoun', in Braden, J.B., Folmer, H. and Ulen, T.S. (eds.) *Environmental Policy with Political and Economic Integration. The European Union and the United States*, pp. 132-144, Edward Elgar Publisher, Cheltenham, UK.
- Stern, P., Dietz T., and Kalof, L. (1993). 'Value Orientation, Gender, and Environmental Concern', *Environment and Behavior*, 25, 322-348.
- Stevens, T.H., More, T.A. and Glass, R.J. (1994), 'Interpretation and temporal stability of CV bids for wildlife existence: a panel study', *Land Economics*, 70(3), 355-363.
- Suárez-Pandiello, J. (1999), 'Fiscal Federalism in Spain. Decentralisation: An Unfinished Task', in: A. Fossati and Panella, G. (eds.), *Fiscal Federalism in the European Union*, London, Routledge, 222-254.
- Swallow, S., Weaver, T., Opaluch, J. and Michelman, T. (1994), 'Heterogeneous preferences and aggregation in environmental policy analysis: a landfill siting case', *American Journal of Agricultural Economics*, 76, 334-431.
- Tittle, C. (1980), *Sanctions and Social Deviance: The Question of Deterrence*. New York: Praeger.
- Torgler, B. (2005), 'The Importance of Faith: Tax Morale and Religiosity', forthcoming: *Journal of Economic Behavior and Organization*.
- Torgler, B. and F. Schneider (2005). What Shapes the Attitudes Towards Paying Taxes? Evidence from Switzerland, Belgium and Spain, CREMA Working Paper 2005-6, Basel, Center for Research in Economics, Management and the Arts, Switzerland.
- Tyler, T. R. (2000), 'Why Do People Cooperate in Groups?', in: Van Vught, M., Snyder, Tyler, M. T. R. and Biel, A. (eds.), *Cooperation in Modern Society. Promoting the Welfare of Communities, States and Organizations*. London, Routledge, 65-82.
- Veisten, K., Hoen, H.F., Navrud, S. and Strand, J. (2004), 'Scope insensitivity in contingent valuation of complex environmental amenities', *Journal of Environmental Management*, 73, 317-331.
- Vlosky, D. A. and R. P. Vlosky (1999). Exploring Age-Related Environmental Attitudes in the Context of Wood Product Certification, Working Paper No. 51, Louisiana State University Agricultural Center, May 31, 1991.
- Whitehead, J.C. (1991), 'Environmental interest group behaviour and self-selection bias in contingent valuation mail surveys', *Growth and Change*, 22(1), 10-21.
- Witzke, H.P. and Urfei, G. (2001), 'Willingness to pay for environmental protection in Germany: coping with the regional dimension', *Regional Studies*, 35(3), 207-214.

- Van Liere, K. and Dunlap, R. (1980), 'A review of studies that measured environmental attitudes and behaviors', *Environment and Behavior*, 11, 22-38.
- Zelezny, L.C. and Yelverton, J.A. (2000). Feminine identity, collectivism, and environmental attitudes and behaviors, paper presented at the meeting of the Western Psychological Association, Portland, OR, April, 2000.
- Zelezny, L. C., Chua, P.- P. and Aldrich, C. (2000). 'Elaborating on gender differences in environmentalism' *Journal of Social Issues*, 56, 443-457.

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

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

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

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

CCMP	157.2004	<i>Valentina BOSETTI, Marzio GALEOTTI and Alessandro LANZA: <u>How Consistent are Alternative Short-Term Climate Policies with Long-Term Goals?</u></i>
ETA	158.2004	<i>Y. Hossein FARZIN and Ken-Ichi AKAO: <u>Non-pecuniary Value of Employment and Individual Labor Supply</u></i>
ETA	159.2004	<i>William BROCK and Anastasios XEPAPADEAS: <u>Spatial Analysis: Development of Descriptive and Normative Methods with Applications to Economic-Ecological Modelling</u></i>
KTHC	160.2004	<i>Alberto PETRUCCI: <u>On the Incidence of a Tax on PureRent with Infinite Horizons</u></i>
IEM	161.2004	<i>Xavier LABANDEIRA, José M. LABEAGA and Miguel RODRÍGUEZ: <u>Microsimulating the Effects of Household Energy Price Changes in Spain</u></i>

NOTE DI LAVORO PUBLISHED IN 2005

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

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

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

(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 4th 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 9th 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 10th 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.

2004 SERIES

CCMP	<i>Climate Change Modelling and Policy</i> (Editor: Marzio Galeotti)
GG	<i>Global Governance</i> (Editor: Carlo Carraro)
SIEV	<i>Sustainability Indicators and Environmental Valuation</i> (Editor: Anna Alberini)
NRM	<i>Natural Resources Management</i> (Editor: Carlo Giupponi)
KTHC	<i>Knowledge, Technology, Human Capital</i> (Editor: Gianmarco Ottaviano)
IEM	<i>International Energy Markets</i> (Editor: Anil Markandya)
CSRM	<i>Corporate Social Responsibility and Sustainable Management</i> (Editor: Sabina Ratti)
PRA	<i>Privatisation, Regulation, Antitrust</i> (Editor: Bernardo Bortolotti)
ETA	<i>Economic Theory and Applications</i> (Editor: Carlo Carraro)
CTN	<i>Coalition Theory Network</i>

2005 SERIES

CCMP	<i>Climate Change Modelling and Policy</i> (Editor: Marzio Galeotti)
SIEV	<i>Sustainability Indicators and Environmental Valuation</i> (Editor: Anna Alberini)
NRM	<i>Natural Resources Management</i> (Editor: Carlo Giupponi)
KTHC	<i>Knowledge, Technology, Human Capital</i> (Editor: Gianmarco Ottaviano)
IEM	<i>International Energy Markets</i> (Editor: Anil Markandya)
CSRM	<i>Corporate Social Responsibility and Sustainable Management</i> (Editor: Sabina Ratti)
PRCG	<i>Privatisation Regulation Corporate Governance</i> (Editor: Bernardo Bortolotti)
ETA	<i>Economic Theory and Applications</i> (Editor: Carlo Carraro)
CTN	<i>Coalition Theory Network</i>