

# ICE

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## ECONOMY AND THE ENVIRONMENT

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**CAMPOS PALACÍN, Pablo and CAPARRÓS GASS, Alejandro**

**Integrating the exchange value of environmental services in natural reserve green accounts**

**Abstract:** In national accounts, market goods and services are measured in terms of their exchange values (price times amount), whereas the methods for assessing environmental services are based on consumer surplus or Hicksian variations. As a result, environmental values cannot be directly incorporated into national accounts. The present article proposes a methodology for such incorporation under standardized conditions, consisting in full market simulation (supply, demand and competitive context) for cost-free recreational visitor access. The output is a range of values. Methods are likewise proposed for estimating the exchange values of environmental services self-consumed by private owners. Two examples involving Spanish forests are discussed to illustrate the methodology.

**Key words:** environment, environmental services, exchange value, national accounts, contingent assessment, environmental values, total green income from forests.

**JEL Classification:** Q23, Q51, Q56.

**CASCÓN SALGADO, Pablo and HINOJO GONZÁLEZ, Pedro**

**The international economic dimension in combating climate change**

**Abstract:** Climate change is the greatest challenge on today's international political agenda, for it can only be successfully confronted by a broadly-based intergovernmental coalition. After justifying this assertion, the article proceeds to discuss the chief economic obstacles to reaching a satisfactory international agreement as well as certain options for surmounting these difficulties. A final section briefly summarizes the major international initiatives undertaken to date and stresses some of the key elements that should be included in the future international architecture to combat climate change, primarily the involvement of a wide spectrum of countries.

**Key words:** environment, climate change, international economic agreements, public goods.

**JEL Classification:** D62, H41, Q20, Q30, Q32, Q38.

**CASTRO LEJARRIAGA, Luis Miguel de**

**Economic growth and the environment**

**Abstract:** This article reviews the most relevant findings observed when environmental variables are factored into theoretical economic growth models. The conditions for both

feasible and optimal sustainable growth are described in detail. A series of empirical studies addressing the issue of sustainable growth are also summarized.

**Key words:** environment, environmental quality, economic growth, sustainable development, pollution.

**JEL Classification:** O40, Q01, Q50, Q56.

#### CERDÁ TENA, Emilio

##### International trade and the environment

**Abstract:** This study reviews the major concepts, methods and results published in the literature on the relationship between international trade and the environment. Partial and general equilibrium models are addressed. The possible impact of more intense international trade on pollution levels and the use of natural resources is discussed, along with different policy measures. Some of the most relevant studies in this regard are cited.

**Key words:** international trade, environment.

**JEL Classification:** F18, Q56.

#### GARRIDO COLMENERO, Alberto, ATANCE MUÑIZ, Ignacio and GÓMEZ RAMOS, Almudena

##### Agriculture, food, biofuels and environment

**Abstract:** Agriculture and food are global challenges outstanding solution: one sixth of humanity is under-nourished and the world's growing population and changing diets will lead to a substantial rise in the demand for agricultural prime materials. Despite these heavy demands, the world has sufficient land and water resources to feed its population. Nonetheless, it is in need of greater investment in capital and technology, along with more, better and more equitable trade regulations and a mitigation of the causes of poverty. Biofuel production, in turn, is a new demand that competes for the same resources as food crops. Conventional agriculture, with all its adverse environmental and social consequences, cannot be replaced by alternative practices in the short term, if all the world's inhabitants are to be fully nourished. In this dire global scenario, European farming is faced with the challenge of maintaining its competitiveness while reducing the environmental damage caused. Consumers, at the same time, demand high quality, diverse and innocuous products with a fainter environmental footprint. Common Agricultural Policy will accommodate these values and preferences with increasingly strict environmental regulations. The European agricultural model no longer seeks the production-based objectives of the developing world, but in the longer term it can transfer knowledge and more efficient and less noxious farming practices.

**Key words:** environment, food, resources, energy, biofuels, CAP.

**JEL Classification:** Q18, Q42.

**GÓMEZ GÓMEZ, Carlos Mario**

**Efficient water distribution: basic principles and stylized data in Spain**

**Abstract:** The paper discusses water as an economic asset and defines the basic principles for efficient water resource management. Three examples and stylized data on water economics in Spain are used to: firstly, show that inadequate management of property rights leads to the over-exploitation of water resources; secondly, that the failure to coordinate sectoral policy leads to an over-accumulation of capital and the growth of idle capacity; and thirdly that, in the absence of price policies and property rights management, water saving policies lead, paradoxically, to increases in demand and greater economic scarcity of the resource.

**Key words:** environmental policy, sustainable development, renewable resources, water.

**JEL Classification:** Q01, Q25, Q28, Q56, Q57.

**LABANDEIRA VILLOT, Xavier and LOUREIRO GARCÍA, María**

**Notes on economic research on climate change**

**Abstract:** Climate change has been identified as one of the main environmental challenges facing contemporary society. The scientific consensus around its causes and serious effects, along with the intense carbonization of today's economies, have led economists to play a growing and essential role in this area. This paper discusses a number of the basic issues constituting the economic agenda on research into climate change, listing possible priorities for the Spanish circumstance. Particular attention is paid to the economic assessment of the impact of climate change and the design and evaluation of corrective public policy.

**Key words:** environment, climate change.

**JEL Classification:** Q50, Q54.

**LINARES LLAMAS, Pedro**

**Energy efficiency and the environment**

**Abstract:** Energy efficiency and savings are essential elements for improving the state of the environment, especially as regards global warming. This article reflects on the factors that affect decisions on energy savings and efficiency and the most appropriate policies for furthering both. While not all public action appears to be justified, specific policies that foster savings are regarded to be necessary. Such measures should preferably be based on economic instruments and consumer information, as well as on a rigorous assessment of the action adopted to date in Spain.

**Key words:** environment, energy, energy efficiency, public policy.

**JEL Classification:** Q41, Q54, Q48.

**PRATS ALBENTOSA, María Asunción and SOTO PACHECO, Gloria María**

**An empirical study of monetary transmission in Europe**

**Abstract:** This paper analyzes the differences in the effectiveness of monetary transmission mechanisms in Germany, France, Italy, Spain and the United Kingdom before and after EMU. The econometric methodology used was based on a VAR model incorporating ARCH disturbance. The findings show that the initial monetary transmission structures differed in the countries analyzed and that these differences persist today. The EMU appears to have increased monetary transmission capacity in each country, although in different ways. In the Mediterranean countries (Spain and Italy) the results indicate weaker transmission, while in the continental countries farther north (Germany and France), evidence is much greater and extends to medium-term horizons.

**Key words:** time structures, monetary transmission, VAR, co-integration, expectations.

**JEL Classification:** C22, E52.

**RÍO GONZÁLEZ, Pablo del**

**Renewable sources of electricity in Spain. Incentivization in the European context**

**Abstract:** Public encouragement of electric power generation from renewable sources in Spain is based on a system of premiums paid to renewable generators by power consumers. The effectiveness of the system can be attributed to the choice of this instrument, its design elements and structural continuity, which have undergone only slight adaptations. The present article analyzes the Spanish system of premiums based on a number of different criteria and places it in the context of the mechanisms used in other European countries.

**Key words:** renewable electricity, public incentives, premiums.

**JEL Classification:** H8, O3, Q4.

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