

**CASTRO-ACUÑA, Susana; GUTIÉRREZ, Alfonso and PICATOSTE, José Ramón**

#### **Adaptation to climate change in Spain**

**Abstract:** The evidence attesting to the existence of climate change has heightened awareness of the need to undertake action sufficiently in advance to adapt to its effects. Adaptation to climate change is an essential pillar that supplements policies designed to mitigate the greenhouse emissions responsible for global warming. Adaptation is a challenge for many areas of public and private responsibility and calls for an updated understanding of the potential effects of climate change, from the local to the national spheres, as well as the most suitable strategies for dealing with them successfully.

**Key words:** adaptation, climate change, impact assessment, vulnerability, adaptation costs.

**JEL classification:** H4, Q50, Q51, Q54.

**CERDA TENA, Emilio**

#### **International trade and climate change**

**Abstract:** This article contains a review of the most prominent inter-relationships between international trade and climate change, such as the effect of more open international trade on greenhouse gas emissions, the effect of stricter environmental legislation on company competitiveness in certain areas of the world, the carbon leak problem, the widespread use of new technologies and innovation in climate change. Some of the most relevant studies in this regard are discussed.

**Key words:** International trade, climate change.

**JEL classification:** F18, Q56.

**DEL RÍO, Pablo**

#### **The effects of the tools for encouraging the use of renewable energy on innovation**

**Abstract:** Innovation in renewable technologies is crucial to rising to the challenge posed by climate change and reducing global dependence on fossil fuels. Two main groups of tools have been used to further such technologies: public investment in R&D+I (supply-side technologies) and mechanisms for enhancing the awareness of renewables and promoting their use (demand-side technologies). This second group of tools also has a substantial impact on the technology offering, however. The present study analyses the effects of the mechanisms for promoting the use of renewable energy on innovation.

**Key words:** renewable energies, innovation, promotion tools.

**JEL classification:** O31, O33, Q42, Q48, Q55.

**HINOJO GONZÁLEZ, Pedro**

**Carbon leaks and plugging options**

**Abstract:** The reduction in carbon dioxide emissions in one area of the planet to combat climate change may be offset by business relocation to, and the concomitant rise in emissions in, countries where no action is being taken, a development known as «carbon leaks». This is one of the key questions underlying the failure of international negotiations on climate change, although any empirical estimation of its impact is virtually impossible. Most of the options open to economic policy to attempt to contend with this problem are imperfect or unlikely to inspire consensus.

**Key words:** climate change, industrial relocation, competitiveness.

**JEL classification:** F18, H23, O13, Q52, Q54.

**LABANDEIRA VILLOT, Xavier**

**New environments for energy taxation**

**Abstract:** This study identifies the factors that create a new context for energy taxation: entrenchment of the crisis and the need for fiscal consolidation, new revenue-expenditure energy packages, new tax device potential and the changing objectives of energy policies. The article stresses the trends observed in and challenges posed by the use of climate-related taxes in this new context. Lastly, it illustrates the role that energy taxation may play in Spain in the future with a detailed review of the empirical literature and the introduction of a number of simulations to analyse European proposals on the subject.

**Key words:** taxes, climate change, energy efficiency, consolidation.

**JEL classification:** H23, Q48, Q54.

**LÓPEZ-PEÑA, Álvaro; LINARES, Pedro and PÉREZ-ARRIAGA, Ignacio**

**Retrospective analysis of the efficiency of two approaches to reduce CO<sub>2</sub> emissions in Spain: the furtherance of renewables and energy savings**

**Abstract:** The furtherance of renewable energies in Spain has contributed, among others, to a substantial reduction in greenhouse gas emissions by the electric power industry. Energy efficiency policies have been less effective, however. One question that might be posed is whether it would have been more economically sound for the energy system to prioritise savings, while still furthering the use of renewables. The present article analyses that question with a model for optimising the Spanish energy system. The results show that support for energy savings should be the first priority, given the lower cost of this approach.

**Key words:** CO<sub>2</sub> emissions, furtherance of renewables, energy savings.

**JEL classification:** C61, H2, Q43, Q48, Q54, Q58.

MARTÍN GARCÍA, Rodrigo; BALLESTÉ MORILLAS, Eva and ARGUEDAS SANZ, Raquel

#### Enhancement of Ibex-35 companies' business portfolios

**Abstract:** This article analyses the companies presently comprising the Ibex-35 and their growth. A comparison is drawn between the concentration of index components and business activity reported to the National Securities Market Commission. Standard models are shown to be *unable* to reflect the transformation of company portfolios. Progressive adaptation of reporting to the industrial, geographic and relationship factors that affect total return on investments is proposed to ascertain the cause-effect relationship between diversification/internationalisation and the creation of shareholder value.

**Key words:** Ibex35, concentration, diversification, internationalisation, staff.

**JEL classification:** F23, L21, L25.

MONTALVO SANTAMARÍA, Alicia

#### Climate change: international financing and multilateral negotiations

**Abstract:** One of the most important aspects of the negotiations underway in the new international arrangements for combating climate change by horizon year 2050 is the implementation of climate financing architecture able to mobilise the financial resources needed to transform existing production and consumption models. The aim is for all countries to attain low greenhouse gas emissions and hence climate change-resistant development. An agreement containing sufficiently ambitious commitments to reduce emissions that are compatible with the environmental objective of a mean rise in the global temperature of under 2 °C would make investment in clean technologies profitable by generating a suitable price for carbon dioxide emissions.

**Key words:** climate change, greenhouse gases (GHG), climate financing, mitigation, adaptation, carbon markets, flexibility mechanisms, transformation, energy, global warming, developed countries, developing countries.

**JEL classification:** Q52, Q54.

PASTOR ESCRIBANO, Álvaro

#### Energy efficiency policy in response to climate change

**Abstract:** One of the key tools for combating climate change is the furtherance of energy efficiency. The most effective intervention consists of placing a price on the environmental externalities deriving from energy consumption. Energy markets, however, particularly on

the demand side, are prone to information gaps and behaviour that attenuates price signals. A suitable design for standards, information programmes and economic incentives is consequently indispensable to reducing the energy intensity of economies world-wide and effectively combating global warming.

**Key words:** energy efficiency, climate change, energy, public policy, information gaps.

**JEL classification:** D82, Q41, Q48, Q54, Q58.