

MARTA VILLAR EZCURRA

Editor

MARÍA DEL CARMEN CÁMARA BARROSO

Coordinator

ENVIRONMENTAL TAX
STUDIES FOR THE ECOLOGICAL
TRANSITION

Comparative Analysis Addressing
Urban Concentration and Increasing
Transport Challenges

COLECCIÓN DOCTORADO

CIVITAS



THOMSON REUTERS

First edition, 2019



THOMSON REUTERS PROVIEW® eBooks
Incluye versión en digital

The publisher takes no responsibility for the opinions collected, comments and statements expressed by the authors. The present work includes only the opinion of the author as a manifestation of his right to freedom of expression.

Editorial expressly opposed to any page of this work or parts thereof are used for conducting press briefings.

Any way of reproduction, distribution, public communication or transformation of this work can only be done with the consent of their owners, except where exempted by law. Please contact CEDRO (Spanish Reproduction Rights Center) if you need to photocopy or scan a fragment of this work (www.conlicencia.com; 91 702 19 70/93 272 04 45).

Therefore, this book may not be reproduced in whole or in part, or transmitted by electronic means, mechanical, magnetic or computer storage and retrieval or any other means, being prohibited its loan, rent or any other form of transfer of use copy writing, of the holders of copyright, without prior permission.

Thomson Reuters and the Thomson Reuters logo are trademarks of Thomson Reuters.

Aranzadi is a trademark of Thomson Reuters (Legal) Limited.

© 2019 [Thomson Reuters (Legal) Limited / Marta Villar Ezcurra (Edit.) y María del Carmen Cámara Barroso (Coord.)]

© Portada: Thomson Reuters (Legal) Limited

Editorial Aranzadi, S.A.U.
Camino de Galar, 15
31190 Cizur Menor (Navarra)
ISBN: 978-84-9197-699-8
DL NA 1820-2019

Printed in Spain. Impreso en España

Fotocomposición: Editorial Aranzadi, S.A.U.
Impresión: Rodona Industria Gráfica, SL
Polígono Agustinos, Calle A, Nave D-11
31013 – Pamplona

Table of contents

	<u>Page</u>
LIST OF CONTRIBUTORS	25
FOREWORD	27
INTRODUCTION	29
CHAPTER 1	
REGULATING GREEN BONDS – TOWARDS CLIMATE TRANSITION	
37	
STEFAN E. WEISHAAR	
I. Introduction	37
II. Climate Transitions	39
III. Green Bonds Market and Regulation	40
IV. Law and Economics Assessment	44
V. Concluding Remarks	49
CHAPTER 2	
TAXATION AS A PREVENTATIVE MEASURE FOR ENVIRONMENTAL PROTECTION: A DESIGN FOR REVENUE NEUTRAL CARBON TAX	
51	
N. NILAY DAYANÇ KUZBYLI	
I. Introduction	51
II. An Economic Standpoint of the CO ₂ Emission Problem	52
III. Assessing the Instruments Suggested by Law and Economics (Why Revenue Neutral Taxation Prevails?)	53

	<i>Page</i>
1. <i>Assessment between liability law instruments and economic instruments (tax law and administrative law)</i>	57
2. <i>Assessment of economic instruments</i>	59
IV. A Design of Revenue-Neutral Taxation	62
V. Conclusion	64
VI. References	65
 CHAPTER 3	
THE ITALIAN CATALOGUE OF EHS AND EFS	69
ALDO RAVAZZI DOUVAN, CECILIA CAMPOREALE, GIONATA CASTALDI, LUCA GRASSI, MARIO IANNOTTI, GRETI LUCARONI Y ANDREA MOLOCCHI	
I. Introduction	69
II. Definition of Subsidies	71
III. Policy Implications of the Catalogue on EHS and EFS	72
IV. General Results as Reported in the Catalogue on EHS and EFS	73
V. EHS at a Glance	74
VI. EFS at a Glance	76
VII. Conclusion	78
VIII. References	78
 CHAPTER 4	
THE ROLE OF TAX LAW IN THE FRENCH ENERGY TRANSITION	81
VLADIMIR MARCHENKO	
I. Introduction	81
II. Reduction of Negative Environmental Externalities	84
III. Encouragement of Environmentally Friendly Behaviour (Incentive Taxation)	89
IV. Concluding Remarks	93

	<i>Page</i>
 CHAPTER 5	
THE WAY OF THE DRAGON: CHINA'S NEW EMISSIONS TRADING SCHEME AND THE PROSPECT FOR LINKING	97
JOSEPH DELLATTE, SVEN RUDOLPH Y ACHIM LERCH	
I. An Introduction to the Dragon's New Approach to Climate Policy	97
II. From Sub-national Pilots to a National ETS: The Design Evolution in China	99
1. <i>Governance and Legal Structure</i>	100
2. <i>Sectors Coverage</i>	101
3. <i>Initial Allowance Allocation and Revenue Use</i>	102
4. <i>Offsetting</i>	103
III. Sustainability, Transparency and Linking: The China Case	104
1. <i>The Sustainability of the CN ETS</i>	104
2. <i>Transparency and Future Linking</i>	108
IV. Conclusion	110
V. References	110
 CHAPTER 6	
ENVIRONMENTAL INVESTMENT AND FOREIGN ASSISTANCE IN SAARC COUNTRIES: DO OVERSEAS ENVIRONMENTAL SUBSIDIES IMPROVE LOCAL ENVIRONMENTAL PROBLEMS?	113
BISHWA RAJ KANDEL Y EIJI SAWADA	
I. Introduction	113
II. Economic Development in SAARC Countries	114
III. Basic Environmental Problems in South Asia and Foreign Aid Aimed at Environmental Conservation	115
IV. What Form Should Assistance Take to Mitigate the Two Types of Mismatch Problems?	118
V. Case Studies in Nepal	122

	<u>Page</u>
1. <i>Traffic Lights in Kathmandu City</i>	122
2. <i>Bio Gas production plant to Convert Waste into Energy</i>	124
VI. Conclusion	126
VII. References	127
 CHAPTER 7	
STUDY ON THE RELATIONSHIP BETWEEN PROVINCIAL TAX RATES OF EPT AND SELECTED PARAMETERS IN CHINA	131
CHAZHONG GE, YIDAN ZHANG, FENG LONG Y QIJIA YANG	
I. Introduction	131
II. Environmental Problems in China's Urbanization	133
1. <i>Urbanization: an Inevitable Trend of China's Development</i>	133
2. <i>Environmental Problems</i>	133
III. Transition from Pollution Charges to Taxes	135
1. <i>China's Pollution Charge System: Evolution, Results and Problems</i>	135
2. <i>Pollution Charge-to-Tax Transformation: Process, Tax Law and Characteristics</i>	137
IV. Assessment of Provincial EPT Rates	138
1. <i>Provincial Differences in EPT Rate</i>	138
2. <i>Analysis of the Relationship Between EPT Rates and Economic and Environmental factors</i>	141
2.1. <i>Comparative Analysis of Environmental Quality and Tax Rate</i>	141
2.2. <i>Comparative Analysis of Economic Development and Tax Rate</i>	142
2.3. <i>Comparative Analysis of Pollutant Emissions and Tax Rates</i>	144
2.4. <i>Multiple Linear Regression (MLR) Analysis of EPT Rates and Environmental and Economic Indicators</i>	146

	<u>Page</u>
V. Conclusions and Suggestions	148
VI. References	149
 CHAPTER 8	
SMART CITY: THE SYNERGY AMONG CITIZENS, AUTHORITIES AND CORPORATIONS THROUGH ENVIRONMENTAL TAXATION	151
VIRGINIA LIST Y SIMONE ARIATTI	
I. Introduction	151
II. Peculiarities of a City that Could be Defined as "Smart"	152
1. <i>The importance of having constraints on the wider concept of "smart city"</i>	152
2. <i>Smart is green: the PPP approach</i>	153
3. <i>Smart is collaboration; the PPP becomes collaboration</i>	155
III. The Synergy Between the Stakeholders	157
1. <i>Collaboration between city stakeholders: how it can be stimulated by environmental taxation</i>	157
2. <i>Environmental taxation in Italy: which incentive/tax/deduction could be the most effective?</i>	158
3. <i>Build a future: the result of the synergy for a smarter city</i>	160
IV. Conclusion	162
 CHAPTER 9	
EFFICIENT TAX INCENTIVES FOR BETTER ENVIRONMENTAL PERFORMANCE: EXPERIENCES WITH CERTIFICATES FOR SUSTAINABLE HOUSING	165
MARÍA AMPARO GRAU RUIZ	
I. Towards an Environmental Certification and Tax Mix	165
II. Different Initiatives in Pursuit of Financial Co-Responsibility and their Impact on Sustainability	168
III. Corporate Social Responsibility and Fiscal Matters	171
IV. Improving the Energy Performance of Buildings through the Use of Certificates in the European Union	173

	<i>Page</i>
V. International Trade, Investment, Environment and Taxation Rules	175
VI. A Look at the Impact of ELIS on Green Public Procurement Regulation	178
VII. Conclusion	180
 CHAPTER 10	
TAX MEASURES TO ENCOURAGE ENVIRONMENTALLY FRIENDLY CITIES FROM A PIT PERSPECTIVE: A SPANISH APPROACH	183
JOSÉ MARÍA COBOS GÓMEZ	
I. Introduction	183
II. Energy Efficiency of Buildings	184
1. Acquisition of Property	185
2. Environmental Housing Investments	186
2.1. At the State level	186
2.2. At the Regional Level	187
3. Possession of Property	191
4. Incentives for the Tenant	193
III. Sustainable Mobility	194
1. Employment Income	194
2. Business Activities	196
3. Deductions to Encourage Sustainable Mobility	196
IV. Tax Treatment of Subsidies	197
V. The Wealth Tax	198
1. Energy Saving and Efficiency	198
2. Sustainable Mobility	198
VI. Conclusions	198

	<i>Page</i>
 CHAPTER 11	
DISPOSABLE PACKAGING WASTE AND THE POLLUTER PAYS PRINCIPLE: INTRODUCTION OF A CHARGE FOR DISPOSABLE COFFEE CUPS	201
MARÍA DEL CARMEN CÁMARA BARROSO	
I. Introduction	201
II. Recent Advances in the Fight Against Plastic Pollution at the Level of the European Union	203
III. The United Kingdom's Proposal to Introduce a Tax on Disposable Coffee Cups	206
IV. What Alternatives are there to Introducing a 'Latte Levy'?	211
V. Another Problem With on-the-go Consumption: Plastic Bottles. The Experience of the United Kingdom	214
VI. Conclusions	216
 CHAPTER 12	
PLASTIC AND GREEN BAG TAXES: RECENT TRENDS IN ITALY	217
MARINA BISOGNO	
I. Introduction	217
II. Economic and Legal Framework to Reduce Plastic Pollution	219
III. The Negative Externalities Related to Plastic Bags: Taxation as a Correction Tool	220
IV. The Plastic Bag Tax	222
1. Definition	222
2. Economic and Environmental Justification	223
3. The Application of Plastic Bag Tax in Some European Experiences	225
4. The Recent Italian Reform: Nature, Problems and Perspectives	226
V. Concluding Remarks	230

	<i>Page</i>
CHAPTER 13	
COULD ENVIRONMENTAL TAXES HELP TACKLE PLASTIC PELLETS LEAKAGE?	233
JOANA PEDROSO	
I. Introduction	233
1. <i>Outline</i>	234
2. <i>Case: Plastic Pellets Leakage in the Urban Area of Stenungsund – Sweden</i>	235
II. Why Use Environmental Taxes to Tackle this Issue?	236
1. <i>General Tax Design Features</i>	237
2. <i>Industrial Water Leakage Tax</i>	238
3. <i>Road and Water Transport Leakage Tax</i>	239
4. <i>Plastic Tax</i>	241
III. How Does State Aid Law Impact National Environmental Taxation?	242
IV. Final Remarks	248
CHAPTER 14	
THE TAX REGIME OF HISTORICAL GARDENS IN A PERSPECTIVE OF CULTURAL AND ENVIRONMENTAL VALORISATION	249
CATERINA VERRIGNI	
I. Premise	249
II. Overview of the Legal Regime Concerned with Historic Parks and Gardens	251
III. Tax Benefits Applicable to Historic Parks and Gardens	253
1. <i>Liberal Donations</i>	258
IV. The Enhancement of Historic Parks and Gardens in the Field of Cultural Tourism	260
V. Conclusion	262

	<i>Page</i>
CHAPTER 15	
CREATIVE DISTRICTS AND SUSTAINABLE GROWTH. A TAX LAW PERSPECTIVE	265
SILVIA GIORGI	
I. Introduction	265
II. Culture as a Driver of Sustainable Development	266
III. From Cultural Districts to Creative Districts: Models and Sustainability	268
1. <i>The Creative Wallonia District</i>	270
2. <i>The CREATE District in Tuscany</i>	271
3. <i>Creative Districts and Environmental Sustainability</i>	271
IV. The Propeller Role of Taxation (Hypothesis)	272
1. <i>Why Tax Incentives?</i>	273
2. <i>Subjects</i>	274
3. <i>Forms</i>	276
4. <i>Tax Incentives and Legal Principles: Looking for a Balanced Framework</i>	276
V. Tax Incentives and State Aid	278
VI. Conclusions	280
CHAPTER 16	
DRIVEN BY SUBSIDIES: GOVERNMENT SUPPORT FOR THE USE OF FOSSIL FUELS IN THE TRANSPORT SECTOR IN EUROPE	283
IPEK GENÇSÜ, MATTHIAS RUNKEL, LAURIE VAN DER BURG, LEAH WORRALL, SHELAGH WHITLEY Y FLORIAN ZERZAWY	
I. Introduction	283
II. Methodology	285
1. <i>Definition of Subsidies</i>	285
2. <i>Approach to Calculating Subsidies</i>	286
3. <i>Sources of Information</i>	287
4. <i>Availability of Data</i>	287

	<i>Page</i>
III. Findings	288
1. Cross Cutting Findings	288
2. Country findings	291
IV. Conclusion	293
V. References	294
CHAPTER 17	
ITALIAN EXPERIENCES OF LOCAL TAXATION TO PROTECT THE ENVIRONMENT: A COMPARATIVE ANALYSIS	299
ROBERTA ALFANO Y ALESSIA TOMO	
I. Background and Research Questions	299
1. Outline	301
II. The Taxes on Aircraft Noise Emissions	301
1. IRESA – Italian Regional Tax on Civil Aircraft Noise Emissions	302
2. TNSA – French Tax on Air Transport Noise Pollution	305
III. Road Pricing Instruments	307
1. Italian Case in Milan: from Pollution Charge (Ecopass), to Congestion Charge (Area C)	308
2. European Cases: London's Congestion Charges and Norwegian Road Tolls	310
3. Future Aims	312
IV. Conclusion	313
CHAPTER 18	
TAXES ON AIR POLLUTION IN SPAIN	315
IGNASI PUIG VENTOSA, LUÍS CAMPOS RODRIGUES Y ROSARIA CHIFARI	
I. Introduction	315
II. Analysis of the Main Elements of the Laws Regulating Regional Taxes	317
III. Comparative Analysis	325
1. Identification of Strengths and Weaknesses	325

	<i>Page</i>
2. Comparative Simulation of the Full Quota	328
3. Collection of Taxes	331
IV. Proposals	334
1. Scope of the Tax	334
2. Tax Updates	334
3. Tax Exemptions and Benefits	335
V. Conclusion	335
CHAPTER 19	
THE FUTURE OF TAX ON MOTOR VEHICLES IN SPAIN: AN ENVIRONMENTAL PERSPECTIVE	337
ANTONIO FERNÁNDEZ DE BUJÁN Y ARRANZ	
I. Introduction	337
II. Special Tax on Certain Means of Transport	340
1. General Considerations	340
III. Tax on Motor Vehicles	345
IV. Final Considerations: A New Tax on the use of Motor Vehicles?	347
CHAPTER 20	
INCENTIVE PROPOSALS FOR ELECTRIC VEHICLES IN THE SPANISH TAX SYSTEM	349
ÁNGEL MORENO INOCENCIO	
I. Introduction	349
II. The Use of IVMDH as a Financing System for Environmental Policies	350
1. Brief Comparative Analysis	350
2. IVMDH as a Possible Financing Instrument for Electric Vehicle Aid in Spain: Previous Doctrinal and Jurisprudential Aspects	351
III. Does the IVMDH Have a True Extra-Fiscal Character?	355
IV. Specific Proposals for the IVMDH as a Financing System for Electric Vehicle Incentive Policies in Spain	358

	<i>Page</i>
V. Conclusion	358
VI. References	360
 CHAPTER 21	
THE LACK OF TAX INSTRUMENTS IN ENERGY REFORM TO PROMOTE LESS POLLUTING TRANSPORT IN MEXICO CITY	363
DIANA GABRIELA PINZÓN ORTIZ	
I. Introduction	363
II. Brief Overview of Structural Reforms	364
III. Energy and Tax Reform	364
IV. Public transport in Mexico City	367
V. Taxation as an Opportunity for Efficient and Sustainable transport	368
VI. The Transportation Reforms that Were Left Behind by the Mexican Government	371
VII. Conclusion	376
VIII. References	377
 CHAPTER 22	
THE TAXATION ON NON-CONTAMINATING VEHICLES	381
FRANCISCO JOSÉ CAÑAL GARCÍA	
I. Introduction	381
II. Atmospheric Protection Policies	382
1. <i>United Nations Actions</i>	382
2. <i>European Union Regulations</i>	383
3. <i>Spanish Normative</i>	383
III. Less Contaminating Vehicles	384
IV. Measures to Reduce Atmospheric Contamination Caused by Transit	385
V. Economic Instruments to Promote the Purchase of Less Contaminating Vehicles	386

	<i>Page</i>
1. <i>Applicable in the Acquisition of the Vehicle</i>	386
2. <i>Economic Instruments Applicable During the Use of the Vehicle</i>	387
2.1. Tax on Hydrocarbons and Other Taxes	387
2.2. Tax on Ownership of Vehicles	389
A. The Calculation of the Fiscal Power of Vehicles	391
B. Examples of the Fiscal Power of Vehicles	392
C. Coefficient and Tax Bonuses	394
VI. Conclusion	396
 CHAPTER 23	
CLIMATE CHANGE, INTERNATIONAL SHIPPING AND MARKET-BASED MEASURES	397
JUSTO CORTI VARELA	
I. Shipping and Climate Change	397
II. IMO's Marine Environmental Protection Committee Works	398
1. <i>Technical and Operational Measures</i>	399
1.1. The Energy Efficiency Design Index (EEDI)	399
1.2. The Energy Efficiency Operational Indicator (EEOI)	400
1.3. The Ship Energy Efficiency Management Plan (SEEMP)	401
2. <i>Market-based Measures (MBMs)</i>	401
2.1. Emissions Trading Schemes (ETS)	402
2.2. International Funds fed by a Contribution on Fuel	402
2.3. Hybrid Schemes Based on the Promotion of Efficiency	403
III. The 2018 'Initial' Strategy	403
IV. Conclusions	407
V. Bibliography	408

	<i>Page</i>
CHAPTER 24	
THE IMPORTANT ROLE OF ENVIRONMENTAL TAXATION IN RENEWABLE ENERGY PRODUCTION AND ENERGY CONSUMPTION IN THE SPANISH AND IN THE BRITISH ELECTRICITY SECTORS	413
NURIA ENCINAR ARROYO	
I. Introduction	413
II. Energy Policy and Environmental Taxation in the European Union	415
III. The English and Spanish Electricity Sectors, From an Environmental Taxation Point of View	419
1. <i>The English electricity system in the tax regulatory context</i>	419
2. <i>The Spanish Electricity System in the Tax Regulatory Context</i>	422
IV. Conclusion	425
CHAPTER 25	
PROMOTION OF RENEWABLE ENERGY FOR A SUSTAINABLE CITY: TAXES ON ELECTRICITY SELF-CONSUMPTION IN HOUSEHOLDS?	429
GEMMA PATÓN GARCÍA	
I. Concept: Energy Sustainability in the Framework of Environmental Policy in the European Union	429
II. The Policy of Support for Renewable Energy in Spain	431
III. The Energy Efficiency Strategy of Homes in Spain	433
IV. The Necessary Revision of Regulations on the Self-consumption of Electricity in Light of the European Energy Efficiency Policy	436
V. Conclusion	442

	<i>Page</i>
CHAPTER 26	
NUCLEAR ENERGY FOR CITY TRANSPORT DURING THE ENERGY TRANSITION	443
MARÍA DE LOS ÁNGELES DÍEZ MORENO	
I. The Increase in demand for Electrical Energy deriving from Transport Electrification	443
II. Spanish Nuclear Installations	448
III. Nuclear Taxation, a Problem in Spain	450
1. <i>New taxes introduced by Law 15/2012 of December 27th 2012, on fiscal for energetic sustainability</i>	451
2. <i>Legal problems regarding our constitutional system and European community law</i>	452
IV. The Role of Nuclear Energy in the Future	456
CHAPTER 27	
ENVIRONMENTAL TAX REGULATIONS IN THE LIGHT OF THE "INDIRECT EXPROPRIATION" DOCTRINE: THE THREAT OF STATE LIABILITY	459
BEGOÑA PÉREZ BERNABEU	
I. Environmental Taxation	459
II. The International Investment Law's Indirect Expropriation Doctrine and the Right to Regulate of the Host State	463
III. The Threat of Arbitration and the 'Regulatory Chilling Effect'	466
IV. Environmental Regulation and Indirect Expropriation	469
V. Conclusions and Conciliatory Mechanisms	471
CHAPTER 28	
TAX EXEMPTIONS, GREEN AND CIRCULAR ECONOMY AND LOCAL TAXES IN THE URBAN CONCENTRATION	475
CHIARA IACCI Y CARLO SONCINI	
I. Introduction	475

	<u>Page</u>
II. Tax Exemptions and "Green Building"	476
1. Art Bonus	478
2. Bonus Regarding Sustainable Mobility or Public Mobility	478
III. Sustainable Mobility or Public Mobility: The Case of the University of Parma	479
1. List of Sustainable Mobility Activities Put in Place by the Company With the Council Subsidy in 2017 and 2018	479
2. List of Sustainable Mobility Activities Put in Place by the Company Without a Council Subsidy in 2017 and 2018	480
3. Communication	481
4. University of Parma Mobility in a National Context	482
IV. Circular Economy, Taxation, Tax Reduction and Exemption	482
V. Environmental Taxation in Local Taxes	485
VI. Conclusion	485
 CHAPTER 29	
TAX RELIEFS FOR HOUSING AND COLLABORATIVE TRANSPORTATION IN RELATION TO CLIMATE CHANGE GOALS	489
JUAN IGNACIO GOROSPE OVIEDO	
I. Approach: Sustainable Development Through the Sharing Economy?	489
II. The Collaborative Economy in Housing and Transportation	492
III. Benefits in Relation to Climate Change	494
IV. Taxation in the Sharing Economy	496
1. Cash transactions with profit	497
2. Barter arrangements	498
3. Cost sharing arrangements	498
4. Gifts and donations	498
V. Tax Incentives for Housing and Collaborative Transportation	499

	<u>Page</u>
VI. Issues Regarding European Union State Aids Rules	501
VII. Conclusion	502
VIII. References	503
 CHAPTER 30	
TO PARTNER AND PROTECT: THE USE OF TAX INCENTIVES FOR BIODIVERSITY CONSERVATION IN SOUTH AFRICA	507
LEE-ANN STEENKAMP	
I. Introduction	507
II. South African Law	508
III. Biodiversity Stewardship Programme	510
IV. Tax Incentives	511
1. Section 37C – Biodiversity Management Agreement	512
2. Section 37C – Protected Area Agreements	514
3. Section 37D – Land Declared as a Nature Reserve or National Park	515
4. Property Rates Incentives	518
V. Case Study – Birdlife South Africa	519
VI. Lessons from South Africa	520
1. Good Science	521
2. Development Objectives	521
3. Communication	521
4. Working Relationships	522
5. Windows of Opportunity	522
VII. Conclusion	522

Thomson Reuters ProView. User's guide

Tax measures to encourage environmentally friendly cities from a PIT perspective: a Spanish approach¹

JOSÉ MARÍA COBOS GÓMEZ

CONTENTS: I. INTRODUCTION. II. ENERGY EFFICIENCY OF BUILDINGS. 1. *Acquisition of Property*. 2. *Environmental Housing Investments*. 2.1. At the State level. 2.2. At the Regional Level. 3. *Possession of Property*. 4. *Incentives for the Tenant*. III. SUSTAINABLE MOBILITY. 1. *Employment Income*. 2. *Business Activities*. 3. *Deductions to Encourage Sustainable Mobility*. IV. TAX TREATMENT OF SUBSIDIES. V. THE WEALTH TAX. 1. *Energy Saving and Efficiency*. 2. *Sustainable Mobility*. VI. CONCLUSIONS.

I. INTRODUCTION

There is broad consensus on the potential of the tribute as an effective instrument in the fight against environmental degradation, on the basis of the classic 'polluter pays' principle, discouraging behavior that is harmful to the environment while encouraging measures that are more consistent with the rational use of resources. The legal basis for such use in the Spanish legal system lies in the General Tax Law; article 2 states that taxes, in addition to obtaining the necessary resources to sustain primary purpose of public expenditure, can serve as instruments of general economic policy and assist the realization of the Constitution's principles and purposes (that is, environmental protection, from article 45).

1. Partner in the tax practice area of Garrigues and Adjunct Professor at Universidad Pontificia Comillas (Comillas Pontifical University).

There is also broad consensus in Spain for the need to incorporate the environmental variable into 'ordinary' taxes prior to the indiscriminate introduction of new environmental taxes, in order to effectively implement green tax reform.

The Personal Income Tax (PIT) is not an environmental tax, although that does not prevent the incorporation of environmental elements into its structure to incentivize positive behaviors or penalize those which damage the environment. Notwithstanding, to date, PIT has hardly been used as an instrument to promote the protection of the environment.

On the other hand, in the Spanish case it should be taken into consideration that the PIT is configured as a shared tax with the autonomous communities (regions) that assume regulatory powers on matters including certain deductions.

Various autonomous communities, making use of their regulatory powers, have established deductions in the regional section of the PIT for donations to ecological purposes, investment for the recovery of natural heritage, investments for the use of sources of renewable energy, or improving sustainability in the home or the certification of sustainable forest management.

II. ENERGY EFFICIENCY OF BUILDINGS

It is not necessary to delve into the growing interrelationship between urbanism and the environment. As the Supreme Court noted, *"concern with environmental values has emerged recently, intensified progressively and rapidly and, in short, is introduced to mix inextricably with urbanism. Current regulatory concern for the environment, at the international and EU level, and under our domestic law, cannot be understood if it is not in response to the growing social concern for sustainable development, which comes after found the excesses that the previous environmental carelessness had caused in our environment"* (Judgment of the 8th of June 2012). This concern, reflected in EU Directives, has been incorporated into Spanish domestic regulation, by requiring that all homes for sale or lease have a certificate of energy rating (where an A rating corresponds to the most efficient housing and G to the least efficient), considering both energy consumption and CO₂ emissions.

Notwithstanding, it is hard to find tax measures aimed at promoting the use of renewable energy or taking measures to improve energy efficiency of buildings in the area of the individual taxation. We will describe in this

paper some measures whose main motivation was the economic recovery, but with potential impact on energy efficiency.

1. ACQUISITION OF PROPERTY

For historical reasons, a tax deduction for money invested in the acquisition, rehabilitation, construction or extension of a residence is provided by Spanish legislation. Framed by the constitutional right to a house², this incentive was criticized for the possible distortion of housing prices. As a result it has disappeared in favour of new investments and may only be applied to taxpayers who were enjoying the deduction prior to 2013. The deduction amounts to 15 percent of the invested quantities (on a maximum base of EUR 9.040).

Although the configuration of tax credit is mainly aimed at protecting houses, there is reference to environmental protection in the concept of 'rehabilitation' where works are intended to improve environmental efficiency of water, energy, materials, waste management and protection of biodiversity³:

- In the field of water: reducing the use of potable water and irrigation, sustainable urban runoff, stormwater and wastewater management, and debugging.
- In the field of energy: improving energy efficiency in buildings and urban services, implementing renewable energy sources and systems of centralized air conditioning and district, promoting sustainable mobility and other measures aimed at reducing energy demand, emissions of polluting gases and increasing the use of renewable energy.
- In the area of the improvement in the use of materials and waste management: the work relates to the improvement of recycling materials, especially those directed to comply with the national or regional plans of collecting waste, those relating to the use of

2. "All Spaniards are entitled to enjoy decent and adequate housing. The public authorities shall promote the necessary conditions and shall establish appropriate standards in order to make this right effective, regulating land use in accordance with the general interest in order to prevent speculation.

The community shall participate in the benefits accruing from the urban policies of the public bodies" (article 47 of the Spanish Constitution).

3. Royal Decree 233/2013, on 5 April, which regulates the State Plan of development of rental housing and urban renewal, building rehabilitation and regeneration, 2013-2016, extended to 2017 by Royal Decree 637/2016, on 9 of December.

recycled or renewable materials in construction or urbanization, and those relating to the use of local materials linked to strategies for promoting sustainable management of territory.

- In the field of the protection and enhancement of biodiversity, proposals for connectivity of green spaces, for the promotion of green roofs, or introducing species suitable to the environment.

Therefore, this incentive could be 'greened' by modulating tax deductions on the basis of the degree of energy efficiency of the building or by introducing a specific deduction for rehabilitation work that aims to improve energy efficiency.

2. ENVIRONMENTAL HOUSING INVESTMENTS

2.1. At the State level

On the other hand, mention should be made to the tax deduction that, as an economic (anti-crisis) stimulus measure, remained in effect for the works performed in homes between the 14th of April 2010 and 31st of December 2012. The tax deduction was applicable on works aimed at the improvement of energy efficiency, hygiene, health and environmental protection, as well as the use of renewable energy, in the terms laid down in the Royal Decree 2066/2008, of 12 December, which regulates the State Housing Plan and rehabilitation 2009-2012⁴.

The main features of this incentive were the following:

- a) Works carried out between the 14th April 2010 and 6th of May 2011: tax credit of 10 percent applicable on amounts for the execution of works in the habitual home by the taxpayer with a taxable base up to EUR 53.007,20 per year. The maximum annual tax credit base was EUR 4,000 (with a multi-year limit of 12,000.00 EUR per housing).
 - b) Works made between 7th of May 2011 and 31st of December 2012: tax credit of 20 percent on the amount for works in any type of housing (habitual home or not), except houses applied to business activities, by taxpayers with a taxable base up to EUR 71,007.20 per
4. It includes, among others, work aimed at (i) the installation of solar panels, (ii) the improvement of the thermal envelope of the building to reduce energy demand, (iii) any improvement in the systems of heating systems that increase energy efficiency or the use of renewable energy, (iv) improvement of supply facilities and installation of mechanisms that favor water savings.

year. The maximum annual tax credit base was EUR 6,750 (with a multi-year limit of EUR 20.000,00 per housing).

2.2. At the Regional Level

Various autonomous communities, making use of their regulatory powers, established incentives for environmental investments in housing. As will be shown below, this alternative, although aligned with the Spanish legal framework, is not fully efficient, as this incentive is only used in some autonomous communities and the investments, amounts, requisites and limits are different in each community. They are as follows:

Cantabria. The taxpayer receives a deduction of 15 percent on the amount paid on works made during the fiscal year in any home, provided that it is located in the community of Cantabria and aims to:

- a) Improve energy efficiency, hygiene, health and protection of the environment and the accessibility to housing or the building in which it is located.
- b) Use renewable energy, security, the seal and, in particular, replacing electricity, water, gas and heating facilities.

The deduction will not apply to works carried out in houses applied to economic activities, parking lots, gardens, parks, swimming pools and sports facilities and other similar elements.

The basis of this deduction consists of paid quantities (by debit or credit card, bank transfer, check or income accounts in credit) to people or entities carrying out such works. In no event will this deduction apply to amounts paid in cash.

The maximum annual tax credit will be EUR 1,000 on individual taxation and EUR 1,500 for joint taxation. For taxpayers with a degree of disability equal to or greater than 65 percent, this limit rises to EUR 500 in both individual and joint taxation and EUR 500 in joint taxation by each taxpayer with that disability.

Amounts paid by the taxpayer entitled to apply for the deduction for investment in a habitual home at the state level are not eligible for the regional tax credit.

Balearic Islands. 50 percent tax credit on investments that improve the quality and sustainability of dwellings, that are carried out on the

property, located in the Balearic Islands and constitute, or will constitute, the primary residence of the taxpayer.

For these purposes, the following investments are understood to improve the quality and sustainability of dwellings:

- a) The installation and equipment for the generation or that allow using renewable energy such as solar energy, biomass or geothermal energy, so that such investments reduce the consumption of conventional thermal or electric energy of the building. It will include the installation of any technology, system or equipment of renewable energy, such as solar thermal panels, in order to contribute to the production of hot water required by dwellings or hot water production air-conditioning systems.
- b) Investments in the improvement of supply facilities and installation of mechanisms that promote water-saving, as well as the implementation of separate networks in building and other systems that favor the reuse of rainwater and greywater in the same building (or in the plot) and to reduce the volume of discharge into the public sewage system.

The basis of the investment tax deduction in housing corresponds to the amount paid by the taxpayer, with a maximum of EUR 10,000 per fiscal year.

In order to apply the deduction, the investment should improve the energy efficiency rating at least one level, according to Royal Decree 235/2013, which approves the basic procedure for the energy certification of buildings.

The total taxable base of the taxpayer may not exceed the limit of EUR 24,000 in individual taxation or EUR 36,000 in joint taxation.

Castile and Leon. A tax credit of 10 percent on the following investments made in the rehabilitation of dwellings located in the community of Castile and Leon that constitute or will constitute the primary residence of the taxpayer:

- a) Installation of solar panels, in order to contribute to the production of domestic hot water demanded by homes, in a percentage, at least, of 50 percent of the minimum contribution required by the technical regulations of the applicable building.
- b) Improvement in heating systems that increase energy efficiency or the use of renewable energy.

- c) The improvement of supply facilities and installation of mechanisms that promote water-saving, as well as the realization of separate sanitation networks in the building that encourage reuse of greywater, reducing the volume of discharge into the public sewage system.

The rehabilitation of housing must comply with regulations for the deduction at the State level in the PIT.

The application of the tax credit will require prior recognition by the competent authority that the performance of rehabilitation has been included in the rehabilitation of community housing plans and shall apply to actions included in the rehabilitation plans of housing to develop the Region of Castilla y León.

Additionally, it is required that the total taxable base (reduced in the personal and family minimum) does not exceed EUR 18,900 in individual taxation and EUR 31,500 in joint taxation.

The basis of the tax credit will not exceed EUR 10,000 and will be constituted by the amounts actually paid by the taxpayer for the purchase and installation of these facilities.

Galicia. Taxpayers get a 5 percent tax credit on the amount paid throughout the year for the installation of heating and/or domestic hot water systems in buildings that use renewable energy sources (as defined in article 2 of Directive 2009/28/EC of the European Parliament and of the Council of the 23rd of April 2009 on the promotion of the use of energy from renewable sources). The deduction limit is EUR 280 per taxpayer.

In the case of residential buildings in horizontal property regimes that are newly built or that proceed to the substitution of equipment of thermal generation by others that use renewable energies, the deduction may be applied individually by each of the owners in the percentage that corresponds to the community of owners.

The basis of this deduction will be constituted by the amount paid for the installation (that is: generation system, system of thermal emission and collection system) to installers who perform the installation. In no event will the deduction apply to amounts paid in cash.

In order to apply the deduction, the installation must be properly registered by the installer, who must be qualified by the Virtual Office Industry (OVI), as set out in the regulation of heating systems in buildings (RD 1027/2007 of 20 July).

Subsequently, and always before the expiry of the time limit to present the self-assessment corresponding to the tax period in which the installation is paid, the following documentation should be provided via the OVI: analyzed budget of the installation, invoices issued by enabled installer and proof of payment for the cost of installation.

Murcia. Taxpayers can receive a 10 percent deduction on the investments made in works of installation from the following sources of renewable energy: solar thermal, solar photovoltaic and wind power. The amount of this deduction may not exceed EUR 1,000 per year.

The base of this deduction will be constituted by the amount paid for the acquisition and installation of renewable energy resources that have been borne by the taxpayer. The base of the tax credit may not exceed EUR 10,000 per year.

The installation of renewable energy resources must be in housing that constitutes or will constitute the primary residence of the taxpayer.

This deduction can also be applied on investments made in the acquisition and installation of renewable energy resources in houses to rent, provided that this lease is not considered a business activity.

The deduction will require prior recognition by the Regional Administration.

Taxpayers can also receive a 20 percent deduction on investments made in home devices for water saving, (in accordance with article 4 of the law 6/2006, of July 21) on increase of savings or consumption of water conservation measures can be applied in the autonomous of Murcia. The amount of the deduction may not exceed EUR 60 per year.

The maximum annual deduction base is EUR 300 and will be constituted by the amount paid for the acquisition and installation of the home devices for water savings by the taxpayer.

The acquisition and installation of domestic water saving devices must be in houses that constitute the primary residence of the taxpayer.

The deduction will require prior recognition by the Regional administration.

Valencian community. Taxpayers can apply a 5 percent deduction on amount invested in the acquisition of facilities or equipment for any of the following purposes:

- a) Solar or wind energy to convert into heat or electricity.

- b) Use of biomass or energy crops to convert into heat or electricity.

These purposes must not constitute the exercise of an economic activity.

Amounts invested by the taxpayer in the fiscal year will be included in the base of this deduction, including amounts paid for financing the investment (with the exception of interest).

The deduction will not apply to any part of the investment financed with public subsidies. The maximum deduction base will be EUR 4,100 per year when the total taxable base of the taxpayer is less than EUR 23,000 per year on individual taxation or EUR 37,000 in joint taxation. For higher taxable bases the deduction is proportionally reduced to zero when the total taxable base exceeds EUR 25,000 in individual taxation or EUR 40,000 in joint taxation.

3. POSSESSION OF PROPERTY

The taxation of property varies depending on the use of the property. The habitual home is not subject to taxation, unlike real estate for lease. In the latter case, rental income subject to taxation is calculated as the difference between revenue and necessary expenses to obtain such income.

The only incentive foreseen is aimed to promote the market for rental housing (through a partial exemption of 60 percent of the net income obtained), provided that the leasing activity does not constitute a business activity⁵. However, the lease of property for any purpose other than housing does not qualify for a reduction.

For this reason, during the parliamentary works which led to Law 26/2014, a 20 percent reduction on net income from a property qualified with the letters 'A' or 'B' according to the energy efficiency scale was proposed⁶.

In addition, the application of this reduction by taxpayers who made suitable works and installations in real estate amounting to a minimum of EUR 5,000 was also proposed, provided that it resulted in improvement of

⁵ The rental of buildings is understood to be performed as business activity only when, at least, a person is employed with an employment and full time contract for the management of the activity.

⁶ Amendment No. 142 of the Catalan parliamentary group in the Congress, Amendment No. 39 of the Mixed parliamentary group in the Senate, and Amendment No 82 of the Catalan parliamentary group in the Senate.

at least one letter in the qualification of the housing on the energy rating scale. This reduction would apply to the tax period in which works and installations were carried out as well as the following two years (totalling three years).

However, if the improvement in the above mentioned terms was of two or more letters, the reduction would be applicable in the tax period in which the works and installations were carried out as well as installations and in the following four years (therefore totalling five years).

This proposal was intended to encourage the existence in the rental market of more energy efficient buildings, with the objective that both landlords and tenants were more aware of the importance of energy efficiency, promoting the objectives pursued by Directive 2010/31/EC, as well as the revitalization of the building industry. In our opinion, there appears to be no reason for not applying this proposal to leases that constitute business activity.

In addition, these measures could be accompanied by the express qualification of the costs for the improvement of the energy efficiency of the building as repair and maintenance costs, eliminating the deductibility limitations on this type of expenditure. Let us remember that the deductibility of such expenses is subject to two types of limits:

- a) On the one hand, investment costs are not fully deductible in the same fiscal year in which the cost is incurred. These costs are deductible according to their depreciation. The express qualification for tax purposes of the costs for the improvement of energy efficiency as expenses would avoid undesirable polemics on this issue.
- b) On the other hand, the cost of repair and conservation, along with the interests of the capital invested in the acquisition or improvement of the property and other financing costs cannot exceed, for each asset or right, the amount of gross income obtained. Eliminating this limitation, not only for repair and maintenance costs, leads to the improvement of the property's energy efficiency, as well as the associated financial costs; this could contribute significantly to the desired environmental objective.

Finally, buildings which do not constitute the habitual home, which do not generate income and which are not related to a business activity are subject to taxation on a fictitious income ('imputation of returns on

real property') calculated by applying a percentage on the cadastral value (rateable value) of the property. That rate is 1.1 percent if the cadastral value has been revised in the last 10 years and 2 percent otherwise. With the aim of 'greening' the taxation of these buildings, it would be possible to replace the fixed percentages (1.1% or 2%) on a scale depending on the energy rating of the property⁷:

Energy efficiency rating	Non-revised cadastral values	Revised cadastral values
A	1%	0.55%
B	1.1%	0.66%
C	1.3%	0.77%
D	1.5%	0.88%
E	1.7%	0.99%
F	1.9%	1.10%
G or unqualified	2%	1.10%

The aim of this proposal is to modulate the amount of income included in the taxable base depending on the degree of energy efficiency of the building, so that the benefits or damages derived from the optimal use of energy impacts the owner of the building. Reducing the percentage to calculate taxable income, favors property owners improving energy efficiency, thus contributing to the achievement of the objectives set by the Directive 2010/31/EC, while revitalizing the construction sector.

4. INCENTIVES FOR THE TENANT

In relation to incentives in favor of the tenant, a 10 percent deduction has been proposed when the house has a grade 'A' or 'B' according to the energy efficiency scale. The deduction is 8 percent if the house has a 'C' or 'D' grade⁸. The deduction applies to taxpayers with a reduced taxable base⁹.

The justification of the proposal points out that this measure would encourage the awareness of landlords and tenants about the relevance

7. Amendment No. 171 of the Catalan parliamentary group in the Congress. Amendment No 90 of the Catalan parliamentary group in the Senate.

8. Amendment No. 166 of the Catalan parliamentary group in the Congress. Amendment No. 49 of the Mixed group in the Senate, and Amendment No 70 of the Catalan parliamentary group in the Senate.

9. Less than 6.5 times the IPREM (the reference indicator for determining social benefits).

of energy efficiency, fuel savings and environmental improvement. The application of the tax incentive only to those houses of medium/high efficiency would encourage the implementation of actions aimed at improving energy efficiency with the objective of enjoying higher incentives for those dwellings that have a higher qualification energy ('A' or 'B'). Therefore, a tax incentive like this would contribute, as in previous cases, to the overall objectives of improving energy efficiency, challenging climate change and revitalizing the building industry.

III. SUSTAINABLE MOBILITY

As highlighted by the European Commission, the Paris Agreement's entry into force has made the transition to a modern low-carbon economy a reality. Low-emission mobility is an essential component of the broader shift to the low-carbon, circular economy needed for Europe to stay competitive and to cater to the mobility needs of people and goods. Transport represents almost a quarter of Europe's greenhouse gas emissions and is the main cause of air pollution in cities. Europe's answer to these challenges is an irreversible shift to low-emission mobility in terms of carbon and air pollutants. The objective is clear: by mid-century, greenhouse gas emissions from transport will need to be at least 60 percent lower than in 1990 and be firmly on the path towards zero. Emissions of air pollutants from transport that harm our health need to be drastically reduced without delay¹⁰.

As in the case of energy efficiency, we can hardly find tax measures aimed at promoting sustainable mobility. In the following section, we will review some measures that were proposed in the past but were not approved.

1. EMPLOYMENT INCOME

Two measures related to less-polluting mobility have been identified that could aid the protection of the environment. Both measures are part of the favorable taxation which is provided for certain retributions paid.

Firstly, although its regulation does not explicitly refer to environmental impact, we can refer to the exemption provided by article 42.3 of the PIT

10. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. A European Strategy for Low-Emission Mobility, COM(2016) 501 final.

Law: retribution in kind derived from amounts satisfied by the employer to the entities responsible for the public service of collective transport of passengers in order to facilitate the movement of employees between their place of residence and the place of work shall be tax exempt, with a limit of EUR 1,500 per year for each worker. The aforementioned article also provides the possibility of applying the exemption to indirect payment formulas that meet certain regulatory conditions.

Although there is no doubt that the promotion of public transport contributes to the reduction of pollutant emissions into the atmosphere, this exemption is not based directly on protecting the environment. In this context, it could be worth to consider the extension of this exemption to other types of remuneration, as it could be, for example, the delivery or provision to employees of bicycles or other means of transport with no polluting emissions.

Secondly, mention should be made to novel measure introduced in Law 26/2014) which includes a 30 percent reduction in the calculation of the retribution in kind consisting of the grant of use of energy-efficient vehicles, with the aim of improving the environment.

In general, the use of a company vehicle generate a tax income whose valuations is a 20 percent of the acquisition cost of the vehicle for the payer (including the taxes that are payable in respect of the operation). If the vehicle does not belong to the payer (for example, renting), that percentage will apply on the market value of the vehicle if it were new.

In the case of energy-efficient vehicles, the following reductions apply:

- a) A 15% tax reduction in the case of vehicles that fulfill the EUR 6 emission limits¹¹, whose official emissions of CO₂ do not exceed 120 g/km and the market value of which does not exceed EUR 25,000 when new.
- b) A 20% tax reduction when the vehicle is also a hybrid, powered by internal combustion engines that use alternative fossil fuels (autogas – LPG – and natural gas), whose market value when new does not exceed EUR 35,000.

11. Limits referred to in annex I to Regulation (EC) No. 715/2007 of the European Parliament and of the Council of 20 June 2007 on type-approval of motor vehicles in what refers to emissions from passenger cars and commercial vehicles light (Euro 5 and Euro 6) and on access to information relating to the repair and maintenance of vehicles.

- c) A 30% tax reduction in the case of any of the following categories of vehicles: (i) electric battery vehicle (BEV), (ii) extended-range electric vehicles (E-REV) or (iii) hybrid electric vehicle (PHEV) plug-in with a minimum range of 15 kilometers where the market value when new, before taxes, does not exceed EUR 40,000.

These reductions also apply in the case of retributions paid by employers whose main activity is the transfer or renting of this type of vehicle. In these cases, the PIT legislation provides, as a general rule, that the valuation of the retribution may not be lower than the price offered to the public good, right or service concerned. Notwithstanding, in the case the energy-efficient vehicles, the 30 percent reduction shall apply.

2. BUSINESS ACTIVITIES

It is striking that the recent tax reforms (Law 26/2014 and Law 6/2017, on 24 October, of urgent reforms of self-employed work) have not improved the tax deductibility of energy-efficient vehicles being used in business activity. It should be remarked that, in contrast to the rules of the Value Added Tax (VAT), the deduction of the expenses derived from a vehicle is only allowed when the vehicle is intended exclusively for the development of the business (that is, deduction of expenses in connection with vehicles that meet both professional needs and private needs is not allowed).

Therefore, an opportunity has been lost to accept the deduction, at least partially, on expenses derived from energy-efficient vehicles when they are used for both professional and private needs. This extension would make it possible to deepen the environmental effects of the measure and the awareness of the business sector on the need to reduce the environmental impact of their activities. This measure would also be consistent with the treatment of the vehicles for VAT purposes.

3. DEDUCTIONS TO ENCOURAGE SUSTAINABLE MOBILITY

No tax incentives for individuals aimed at sustainable mobility exist at the State or Regional level.

Nevertheless, in recent years various initiatives were filed to promote sustainable mobility in the field of personal income tax. Thus, we can firstly refer to the proposition of law on environmental taxation issued on

21st of July 2009, whose article 9 proposed the introduction of a 25 percent tax deduction on the purchase of public transport cards¹².

This proposal was taken up again in article 6 of the proposition of law on saving and efficient use of energy¹³ (later renamed green taxation Bill)¹⁴ albeit with three modifications:

- a) Firstly, the deduction was not only applicable to the acquisition of public transport cards, but also fees for the use of public systems in rental cars, bikes and systems of "Car Sharing".
- b) Secondly, the deduction was modulated on the basis of the taxpayer's taxable base, being 33 percent for payable bases up to EUR 17.0707,20 and 20 percent for taxpayers with higher taxable base. In the event that the taxable base exceeds the threshold of EUR 33.007,20, the deduction would not apply.
- c) Thirdly this deduction was not applicable to retributions paid in-kind by companies to facilitate the transport of employees that benefit from the exemption provided for this retributions.

The proposal was recovered during parliamentary discussions of Law 26/2014, in which a deduction of up to 33 percent for the acquisition of public transport cards was proposed to deepen the environmental character of this tax, with the aim of promoting sustainable mobility (in public transport, public rental systems for bicycles or car sharing) and preventing atmospheric pollution and the irrational use of resources¹⁵ (although this was not included in the final wording of the Law 26/2014).

IV. TAX TREATMENT OF SUBSIDIES

Economic incentives to promote energy efficiency and sustainable mobility have sometimes resulted in subsidies, although they have shown certain fiscal inefficiencies as subsidies are subject to taxation.

12. Bill on environmental taxation presented by the parliamentary group of Esquerra Republicana-Izquierda Unida-Iniciativa per Catalunya Verds dated July 21, 2009 (Bulletin of July 31, 2009).
13. Bill of saving and efficient use of energy by IU, ICV-EUiA parliamentary group: the Plural left dated December 11, 2012 (Bulletin of December 14, 2012).
14. Bulletin of January 25, 2013.
15. Amendment No. 64 and 65 of the IU, ICV-EUiA parliamentary group: Plural left and amendments 161 and 168 of the Catalan parliamentary group in the Congress. Amendments No. 183 and 190 of the parliamentary group Entesa pel Progrés de Catalunya in the Senate.

Our proposal to make the PIT 'green' would exempt these subsidies from taxation, fully supporting the constitutional mandate of protecting the environment. This would give a simple solution that is respectful of the principles of tax fairness and that avoids the taxation being an obstacle to the fulfillment of the environmental objective of subsidies.

V. THE WEALTH TAX

A brief reference to the general application of Spain's wealth tax should be made. This tax does not currently include measures relating to energy efficiency or sustainable mobility.

1. ENERGY SAVING AND EFFICIENCY

The taxation of real estate with a high energy efficiency certificate could be reduced, thus promoting investments to improve savings and energy efficiency of buildings. This measure could be complementary to those currently existing for the protection of the habitual home.

2. SUSTAINABLE MOBILITY

Regulations provide that vehicles are valued applying certain coefficients on the values approved for each vehicle by the Finance Ministry (considering the average selling price of used vehicles). Such coefficients reduce the value according to the age of the vehicle.

The greening of this tax would be achieved by adapting the coefficients according to the environmental impact of vehicles (attending, for example, their atmospheric emissions).

VI. CONCLUSIONS

The Personal Income Tax (PIT) is not an environmental tax, although this does not prevent the incorporation of environmental elements into the structure of the tax, to incentivize certain positive behaviors or penalize those which damage the environment.

Regarding energy efficiency in buildings, we propose the following measures:

- Tax deductions on amounts invested in the acquisition, rehabilitation, construction or extension of the residence could be 'greened' by modulating the amount of deduction on the basis of

the degree of energy efficiency of the property or introducing a specific deduction for the rehabilitation work that aims to improve the energy efficiency of housing.

- Various autonomous communities, making use of their regulatory powers, have established incentives for environmental investments in housing. This alternative, although aligned with the Spanish legal framework, could not be fully efficient as it is only implemented in some autonomous communities and the investments, amounts, requisites and limits are different in each community. A homogenous or, at least, coordinated regulation at the State level would increase the efficiency of these instruments.
- Taxation of income derived from the property could be modulated according to the efficiency energy scale based on the EU Directives.
- A specific deduction for tenants of more energy efficient buildings could be introduced in order to encourage the use of these kinds of buildings.

Regarding sustainable mobility, we propose:

- Tax exemptions on amounts paid by the employer to entities responsible for the public service of collective transport of passengers in order to facilitate the movement of employees between their place of residence and the place of work. This measure could be extended to the delivery or provision to employees of bicycles or other means of transport with no polluting emissions.
- Specific measures for individuals who obtain income from business activities should be introduced to promote the use of energy-efficient vehicles. In particular, higher flexibility could be incorporated to the strict existing rule that only allows the deduction of expenses derived from a vehicle when it is intended exclusively for the development of the business activity (not allowing the deduction of any expense in connection with vehicles that meet both professional and private needs).
- It would be advisable to introduce tax credits for the acquisition of public transport cards or other means of transport with no emissions (such as bicycles and scooters) in order to promote sustainable mobility.

Considering that Wealth Tax is generally applied in Spain, and that it does not include measures relating to energy efficiency or sustainable mobility, a reduction to the taxation of high energy efficient buildings and vehicles with a low environmental impact would be advisable.