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TAX CREDITS FOR ENVIRONMENTAL INVESTMENT AS AN INSTRUMENT FOR ENVIRONMENTAL SUSTAINABILITY

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1. Introduction. Environmental incentives in Spain

In the current context of the economic crisis and the need for a commitment to sustainable development to hold off the consequences of climate change, tax instruments can be a useful tool for tackling both these issues.

Environmental tax instruments usually bring to mind environmental charges, mainly in the form of taxes, based on «the polluter pays» principle and, consequently, on the need to tax the activities that do the most harm to our environment.

In contrast to this traditional use of taxation, however, tax incentives, as positive instruments, are a more efficient way to foster change in the behavior of business players towards a commitment to sustainable development.

The launch of tax incentives for protection of the environment is not new to OECD countries, and the ones already in place generally consist of accelerated depreciation systems or tax credits for investments aimed at protecting the environment².

A good example is the Spanish corporate income tax credit for environmental investments, recently reinstated by the Sustainable Economy Law³. This instrument, which has been in force since 1997, has proved an effective incentive for achieving the twofold aim of reducing the polluting impact of companies' facilities and fostering agreements or voluntary contracts with the environmental authorities. It consists of an 8% corporate income tax credit for investments which go further than the require-

¹ The comments and suggestions made by Juan Reig Gastón (Garrigues) and Ernesto Lluch Moreno and Roberto García Polo (Garrigues Medio Ambiente) have been invaluable for the preparation of this report.

² Several examples of these measures may be found in the OECD database on taxes related to the environment, available at the following link: <http://www2.oecd.org/econinst/queries/index.htm>

³ Sustainable Economy Law 2/2011, of March 5, 2011. This law was approved with the ambitious aim of introducing into Spanish law the structural reforms necessary to create favorable conditions for building a sustainable economy.

ments under environmental law towards avoiding or reducing the polluting impact of enterprises on three specific environmental variables: air and noise, water, and industrial waste⁴.

The design of any environmental tax incentive must take into account the following issues:

- From an economic standpoint, economic incentives are usually classified with subsidies, and their effectiveness has been brought into question as compared to other economic instruments (such as taxes)⁵.
- From a legal standpoint, tax incentives are an exception to the normal design of a tax and to the principle of economic capacity, and therefore should not be used on a general basis but rather to achieve specific purposes.

A fascinating study by Ignasi Puig Ventosa on the relationship between taxation, innovation and the environment in Spain, in the context of the OECD project on «Taxation, Innovation and the Environment»⁶, pointed to certain limitations of the Spanish environmental tax credits, such as:

- The existence of a changing legal framework (which has a cost in terms of stability and predictability), unawareness by companies' of their existence (leading to limited use), complexity and bureaucracy (leading to higher administrative costs), uncertainty about their future (due to a progressive phasing out planned on the date of the study) and legal uncertainty regarding possible tax audits.
- Their lack of flexibility (a law has to be changed in order to modify their intensity, as compared to the flexibility of subsidy programs, for example,) or the fact that enterprises must have a positive tax debt to be able to benefit from the tax credits (they can be deferred but only for a limited number of years).

⁴ Additionally, for fiscal years commenced on or before December 31, 2010, the chapter on environmental investment tax credits included two other tax incentives: one for the acquisition of lesser polluting vehicles for highway transport and another to foster investments aimed at harnessing renewable energy sources. As a result, some authors have stated that «a first criticism of this tax credit is its complexity, the attempt to bring very diverse investments under the protective cloak of the 'environment'» (Carbajo Vasco, Domingo, «La deducción por inversiones medioambientales en el Impuesto sobre Sociedades» («The corporate income tax credit for environmental investments»), *Impuestos*, no. 9, May 2010).

⁵ From an economic standpoint, it has been said that subsidies, among which tax benefits are usually classified, can be inferior to taxes in terms of effectiveness, economy and fairness. For example, González Fajardo pointed to the following weaknesses of subsidies:

- They restrict a company's freedom to choose the mechanism or way to reduce pollution.
- The structure of the subsidy can make it ineffectual. If an investment increases a company's costs and does not increase its revenue, the fact that the regulatory authority bears a portion of the cost (subsidy) does not turn the investment into a profitable transaction.
- This type of subsidiary does not reward a reduction in waste but something related to it: the installation of anti-polluting equipment (González Fajardo, Francisco, «Instrumentos de política ambiental en forma de precios» («Environmental policy measures in the form of prices»), *Cuadernos de Ciencias Económicas y Empresariales*, no. 21, 1991).

⁶ Puig Ventosa, Ignasi, «Taxation, Innovation and the Environment – The Spanish Case», OECD, 2008.

- The authorities' failure to adapt the implementing regulations, which could result in enterprises incorrectly taking the incentive for investments which they are legally required to make.

As Puig Ventosa mentioned in that study, however, «tax deductions constitute a form of public support that distorts the market the least, since it is not the Public Authority that decides what specific projects to subsidize, but companies that decide whether to make use or not of the tax deduction, and this is automatically granted if the application qualifies.»

In this regard, environmental tax credits have the following advantages:

- They are more efficient at encouraging environmental investments because they are a positive incentive as compared to environmental taxes (which, from a sociological standpoint, have a negative impact). We cannot lose sight of the fact that a given tax policy cannot be implemented properly without the participation of enterprises, as the main parties on which it is to be applied. In the Spanish case, environmental tax measures clearly have a long way to go before they can be said to be part of an authentic green tax reform, and they therefore generate a high level of mistrust in business circles⁷.
- They are a useful tool for fostering corporate social responsibility as they allow companies to combine social and environmental variables with economic variables. This factor comes to light in the way that eligible investments for this tax incentive must go further than the requirements established in the environmental legislation.
- They provide certainty to both the environmental authorities and the tax authorities, and to taxpayers, by eliminating uncertainty over compliance with environmental aims (as we shall see, the incentive requires a certificate by the environmental authorities of compliance with the environmental aims) and potential disputes between taxpayers and tax authorities over fulfillment of the environmental requirements to take the tax credit.
- In addition to encouraging environmental investments, they are a means of fostering voluntary agreements with the authorities to achieve environmental goals, as the tax credits are conditional on the investment being made within the context of a plan, program or agreement approved by or entered into with the competent environmental authorities.

On a practical note, the following data on the taxpayers taking the incentive is available for the 2000-2008 period:

⁷ Most of the allegedly «environmental» taxes are levied by the autonomous regional governments, which seem to place more emphasis on collecting the tax than on its environmental aims (there is a clear question mark over the very existence of those aims), and there are no measures of any kind for reducing direct taxes or social security contributions (absence of a green tax reform).

	2000	2001	2002	2003	2004	2005	2006	2007	2008
No. of filing taxpayers	3,367	4,723	4,275	4,468	4,567	4,920	5,202	5,676	4,343
Tax credit amount (€ thousand)	57,941	60,687	56,364	55,591	89,590	89,300	113,300	124,000	103,400

Prepared by the author using data from the Tax Authorities' Report (Ministry of Economy and Finance).

2. Environmental investment tax credit in Spain

This incentive, which is defined in Article 39 of the Revised Corporate Income Tax Law⁸ and in Articles 33 to 38 of the Corporate Income Tax Regulations⁹, consists of a corporate income tax credit equal to 8% of the investments made in facilities¹⁰ used to protect the environment.

The fact of an investment being «environmental» is not sufficient, however, to be able to take this incentive as the investment must have one of the following aims:

- a) Avoid or reduce air or noise pollution from industrial facilities.
- b) Avoid or reduce the polluting load that is discharged into surface water, ground-water and sea water.
- c) Favor the correct (from an environmental standpoint) reduction, recovery or treatment of the investor's own industrial waste.

In the following sections we will take a look at each of the environmental variables that are protected and whether it would be recommendable to broaden the range of variables with a view to tackling climate change and its effects.

The tax credit is also subject to the fulfillment of some environmental requirements:

- The investments must go further than the requirements contained in the environmental legislation in force, provided that the investor has been complying with that legislation. Consequently, any investments which do not go beyond

⁸ Legislative Royal Decree 4/2004, of March 5, 2004, approving the Revised Corporate Income Tax Law.

⁹ Royal Decree 1777/2004, of July 30, 2004, approving the Corporate Income Tax Regulations.

¹⁰ Given that tax law does not define «facilities», we consider it reasonable to use the customary definition in environmental legislation, in the sense of «fixed technical unit.» This definition was also used by the Central Economic-Administrative Tribunal in its Decision of March 2, 2007.

The limitation on the tax credit for «facilities» prevents its application to intangible assets, current assets or expenses (although it could be taken in respect of those which, according to accounting provisions, are included in the acquisition price or production cost of the facilities).

enabling the taxpayer to comply with the provisions in environmental legislation do not qualify for the tax credit¹¹.

- The investments must be made to implement plans, programs or agreements approved by or reached with the competent environmental authorities¹².
- The fulfillment of these requirements must be evidenced with a validation certificate for the investment issued by the environmental authorities¹³. The competent authority will be determined by reason of both the protected subject matter and the territory where the qualified investments are made¹⁴.

The investment will be deemed to be made when the assets have been brought into operating condition¹⁵.

The tax credit base is the acquisition price or production cost of the investments made which meet the foregoing requirements, less any amounts received in respect of subsidies. If the purpose of an investment is not exclusively one of the aims mentioned above, however, after identifying the portion of the investment that relates directly to protecting the environment, the tax credit will apply to the portion of the acquisition price or production cost which the taxpayer can prove relates to those aims.

As mentioned above, the rate established in the Sustainable Economy Law for the tax credit is 8%.

¹¹ In other words, the aim is to prevent the tax credit from being taken by taxpayers that are in breach of environmental legislation, as they would enjoy a greater tax incentive than those who are in compliance with that legislation. The requirement that the taxpayer must improve on the conditions established in environmental legislation is precisely what makes this incentive exemplary in the context of corporate social responsibility.

¹² According to the Directorate-General of Taxes, the existence of a plan, program, contract or agreement is an essential requirement to apply the tax credit, although they do not need to contemplate the types of investments entitling to the tax credit (DGT 1980-99, of October 26, 2009).

¹³ The certificate must specify that:

- a) The investments have been made to implement plans, programs, contracts or agreements approved by or entered into with the competent authorities, stating the environmental legislation pursuant to which they are made and the appropriateness of the investments for achieving their aim of protecting the environment.
- b) The investments made enable the levels of protection envisaged in the established plans, programs, conventions or agreements to be reached.

¹⁴ Therefore, the competent authorities could be:

- The central government, where the powers for environmental matters with respect to the investment are held by the central government.
- The autonomous community authorities, where the powers for environmental matters are held by the autonomous community.
- The local authorities, where the powers for environmental matters are held by a local government corporation.

¹⁵ However, the investment could be financed through the finance lease agreements referred to in paragraph 1 of Additional Provision 7 of Credit Institutions (Discipline and Control) Law 26/1988, of July 29, 1988, in which case the investment will be deemed to have been made on the agreement's execution date, in an amount equal to the cash value of the asset. In this case, the tax credit will be subject to the condition subsequent requiring the purchase option to be exercised. If the purchase option is not exercised, the taxpayer must pay over, along with the tax relating to the tax period in which the option could have been exercised, the amount of the tax credit that has been taken plus late-payment interest. For these purposes, the Directorate-General of Taxes has been allowing the use of financing methods other than finance leases but which are comparable from an economic and accounting standpoint.

The tax credit only applies if certain technical requirements are met (the investment must go further than the requirements established in the environmental legislation in force and be made to implement plans, programs, contracts and agreements approved by or reached with the competent environmental authorities), which must be evidenced in a validation certificate issued by those authorities. As a result, the tax credit cannot be taken without a validation certificate.

What might happen, however, is that the competent environmental authorities might not issue a decision on the validation of the investments by the date on which the corporate income tax return must be filed. In these cases, if, when the corporate income tax return is filed, the authorities have not issued the validation certificate for reasons not attributable to the taxpayer, the tax credit may be taken on a provisional basis, as long as the certificate was requested before the first day of the filing period for the return. If the competent authorities do not validate the investment, the taxpayer will have to pay back the amount taken in respect of the tax credit plus late-payment interest, when it pays over the tax payable for the tax period in which the decision is notified. For tax credits aimed at encouraging certain activities, the investment must generally be held for five years (three years for movable assets) or for the asset's useful life, if shorter. A special rule applies to tax credits for environmental investments, under which the assets associated with this tax credit will be deemed to remain in operation if the levels of environmental protection envisaged in the plans, programs or agreements approved by or reached with the competent authorities are maintained over that period. For these purposes, the tax authorities can ask the competent environmental authorities to issue a certificate to evidence that those levels of environmental protection have been maintained.

Notwithstanding, if, for technological reasons, the assets associated with this tax credit lose or see a decrease in their effectiveness for protecting the environment in the periods mentioned above, those assets can be replaced or supplemented with others that help achieve the originally intended protection levels, without forfeiting the right to the tax credit. In these cases, no tax credits can be taken for any investments replacing or supplementing the initial investment.

3. Environmental factors covered by the tax credit

As we have already mentioned, to be eligible for this incentive, the investments must be aimed at protecting the environment and specifically at protecting three environmental variables:

- a) Avoid or reduce air or noise pollution from industrial facilities

The first environmental variable to be protected is the atmosphere, for which there are incentives for investments made to avoid or reduce air or noise pollution from industrial facilities.

The tax credit applies to reducing the emission of both particles and noise into the atmosphere. The express inclusion of noise pollution for the purposes of the tax credit is the only change made by the Sustainable Economy Law in rela-

tion to this environmental variable and has settled the previous debate over whether or not «atmospheric pollution» should be taken to include noise pollution¹⁶.

As regards the source of atmospheric emissions, the tax credit can only be taken for investments which reduce the emissions from industrial facilities. The absence of a legal or statutory definition of the term «industrial facilities» raises doubts as to whether it should be interpreted restrictively to mean only the manufacture of industrial products, or whether this term could be interpreted to mean a «business activity.» In some cases, the Spanish tax authorities have applied the first interpretation (to exclude transport companies' aircraft from the scope of the tax credit¹⁷, for example), with which we disagree because it contradicts other views taken previously (for example, in relation to ships¹⁸), air transportation is without a doubt an industry, and that interpretation would mean barring access to the tax credit for investments which clearly meet the environmental aim sought of reducing atmospheric emissions¹⁹.

It is precisely the restrictions and doubts in connection with the adjective «industrial» that have led to various parliamentary initiatives aimed at eliminating that term, although they have not been successful²⁰.

- b) Avoid or mitigate the polluting load that is discharged into surface water, groundwater and sea water.

The second protected environmental variable is water, including surface water, groundwater or sea water. Accordingly, the tax credit may be taken for investments aimed at avoiding or reducing the polluting load that is discharged into those waters.

- c) Foster the reduction, or environmentally sound recovery or treatment, of the investor's own industrial waste.

Lastly, the tax credit can also be taken for investments aimed at reducing, recovering or treating industrial waste.

¹⁶ The view that it could not had been taken by the Directorate-General of Taxes in a ruling dated July 2, 2002 (1014-02), and by the High Court of Madrid (judgment of September 4, 2006, among others) and of Castilla la Mancha (judgment of April 30, 2003).

¹⁷ Ruling by the Directorate-General of Taxes dated March 13, 2007 (V0521-07)

¹⁸ Rulings by the Directorate-General of Taxes dated November 5, 1999 (2094-99 and 2096-99) and July 29, 1997 (V0001-97).

¹⁹ Along these lines, Puig Ventosa highlighted the need for «more explicit support to investments in the service sector or to logistics» (Taxation, Innovation and the Environment – The Spanish Case», OECD, 2008).

²⁰ Among others, the non-government bill amending Legislative Royal Decree 4/2004, of March 5, 2004, approving the Revised Corporate Income Tax Law in relation to tax credits for investments to protect the environment, submitted by the Catalan Parliamentary Group (Convergència i Unió), published in the Spanish Parliament's Official Gazette on April 11, 2008, and the non-government bill on tax incentives for investments to protect the environment, submitted by the Esquerra Republicana-Izquierda Unida-Iniciativa per Catalunya Verds Parliamentary Group, published in the Spanish Parliament's Official Gazette on April 23, 2008.

As in the case of atmospheric pollution, there is no definition in tax law of «industrial waste,» which has been causing distortion in the practical implementation of the tax credit, due to the varying interpretations of this term²¹.

In our opinion, given that this is an environmental incentive, the definition of this term must be sought in the sectoral environmental legislation. The Spanish Waste Law²² (aimed at adapting Spanish domestic law to the amendments made in EU law²³ and updating and improving the rules established in the former waste legislation) defines industrial waste as any substance or object that the holder throws away, or has the intention or obligation to throw away, and that results from «the manufacturing, processing, use, consumption, cleaning or maintenance processes generated by the industrial activity»²⁴.

The Sustainable Economy Law restricted eligibility for the tax credit to investments made to treat the investor's «own» industrial waste, that is, the waste generated by the taxpayer itself. The previous wording of the Law did not distinguish between own waste and the waste of others, and therefore, although the established view of the tax authorities was that the tax credit could only be taken in relation to the investor's own waste²⁵, most courts adopted the interpretation that, because the law made no distinction, there was no reason preventing the tax credit from being taken in relation to investments made to treat the waste of others²⁶. The new wording of the Sustainable Economy Law attempts to settle this discrepancy, by adopting the tax authorities' view.

4. Advisability of extending the scope of the tax credit

As discussed above, the tax credit can only be taken for investments with which enterprises can reduce or avoid the impact they have on three specific variables: air and noise, water and industrial waste.

As a result, the investments that affect other environmental variables, no matter how undeniable their environmental impact or how beneficial they are for the environment, do not qualify for tax credits, as has been determined in the rulings by the Directorate-General of Taxes disallowing the tax credit for investments made to save energy (DGT V0729-09, of April 7, 2009), for investments made to manufacture products which are less polluting to use (DGT V2197-05, of October 27, 2005) or investments in the construction of a wind farm (DGT V1532-10, of July 8, 2010).

²¹ For example, some courts have treated industrial waste as being akin to hazardous waste, as opposed to urban waste, since the former waste legislation only made a distinction between these two waste categories.

²² Law 22/2011, of July 28, 2011, on waste and contaminated land.

²³ Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives.

²⁴ The preamble to the Law states that «as the fight against climate change is a priority of environmental policy, and although the contribution of waste to climate change is small compared to other sectors, there is significant potential to reduce greenhouse gas emissions associated with the waste sector.»

²⁵ Among others, the Directorate-General of Taxes' ruling of September 11, 2006 (V1822-06).

²⁶ For example, the Decision of the Central Economic-Administrative Tribunal dated March 2, 2007 and the Judgment of the Castilla y Leon High Court dated May 15, 2009.

The limited scope for taking this incentive reduces its effectiveness in key areas of sustainability and the fight against climate change. It would therefore be recommendable to consider a reform that takes in, among others, the following areas for action:

- a) Energy saving and efficiency, reducing the environmental impact of business activities and improving the competitiveness of companies.

Energy saving measures have a direct impact on the protection of the environment as they reduce energy use. The Spanish tax authorities have concluded, however, based on the literal wording of the incentive, that despite the undeniable environmental impact caused by saving energy, the only investments eligible for the tax credit are investments in facilities which, besides saving energy, avoid or reduce the atmospheric pollution caused by industrial facilities²⁷. In this regard, according to the Spanish Energy Saving and Efficiency Action Plan for 2011-2020, policies for energy saving and efficiency are the most economical tool for reducing CO₂ emissions²⁸.

- b) Saving and efficiency in water use, in response to the reduced availability of fresh water and to mitigate fresh water pollution

The shortage of water, particularly in Spain, makes it necessary not only to reduce polluting discharges into water sources but also to reduce the actual consumption of water.

Adopting measures to save water in the different production stages, such as in the cleaning of parts and products, the cooling of machinery and equipment, the use of additives as a solvent or enhancer and other different applications, would contribute to the conservation of this scarce resource.

- c) Manufacture of less polluting products and reduction of the carbon footprint, allowing consumers to compare and choose products based on the pollution generated in the various phases of their production processes.

Damage to the environment occurs not only at the manufacturing stage of a product; the subsequent distribution of the product, its use and even its man-

²⁷ Ruling by the Directorate-General of Taxes dated April 7, 2009 (V0729-09).

²⁸ That Plan, drafted by the Institute for Energy Diversification and Saving, identifies six target sectors (Manufacturing, Transportation, Building and Facilities, Public Services, Agriculture and Fishing, and Energy Transformation), and proposes measures in each area to achieve the energy saving objectives. For example, in relation to the first of those sectors (Manufacturing), the following measures were identified:

- Performance of energy audits, as a tool for enabling a detailed and complete study of the production processes and, more specifically, of the main energy consuming equipment. These audits bring to light how much energy is consumed by facilities, information from which the main energy parameters of the process and its equipment, and the differences with respect to the energy standards of the sector can be determined. Moreover, the investments needed to implement the measures identified will be determined as well as the profitability of those investments and their feasibility.
- Implementation of the best available energy-environmental techniques and implementation of new technologies and use of waste, in order to minimize the impact on energy consumption, including new technologies for saving energy and for using new raw materials and production processes and to aid with the economic feasibility of energy saving investments.
- Establishment of the necessary mechanisms to implement energy management systems.

agement as waste can also have a significant impact on the environment, due to the emission of greenhouse gases, for example.

In this case, the impact of a product or service over its entire life is measured by its carbon footprint, which is a tool for objective measurement of greenhouse gas emissions to determine the impact on climate change that the product or service will have and be able to compare it to others when deciding which one to use.

- d) Environmental health, in view of the increasing number of illnesses associated with atmospheric pollution in town centers.

The deterioration of the environment can have a direct impact on human health, due to the rising levels of particles in the atmosphere, among other factors. Taking the sources of pollution away from town centers improves air quality and reduces the illnesses associated with deterioration of the atmosphere, such as respiratory and eye diseases, which can be a cause of premature death.

- e) Renewable energies, as an alternative to the more traditional and polluting energy sources.

Until fiscal year 2010, the Corporate Income Tax Law contained a tax credit for investments in new tangible assets used to harness renewable energy sources, consisting of facilities and equipment with any of the following aims:

- Harness solar energy to make heat or electricity.
- Use, for fuel purposes, urban solid waste or biomass obtained from waste from the farming of forest industries and energy crops to make heat or electricity.
- Treat biodegradable waste from livestock farming, waste water treatment plants, industrial wastewater or urban solid waste to make biogas.
- Treat farming or forestry products or used oils to make biofuel (bioethanol or biodiesel).

Renewable energies are one of the cornerstones of reducing greenhouse gas emissions and the fight against the climate change, which is why there are various incentives to promote them, such as feed-in tariffs aimed at establishing a safe and stable remuneration framework. In this context, it is hard to see why the application of this tax incentive has not been extended²⁹.

As we have seen, the renewable energies for which there were incentives until fiscal year 2010 were solar, biomass, and the production of biogas and biofuel.

²⁹ Another cause for dispute is that various autonomous communities have established taxes on renewable energy power plants, in particular wind power plants, as is the case of Galicia and Castilla-La Mancha, allegedly with the aim of regulating and preserving the environment, specifically against adverse visual and environmental effects and impact on the natural environment and territory, due to the installation in wind farms.

Other major sources of energy (such as wind or hydroelectricity) or those in the development stage (geothermal or tidal power) have not been covered, however.

5. Conclusions

On the basis of the above analysis, the reinstatement of the tax credit for environmental investments must be viewed positively, as an effective tool for achieving the intended aim of fostering investments which protect the environment and go further than the requirements established in the environmental legislation. Moreover, as a condition has been placed which requires the investment to be made to implement plans, programs or agreements reached with the environmental authorities, they are an efficient instrument for fostering voluntary agreements.

Although the new wording of the provisions helps clarify some grey areas, such as whether the tax credit could be taken for investments made to avoid or reduce noise pollution, an opportunity has been missed to broaden the incentive to apply to other investments which help fight against climate change and foster the development of a sustainable economy. Of the various cases analyzed, the most important are investments to reduce energy consumption and investments to increase the use of renewable energy sources, which have a direct impact on the reduction of greenhouse gas emissions.

Moreover, investments aimed at saving and making efficient use of water, manufacturing products which are less polluting to use, and reducing the carbon footprint and the impact of illnesses associated with atmospheric pollution, can have a positive effect on achieving these environmental goals.

Consequently, we consider it necessary to reassess the possibility of broadening the scope of this incentive to increase its effectiveness and help achieve the ultimate goal of protecting our environment.

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A POLITICAL ECONOMY APPROACH TO ECOLOGICAL
AND RESOURCE TAX REFORMS: SOCIO ECONOMIC FRAMEWORKS
AND MULTIPLE DIVIDENDS FOR SHORT AND LONG RUN TARGETS

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1. The Background of Ecological tax reforms

1.1. The general framework

Ecological tax reform (ETR) is an essential element in long-term sustainable growth/development and it will also help the EU to further strengthen its global leadership in the eco-efficient use of energy and resources. The current competitive advantage of the EU in terms of resource efficiency, especially for carbon (Contantini V, Mazzanti M., 2012) is on the one hand dependant on a stronger reaction to past oil crises, and on the other hand on a strategic decision of (northern) EU countries of implementing environmental policy (waste, pollution related) and green fiscal reforms (Scandinavia in early 90's, UK), that have been completed and has supported green investments by private firms. A new emphasis on ETR is needed even in countries that had adopted them significantly, given recent evidence shows how the share of environmental tax revenue on GDP is decreasing (in real terms) in most countries. This may happen if taxes are not implemented in accordance to a pre defined 'escalator' or if inflation of high growth periods erodes the real value. Even in the UK, some taxes (climate change levy) were frozen in the past years and only projected to grow with inflation in the current years since 2007-2008¹. The current economic stagnation may provide a rationale for increasing such taxes, though we may expect either an increase in diffusion or even a further decrease in diffusion and share of taxation. The political acceptability of environmental taxes is often extremely low and the multiple static and dynamic gains for society are not effectively understood and communicated. Political economy analyses are needed on theoretical and applied grounds (Aidt, 2010; Mazzanti M., Zobali R., 2012). The way revenue recycling is designed and proposed matters in order to enhance the understanding of both economic and environmental values of ETR.

Ecological tax reform represents an umbrella under which market-based instruments can be designed optimally and implemented coherently (From SOER2005: "Tax

¹ The environmental audit committee (2009) states: 'we note that in the past, rates for these taxes have been frozen or subject to below-inflation'.

MARKET INSTRUMENTS AND SUSTAINABLE ECONOMY

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MINISTERIO DE HACIENDA Y ADMINISTRACIONES PÚBLICAS
INSTITUTO DE ESTUDIOS FISCALES
Madrid, 2012