Environmental Taxes and Fiscal Reform

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The ordinary way of financing government expenditures is through taxation. This is not to say that borrowing is an extraordinary way of financing public expenditures, nor it is to deny other sources of financing such as charges to the public, rents, profits from the nationalized industries and sale of assets. It is to stress the fact that the "basics" of the budget-making process consists of different types of expenditures and revenues from taxation. Again it is not the idea of balancing the budget but rather the fact that the decision of how much to spend must be (loosely) linked to how much the government can reasonably expect to raise from tax collection without inducing more tax evasion and tax elusion. In other words, the decision on the level of expenditures has to be guided by the tax capability of a country. Tax effort and tax revenue are fundamental concepts that have been overlooked in the recent years, at least in Italy, and they must be resurrected. Although the prolonged international economic crisis requires a balance of both prudence in controlling expenditures and efficiency in tax collecting, the situation of public accounts is a serious one in several countries, including Italy. Fortunately, due to European Union obligations and especially to the adoption of the European currency[1], Italy has to strengthen both its tax effort and

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[1] The introduction of the Euro was a great achievement in terms of the European cohesion and the participation of Italy was very important for the

its tax revenue. In this regard there may well be a role for environmental taxation, which could serve the twin targets of internalizing pollution effects and raising revenue.

The best fiscal system for a country is the one that allows maximum revenue in the long run (and at least administrative costs) satisfying both efficiency and equity. To make environmental taxes to play a greater role in the fiscal system is totally consistent with these criteria. For, on one hand it is fair to tax "bads", such as pollution or excessive use of natural resources, rather than "goods", such as labor and profits, and on the other it is a known result in the received literature that green taxes have a positive effect on the development and diffusion of new technologies. GDP (and possibly employment) increases will follow, which in turn secure an increase in the long run tax revenue. Moreover since every fiscal system has adapted to the structure of the economy in which it operates, it is somehow contradictory to have in operation fiscal systems whose structure have been basically the same for the last 50/60 years while the economies have undergone great changes and transformation. Fifty years ago pollution problems, for example, were much less serious than they are today, when they pose serious threats to human health not to mention the rights of future generations. As it is another well established result in the literature, it is impossible to have a non distortionary fiscal system in practice; thus why not use the non-distortionary effects of environmental taxes to move away from consumption/production patterns which are harmful for the wellbeing of present and future generation? Some might say that green taxation has a regressive impact; this extremely important issue for the welfare of a society has been little investigated up to now, in the sense that the regressive impact has been more asserted than proved. This topic needs larger and deeper empirical investigation because vested interest may hide behind the superficially addressed argument, rather than a concern for the low income households.

According to many official governments' declarations, as well

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country, as the present economic crisis has clearly shown. It is also definitely true that for Italy to adopt a restrictive budgetary policy as European constraint is of great help.

some treaties voluntarily signed by the international community of developed countries (and sometimes also less developed ones), two targets seem clear for the present century: to switch to a "low carbon society" and to go ahead with the Information and Communication Technology (ICT) economy. The state of the art suggests major investments are necessary to try to accomplish these results. Given the budget situation of the great majority of countries, these investments can only come from the private sector; but to deliver the required scale of investment the private sector needs the appropriate "signals" from the government which can take the form of tax savings from investments in low carbon alternatives or higher tax liabilities from investment in polluting technologies. Interestingly, in countries where opinion polls have been produced by association of firms themselves, such as in UK, it has emerged that the business sector would welcome the introduction of green taxes since the definition of the tax base, tax rates, exemptions *etc.*, would create the climate of certainty necessary to take decision about investments. The uncertainty about public sector endorsement of a precise environmental policy is deemed the greatest obstacle to private investment.

It seems that the time for a green tax reform has come but while the literature is already well equipped with theoretical results, more empirical studies are necessary, especially in some countries, such as Italy. To conduct such studies specific data which are not available at present are necessary. This fact comes as a confirmation that many changes in the economy, namely those traceable to the pollution effects of consumption and production patterns, have been overlooked and therefore not even caught by the statistical offices.

This special issue aims to encourage the study of fiscal reforms – consistent with the ongoing environmental problems. Disseminating concepts and results and addressing a variety of issues under different perspectives and in relation to different countries, has been the focus of the papers included here.

To provide the reader with a roadmap to the special issue, we have grouped the eight papers under three main titles. Besides an opening section devoted to the general issues, we choose to have one dedicated to the distributional effects as we see the topic of distribution as extremely important in any democratic society but rather overlooked in recent years, and another one dedicated to carbon taxation which is, by and large, the most (superficially) known argument when it comes to environmental policy.

In the opening paper Markandya, after having clarified the meaning and foundation of the green taxation, discusses the main theoretical argument on which most of the advocacy of green taxation rests today, namely the double dividend thesis. He then provides a comprehensive picture of types and results of empirical studies carried out so far. The second paper provides an overview on a less known topic: that of the Central and Eastern European countries (CEE). It shows how difficult it is to correct for environmental externalities. Even when a green tax is introduced it will more likely produce revenue rather than cure the external effects.

The next two empirical papers refer to very different countries and address the distributional issue from a different perspective: as an impact of environmental fiscal reforms in the first one and as environmental consequences of changes in income distribution the second one. While Sterner-Slunge paper is concerned with some African countries, the Castellucci-D'Amato-Zoli looks at distributional issues in Italy. Since African countries are not the most studied countries in the literature, the results of the paper are important in themselves besides being very interesting in that they show that the regressivity impact of energy taxation is not generally found and in many cases it may well be (slightly) progressive. An analogous lesson can be learnt from the Italian case in the sense that while a redistribution towards lower income households may increase pollution (deteriorate environment) it might also decrease pollution. It depends on the emission intensity of consumption. If such intensity is assumed to be constant, the environment deteriorates as a consequence of a progressive redistribution but if such intensity varies in a plausible manner the results are reversed. To know the emission intensity of consumption is an empirical question which is at present unsolved due to the lack of data.

Attitudes to green or environmental taxation have been and still are at least *skeptical*, notwithstanding the received theoretical incontrovertible literature showing such taxes as the cost minimizing instrument. This issue is explored in the four remaining papers. Two of them are country and sector specific while two are general. Here again we underline the fact that empirical researchers on Italy and on sectors, such as aviation and also manufacturing, are not that abundant; this is why we think the two papers may help to enrich the debate while providing some lessons. Finally, the never ending search for the optimal policy cannot go without an up to date survey of the literature (Galarraga-Ansuategi) and our special issue on tax reform cannot go without addressing the question of tax harmonization (D'Amato-Spisto). Without claiming that this third section surveys all aspects of the present state of carbon taxation (which is huge), the coverage is broad and able to give a good snapshot of the topic.