

**A Green Financial Model for a Basic Income:
Taking the ethic and aesthetic significance of externalities
seriously**

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Abstract

One popular proposal to limit carbon emissions is a cap-and-trade system, under which carbon emissions are limited and allowances are bought and sold in the marketplace. Agreement on a global cap-and-trade system, however, is hard to imagine.

The idea of using taxes to fix problems, rather than merely increase government income, has a long tradition. In this sense, the British economist Arthur Pigou suggested in the early 20th century such corrective taxes to deal with pollution –now called “Pigovian taxes” in his honor. Politicians, however, are reluctant to include this proposal on the agenda. Then, do we have to give up the idea of finance a Basic Income (BI) by means of an ecological tax?

A global carbon tax would be easier to negotiate than a cap-and-trade system, and all governments require income to implement public policies. Global Pigovian taxes could be useful both to reduce carbon emissions and to finance a global sustainable and fair development.

(This is a first draft: comments to author’s email will be welcome)

0. Introduction

One of the reasons why the proposal of Basic Income (BI) is not on the political agenda of many countries where it is a social reivindication widely supported by some Social Movements, could be that the debate has been too focused on its normative justification. Fortunately, in the last years many different sources of funding have been suggested for a BI; capital gains taxes, income taxes, inheritance taxes, land and natural resource taxes, pollution taxes, sales taxes, currency-trade taxes, traffic congestion taxes, etc. In particular, numerous authors reclaim to use collective resource ownership to fund a BI. This is an interesting perspective, but some proposals which are based on it contain a mistake; they offer local solutions –a BI national program- to global problems –worldwide poverty and inequality.

Several problems threaten a globalizing world, including worldwide poverty, global warming, growing inequalities of income and wealth, and a decline in trust and social capital. At the same time, unprecedented wealth and productive capacity are available today. So, how can a people-centred and ecological form of capitalism be created? Using commons could be an answer, but only if we think in a global way.

The commons is an abstract concept which refers to a class of resources that have been created culturally or naturally, such as the atmosphere, fresh water supplies, forests and academic communities. According to Peter Barnes, while economists and policy makers have long assumed that there only two sectors –the market and the State- of power and value, the great task of the political philosophers of the twenty-first century should be to design a new “common sector” populated by worker-owned corporations and commons-preserving trusts. Is it really so? Although this is certainly an original and attractive theoretical framework, I will argue that global taxes offer the most proper approach to deal with the discontent caused by the globalization, from an egalitarian and ecological standpoint.

Structure of the paper

The rest of the paper is laid out as follows. The **first section** starts with the basics: why should we defend an egalitarian conception of global justice? Given that defence, why should we reformulate the ethical grounds of BI and therefore its institutional design? **Section 2** presents three alternative models to deal with environmental harms caused by capitalists systems. Finally there is a conclusion (**Section 3**), with a brief discussion of the implications of assuming a global sustainable development approach for green tax reforms.

1. A liberal-egalitarian conception of justice

From Paine's national Fund

Thomas Paine begins his *Agrarian Justice* by observing that “To preserve the benefits of what is called civilized life and to remedy at the same time the evil which it has produced, ought to be considered as one of the first objects of reformed legislation” (Paine, 1987 [1797]). Paine’s political thought is both rooted in the American and the French Enlightenments, as he witnessed both of them.

Agrarian Justice is a short manifesto addressed to the Directory that in 1797 governed France. Like John Locke, Paine believed “...the earth, in its natural, cultivated state was, and ever would have continued to be, the common property of the human race” (Paine 1987 [1797]). But in contrast to Locke, Paine defends that “...it is nevertheless true, that it is the value of the improvement only, and not the earth itself, that is individual property. Every proprietor therefore of cultivated land, owes to the community a *ground-rent*... for the land which he holds; and it is from this ground-rent that the fund proposed in this plan is to issue” (Paine 1987 [1797]). A national fund from which every person who reaches the age of 21 should receive a sum of 15 pounds sterling to begin the world, as a compensation for the loss the loss of his natural inheritance, and 10 pounds per year at the age of 50 as a kind of pension.

To Van Parijs's case for a Basic Income

In *Real Freedom for All* (RFA), the major effort to incardinate BI in the framework of a theory of justice, Philippe Van Parijs (PVP) consider that a fair society is the one that guarantees to every citizen the greater real freedom. Beyond the classical distinction made first by Benjamin Constant between *The Liberty of the Ancients compared with that of the Moderns*, and followed after by Isaiah Berlin –as we can say that the positive freedom of Berlin matches with the liberty of the ancients of Constant, and that the negative freedom remembers to that of the moderns-, PVP believes that “... being free consists in not being prevented from doing not just what one wants to do, but whatever one *might* want to do” (Van Parijs 1995, 19). Thus, real freedom implies and goes beyond the formal conception of freedom, as far as it extents to potential desires.

From this conception of freedom, PVP announces the principles that must govern a society that guarantees real freedom: security, self-ownership and leximin order of opportunities¹. These principles of justice must be institutionalized. Security demands the Rule of Law –or, at least, “some well enforced structure of rights” (Van Parijs 1995, 25)-, the self-ownership demands the protection of autonomy, and the leximin order of opportunities requires an unconditional income for every member of the society (Rey Pérez 2007). So PVP integrates BI into a liberal-egalitarian theory of justice. The first two principles express the liberal *vis* of the theory, and the third one reflects PVP’s conception of social justice; to achieve real freedom each member of the society must have “the greatest possible opportunity to do whatever she or he might want to do” (Van Parijs, 1995, 25), and BI is the mechanism designed by PVP to make that freedom effective.

But every redistributive approach demands not only to argue about the beneficiaries, but also needs an argument justifying the appropriation of the resources will be distributed.

The ethic and aesthetic significance of externalities

¹ PVP (1995, 25), stipulates three conditions: “1. There is some well enforced structure of rights (*security*). 2. This structure is such that each person owns herself (*self-ownership*). 3. This structure is such that each person has the greatest possible opportunity to do whatever she might want to do (*leximin opportunity*)”.

PVP conceives a BI that gives every citizen a check for the full basic income every month, and taxes his or her earned income. As Jürgen De Wispelaere says, “What really matters from a real-libertarian point of view is the equalization...of external resources up to a level where no person envies the endowments of another”² (De Wispelaere 2000, p. 239). But what sort of assets constitutes external resources? In PVP’s view, external resources “...coincide with the external wealth with which people are endowed” (Van Parijs 1991, 113), and includes among them not only natural resources but also jobs. In a context of scarcity of jobs, these must be treated as common assets to be equally distributed, as people who have a job are appropriating more than the portion they are owed. But those who appropriate a greater than equal portion of collective assets are not supposed to compensate everyone else individually, but to contribute to a national fund –national treasury- from which payments are made to every citizen, rich or poor. In consequence, when someone who is not working in the labour market receives the BI, this must be seen as a compensation for the loss of his or her common inheritance.

But this equivalence between jobs and natural resources presents some difficulties. Firstly, because jobs are not –continuing the comparison proposed by PVP in RFA- like a plot of land³. While a plot of land exists and can be enjoyed without working on it, “a job comes into existence when two parties ... contract with one another the conditions under which one party exchanges particular abilities or performances that the other desires ... If for some reason employer and employee do not enter an employment contract there simply is no such thing as a job” (De Wispelaere 2000, 249).

² PVP (1995, 76) introduces the compensation for inequality in internal resources, and in doing so he uses the concept of *undominated diversity*, that it is originally of Bruce Ackerman (Ackerman 1981).

³ Suppose we imagine both a Lazy –that who do not like to work hard- and a Crazy –that who likes to work- in the possession of an equal plot of land, then the justification of BI made by PVP look like: “Crazy may be desperate to use more than her plot of land, while Lazy would not mind being deprived of some or even all of his in exchange for part of what Crazy would produce with it. This directly yields the following suggestion. There is a non-arbitrary and generally positive legitimate level of basic income that is determined by the per capita value of society’s external assets and must be entirely financed by those who appropriate those assets. If Lazy gives up the whole of his plot of land, he is entitled to an unconditional grant at a level that corresponds to the value of that plot. Crazy, on the other hand, can be viewed as receiving this same grant, but as owing twice its amount because of appropriating both Lazy’s share of land and her own. Thus, in our society of Crazies and Lazies, the legitimate level of basic income is just the endogenously determined value of their equal tradable right to land.” (Van Parijs 1995, 99).

Yet this equivalence presents another difficulty. As Rey Pérez puts it, the reason why “the right to a same portion of assets (including jobs among assets) does not seem to have any duty on the contrary” is that “Van Parijs thinks that leisure is not a scarce resource. He operates as if all individuals, receiving basic income, could decide not to work” (Rey Pérez 2004, 15). However, this is not so, and one person can choose to live without working only if the majority of people in that society do not choose the same lifestyle (Van Donselaar 1998)⁴.

There is another serious complexity in PVP’s BI model that deserves special attention from a green standpoint. In chapter 2 of RFA, PVP sustains that how close a society’s institutions are to the ideal of a free society is determined by how high an unconditional basic income it manages to sustainably give to all its members. PVP wants it to be as high as possible, although this does not mean that we should tax the value of the external resources –including jobs- at 100%: it is a well-known economical principle that high taxes may provide individuals with negative incentives, so in this case they may discourage people in their ambition to work. Anyway, PVP is not arguing for some BI, but for the highest sustainable one, by which he means that the tax rate should be as high as possible, while it does not discourage people to work and therefore reduce the BI. This model of BI reflects PVP’s conviction that resources are the principal suppliers of real freedom. This could be a reasonable way to defend BI from real freedom perspective, but PVP’s design of BI and sustainable development seem to me irreconcilable goals⁵.

Fortunately, externality-based objections are not an inherent fail of BI institution. Actually, if it flies over PVP’s discourse permanently that is just because he decides to finance BI through an income tax. But they are conceivable alternative BI models that do not violate the idea of society as a fair system of cooperation⁶. In doing

⁴ A classical objection to PVP’s argument in RFA is that sharing job incomes fosters *parasitic* relations. According to Van Donselaar (1997), giving a BI to people that only have a speculative interest in the resources we take to fund it promotes *parasitic* relations, as could lead to scenarios in which the interaction between two people worsens one person situation and betters another with regards to a situation where both people do not interact with each other.

⁵ See Berger 1996. In contrast, see Van Parijs 2000 and Achterberg 1999 on the compatibility between a BI and a sustainable development.

⁶ That happens in Alaska, where each resident receives an income from the Alaska Permanent Fund that was constitutionally established in 1976 with public oil resources from Alaska’s North Slope (O’Brien and Olson 1990).

so, we need both an argument justifying the appropriation of the resources will be redistributed and a criterion to designate the beneficiaries of the redistribution.

2. Three different approaches to address inequalities and externalities

2.1. Introduction

One central task when we analyzed the capitalist systems is how they deal with “...those actions of business firms which have harmful effects on others” (Coase 1960, 1). For example, manufacturing that causes air pollution imposes costs on others when making use of public air. Following the treatment of Arthur Pigou in *The economics of Welfare* (1920), economic analysis of such a situation has usually proceed in terms of divergence between the private and social benefit of the company. The conclusions to which this traditional analysis have led most economists include: 1) to make the owner of the factory liable for the damage caused to those injured by the smoke; 2) to place a tax on the factory owner varying with the amount of smoke produced; or 3), to exclude the factory from residential districts (Coase 1960).

A Pigovian tax is considered one of the traditional means through which it is possible to better market efficiency. That is because the mere existence of externalities implies that the market system is no longer Pareto efficient, since prices do not reflect social costs. However Pigovian taxes have at least two key problems: on the one hand, that of calculating what level of tax will counterbalance the negative externality, without resulting in a sub-optimal level of production. On the other hand, “the knowledge” problem suggested by Pigou himself on the essay “Some Aspects of the Welfare State”, where he states that “It must be confessed, however, that we seldom know enough to decide in what fields and to what extent the State, on account [of the divergence between private and social costs] could interfere with individual choice” (Pigou 1954, 6).

Perhaps motivated by these problems more recently an alternative to Pigovian taxes has succeeded: the creation of a market for pollution rights. These markets are consistent with Coase Theorem that identifies the three conditions needed for an

efficient market solution for externalities: 1) property rights well defined; 2) enough information; and 3), low transaction costs. However, I would like to point out that the Coase theorem is often misinterpreted. It does not imply that we should adopt a market-based approach to deal with externalities. Rather, it suggests that the market can potentially solve externalities if above mentioned three conditions are met.

But given that costs involved in carrying out market transactions are often extremely high, Coase observes in “The Problem of Social Cost” that “It is clear that an alternative form of economic organization which could achieve the same result at less cost than would be incurred by using the market would enable the value of production to be raised. As I explained many years ago [in “The Nature of the Firm”], the firm represents such an alternative...” (Coase 1960, 8).

As a result, there are three alternative options to address pollution and other types of environmental harms and, therefore, to better market efficiency: 1) governments’ laws and regulations in the form of *command and control* regulations – quantity instruments-, or green fiscal reforms –prices instruments; 2) market-based systems; and 3) let the question to the firms.

2.2. Market-based systems: Peter Barnes’ cap-and-dividend proposal

Using commons to address inequality and unsustainable development

In 1968 Garrett Hardin published an article in *Science* magazine entitled “The Tragedy of the Commons”. It has been explained already that commons is an abstract concept which refers to a class of resources that have been created culturally or naturally, such as the atmosphere, fresh water supplies, forests, or academic communities, and the “tragedy” refers to two facts. Firstly, by their very nature, these resources belong to all of us, but everywhere they have been privatized. Secondly, “sink” problems, or the Earth’s finite capacity to deal with the secondary effects of our current mode of economic activity.

According to Barnes, from an historical perspective privatization of commons over the last 300 years responds to the problem of scarce goods and services; it makes

sense that during this time capital held *the divine right* –as Marjorie Kelly puts it⁷- so that it could efficiently flood the citizens with good and services. But now we are approaching what Ernst Friedrich Schumacher called “the tolerance limits of nature” (Schumacher 1973). Today our problem, at least in Western developed countries, is not the scarcity of goods and services; it is the scarcity of natural resources, equity and quiet⁸. Therefore it makes historic sense, in Barnes’s view, that the “divine right” in modern, post-industrial economies shifts from the capital to the commons (Barnes 2003).

This brings us to the role of the state in defending the commons. “The politics of the commons”, says David Bollier “is about ordinary people reclaiming what rightfully belongs to them. By asserting collective ownership over their common assets and sharing the dividends, citizens do not need to recoil in shame that they are receiving a “government hangout”” (Bollier 2006, 60). So in thinking about how to manage common assets and distribute its revenues, our first response might be to assign such responsibility to the Government. Theoretically the State represents all citizens equally and practically it tends to be the subsidiary steward of the public’s resources. But the history of the State as trustee of the commons has been far from exemplary. According to Barnes, if the corporation is the pre-eminent institution of the market sector, the trust is the pre-eminent institution of the commons, so if we were to design an institution to protect common assets, the trust should be our choice (Barnes 2001, 2003).

The cap-and-dividend proposal

In the United States, the Clean Air Act Amendments (CAAA) of 1990 established several programs in order to improve air quality by imposing limitations on the emissions of hazardous pollutants into the atmosphere. So as to reduce the sulphur dioxide and nitrous oxides produces from electric utilities, the CAAA imposed a two-phased emission strategy. In phase one (1995-1999), 110 power plants were assigned emission allowances. Facilities that exceeded the allowances were subject to fines.

⁷ See Kelly 2003.

⁸ According to Barnes, “one major problem with capitalism is that the market, as Schumacher noted, “utterly disregards things which cannot be, or have not been, privately appropriated, but are nonetheless an essential precondition of all human activity, such as air, water, the soil, and in fact the whole framework of living nature”. The result is that we humans are destroying our own nest ... The second large problem with capitalism is inequality.” (Barnes 2003, 1-2).

Phase two, beginning in calendar year 2000 and ending in calendar year 2009, inclusive, extend the range of power plants that were subject to emission caps and lowered the caps for the original 110 plants (Clean Air Act 1990). The program successfully cut emissions⁹, and is widely considered a success.

The European Union Emission Trading System (EU ETS) is the major element of EU climate policy, which aims to reduce emissions of carbon dioxide and combat the serious threat of the global warming. Furthermore, the EU ETS is the largest multi-national, emissions trading scheme in the world (Ellerman and Buchner 2007), covering more than 10,000 installations in the energy and industrial sectors which are collectively responsible for close to half of the EU's emissions of CO₂ and 40% of its total greenhouse gas emissions¹⁰. The EU ETS is a *cap-and-trade* system, which means that it limits the overall level of emissions permitted but, within that cap, allows participants in the system to buy and sell allowances, where one allowance gives the holder the right to emit one tonne of CO₂.

As we can see, both American and European climate policy systems are based on carbon-capping models. But, as Peter Barnes notes (Barnes 2007), there are three carbon-capping varieties: what is commonly called *grandfathering* and he calls *cap-and-giveaway*, the *auctioning* or *cap-and-auction*, and his proposal of *cap-and-dividend*.

In *grandfathering* systems, allowances are allocated to installations following an historical criterion, which means that the more an installation polluted in the past, the more allowances it gets in the future. This is a very questionable criterion to set the allowances, as if the allocation for the future is based on past emissions, there is no actual incentive to reduce them (Hyvärinen 2005). But another important flaw of these models is that allowances are given for free. In fact, most EU Member States gave all the allowances from the initial allocation for free, and the same occurred in the United States. When allowances are given for free, the main polluters had two options: they could either continue with the same rates of pollution and consume the allowances, or they could reduce the emissions and sell the allowances on the permits market. As Esa

⁹ See US Environmental Protection Agency 2005.

¹⁰ See EU Press Releases 2008.

Hyvärinen observes, in both cases the main polluters can pass on increased costs resulting from EU ETS implementation (Hyvärinen 2005).

In *cap-and-auction*, allowances are not given for free, but they are sold to polluters. This would be then an efficient allocation method, but as we noted, Barnes thinks that political leaders are only focused on the next election, so we would think in a superior alternative to preserve the atmosphere.

The *Sky Trust model* or *cap-and-dividend system* represents such an alternative. On the one hand, like in *auctioning* systems, allowances are sold, not given for free. However, under the *cap-and-dividend* model the income does not go to the Government Treasury, but to all the citizens equally through the payment of dividends. On the other hand, it guarantees a reduction in carbon emissions by setting a cap which is lowered 2% a year for 40 years (Barnes 2007). This is truly a simple and attractive model, but it could present some flaws.

Firstly, the *cap-and-dividend* program is so briefly explained by Barnes –who believes that “the simpler a system is, the more likely is to work” (Barnes 2007, 3)- that important aspects of its working system seem to me hardly understandable. Thus, Barnes comments repeatedly that it is a “simple, fair *and market-based*” approach (Barnes 2007, 13). Given that he uses an *upstream cap* with which “all first suppliers of carbon-based fuels would be required to buy permits” (Barnes 2007, 11), presumably the market is constituted by these suppliers. But, which criterion is used to allocate permits? According to Barnes, the “second step” of the *cap-and-dividend* plan –after setting the cap- consists in auctioning carbon permits, so finally it seems that the *cap-and-dividend* is actually a *cap-and-auction* model, with the sole difference that in the former the revenue from permit sales is returned to individuals “by wiring dividends to their bank accounts” (Barnes 2007, 12).

Secondly, *cap-and-dividend* system would have regressive effects, and this is a serious trouble for an egalitarian approach like Barnes’s. Despite the fact that it is really simple and excellent in terms of income distribution, if we impose a cap the wealthy will pay more for their fuel, but they will not be constrained in so far the average of poor household will be. According to the Congressional Budget Office of the US, a

15% cut in carbon emissions would cost a 3.3% of income for poorest families, and only a 1.7% for the richest. As we shall see below, lump-sum transfers are hardly consistent with double dividend theory.

Finally, Barnes's proposal presents the main flaw that it offers local or national solutions to global problems. Very soon, increasing incomes in the 80% of the developing countries will put in difficulties the world's environment, and it is hard to think that developing nations like India or China on the one hand, and the US on the other, could reach an agreement about the criterion with which allocate the allowances¹¹.

2.3. Firm-based proposal: Gar Alperovitz's Pluralist Commonwealth

Using commons to address inequality and the lack of liberty and democracy

Alperovitz's main thesis in *America Beyond Capitalism* is that the American "system" as a whole is in real trouble: people begin to lose belief in things that once mattered profoundly, such as the most important values that have given meaning to American history from the time of the Declaration of Independence: *equality, liberty, and democracy*. Furthermore, if the system itself is at fault, then self-evidently a solution would ultimately require the development of a new system. Alperovitz begins by studying the causes of the American corporate capitalism *systemic* crisis, and then he suggests some changes which imply a political-economic system quite different from both traditional socialism and corporate capitalism (Alperovitz 2005).

Alperovitz examines in detail some of the causes that, in his view, are behind the diminution of equality –for example, he stressed that the top 1 now earns more income

¹¹ In Mankiw's words "Agreement on a truly global cap-and-trade system ... is hard to imagine. China is unlikely to be persuaded to accept fewer carbon allowances per person than the United States. Using a historical baseline to allocate allowances, as is often proposed, would reward the United States for having been leading cause of the problem. But allocating carbon allowances based on population alone would create a system in which the United States, with its higher standard of living, would buy allowances from China. American voters are not going to embrace a system of higher energy prices, coupled with a large transfer of national income to the Chinese ... A global carbon tax would be easier to negotiate. All governments require revenue for public purposes. The world's nations could agree to use a carbon tax as one instrument to raise some of that revenue. No money needs to change hands across national borders." (Mankiw 2007).

each year than the bottom 100 million Americans combined-, liberty –he thinks that the war on terrorism produced new threats to civil liberties in the US-, and democracy –he explicitly supports the analysis made by Robert Putnam in *Bowling Alone*, which argues that the United States has undergone an unprecedented crisis in associational, social and political life (social capital) since the 1960s, with negative consequences for the core democratic values.

However, after this detailed analysis, it seems that there is one main cause that can explain by itself the whole crisis: the enormous political influence of large corporations. According to Alperovitz, “a host of studies have documented” that “the large corporation regularly 1) influences legislation and agenda setting through lobbying; 2) influences regulatory behaviour through direct and indirect pressure; 3) influences elections via large-scale campaign contributions; 4) influences public attitudes through massive media campaigns; 5) influences local government choices through all of the above; and 6) influences choices at all levels by virtue of the simple fact that in the absence of an alternative, the economy as a whole depends on the viability and success of its most important economic actor” (Alperovitz 2005, 29). Then the key question is whether there is or not any way to achieve democratic control in the face of the self-evident power of giant enterprises. Alperovitz thinks there is: the Pluralist Commonwealth.

The Pluralist Commonwealth as a way to making capitalism work

I would like to note that *Pluralist Commonwealth* is not –unlike Barnes’s *Sky Trust* or *cap-and-dividend* system- a specific proposal to deal with the threatens of the climate change. Alperovitz is concerned about the environment, and Chapter Eighteen of *America Beyond Capitalism* is entitled “Beyond Super-Elites and Conspicuous Consumption: Real Ecological Sustainability in the 21st Century”. Although it is not a specific green reform proposal, I think it is an interesting approach because indeed it leads to a sustainable capitalism.

The changes in corporate capitalism proposed by Alperovitz emphasize the “systematic development of a robust vision of community democracy as the necessary foundation for a renewal of democracy in general”, and prioritize “a variety of strategies

to undergird local economies and thereby establish conditions favourable to nurturing local civil society associations” (Alperovitz 2005, 31). To achieve such local democracy objectives the Pluralist Commonwealth model plans the development over time of new ownership institutions, such as worker-owned community benefiting firms, on the hand, and various national wealth-holding, asset based strategies –inspired in the Alaska Permanent Fund¹²-, on the other. The weight of the reform rests on worker-owned firms, at local level, and various stakeholder trusts, at national. It makes perfect sense to suggest some fundamental changes in the structure of the firms –that is to say, a firm-based approach-, if we think, as it is the case of Alperovitz, that the main flaw of the corporate capitalism is precisely the enormous dimensions and political influence of the large corporations.

Overall, Alperovitz’s firm-based approach succeeds in taking the Painesian spirit into the elitist-structured large corporations, offering realistic solutions to make Western developed countries’ capitalism work. But if we aspire to a real ecological sustainability in the 21st century, as Alperovitz puts it, we need to go beyond national solutions, towards global solutions; since we all share just one atmosphere, it does not really matter –from an environmentalist standpoint- whether America is beyond capitalism or not if the reforms we propose are incompatible with China’s stage of development¹³.

¹² In an article titled “On Liberty” –a response to “A Basic Income for All” by Van Parijs-, Alperovitz consider that “it is reasonable to begin discussing a long-term trajectory in the direction of providing an unconditional guarantee of at least some portion of at least some portion of income as one way to begin to build a new system-wide institutional basis for liberty”. Nevertheless, “a limitation of Van Parijs’ work ... concerns how resources are gathered and allocated to achieve the various income guarantees ... [The model of the Alaska Permanent Fund] suggest a need to focus less on the tax/transfer system, and more on various forms of public democratization of capital.” For PVP, in contrast, there is “no need to restrict [Paine’s claim that there is a set of transfers to which one is entitled simply by virtue of one’s membership in the relevant community] to natural resources ... We need only recognize the moral arbitrariness of (very unequally distributed) opportunities in order to see that whatever we are given is –as regards distributive justice- “public property””(Van Parijs 2000).

¹³ There is another important difficulty with Alperovitz’s discourse. In “The Nature of the Firm”, R.H. Coase proposes that firms come into existence when their use is cheaper than the use of the market in order to organize production. He presents two reasons why this might be so. First, within the firm individual bargains are eliminated and substituted by an administrative decision. Secondly, government regulation and taxes may not be imposed on intra-firm transactions. Alperovitz is very critic with the enormous size and political influence of the large companies, but in absence of any proposal –limitations on their maximum number of employees, customs, branches, etc.- it seems that the size of a firm is limited, over all, by three mechanisms: a) the costs of organizing additional transactions within the firm may rise and be equal to a market transaction; b) it may be that as the size of the corporation increases, the entrepreneur fails to make the best choices; and c), the supply price of factors of production may rise, “because the “other advantages” of a small firm are greater than those of a large firm” (Coase 1937, 7).

2.4. Regulatory approaches

Introduction

According to economic theory, one of the reasons that justified regulation is the inefficiency due to market failures, such as monopolies, incomplete information or unseen externalities. The idea of using taxes to fix problems has a long history. In this sense, the British economist Arthur Pigou suggested in the early 20th century such corrective taxes to deal with pollution –now called “Pigovian taxes” in his honor. But using Pigovian taxes to deal with global warming specifically is also an old idea. It was proposed in 1992 by Martin S. Feldstein on the editorial page of the *Wall Street Journal*.

However, Pigovian taxes debate reaches social dimensions in 2006 when Gregory Mankiw, professor of economics at Harvard University and founder of the Pigou Club, published in the *Wall Street Journal* an article entitled “Raise the Gas Tax”. In short, the article argues that the proper way to handle the negative externalities would be to tax them, since a well known economic principle tells us that when you tax something, you normally get less of it.

Pigovian taxes versus environmental adders

The rationale behind using price instruments to internalized social costs is that the theorem on existence of competitive equilibrium is only valid in the case of universal markets (Izquierdo, Rodríguez, and Sánchez 2002, 3). Environmental adders can be seen as an especial class of Pigovian taxes, but with two key differences: firstly, environmental adders do not vary the market prices of the products for the agents who participate in the market transactions. That is why environmental adders are not an adequate instrument for all the markets, but only for those in which there is an institution responsible for the allocation of the allowances; secondly, and more importantly, environmental adders do not generate revenue, so they are inconsistent with double dividend theories¹⁴.

¹⁴ Usually, ecological taxation intends to maintain overall tax revenue by reducing other taxes. As a result, the new ecotax is used to finance reductions in other levies. The aim of this green tax reforms is

Although using Pigovian taxes to address global warming is an old idea and it is supported by prominent economists such as Paul Krugman, Robert J. Shapiro, Alan Greenspan and Joseph Stiglitz, politicians and their consultants are reluctant to impose new taxes, Pigovian or otherwise. Nevertheless, this natural aversion to carbon taxes can be overcome if the revenue from the tax is used to reduce other taxes. According to Mankiw, a carbon tax would raise the tax burden on anyone who drives a car or uses electricity, which means just about everybody, rich or poor (Mankiw 2007). But some academics as Gilbert Metcalf, a professor of economics at Tufts University, have shown that by using revenue from a carbon tax to reduce payroll taxes, for example, would leave the distribution of total burden approximately unchanged. As Stiglitz points out, “It makes far more sense to tax bad things (like pollution) than good things (work and savings)” (Stiglitz 2007). Yet there are at least two more options of “revenue-recycling”.

First option –as Peter Barnes’ *Sky Trust* or the NASA climate expert James E. Hansen’s *tax-and-dividend* systems propose¹⁵- would be to finance a lump-sum transfer, rather than use the revenues to cut payroll or consumption taxes. Despite its (re)distributive effects, Bovenberg and Goulder (1996) showed that when carbon tax revenues finance lump-sum transfers, a carbon tax reduce welfare. But as Ian Parry and Robertson Williams note in their “Comment” to Eban Goodstein’s article “The Death of the Pigovian Tax? Policy Implications from the Double-Dividend Debate”, “...it is not that the environmental tax itself is inefficient; rather, it is that a lump-sum transfer is a far less efficient use of revenue than is a cut in distortionary rates” (Parry and Williams 2004, 3).

The other possibility could be to finance scientific investigation. Often, ecological taxation intends to maintain overall tax revenue by reducing other taxes, in which case it is known as a *green tax shift* (towards a sustainable development).

double: on the one hand, the improvement of the environmental quality; on the other hand, the increase of the tax system efficiency. The former goal would be the first dividend, and the improvement of the tax system efficiency would be the second (double) dividend (See Pearce 1991).

¹⁵ In Hansen’s words, “[A] carbon tax with 100 percent dividend is needed to wean us off fossil fuel addiction. Tax-and-dividend allows the marketplace, not politicians, to make investment decisions ... Washington likes to spend our tax money line-by-line. Swarms of high-priced lobbyists in alligator shoes help Congress decide where to spend, and in turn the lobbyists’ clients provide “campaign” money” (Hansen 2008).

Payroll, income, corporate or property levies are examples of taxes which could be lowered by a green tax shift. Usually, ecological taxation has been criticized as being fiscally regressive (a tax with a marginal rate that decreases as the taxpayer's income increases). That is the reason why very often ecotax intends to maintain overall tax revenue by reducing other taxes. However, surely the most important technology for the safe environmental use of coal is the carbon capture and geological sequestration (CCS) of carbon dioxide from coal-fired power plants¹⁶. Such CCS, as Jeffrey Sachs notes recently in an article titled "Reinventing Energy", is needed urgently in major coal-consuming nations, especially China, India and the U.S. As key CCS technologies have been developed, governments should be investing in the science and high costs of early-stage testing. Nevertheless, according to the most recent data in 2006 from the International Energy Agency –data which I take from Sachs's article-, the US Government annually invested 3 billion dollars in energy research and development, and now equals what the US spends on its military in just day and a half (Sachs 2008). Developing new energy technologies is not America's responsibility alone, but global cooperation is needed to ensure that energy use is environmentally safe: that is why I think that a global carbon tax which revenues would be use to finance scientific investigation is the best approach to deal with global warming, especially when we take into account that "[new energy technologies]' success could translate into literally trillions of dollar economic output" (Sachs 2008).

Using commons to address global threats: arguing for global taxes

Like Pigovian taxes, global taxes are not a new idea. Many of the most prominent economists of the earlier twentieth century already consider it, including Alfred Marshall, John Maynard Keynes, and James Meade (Paul and Wahlberg 2001). Indeed, around the time of the United Nation's founding in 1945, economists and policy makers agree on the need for vigorous international economic policy to evade the dangers of renewed depression. But during the Cold War period the debate over global taxes receded from view as a consequence of the opposition from the US Government and many large corporations.

¹⁶ CCS technology "...involves collecting, at its source, the CO₂ that is produced by power plants or industrial facilities and storing it away for a long time in underground layers, in the oceans, or in other materials." (Intergovernmental Panel on Climate Change 2005).

In 1971 Richard Nixon announced that the US dollar would no longer convert to gold, effectively ending the Bretton Woods system. One year later, in 1972, James Tobin, economics professor at Yale University, later Nobel laureate, proposed a small tax on currency transactions in order to slow down speculation, promote long-term investing, and give governments more autonomy in their monetary policy (Palley 2003). Since then, the debate over Global taxes has been present in the international politics, but always with the opposition from the US Government, which claims global taxes threatened US sovereignty. In fact, as James Paul, executive director of the Global Policy Forum, and Katharina Wahlberg note in “Global Taxes for Global Priorities”, in 1996 the “United States blocked European proposals for environmental taxes at the talks on global climate change”, and imposed a weak alternative –an emission trading system-; that is to say, the Kyoto Protocol.

Generally speaking, global taxes can have three main purposes: 1) revenue raising, 2) income re-distribution, and 3) policy steering (Paul and Wahlberg 2001). The two major proposals –a global carbon tax and the Tobin tax- hope to discourage harmful activities. So in this aspect, both of them are typically Pigovian taxes¹⁷. Global taxes on arms sales share this Pigovian spirit, as they intend to discourage rich countries from selling arms to developing nations.

According to the Congressional Research Service (CRS) Report on Conventional Arms Transfers to Developing Nations between 1999 and 2006, “...the value of arms transfer agreements with developing nations comprised 66.4% of all such agreements worldwide. More recently, arms transfer agreements with developing nations constituted 65.7% of all such agreements globally from 2003-2006, and 71.5% of these agreements in 2006” (CRS 2007). In addition, the international arms trade, only with developing world, totalled amount 27 US billion per year, quite close to the 30 billion that, according to Food and Agriculture Organization of the United Nations Jaques Diouf are needed to eradicate the scourge of hunger, re-launch agriculture and avert future threats of conflicts over food¹⁸. I am not suggesting that we should impose a

¹⁷ Note that globally agreed tax on carbon emissions offers the natural solution to the problem of social cost, making people pay for costs imposed on others.

¹⁸ Speech at the opening of the Rome Summit, 3 June 2008.

100% tax rate on arms sales. But I think that when 860 million people live in hunger and 1.1 billion people struggle to survive on less than one dollar a day (FAO 2006), whereas unprecedented wealth and productive capacity are available today, it is the moment to raise additional finance for development aid through international taxation.

From national to global Funds

Many crises threaten our globalizing world, including growing worldwide poverty and inequality, global warming and international politics instability. However, institutional solutions that have been implemented to deal with these global problems have failed. World Bank (WB), International Monetary Fund (IMF), and World Trade Organization (WTO) have not been able to reduce poverty and inequality. A huge percentage of sources of emissions –namely, the United States and all the developing countries, including China, India and Brazil- are excluded from the Kyoto Protocol, under which developing nations do not receive credits for avoiding deforestation. And United Nations does not have an instrument to prevent that every year around a 70% of the total arms deliveries are made *from* developed countries *to* developing nations. Given the eminent global nature of the threats, I think global solutions are required.

Solution could consist in the implementation of two Global Funds. One could look to the Land and Water Conservation Fund (LWFC) in the United States as a potential model. The LWCF was established to receive about \$900 million each year from federal Outer Continental Shelf (OCS) oil and gas leasing revenues, and is intended to allocate these funds to the purchase of protections for threatened habitat in the United States (Steiner 2000). In our case, the Global Pigou Fund should be endowed with powers to levy taxes. The revenues would be used to finance scientific investigation and to give credits (incentives) to those countries providing “green services” to whole world for avoided deforestation. If it were impossible to reach a global agreement to install the Global Pigou Fund, we could implement the “carrots and sticks” strategy proposed by Joseph E. Stiglitz, that consists in imposing sanctions – namely import fees- against countries that do not meet their carbon emissions goals (Stiglitz 2006).

The other Fund could look to the proposal in January 2004 made President Jacques Chirac of France and his Brazilian counterpart, Lula da Silva, to levy international taxes on arms sales and financial transactions to revitalize the global combat against hunger and poverty¹⁹. This fund would be endowed as well with powers to levy taxes –on international arms sales-, and the revenues would be used to finance BI programs in those countries more negatively affected by the international arms trade.

3. Conclusion

For the last three decades, the so-called “Washington Consensus” –economic measures aimed at strengthening markets and diminishing the role of the state- has dominated global economic development. That is why globalisation and neoliberal economics recipes of privatization, deregulation, and trade liberalization are too often lump together as they were the same thing. Fortunately, the Washington consensus is coming to an end. Nowadays many economists accept that markets are affected by some failures, including externalities, and therefore that public intervention can make many people better off. The question is how policy interventions can make globalisation work.

Global institutions that have to deal with worldwide inequalities (WB, IMF), global warming (Kyoto Protocol), and international political instability (UN) have failed. Global Pigovian taxes on international arms sales and carbon emissions –which would be paid, essentially, by rich countries-, combined with BI programs can have powerful (re)distributive effects; can reduce carbon emissions and lead to a Pareto-improvement by internalizing social costs; and can also promote international political stability since, as Thomas More pointed out almost five hundred years ago, “there are dreadful punishments enacted against thieves, but it were much better to make such good provisions by which every man might be put in a method how to live, and so be preserved from the fatal necessity of stealing and of dying for it” (More 1901[1516]).

¹⁹ Note that a Pigovian tax on international arms sales is the natural way to internalize their negative externalities.

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