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How an Environmental Fiscal Reform can contribute to a Green Economy with Jobs, Welfare and a Clean Environment? Policy Lessons Learnt in Europe and beyond

Kai Schlegelmilch*

Co-Founder and Vice President of Green Budget Europe (GBE)

Abstract

A green economy requires the right economic incentives and thus framework. If prices reflect the ecological truth they make renewables and efficient solutions competitive. To this end, an Environmental Fiscal Reform (EFR) is required. The principles and motivations for an EFR are thus explained. Central are experiences made in Germany and other European countries, but also beyond, mainly in Asia, which are presented in detail. Finally, policy lessons learnt for other countries are drawn.

Keywords: Environmental taxes, energy taxes, environmental tax reform, environmental fiscal reform, double dividend, revenue neutrality.

1. Introduction

A Green Economy is one that results in human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. The realization of a green economy will require a number of policy measures. However, the most fundamental must be to ensure that prices tell the ecological truth and provide steady incentives for environmental improvements, particularly by correcting market distortions that encourage pollution and the depletion of natural resources.

The importance of prices and thus taxes as major component of prices gets clear when considering the phases of environmental politics. In the beginning environmental policy was mainly driven by command and control-regulations, e.g. of emissions, environmental quality, processes and technologies. In the late 1980 a new orientation towards market-based instruments gradually started to shape the environmental policy, not least because of the need to find more cost-effective and flexible tools for achieving environmental progress (EEA 1996). There was and partly still is an insufficient implementation and enforcement of such command-and-control regulation often because additional costs were associated with it,

* Address: Kai Schlegelmilch, Green Budget Europe/Green Budget Germany, Schwedenstraße 15a, D-13357 Berlin, Germany. E-mail: kai.schlegelmilch@green-budget.eu, www.green-budget.eu.

which one tries to avoid by circumventing these regulations. The self-interest was against environmental regulation of that kind as additional costs would reduce the competitiveness of that business.

The new orientation of environmental policy took this kind of natural self-interest better into account when designing environmental policy tools. Accepting that human beings are often driven by incentives in their decisions and behavior, the logic consequence is to use this self-interest of people in favour of the environment. Setting economic incentives to change behaviour in the desired direction is thus one main approach to address this challenge. What has worked successfully to increase labour productivity (namely via higher wages), equally works with energy productivity via higher energy prices. Given investments are triggered and behaviour changes, these do not necessarily lead to higher costs, energy costs may even start decreasing.

Environmental Fiscal Reform (EFR) is an essential tool for the realisation of the transition process to a green economy, redistributing the burden of taxation and reforming mechanisms within the fiscal system. Thus environmentally harmful activities become more costly, creating appropriate price signals for producers and consumers to reduce pollution and inefficient energy and resource use. Implementing comprehensive EFR means that a country's spending and annual budgeting, its taxation policy, and the markets within and beyond its borders, are designed and act in such a way that they protect the environment. EFR harnesses the power of the market – one of the most influential mechanisms policy makers can use to change behaviour, particularly that of diverse and diffuse actors – to reduce environmental damage.

Accordingly, the concepts of an EFR have been on the political agenda for more than two decades and meanwhile have been introduced in many countries with positive impacts on the environment and the economy.

EFR is a policy approach that can be implemented in countries at very different stages of economic development. Some EU countries, e.g. Sweden and Denmark, have achieved decoupling of GDP growth and GHG emissions through EFR. But environmental taxes have a particular appeal in the context of developing and emerging economies, as they are often easy to implement, difficult to evade and have low administrative costs. In many developing and industrialising countries the potential of EFR is hardly identified, let alone exploited. A particularly rewarding challenge is to phase-out environmentally harmful subsidies. Furthermore the co-benefits in terms of reduced health damages and costs are substantial as recent research proves (IMF 2014).

2. Can green taxes help to reduce the budget deficit?

More specifically: Could Cyprus reduce its budget deficit by taxing energy and carbon? This is the latest idea of some policy think tanks, supported by the former German Finance Minister Hans Eichel, who introduced the below mentioned EFR in Germany, and other high level policy makers such as former Prime and Finance Ministers and EU-Commissioners. A report by Green Budget Europe, European Climate Foundation and Vivid Economics shows that taxes on carbon and energy efficiency help to both reduce greenhouse gas emissions and raise revenues (Vivid Economics 2012). At the same time, it has less negative impacts on economic growth than conventional fiscal measures (such as increasing income tax or value added tax).

The reason is that in the countries studied in that report (Hungary, Poland and Spain) increasing taxes on energy would lead to the reduction of imported energy. This means that the decrease in production and economic activities occurred outside the country and even outside the EU while domestic value added is increasing, resulting in economic growth and jobs. This is a great message for any Minister of Finance, particularly those, whose budgets are in urgent needs of additional revenues.

But also environment ministers benefit as energy and carbon taxes are very effective in reducing greenhouse gas emissions. Furthermore even ministers for social affairs and labour can appreciate this approach. Though increasing taxes on energy and carbon would hurt those with the lowest incomes, an increase in direct and indirect taxes would hurt even more.

3. Germany followed the principle of taxing bads, not goods

Generally “bads” are activities or material the society wants to have as little as possible, like negative health impacts, environmental pollution and unemployment. Most of the energy we use in Europe and thus also Cyprus and Germany are fossil and nuclear fuels such as uranium, hard and brown coal, natural gas and oil. These are certainly good for providing all the energy services we appreciate. But there are health and environmental problems associated with their exploration, transport, burning and eventually depositing in the atmosphere or people's bodies and nature. These are exactly the reasons why it makes sense taxing them instead of the “goods” such as labour, income, performance which we generally appreciate. On the other hand there are renewable energy sources which generally have a much lower impact on health and environment.

The environmental fiscal reform in Germany was started in 1999-2003 as Ecological Tax Reform (ETR). This comprised the reduction of social security contributions to the pensions fund and the introduction of an electricity tax and increases of other energy taxes on heating and transport fuels.

The tax burden on the labour costs was thus lowered and shifted to tax the consumption of environmental resources, concrete fossil energy sources like gasoline, diesel, heating fuels and electricity. Overall, almost two percent of total tax revenues have thus been shifted. Higher taxes on energy consumption provided economic incentives to save energy and to use it more efficiently, thus leading to more innovation in new technologies. By lowering non-wage labour costs, the labour factor became cheaper, and existing jobs could be saved, while new jobs were created.

The economy was growing more than without the ecotax and labour costs were reduced without reducing wages, but partly even increasing them. The number of jobs increased by up to 250,000 until 2010. CO_2-emissions declined by three percent. Never before had Germany noticed a decline of transport fuels and related emissions, but since 2000 this is the case. In parallel for the first time for decades the number of passengers using public transport and sharing their cars were increasing, and they still are.

Thanks to the reduced energy consumption Germany saved billions of import costs for expensive fossil fuels. The money was spent mainly domestically and thus stimulated demand and created jobs. Overall the economy became more efficient and thus more competitive.

In a nutshell, Germany succeeded to implement an Ecological Tax Reform with a double dividend of reduced emissions and energy consumption whilst growing the number of jobs.

There were no negative consequences. This sophisticated design helped to avoid negative impacts. Taxes were announced ahead and increased in gradual and predictable steps, so that all could anticipate them and buy efficient products whenever they bought a new one anyway. Linking investment and consumption decisions to investment and consumption cycles minimises the costs of transition to a Green Economy. Energy intensive companies pay reduced tax rates taking their competitiveness into account; hence no reallocations to other countries are reported. In fact, many companies were winners given they reduced their energy consumption and thus costs, had more demand for their efficient and energy-saving products and services and thus created new jobs. Tax reductions were offered for efficient technologies and public transport.

And indeed: The ETR has certainly contributed positively to the currently strong economic performance in Germany given it lowered labour costs, but not wages and triggered efficiency substantially. In a study many companies in Germany were identified which benefitted from the ETR, but either did not know about it or which knew, but hardly dared to speak out in favour for it publically. They could employ more people, sell more efficient devices and technologies, efficient cars or those running on natural gas, well-insulated houses and LED-lamps and thus enhance their profits. Furthermore the economy saved millions otherwise spent for fossil energy imports.

Such EFR offer the economic framework for becoming more efficient, making renewable energies profitable and for transforming the economy into a green one. They bring jobs, reduced energy consumption and costs, more efficiency, increased competitiveness, reduced emissions and hence more environmental protection and health to the people. Millions otherwise spent for fossil energy imports can be saved. 40% of the costs of German companies are for energy and material while only 18% for staff, hence there is still ample room for energy and resource efficiency gains. Carbon, energy and other resources can thus provide a mid-term stable source of revenues.

How quickly can we see the effects of this kind of reform?

Impacts from reforms mostly need some time, but in the economy psychology is very important, too. Hence, the announcement of a long-term strategy, and then the fast implementation of first, but gradual steps prove will increase credibility and political commitment on which business can build and thus invest in renewables and energy efficient technologies, thus creating jobs and new market opportunities even in the short-term. And consumers, having or buying efficient technologies will be rewarded immediately. In Germany, many were surprised when the ETR was introduced to discover that it just took 30 minutes to learn driving their car differently and thus saving 20-30% of their fuel consumption, just by driving their car differently, using the next gear early, braking softly and driving with a forward looking attitude.

What about cutting environmentally harmful subsidies in Germany?

In the last decade the ETR was extended to cover also the reduction of environmentally harmful subsidies such as for hard coal, for commuters and for building new houses. In 2011, subsidies for nuclear fuel and aviation transport were reduced. The substantial public expenditures for road maintenance are also a form of subsidy which was reduced from 2005 on: Germany made lorries passing through pay for the environmental and

road damages via the introduction of the distance and emissions related heavy vehicle charge in 2005, easily operable via satellite. Already earlier Austria and Switzerland introduced a simpler version, now Hungary has followed.

4. Did other countries have similarly encouraging experiences?

In fact, Germany was not the forerunner, but it was the Nordic countries, the Netherlands and the United Kingdom which first started with such policies in the early 1990. In the late 1990 also Eastern countries followed (Schlegelmilch 1999). The main features of these EFR were:

- At the core of most reforms is energy taxation, sometimes complemented by a carbon tax element.
- They are mostly revenue neutral.
- In most cases revenues are used to lower more distorting levies such as social security contributions or income taxes.
- Some use a minor part of the revenues – mostly via political earmarking of direct expenditures – for promoting renewables, energy efficiency and other innovations.
- A double dividend has mostly been achieved if designed carefully and revenue neutrally. Hence, additional growth and jobs were created while emissions and energy consumption was reduced.

These findings are generally supported by various research analyse such as COMETR, PETRAS and many more studies.[1]

A very comprehensive overview of environmental taxes is available in the OECD database which is likely the largest worldwide: It is freely accessible and also comprises links to policy analysis and other studies.[2]

Apart from Europe, the most dynamic region in considering the introduction EFRs is Asia. On the one hand China has received several advices how it could move forward and exploit the potentials ahead but it has so far not moved much in terms of setting the right political and economic framework conditions. On the other hand Vietnam has done so after only two years of consultation, supported substantially by GIZ, the

[1] COMETR 2007: http://www2.dmu.dk/cometr/, PETRAS 2002, http://www.ist-world.org/ProjectDetails.aspx?ProjectId=aa84087e55fe4601a54103697e80cb9a&SourceDatabaseId=9cd97ac2e51045e39c2ad6b86dce1ac2, FÖS 2014: http://www.foes.de/themen/oekologische-steuerreform-1999-2003/studien/, all last accessed 17th November 2014.

[2] See: http://www2.oecd.org/ecoinst/queries/.

German development implementing agency. It introduced a legislation on several EFR-elements, on a minor level, though. However, it may consider itself the first country in Asia that launched first steps of an EFR.[3]

5. Policy Lessons

The general policy lessons learnt are the following:

- A prerequisite and crucial economic policy framework for a Green Economy is that the prices reflect the environmental and social cost.
- Environmental Fiscal Reform can make a key contribution to correcting market failures and has been implemented successfully in many industrialized and developing countries.

Lessons learned on how to improve design and communication of EFR

- If budgetwise possible, lower the most distorting taxes first, but announce their counterfinancing via cutting environmentally harmful subsidies and the gradual and predictable increase of environmental taxes.
- Earmarking and tax shifting: Linking revenue recycling to the highest policy priorities in a country (often reducing unemployment) ensures broad political support and alliances to win the majority, and also makes EFR more likely to survive political crisis.
- Facilitating change by promoting efficient and renewable alternatives e.g. via reduced tax rates or expenditure programmes.
- Protecting the vulnerable by choosing the right EFR-elements. To this end, it is important to tax aviation and road transport as these are progressive, partly also electricity taxation, but also to provide targeted support to low-income groups.
- When taxing motor fuels one must be aware that this is progressive in most countries. Often the middle and high-income class abuse the equity argument in order to ensure that this indirect subsidy remains in place.
- EFR is a business case for industry and SMEs: Making profits from increased energy efficiency and renewable energy. Major parts of

[3] http://www.foes.de/pdf/2010-06-Vietnam_EFR%20GIZ%20copied.pdf and http://www.foes.de/pdf/2013-04-05_Environmental-Taxation_Vietnam.pdf at http://www.foes.de/themen/oekologische-steuerreform-1999-2003/studien/, last accessed 17th November 2014.

industry benefit, particularly innovative SME. However, for energy-intensive companies it is important to allow for reduced rates in the beginning to take their competitiveness aspects into account. However, these should be linked to implementing e.g. an energy management system.

GBE gained good experiences with some of the following EFR-elements from which preliminary EFR-ideas for Cyprus may be derived:

- Once out of the financial umbrella of the EU/Troika, the European Semester process and its Country-Specific Recommendations (CSR) are effective means to promote more EFR-elements (energy, water, waste, resources etc.) in Cyprus. This process should also be nourished by policy advice from academics and NGO as the European Commission is always keen to gain such insights.
- Cyprus could support the intended revision of the energy taxation directive which was proposed by the Commission in April 2011.
- Differentiation of taxation e.g. for sulphur-free fuels or for favouring natural gas in the transport sector is a very effective tax instrument.
- As proven by islands such as the United Kingdom there is a unique opportunity to tax transport fuels high as there is no geographical chance to escape taxation. This could be used to promote public transport or at least the sales of efficient cars.
- Air ticket taxes are another opportunity as kerosene is untaxed. Many countries have it, starting in 1994 with the United Kingdom, and then followed by several states from 2007 on: France, Netherlands, Germany, and Austria.
- Reform company car taxation which often offers substantial tax subsidies at the expense of the environment and of the low-income households. A reform would be socially and environmentally progressive.
- Generally: Reduced tax rates, complete exemptions, untaxed resources are a further opportunity.
- Subsidy reporting and monitoring as first steps towards decreasing environmentally harmful subsidies by increasing awareness and creating publicity. In Germany the Government has to publish a subsidy report every two years which provides at least transparency and creates quite some debate. Environmentally harmful subsidies are nothing but a waste of taxpayer's money.

- Communicate even tax increases as a reduction of environmentally harmful subsidies because they help to reduce subsidies in the form of non-internalised external costs at the expense of those who suffer from negative health impacts and environmental damages. Environmental taxes make the polluters and resource users pay, not those who suffer from illnesses and paid so far increased health costs.
- Consider also non-environmental EFR-elements such as a financial transaction tax (FTT). It has already been agreed by eleven Member States. It might support the reforms of the banking sector in Cyprus and spur the direction of its business models and prevent the banking sector from becoming unsustainable again. By end 2014, an agreement should be reached on details.

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