GreenBudgetEurope

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FACTSHEET ON MARKET-BASED INSTRUMENTS: EMISSIONS REDUCTIONS COUPLED WITH JOB CREATION AND GROWTH

The benefits of strong timely action on climate change significantly outweigh the costs. The Stern Review predicts that climate change could lead to cuts in global GDP of between 5% and 20% if action is not taken to limit its effects.[1] **Market-Based Instruments (MBI) for environmental policy are a tried and tested policy tool to meet reduction targets efficiently and effectively**. The flexibility of MBI – which influence prices, set absolute quantities, or quantities per unit of output – can substantially reduce the costs of achieving policy objectives. MBI are associated with benefits such as gains in GDP growth, increased employment, and incentives for innovation. **MBI will ensure that the transition to a low-carbon economy is achieved at the lowest cost.**

MBI CAN RAISE REVENUE FOR BUDGET DEFICITS WHILE INCENTIVISING THE SHIFT TO A LOW-CARBON ECONOMY

- Green Budget Europe research has revealed that stimulus packages in Germany and the European Union did not set the correct signals for sustainable development or incentivise a shift to a low-carbon economy. **However, MBI can fulfil sustainability criteria and achieve significant emissions reductions while raising revenues to meet budget deficits, stimulating innovation and creating jobs in new low-carbon industries. Indeed, calls for a so-called Green New Deal have been widespread** including UNEP's Green Economy Initiative[2], the Green New Deal Group[3] and many leading economists.

RESEARCH ON MBI HAS REVEALED POSITIVE IMPACTS ON ECONOMIC GROWTH, COMPETITIVENESS AND EMPLOYMENT

- The petrE project[4] – Productivity and environmental tax reform and sustainable growth in the EU-27 – modelled the impact of a tax on carbon required to achieve specified CO_2 emissions reduction targets. **Modelling indicated that while a high carbon price is required to meet EU reduction targets, this has a positive impact on growth of between 0.2-0.8% of GDP, generates revenues of 1.8-6.2% of GDP, and results in an increase in employment of between 1.1% and as much as 2.7%.**
- Simiarly, the UK Green Fiscal Commission found that **a broad-based green tax shift could enable the UK to meet its greenhouse gas emissions reductions targets for 2020. The resulting reduced cost of labour would create about 455,000 extra jobs by 2020**, while economic growth would hardly be effected.

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1 The Stern Review (2006), online at: http://www.hm-treasury.gov.uk/sternreview_index.htm.

2 For more information see: http://www.unep.org/documents.multilingual/default.asp?documentid=548&articleid=5957&l=en.

3 The Green New Deal Group's homepage is at: http://www.greennewdealgroup.org/.

4 For more information, please see: http://www.petre.org.uk/

- The COMETR project – Competitiveness Effects of Environmental Tax Reforms (ETR) – investigated and modelled ex post the impacts of environmental taxation on competitiveness and growth.[5] **In those countries that had implemented a revenue neutral ETR, CO_2 emissions were reduced by an average of 3-4%. For five of the seven countries in the study, modelling revealed GDP growth of 0.5% due purely to the ETR**. There was evidence of a moderately positive impact of energy taxes on economic performance consistent with the energy tax pressure having stimulated energy savings and innovative product and process developments that improve competitiveness.[6]
- The GRACE project – (Generalisation of Research on Accounts and Cost Estimation) – showed that **substantial improvements in public welfare can be achieved in most European countries by internalising the external costs of transport**, and by using the revenues thus gained for reducing taxes on human labour.[7]
- The study "Climate Change and Employment – Impact on employment of climate change and CO2 emission reduction measures in the EU-25 to 2030" by the European Trade Union Confederation (ETUC), Instituto Sindical de Trabajo, Ambiente y Salud (ISTAS), Social Development Agency (SDA), Syndex, and Wuppertal Institute showed that by **using MBI for combating climate change, more jobs will be created in energy efficient industries than the jobs lost in energy-intensive sectors**.[8]

MBI HAVE BEEN TRIED AND TESTED ALL OVER THE WORLD

- The **European Union** strongly supports the use of MBI both at EU level and in individual Member States. Clear examples of such support are the EU Emissions Trading Scheme and the Energy Taxation Directive. **More intensive use of MBI is advocated among others in the Sixth Environmental Action Programme (6EAP) and in the EU Sustainable Development Strategy**.
- In **Sweden, due to a CO_2 tax CO_2 emissions were reduced by 9% between 1990 and 2007 while economic growth amounted to 48% in the same period, proving that emissions reductions can be achieved together with reasonable rates of growth**. Had CO_2 taxes remained at 1990 levels, it is estimated that emissions today would be 20% higher.
- **In Germany, the ecological tax reform – a tax on energy, including electricity and transport fuels – resulted in a 2-3% reduction of overall CO_2 emissions between 1999-2003, while 250,000 jobs were created in the energy efficiency and renewable energy industry.** Transport fuel consumption fell by 17% by the end of 2008 in comparison with the 1999 level. Public transport passengers increased by 3-5% per annum between 1999 and 2008.[9]
- In the **UK**, the Climate Change Levy and Agreements have resulted in significant emissions reductions from industry. In the second examination period in 2004, **CO_2 emissions reductions of 14.4 million tonnes** were achieved and half of all sectors met their reduction targets outright.

5 For more information, please see: http://www2.dmu.dk/cometr/
6 This type of positive impact is consistent with the so-called 'Porter effect'.
7 For more information, please see: http://www.grace-eu.org/
8 For more information, please see: http://www.tradeunionpress.eu/Web/EN/Activities/Environment/Studyclimatechange/rapport.pdf
9 For details see: http://www.foes.de/themen/oekologische-steuerreform/.

- In **Denmark**, the sulphur tax resulted in 84% reductions in sulphur emissions between 1995 to 2004. Denmark now has the lowest SO_2-intensity per unit of GDP in the OECD area.
- **International bodies, including the UN Climate Change Secretariat, UNEP and UNDP; the IMF and the World Bank; the World Trade Organisation; the OECD; and communications of the G7 and the G20** all support the use of MBI to achieve GHG reductions.
- **Over 40 countries, including Brazil, Canada, Australia, Cyprus, Israel, Portugal, the Republic of Korea, Singapore, South Africa, Switzerland and some US States** have implemented feed-in tariffs for renewable electricity generation.
- In various states in the **USA and Canada**, MBI for environmental policy have been introduced, including energy taxes and forms of greenhouse gas emission trading schemes.
- **In the USA**, a tax on ozone-depleting chemicals to control the production and consumption of ODCs, such as chlorofluorocarbons (CFCs), was implemented in 1989, including border tax adjustments to ensure that importers did not benefit at the expense of domestic producers. CFC consumption (expressed in CFC-11 equivalents) fell from 318,000 metric tons in 1989 to 200,000 metric tons in 1990, the year the tax was introduced. The tax raised USD2.9 billion in its first five years and, alongside other policies, resulted in massive reductions in CFC use.
- **In South America,** MBI have also been widely implemented, including energy taxation, waste and water charging, Feed-in Tariffs, and Payment for Environmental Services (PES).
- **In Asia, Green growth has been the focus of the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) for some time.**
- **Japan** has environmental taxes on transport fuels, including kerosene, coal and electricity. Its successful 'top runner' programme has resulted in widespread efficiency improvements in more than 20 product categories. For almost all categories, efficiency results have significantly exceeded expectations.
- In **China**, MBI have been widely implemented, particularly resource taxes, consumption taxes related to fuel and transport use, and pollution and water charges and a carbon tax will be introduced in the 2011 five year plan.
- In **Sri Lanka, Thailand, Viet Nam and Indonesia**, energy taxes and tariffs have been implemented or are in the pipeline.
- **Many countries of Africa also have positive experiences with MBI. E.g. South Africa** has implemented taxes on transport fuels (including aviation fuel), energy, water consumption and waste water. **Kenya** and **Tanzania** have introduced excise duties on petroleum products and plastic bag levies. The Fisheries User Levy in **Uganda** funds sustainable fisheries management practices.