ETR/EFR/GTBR and Double Dividend

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Prof. Seung-Rae Kim

Hallym University
Seoul, Korea

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Korea's New Growth Strategies for Next 60 Years (2008-)

☐ Established **a legal act on Green Growth** (GG) to meet emission target and promote eco-friendly investment & development in 2010

e.g., set **a national goa**l of cutting emissions by 30 % below 2020 BAU (2009.11)

⇒ Prepared for **a variety of green growth measures** in 2009, and will put those plans into action (**Green Tax & Budget Reform**; GTBR) in a few years

e.g., Plans to use **property, automobile, and energy-carbon taxes** to reduce CO2 emissions and promote green growth

☐ Establish **the Global Green Growth Institute** (GGGI) in Seoul (2010.6)

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The Copenhagen-Accord related Emissions Reduction Targets by 2020

(Unit: %)

	CO2 emissions relative to				Carbon Intensity relative to 2005 level
	1990 level	2000 level	2005 level	2020 BAU*	
EU states	20				
Norway	40				
Croatia	5				
US			17		
Canada			17		
Moldova	25				
South Africa				34	
Brazil				38.9	
Russia	25				
Japan	25				
Australia		25			
New Zealand	20				
South Korea				30	
Indonesia				26	
Singapore				16	
China					45
India					25

* BAU: Business as usual case with no climate policy
Source: UNFCCC, 2010; Boao Report, 2010

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Principles of Green Tax Policies

How will we meet the difficult global challenges before us, while simultaneously improving people's lives and conserving the environment?

☐ There is a widespread agreement on globally based efforts to investigate how to help the environment economically, with ultimate objective of stabilizing climate change.

- For practical purpose, **Eco Tax Reform (ETR)** becomes a credible choice in the ongoing policy discussion over how best to address global warming and to comply with implementing the President Lee's 'Low Carbon, Green Growth' project.

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☐ Green Growth purports to achieve economic growth with generating enough jobs while preserving the limited ecological carrying capacity of the environment.

☐ **Eco Tax Reform (ETR)** is the term used for changes in the national tax system where the burden of taxes **shifts from 'goods'**, such as labor, capital or clean consumption **to 'bads'** such as activities that lead to environmental pressures.

- It is **one of the key instruments** to achieve the plan which would be **both fiscally prudent and environmentally sound**.

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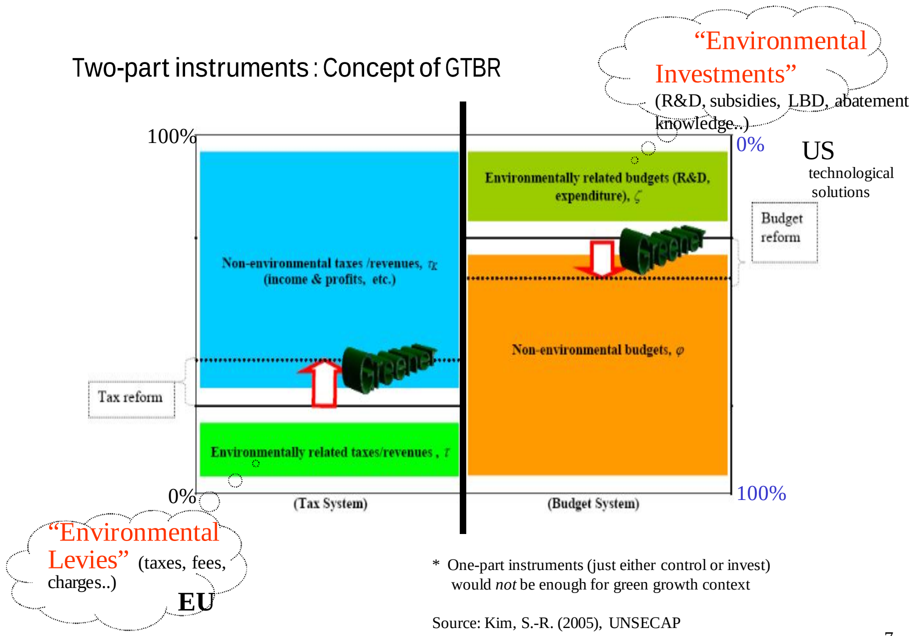
Two-part instruments : Concept of GTBR



* One-part instruments (just either control or invest) would *not* be enough for green growth context

Source: Kim, S.-R. (2005), UNSECAP

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Example Roadmap for eco tax reform in Korea (2010-)

Policy Instruments	Plans						
	2010	2011	2012	2013	2014	2015	2020
▪ Eco tax Reform (including carbon taxes on energy, motor vehicles, property, income, etc. or elements of carbon taxes)	Phase-In			Full			
▪ Cap and trade	Phase-In					Full	
▪ V.A or N.A.	Phase-In	Phase Ⅰ		Phase Ⅱ			
▪ Compensation for Key Industries' competitiveness	Phase-In			Full			
▪ Pro-poor policies (redistribution)	Phase-In			Full			

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Effects of Eco-Tax Reform

☐ The positive effects of eco tax reform are the reduction of energy consumption both at national and households' level, the decrease of Co_2 emissions, the diversification of energy sources, the creation of specialized employment, and the promotion of sustainable production and consumption models.

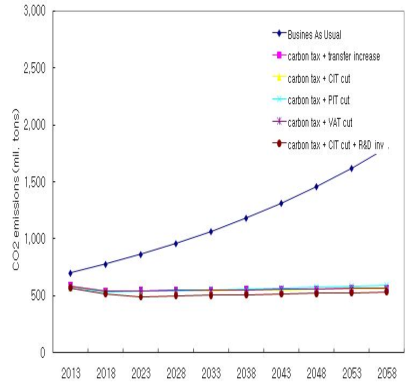
☐ One negative short-term impact is on heavy energy users such as fossil fuel electricity and steel industry.

- Undoubtedly, the eco tax reform would be more effective and the impact on international competitiveness would be smaller if more countries participate or take equivalent measures.

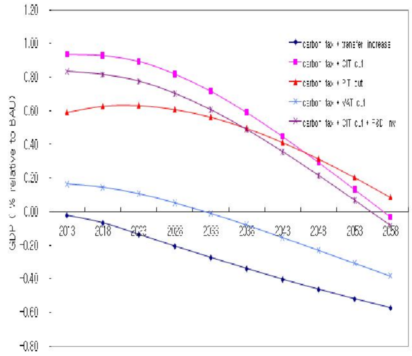
☐ Moreover, the government could **introduce a new energy-carbon tax in 2013** to partly offset the public budget deficits from **planned corporate income tax cuts from 2013** (*e.g.*, the size of carbon tax revenue, 0.1~0.3% of GDP).

- Implement a new carbon tax to have scope for **reducing** more distortive prior taxes in Korea (*e.g.*, **corporate income taxes**).
- Could also increase **tax benefits for corporate investment and R&D efforts** in carbon reduction and energy-saving activities.
- In this way, Kim et al.(2010) show that the **overall "positive" effect on economic efficiency (GDP)** of implementing a new carbon tax scheme from 2013 to 2053 together with corporate income tax (CIT) cuts and eco-R&D subsidies **would be significant.**

Effects of Alternative Revenue - recycling Schemes from Carbon Taxation in Korea : 25 EUR case



(a) Carbon Emissions



(b) GDP

Source: Kim S.-R. et al.(2010)

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☐ This is **time for setting up the Korea's Eco Tax Reform** with a view to our future development and it should also reflect more closely the sustainable issue being addressed.

- Introducing **a carbon tax** would help cut emissions and stimulate clean technology investment while **raising much-needed revenue** for the government (or enhancing **fiscal soundness**).

- To implement a carbon tax realistically, we have **many challenges to address, like setting a detailed tax rate** (in a realistic way**), linking it with other prior tax system & with other instruments** (*e.g.*, ETS and NA program)**, tackling the income redistribution issue,** and **reaching a political agreement**.

- Recently many countries are paying higher attention to **a carbon tax** rather than sticking to existing measures of direct regulation**.**

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Political Barriers and Check Points

1. Sectoral Competitiveness Issues

☐ On the early stage of implementing eco tax reform in many countries, there were **concerns about losing international competitiveness** of industries and business association.

☐ However, as regards of impact of the scheme has been successful through performing with clear goal and collecting public opinions.

- In German case, for example, it could achieve by **differentiating tax rates and making special provisions** for vulnerable groups. So that private households and small businesses are those who are unlikely to pay high rates.

- In UK, there has been **extensive consultation with business** and designed in a way that **protects the competitiveness** of UK firms. For example, **UK industries and businesses receive a 80% discount** to Climate Change Levy(CCL) in return for Climate Change Agreements(CCA) to meet energy efficiency and/or carbon emission targets.

☐ In fact, eco tax reform would lead to **increased competitiveness** as a result of fiscally neutral and net positive effects on employment due to the **decrease of more distortive taxes on income and the promotion of innovation of new green R&D technologies**.

2. Equity concerns

☐ It is also important to devise **appropriate compensation fiscal schemes for the poor** households group.

- Applying new environmental taxes in full, combined with compensation schemes for the poor, would be the role of environmental taxation.

- OECD recommend to use **ex post direct compensations** rather than ex ante tax exemptions of this purpose.

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3. Gradual Phase-In

☐ From experience in countries that have already implemented eco tax reform in Europe, we may **need a gradual phasing-in** of the reforms and the **use of a public information campaign** for stronger incentives.

- UK's fuel duty escalator can be a good example as a slow but sure way of making policy instruments more demanding and effective.

4. Public Acceptance and Compliance (Political Feasibility)

☐ It is also important to **maintain transparency in the planning and use of the tax revenue** which can defuse potential opposition to a new environmental tax charge.

- **I**t is necessary to weigh partly conflicting demands against each other for energy-intensive sectors, and compatibility with market principles and issues of administrative feasibility.

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☐ For Korea, the carbon tax scheme would **need to designed alongside a <u>broader</u> fiscal package of measures (notionally funded from carbon tax revenues)** in order to protect the international competitiveness of firms and/or low-income families.

- For instance, energy-intensive industries **could receive a <u>discount</u> to the proposed carbon tax rates** in return for joining a successful N.A. programs to improve energy efficiency and/or reduce emissions to specific levels.

- **<u>Hypothecation</u> of part of carbon tax revenue to subsidize green projects** in industries and/or low-income families could also raise public acceptability of new carbon taxation.

5. Administration and Governance

☐ ‘Green tax commissions’ or ‘**inter-ministerial** committees’ for eco tax reform should be emphasized.

- They make **proposals for environmental tax reform** and act as a forum for discussion on topics that include design, rates and the likely impacts.

- Analyzing and recommending to reform by political parties and academic and institute circles can be available.

6. International Cooperation

☐ **Knowledge transfer** between countries (*e.g.*, via GGGI) about the use of economic instruments in environmental policy would be desirable, whereby country-specific conditions are being considered when such a transfer is done.

Ways Forward

☐ There are still ways to go, even though government got off to a first step to **eco-sound fiscal policies**.

- Compared with other OECD countries, Korea has **less energy-efficient industrial structures** with complicated fiscal policies and large differences of tax burdens on each energy sectors.

- Therefore, Korea is now facing to prepare for the **post-Kyoto scheme** which would enforce to find a new paradigm for dealing with environmental sustainability and economic growth.

- In order to implement the Korea's new scheme successfully, **a key theme "green taxes"** would be essential to provide greater efficiency gain through helping to **'get the prices right**' associated with their environmental externalities.

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☐ Further, it is required to consider **secondary instruments** such as direct compensation payments, price support and tax exemptions for unfair burdens of **low-income households** and **more energy-vulnerable sectors**.

- All those approaches might be **offset** of distributional consequences as mitigating the harmfulness of eco-motivated fiscal policies.

☐ It's pretty obvious that the more we delay action, the more cost we pay. If we **invest green technology** in recent economic slowdown, we will have a global initiative that would **make our economy more competitive** in the long run.

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