



ESDN Workshop

From Green Growth Towards a Sustainable Economy

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OECD
Green Growth Strategy

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Outline of presentation

- Background and development process
- Main objectives of the GG strategy
- Framework for the strategy
 - Tools for selecting appropriate policies
 - Structural adjustment issues related to the transition
- Implementation of Green Growth Strategy
- Summary

Background and Development Process

- 2009 OECD MCM: 34 Ministers adopted a *Green Growth Declaration* and asked OECD to develop a Green Growth Strategy.
- Horizontal project involving several OECD directorates and their respective committees
 - The economics department, the environment directorate and the directorate of science, technology and industry serve as the core group
 - Contributions from Employment and Social Affairs and Statistics
- Interim Report for June 2010
- Final Report for June 2011

Key objectives of the Strategy

- “Greening” the mainstream growth model
 - Provide specific tools and recommendations to help OECD and non-OECD governments to identify policies for a shift to a greener economy at the least economic cost
- Ensure that economic crisis is used as an opportunity
 - facilitate the shift towards green growth and not an excuse to delay environmental action
 - employment dimension becomes important: identify opportunities for job creation especially in the short term
- Promote international coordination and dialogue on green growth issues

Framework for the green growth strategy

- Identify policies that would promote both economic efficiency and environment integrity, while ensuring social equity
- Coherent from both a national and international perspective
- Environmental areas covered :
 - Climate
 - Bio-diversity and quality of eco-systems (air and water pollution, soil erosion)
 - Use of natural resources (water quantity and fishing)
 - Materials management (waste management and end-of-cycle product treatment)

Green growth framework has two parts

- Part I - Principles and criteria that policies should meet to achieve green growth objectives
 - With a view to bring environmental policy mixes closer to best practice
 - Providing some benchmark against which current policy settings can be evaluated
- Part II - Issues of structural adjustment related to the transition towards a greener economy
 - Policy settings that best facilitate transition to a different model of growth (that better internalise externalities)
 - Starting point is characterised by large product and labour market gaps that may persist over the next few years

Green Growth Framework – Part I

- Addressing environmental externalities and repairing market failures in a cost-effective way
- Identifying policies that:
 - Benefit both income and the environment – (win-win)
 - Boost income growth at the least cost in terms of environment and vice-versa -- (trade-off)
- Underlying assumption is that correcting externalities improves welfare and is therefore desirable
 - No trade-off between promoting well-being and preserving the environment
 - Costs and benefits of action are unevenly distributed across countries and individuals (including across generations)
 - Compensating the losers is difficult in practice.

Policy tools

- Price-based instruments
 - Taxes, fees or charges as well as tradeable permits or quota systems → Market-based instruments
- Regulatory instruments
 - All forms of regulatory approaches that impose choices on business operations
 - CAC Performance or technology standards / outright bans
- Green technology and innovation support instruments
 - Directed R&D funding, public procurement, green certificates, feed-in tariffs
- Voluntary and information-based approaches
 - rating and eco-labelling programmes
 - voluntary agreements

Criteria for assessing policy instruments

- Cost-effectiveness
 - Achieve environmental target at least economic cost
 - Pollution abatement costs equalised across entities and jurisdictions
- Adoption and compliance incentives
 - Political obstacles to broad-based adoption (taxes more visible than permits)
 - International context
- Ability to cope with uncertainty
 - Providing clear and credible signal to investors
- Effectiveness in stimulating innovation
 - To reduce future abatement costs

Part I - Main Findings – Desirable policy mix

- Best choice of instrument will vary according:
 - Nature and size of predominant market failures
 - Differences in institutional capacities
 - Several interacting market failures → Combination of instruments
- Putting a price on pollution source or on over-exploitation of scarce resource should be a central element
 - Pricing alone not sufficient in areas where more radical innovations or breakthrough technologies would be required
 - Responsiveness of agents to price signals can be re-inforced by information-based measures
- Use of non-market instruments is appropriate when pollution emissions cannot be adequately monitored
 - No obvious input or output that can serve as a proxy
- Environmental side-effects of existing sectoral policies should be examined
 - Environment-harmful subsidies in agriculture, transport, energy.

A new yardstick for assessing growth performance: Moving beyond GDP

- Extending the Growth Accounting Framework:
 - Include environmental capital services as an explicit factor of production and negative impacts of pollutants into GDP-based framework (treat pollution as an input in the production process)
 - Develop an income measure which takes into account the depreciation of the stock of environmental capital
 - A broader measure of well-being that takes into account the impact of green growth policies on some aspects of quality of life, such as health, perceived quality of landscape, etc.

Part II – Transitional Issues

- Fostering the transition towards green technologies
- Managing the transition towards a greener economy
 - The nature and extent of sectoral re-allocation from GG policies
 - Concerns of international competitiveness and income distribution
 - Pro-active policies to sustain the recovery

Transition towards green technologies

- Are general innovation policies in place in most countries sufficient to promote the development of green technology, even in the presence of clear price signals ?
- In principle, directed support at clean technologies in their infancy may be necessary to overcome specific market failures:
 - Market size and learning-by-doing effects giving an advantage to existing technologies → path-dependence

Directed support for green technologies raises a number of policy challenges

- Appropriate timing of support
 - How quickly should support for R&D or diffusion of technology should be raised?
 - Strong initial support in the case of breakthrough technologies but declining afterwards
- Choice of technologies
 - What criteria/ methodology should be used to determine how support should be allocated across technologies (with all the risks that this entails) ?
- Choice of policy tools
 - Public research, R&D tax credit or grants, public procurement

Public policies that can ease and fasten the transition

- Possible approach to minimise risk related to directed technology support
 - Supporting broad portfolio of investments and putting stronger emphasis on long-term research in technology areas that are years away from commercial viability
 - Public procurement can play a role where network externalities or “demonstration effects” are important
- Pro-competition regulatory environment combined with sufficient IPR protection can stimulate technology development and adoption
 - Evidence from work on innovation that large share of more radical innovations come from new firms.
 - Importance of removing barriers to entry
 - Pro-competition regulation in segments of network industries has also mattered in ICT take-up.

Facilitating International Technology Transfer and Diffusion

- Removing barriers to trade and international investment in clean technologies
 - Relatively high tariffs in some non-OECD countries, though strong heterogeneity (energy-related equipment)
 - High tariffs in some OECD countries on bio-fuels (exceed 20% in United States and the EU)
 - Non-tariff measures
 - Technical regulations applied that differed from international standards
 - Lack of transparency on public procurement procedures
 - heavy customs procedures or restrictions on investment
- Less progress made in identifying barriers to “green” FDI flows
 - Partly related to difficulties in defining and identifying such flows

Facilitating Technology Transfer and Diffusion

- How far to go in protecting intellectual property rights?
 - Traditional dilemma: encouraging investment in invention but without hampering (too much) diffusion
 - What is special about environment? It is a public good, and extracting a rent from users might harm all society (and not just users)
 - Most green inventions are owned by OECD countries' firms, while tech use should be global → Should the North make the South pay?
- Do patents hamper access to green invention?
 - Yes, increase cost and difficulty of implementing green tech
 - But, usually small proportion of total cost of investment
 - Major barrier is lack of skills and know-how
- Policy options
 - Compulsory licensing could be counter-productive
 - Patent funds (e.g. financed by governments) can be effective if provide adequate compensation and in the context of broader tech transfer agreements (local universities and companies in recipient countries)
 - Keep basic research undertaken by public institutes a public good.

Transition towards green(er) industries : Policies to fully exploit opportunities from new sectors

- Framework that facilitates resource re-allocation
 - Facilitate entry of new firms and exit of firms in declining industries
 - Facilitate re-deployment of labour to new firms and industries, while assuring adequate income security
 - Potentially important role for training policies and ALMP. But much remains to be learned about the types of skills that will be in increased demand.
- Post-crisis recovery may provide scope for more pro-active policies
 - Substantial product and labour market gaps
 - Lower opportunity cost of re-allocating workers and re-skilling
 - Higher risk premia and lower private investment in higher-risk projects
 - Possibility of moving forward investment in infrastructures that would facilitate the development of green technologies and industries

Green growth strategy implementation

- Strengthening performance through peer reviews of green growth policies
 - Green growth chapters or section in regular country reviews
 - Identifying lessons learned and best practices
- The environmental side-effects of sectoral policies examined through committee work
 - (Trade, energy, transport, taxation, etc.)
 - Jobs potential of a shift towards a green economy
- Improving the measurement of green growth
 - Extending the growth accounting framework
 - Developing a broad range of indicators for monitoring the environmental efficiency of production and consumption as well as the natural base of the economy and environmental QoL.
- Promoting co-operation between OECD and non-OECD countries on issues relating to green growth.

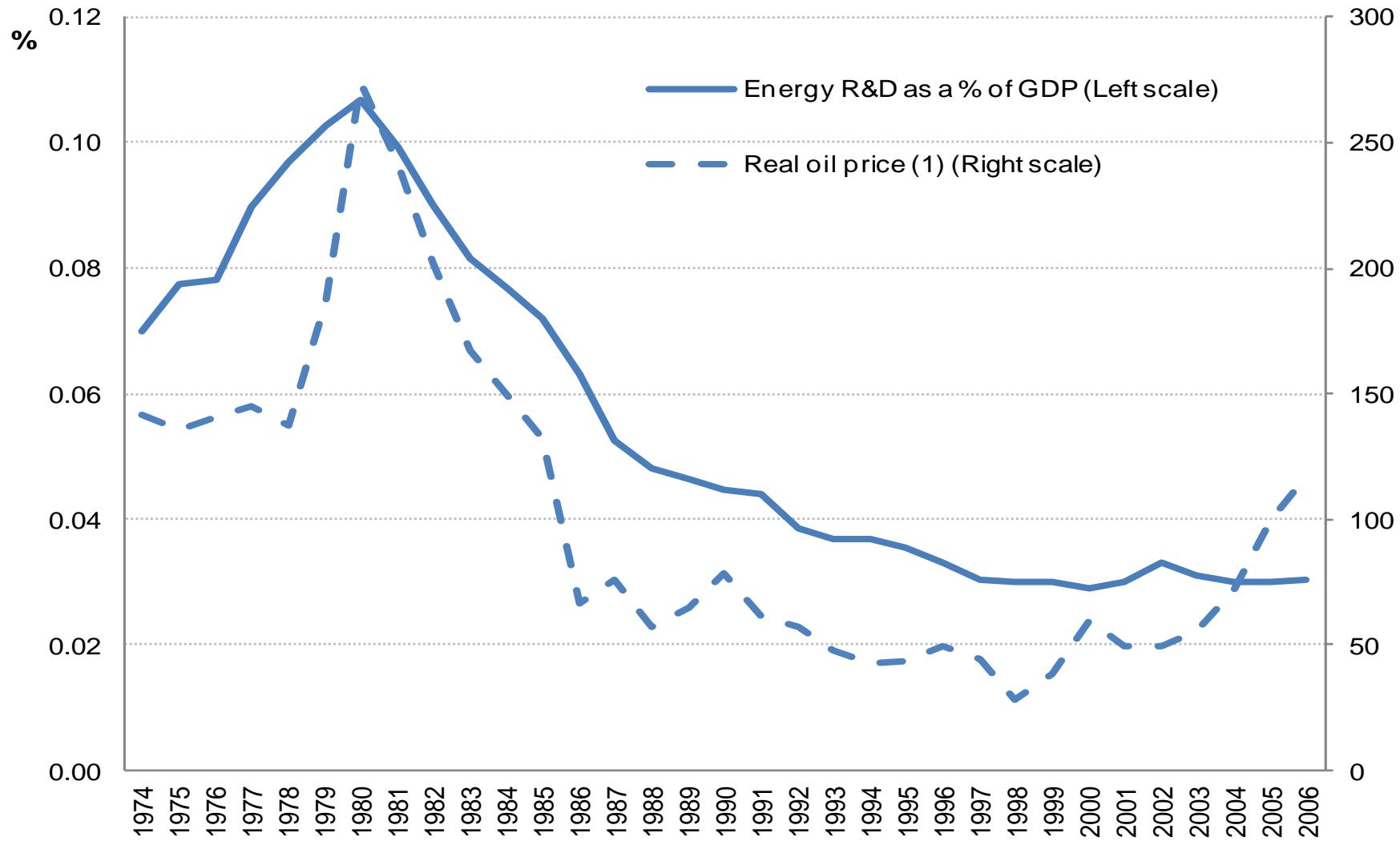
To Summarize – Understanding of Green Growth

- Three pillars: economic efficiency (growth), environmental integrity (green) and social equity (welfare)
 - Each the object of major work programmes at the OECD undertaken more or less in isolation (*Environmental Outlook*, *Going for Growth*, *OECD Jobs Strategy*)
- Strategic vision needed to better integrate environmental objectives with economic efficiency goals
 - Relation between sustainable development and economic growth close to the *Reformist position* as exposed in the discussion paper, though careful not to overplay the “win-win” rhetoric.
- Treatment of social dimension less clear: fully integrated or not?
 - Address social implications of green growth policy
 - Or integrate social issues in the design of green growth policies
 - Could be one difference between developed and developing countries



Thank You.

Pricing of externalities is important for innovation



The science base of green technology is diverse

