

Rio+20 IMF side event on
Tax and Subsidy Reform for a Greener Economy
21 Jun 2012

Environment-friendly tax structures for inclusive growth

Giuseppe Nicoletti
OECD Economics Department

Tax structures for inclusive green growth

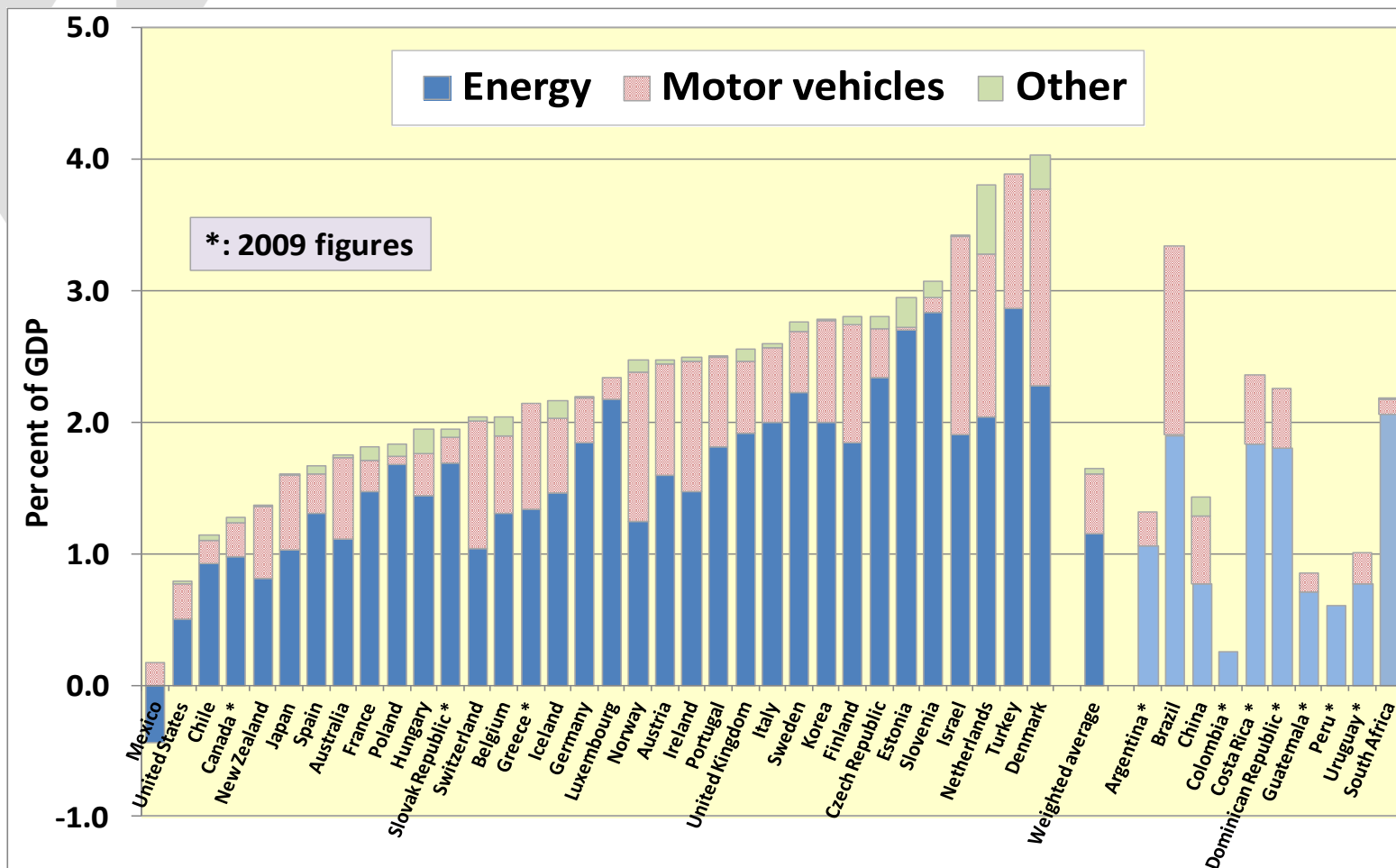
- Green taxes (or tradable permits) and elimination of environmentally harmful subsidies:
 - explicitly price environmental externalities,
 - increasing the cost of environmentally harmful behaviour
 - Improve competitiveness of clean technologies
 - Help equalise marginal abatement costs
- As a result, they encourage
 - cleaner production and consumption
 - more efficient use of resources
 - Investment and innovation
- ... helping prevent future growth bottlenecks

Tax structures for inclusive green growth

- Green taxes raise revenues which can be used to:
 - Make growth more inclusive
 - Help with fiscal consolidation in high-debt countries
 - Reduce more growth-distortive taxation
- Shifting tax structures from income taxation towards alternative revenue sources can boost growth
 - More entrepreneurial incentives and to work, save and invest
 - 1% point shift in revenue share can increase GDP p.c. by 0.6-2.3%
- A green tax reform can have environmental, social and economic benefits

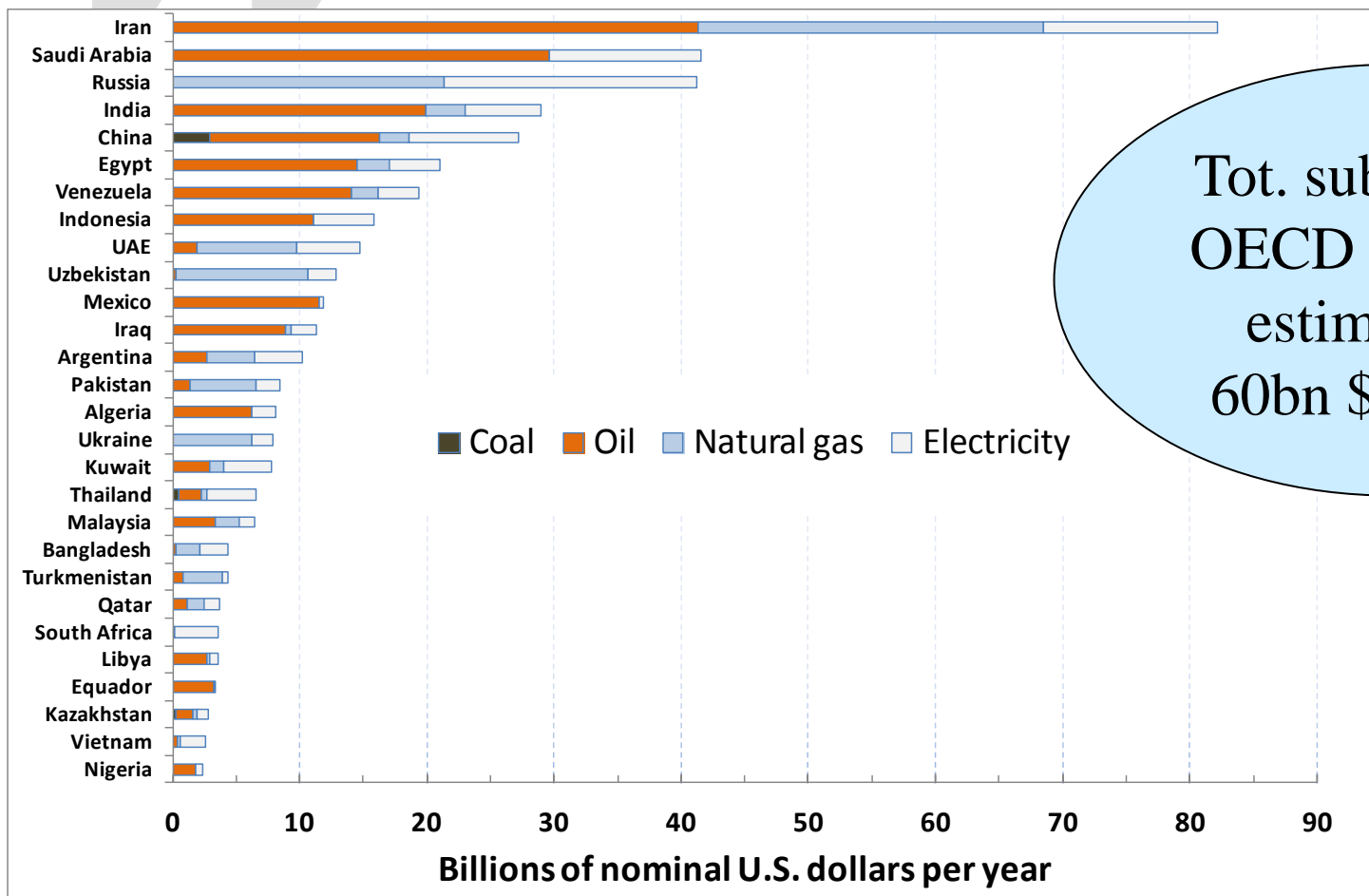
Large scope for shifting to environmentally-friendly tax structures

Env-related tax revenues in % of GDP, 2010



Large scope for reducing environmentally-harmful subsidies

- Subsidies to FF in non-OECD countries (2008-10):



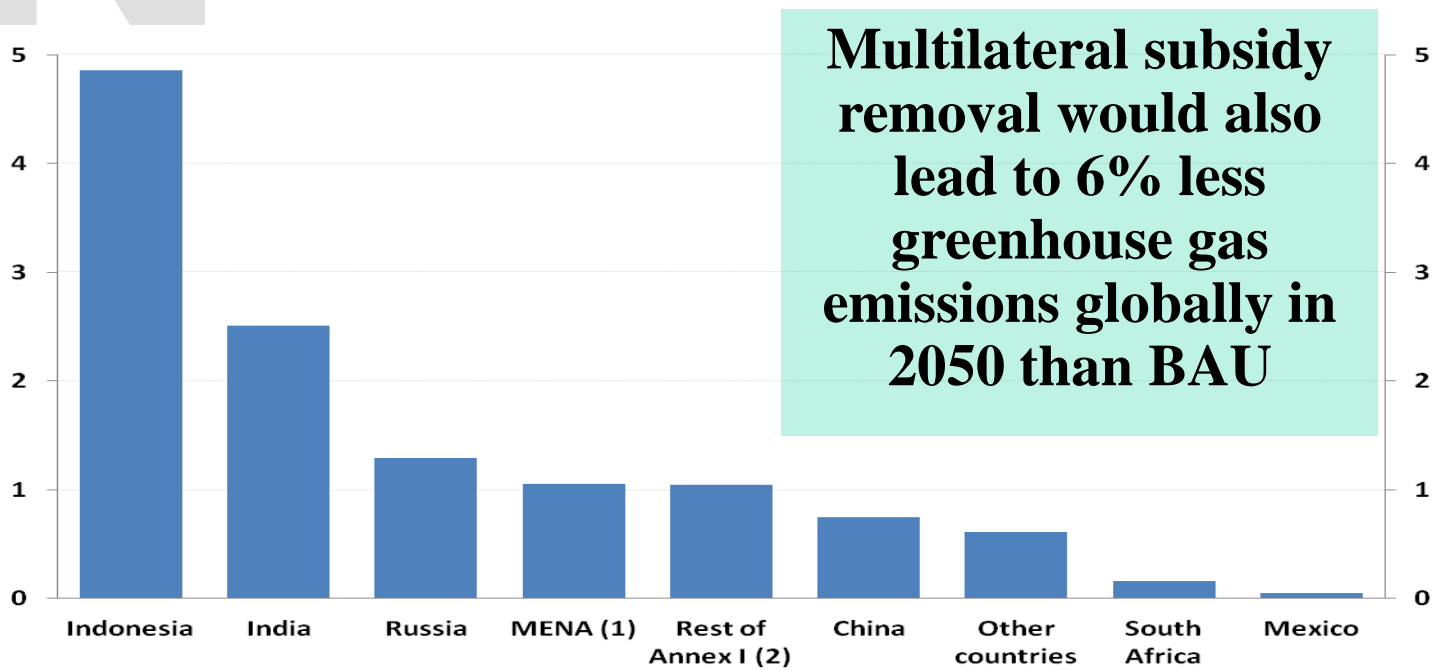
Tot. subsidies in OECD countries estimated at 60bn \$ in 2011

Source: IEA, OPEC, OECD ,World Bank G20 Report (2010)

Eliminating fossil fuel subsidies

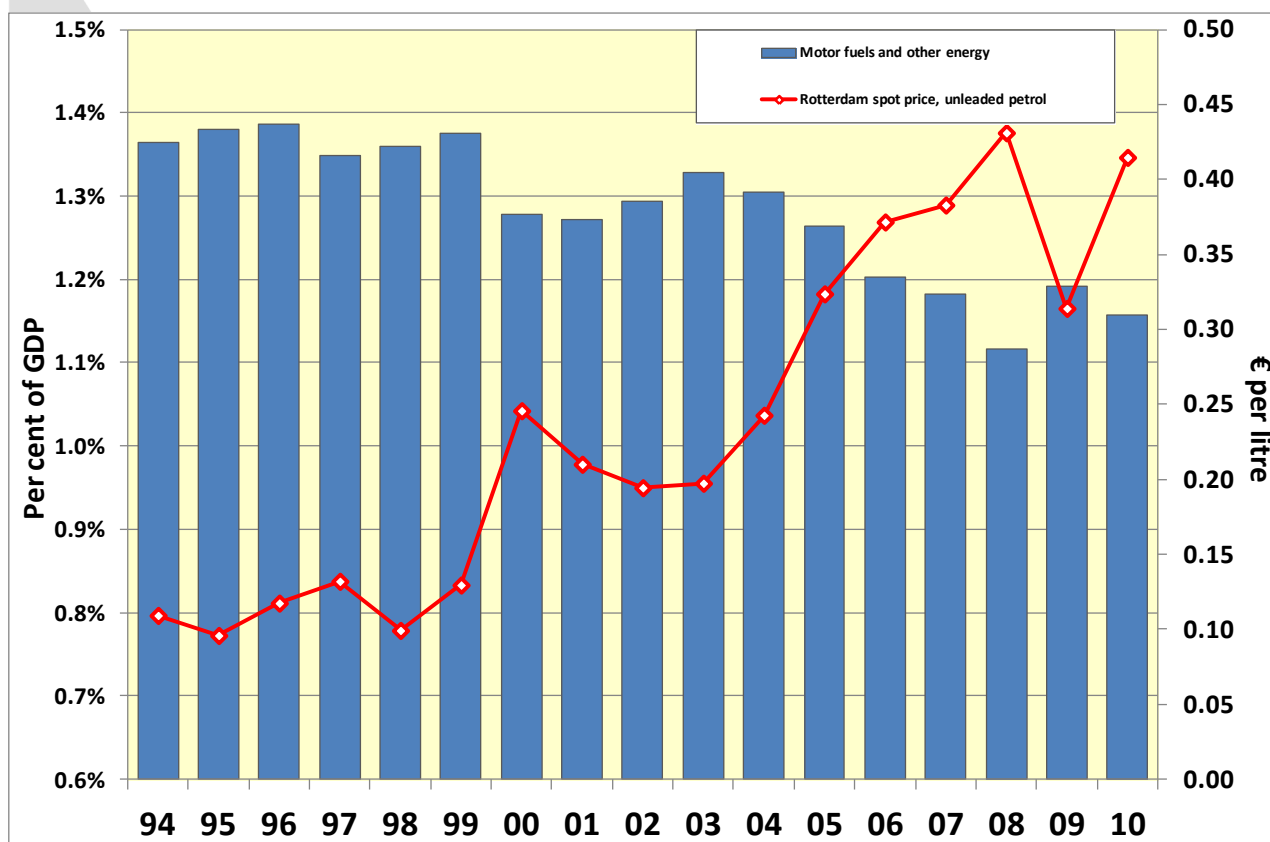
- Good for environment and good for growth

% point increase in GDP from unilateral subsidy removal



Prices matter and induce substitution away from fuel use

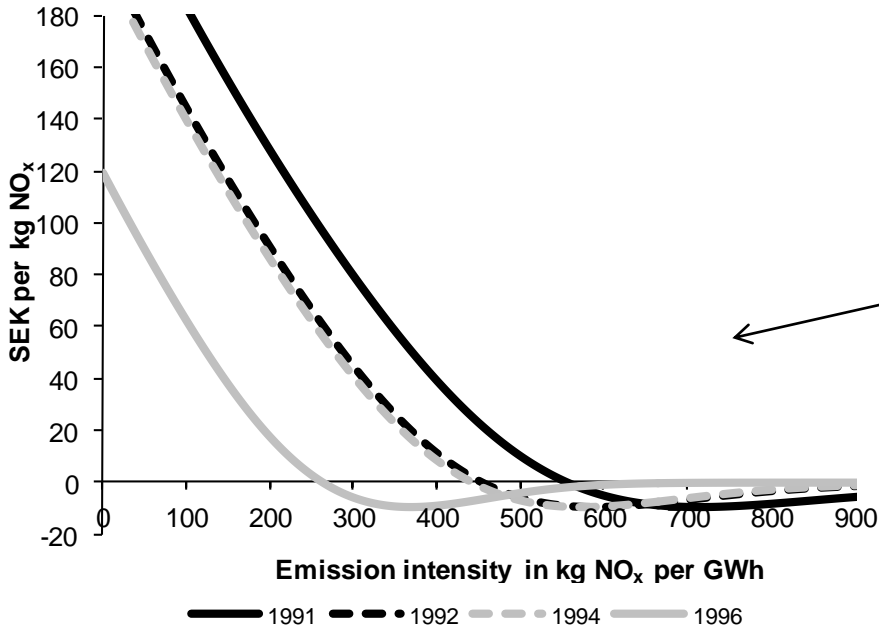
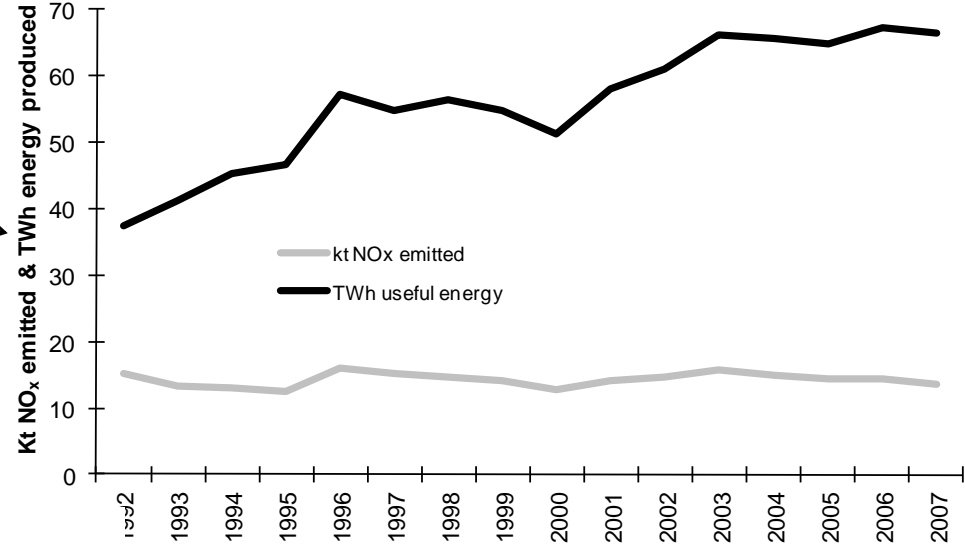
Fuel-related tax base and oil price, OECD average



Prices matter – and spur efficiency

Sweden's charge on NO_x emissions

Decoupling of energy production and NO_x emissions since 1992



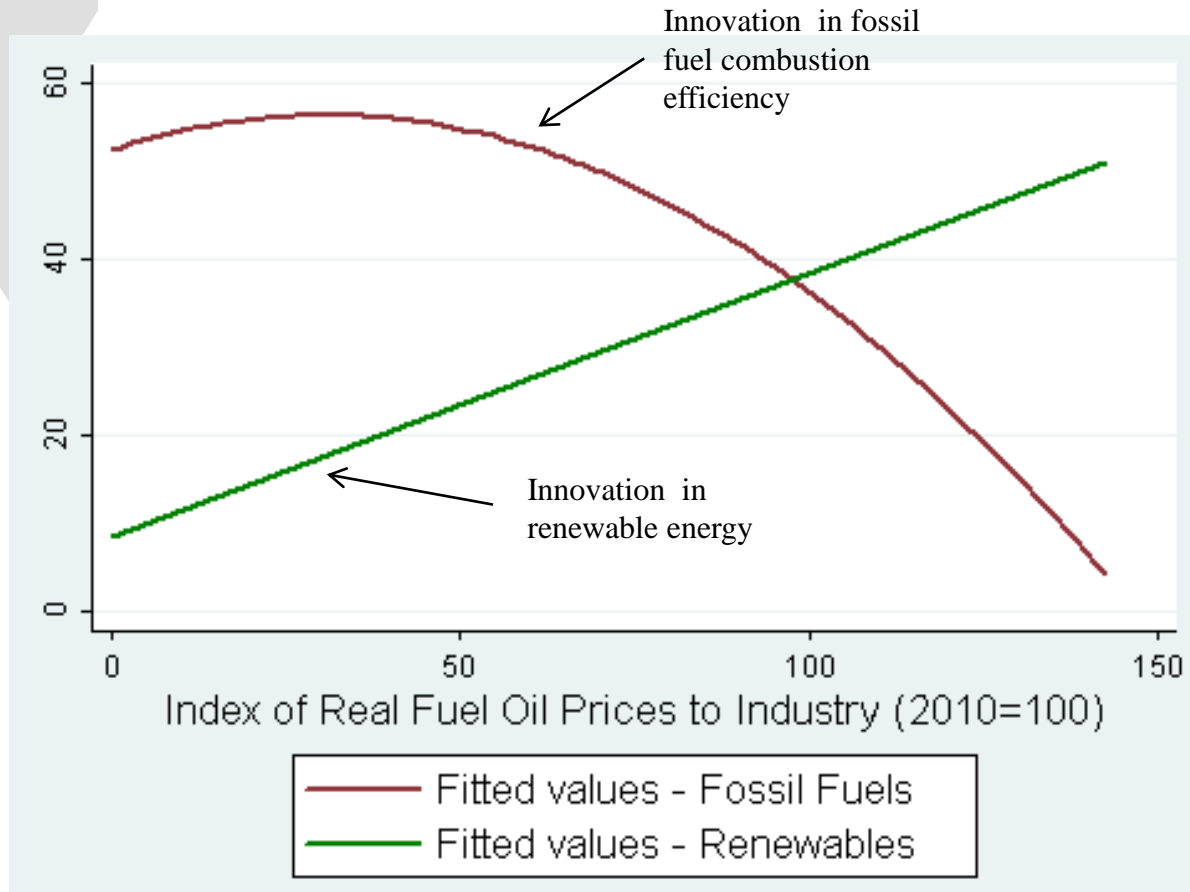
Significant reduction of abatement costs

Source: OECD (2010), from SEPA (2008) and Höglund-Isaksson (2005)

Prices matter – and spur innovation

Post-tax oil price and patenting

Patent counts



Source: OECD *Energy and Climate Policy and Innovation* (2012). Based on estimation of sample of OECD economies over period 1978-2008. Results indicate that if oil price is approximately equal to prices reached in 2008 oil shock => switch from fossil fuel combustion efficiency innovation to renewable energy innovation.

Principles of good green fiscal reform

- Tax=marginal social damage of environmental externality
- For same externality, tax uniformly across different emission sources
- Cost-effectiveness and environmental integrity

- But principles rarely complied with: e.g. diesel vs gasoline, implicit CO2 taxation, biofuel subsidies
- Cost-benefit or multi-criteria analysis important to design green fiscal reform

Why is green fiscal reform difficult?

- Uncertainties related to the valuation of effects
- Proxy, measurement, monitoring and enforcement problems
- Market instruments require well-functioning markets
- Information deficit on equity effects of subsidies
- High “visibility” of taxation relative to other green policies (direct real income losses)
- Potential regressivity of some green taxes
- Competitiveness issues for global public goods (e.g. GHG)
- **Need to design socially conscious and inclusive green fiscal reform**

Taxes, environment and inclusive growth

- Additional revenues can be used to offset possible regressive effects of rebalanced tax and subsidy structure
 - Compensate households for increase in prices
 - Target transfers to low-incomes
- Better pricing of ecosystem services can alleviate poverty in various ways:
 - Improved health from reduced pollution
 - Safer reliance on natural resources on which livelihoods of poor hinge
 - Revenues can finance improved access to basic services
- Recycling revenues to reduce labour income taxation can also push up employment, though not by much



Thank you!

- For more details:

www.oecd.org/rio+20

www.oecd.org/env/taxes

www.oecd.org/env/policies/database