

FISCAL POLICY AND GREENER GROWTH



Michael Keen

Deputy Director, Fiscal Affairs Department, IMF

Rio+20

Tax and Subsidy Reform for a Greener Economy, June 21, 2012



- Why fiscal instruments?
- Design issues
- Overcoming obstacles to energy price reform



Why Fiscal Instruments?

(i.e. Tax or trading scheme with auctioned rights)

They are more effective environmentally



- Fiscal instruments exploit all—and strike right balance between—opportunities to reduce emissions:

E.g., a carbon tax

- Reduces demand for electricity, transport fuels,...
 - Promotes fuel switching, especially in power generation
 - Provides generalized incentives for clean technology development and deployment (e.g., IMF 2011a)
- Regulatory measures are much blunter (IMF 2012):
 - E.g. Fuel economy standard misses around 50% of reduction opportunities in transport

They raise revenue (and quite a lot)



- E.g. a \$25/tonne CO₂ charge would raise about:
 - \$130 billion p.a. in US (0.8% of GDP)
 - \$210 bn p.a. in China (1.6% of GDP)
 - \$22 bn if applied to international aviation and maritime, after compensation (IMF 2011b)
- Some OECD countries already raise about 6 percent of revenue from environmental taxes
 - Issue is to focus them more directly on emissions



Design Issues



- Target the source of emissions:
 - Fuel use rather than vehicle ownership
 - Emissions rather than electricity consumption
- Set same price for same environmental harm, across
 - Fuels (coal, gas...)
 - End users (firms, generators...)
- Prices (on fuels and driving) to reflect all damages
 - Local pollution
 - Vehicle use externalities (congestion,...)

Fuels still subsidized in many countries



- Big (and growing) numbers...
 - Fossil fuel consumption subsidies (mainly petroleum, coal, electricity) cost \$410 bn worldwide in 2010 (IEA, 2011)
- ...with a big and triple loss: Bad for the environment (around 5% of emissions), bad for fiscal positions, and bad distributional policy

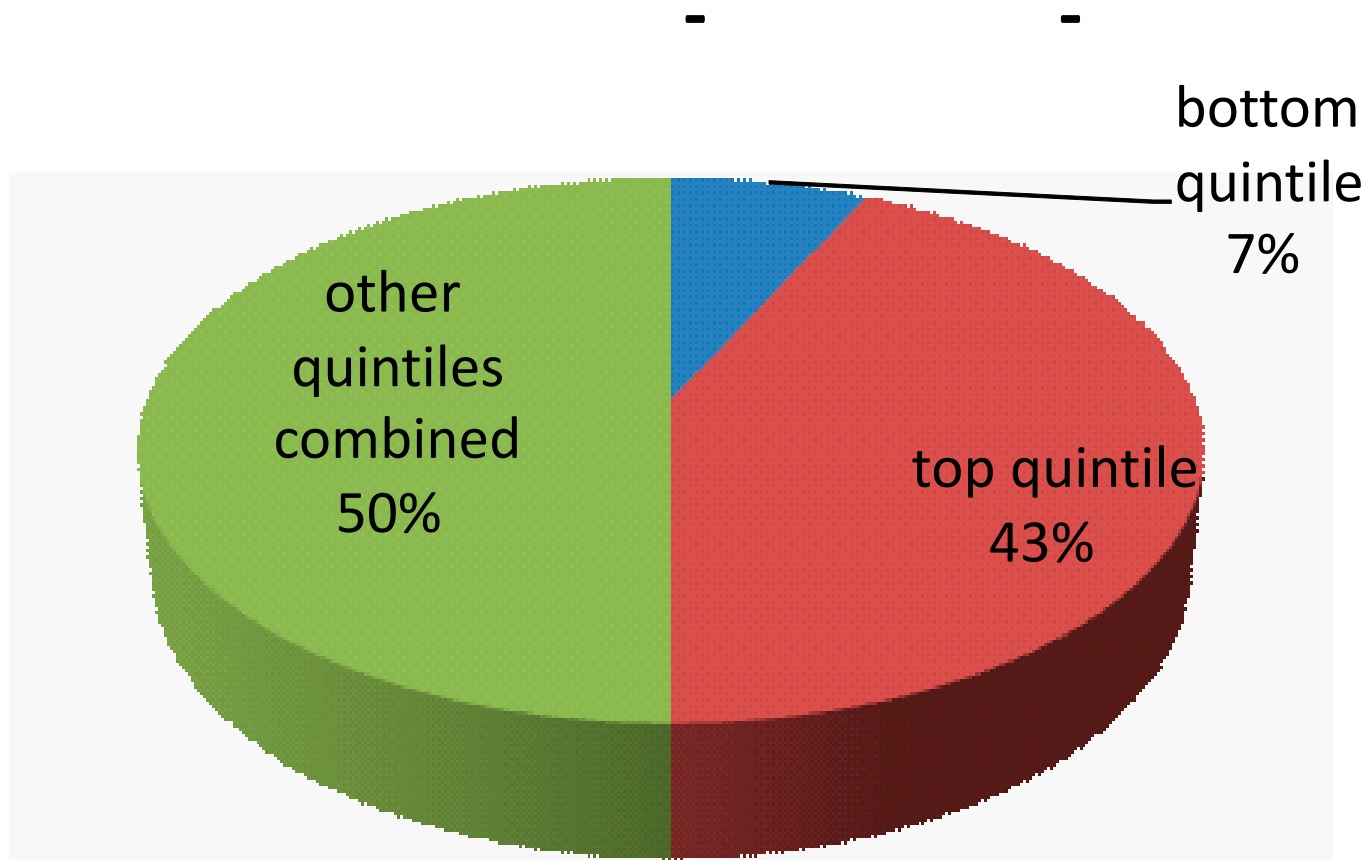


Overcoming Obstacles to Energy Price Reform

The better-off benefit most



Fuel Subsidy Benefits by Income Group (end 2008 to end-2010)



Source. Arze del Granado et al. (2010).

Addressing the challenges of reform



- Promote public awareness
- Compensate low-income households by, e.g.:
 - Adjusting broader tax system (Australia)
 - Transfers (Iran), health, education, housing
 - Subsidizing clean technology alternative
- Ease transition for trade-vulnerable firms through
 - Production subsidies or for energy-efficiency
 - Border adjustments —also to encourage participation

Concluding—What more can economists do?!



- Monitor effective taxes/subsidies on fuels/energy—
e.g., implicit carbon tax on natural gas in UK differs by
factor of 5 across end users (IFS, 2011)
- Give practical advice on ‘getting the prices right’:
 - Guidelines for design and implementation of carbon
pricing: recent IMF book
 - Quantify full range of energy-related environmental
damages: work on this over next year



- IEA (2011). *World Energy Outlook 2011*. International Energy Agency. Paris.
- IFS (2011). *Tax by Design: The Mirrlees Review*. Institute for Fiscal Studies, Oxford University Press.
- IMF (2010). “The Unequal Benefits of Fuel Subsidies: A Review of Evidence for Developing Countries.” Javier Arze del Granado, David Coady, and Robert Gillingham. Working paper 10/202.
- IMF (2010b). “Petroleum Product Subsidies: Costly, Inequitable, and Rising.” David Coady, Robert Gillingham, Rolando Ossowski, John Piotrowski, Shamsuddin Tareq, and Justin Tyson. Staff Position Note, 10/05.
- IMF (2010b). “The Unequal Benefits of Fuel Subsidies: A Review of Evidence for Developing Countries.” Javier Arze del Granado, David Coady, and Robert Gillingham. Working paper 10/202.
- IMF (2011). “Who’s Going Green and Why? Trends and Determinants of Green Investment.” Luc Eyraud, Abdoul Wane, Changchang Zhang, and Benedict Clements. Working paper 11/296.
- IMF (2011b). “Market-Based Instruments for International Aviation and Shipping as a Source of Climate Finance.” Background paper prepared for the G20.
- IMF (forthcoming). *Fiscal Policy to Mitigate Climate Change: A Guide for Policymakers*. Ian Parry and Ruud de Mooij (eds.).