Introduction

• 2C world will require emissions reduction in emerging economies even with 100% decarbonisation in OECD >> imperative of low carbon development
• Focus on mechanisms for renewable energy and energy efficiency (e.g. CDM, Clean Energy Fund etc.) and in longer term, carbon pricing
• But currently most countries are on high-carbon development path, and one major reason for lock-in is controlled prices for oil products, gas and coal, and electricity from these.
• The lower are fossil fuel prices, the more there is high carbon lock in and the harder for low carbon/renewable energy to establish itself
• But reform is complex – issues of economic development, distribution and politics
The orthodox view (IEA, OECD, IFIs)

• Fossil fuel subsidies are a major environmental and development problem
• On price-gap definition, global spend has been in range of $300-600 billion in last 5 years, with estimated spend of $775 billion in 2012 (NRDC 2012)
• Significant *environmental effect*: essentially operating as negative carbon pricing. In 2010 fossil fuel subsidies were around six times the value of subsidies to renewable energy (IEA WEO 2011)
• Significant *fiscal burden*, especially for oil-importers
• Often justified as a form of safety net for poor households, but large *majority of benefits go to better off* households (World Bank 2010, IEA 2011)
The orthodox view - scale

Fossil fuel subsidies by fuel and as % of GDP

Source: IEA 2008
The orthodox view - effects

• **Environmental**
  – Ellis (2010) suggests GHG emissions would be reduced by up to 18% by 2050 against BAU if subsidies removed; NRDC (2012) claims 6% reduction against BAU by 2020
  – Particularly important for role of large emerging economies which now have fastest growing emissions (Hepburn and Ward 2010).

• **Fiscal burden**
  – Of the 58 countries with subsidies in 2010, 46 had a projected budget deficit (Coady et al 2010)
  – Recent price rises in international oil markets have increased these pressures. Developing countries and emerging countries are passing through only a half to three quarters of the rise in international prices to their domestic markets (Coady et al 2010: 8, Kojima, 2009)
The orthodox view - effects

- **Distributional**

  - Globally, in 2010 the shares of subsidies that are received by the poorest 20% are 6% for petrol and diesel, 9% for electricity and 10% for gas (IEA 2011)

Source: Arze del Granado et al 2012

Share of subsidy benefit by consumption quintile - Average of 16 countries
The orthodox reform agenda

• 2009 G20 (Pittsburgh)
  – “To phase out and rationalize over the medium term inefficient fossil fuel subsidies while providing targeted support for the poorest. Inefficient fossil fuel subsidies encourage wasteful consumption, reduce our energy security, impede investment in clean energy sources and undermine efforts to deal with the threat of climate change.”

• IEA/OECD/IFIs (http://www.oecd.org/env/fossilfuelsubsidies.htm)

• IFI reform efforts

• Global Subsidies Initiative at the International Institute for Sustainable Development (http://www.iisd.org/gsi/fossil-fuel-subsidies)

• Avaaz petition at Rio+20 2012 (http://www.avaaz.org/en/end_black_subsidies_c/)

• But reform of subsidies remains politically difficult...
Energy subsidies as political rent

- Public choice version - Victor (2009)
  - “Downstream subsidies are a visible way to deliver benefits in exchange for political support.” Energy price is a simple, easily monitorable indicator, available to all (except where rationing), while true distributional consequences are complex and obscure.
  - Emphasises role by politicians in offering rents as assumes populations too dispersed to solve collective action problem to demand rents.
  - Path dependence and increasing returns to subsidy => lock-in: e.g. of Indian electricity subsidy (Tongia 2007, Golden and Min 2012, Wilkinson 2007) and pumped irrigation: “Farmers have come to depend on the policy and they use it as a litmus test to judge whether politicians will serve their interests” (Victor 2009: 19).
  - Downstream subsidies dominated by petroleum products because populations in most developing countries directly use such products.
Energy subsidies as political rent

• Developmental states approach - Khan (2000)
  – Emphasises use of redistributive rents within wider rent management strategy for developmental or clientelistic goals
  – Sees certain groups as capable of organising and capturing such rents, especially where power is decentralised
  – In South Asia, “intermediate” classes – professionals, lower middle class, unemployed graduates, petty bourgeoisie, richer peasants in villages “have substantial organisational power and play a key role on the competition for redistributive rents” (p 92)”...“This pattern of politics ...enabled successive layers of emerging middle class groups to get access to rents on the basis of their ability to organize the much more numerous groups below them.” (p 93).
  – Contrast with East Asian states with more centralised power
Why provide rent in the form of energy subsidy?

- **Ease of providing subsidy**
- For energy producers, price-gap methodology for subsidy calculation is not appropriate
- Allsop and Stern (2012 pp 14-15): “Rent accrues as the difference between the costs of intra-marginal production and selling prices.”
Why provide rent in the form of energy subsidy?

• For major energy producers:
  – opportunity costs are less evident than actual budgetary costs (Victor 2009: 15).
  – revenues rise and fall with the costs of subsidy, giving little incentive for reform
• Resource nationalism – sense of entitlement to share of national resource (e.g. Segal 2012)
• Using price-gap methodology, major oil exporters spent *twice* as much (as share of GDP) as countries not producing oil on subsidising domestic petroleum products in 1990s (Gupta et al 2003)
Why provide rent in the form of energy subsidy?

• **Political need?**
• Non-oil exporters in Asia have tended to subsidise diesel more than those in Africa (see graph). Kojima (2009) also finds that SSA countries more likely to pass through increases in oil prices to consumer prices of diesel, petrol and kerosene.
Why provide rent in the form of energy subsidy?

• Several potential explanations, but political need may be one
• van Donge et al (2012) argue that a key difference between South East Asia and sub-Saharan Africa has been extensive investment in rural areas, including roads, in the former and not the latter, and that this has in part been a political strategy:
  – “The fact that African politicians typically do not have to fear rural-based mass opposition based on economic grievances may be of great importance, since in South-East Asia the threat of rural rebellion is a key part of what makes pro-poor rural policies politically expedient.” (van Donge et al 2012: s19)
• Cheap rural transport and therefore subsidised diesel as a greater political need in Asia than Africa?
Why provide rent in the form of energy subsidy?

• *Lack of alternatives*
  
  – Direct subsidies less used where alternatives available
  
  – Often true of support to upstream energy-providing or energy-using industries, where support in form of cheap capital, soft budgets, risk mitigation, favourable procurement pricing etc is less politically visible than direct subsidy.
  
  – Many states have weak administrative systems and subsidies are a low cost form of transfer
Why attempt reform of energy subsidies?

- Rising fiscal costs (especially for non-oil exporters – India?) or opportunity costs as price of crude rises through 2000s

Fiscal pressure builds from 2004

Price of Brent crude 1987-2012

May 1987 – May 2012 monthly average Brent spot prices
Conversion to May 2012 dollars uses US CPI for All Urban Consumers (CPI-U)
Sources: Energy Information Administration and Bureau of Labor Statistics
Why attempt reform of energy subsidies?

- Increasing dependence on energy imports (China)
- Peak in domestic production with strong demand growth and move towards net importing can force reform (Malaysia, Indonesia)
- Higher costs of developing new domestic production (e.g. Russian – see Henderson et al 2012)
- Distributional concerns (Iran? See Tabatai 2012, Narwani 2012)
- Development of administrative capacity for alternative forms of transfer (several emerging economies)
The orthodox reform approach

  - A *political strategy* that compensate powerful interests whose consent is required
  - More *transparency about costs of subsidies*, especially for those groups who are unaware that the rich capture majority of benefits
  - Better subsidy *design*
  - More and better administrative tools as *alternatives*
Challenges for the reform approach

• Crisis-driven reform more difficult
  – High crude prices drive need for reform but also militate against reform (similar to food price riots)
  – Period from 2008 also sees economic slowdown
• Safety-nets targeted at the poorest as replacement for subsidies not necessarily an effective political strategy
  – Hossain (2012): “Fuel price rises unite the concerns of the poorest with that far more politically important and better organised class – the numerous nearly-poor, the group recently described by Martin Ravallion as ‘bunched up just above the poverty line’. This group is not the target of the sophisticated proxy-means tested social protection schemes so beloved of the international technocracy.”
  – This group of “nearly-poor” has grown substantially over the 2000s and now numbers over 1 billion in the developing world.
Challenges to the reform agenda

• Difficulty in making a credible commitment to subsidy reform (Dixit and Londregan 1995, Acemoglu et al 2004), especially if alternatives are subject to discretion and corruption

• Indonesia case study
  – 1998 subsidy reform attempts lead to regime change
  – Early 2000s reform attempts abandoned after protests
  – Successful 2005 reform package includes cash transfers, funding for schools and village infrastructure and health insurance...
  – ...but targeting process left door open to corruption and politicisation of benefits (Beaton and Lontoh 2010: 17-24)
  – 2012 - unhappiness with experience of alternative transfers adds to resistance to new reform proposals

• “Second best” (i.e. administratively and politically feasible; Rodrik 2008) reform alternatives may be needed, e.g. food subsidies
Conclusions

• Irresistible force meets immovable object?
• Increasing pressure on many countries to reform fossil fuel pricing, including some producers
• Reform remains challenging
  – Technical aspects of reform easier (more information, administrative capacity for alternative transfers)
  – Political aspects more difficult (credible commitment, need for alternative political rents, new coalitions?)
Thank you!
References

References

References