

The political economy of subsidies

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Different categories of subsidies

1. Direct subsidies to primary fuel or capital to utilities
2. Indirect subsidies to consumers through price regulation
3. « historical cumulative » subsidies capitalized in the energy system in place

With negative impact

1. Diversion of public resources
2. Fuel mix change
3. Impact the efficiency performance of utilities and end users
4. Increases the consumption of final services (mobility, space comfort, and raw material –steel cement etc.-)
5. Inflate the scale of the energy system

But some positives

- ⇒ Social considerations (energy as a basic need, need to be provided to low income populations)
- ⇒ But sometimes the efficiency losses (technical and others) tend to overcome the initial discount
- ⇒ Also a track record of successful subsidies to fossil fuel (even with a climate perspective!) : ex of liquefied gas in Senegal
- ⇒ Paradox : these subsidies have already been phased out!

Technical barriers of removal

- ⇒ Subsidies to influence behavior and investment choice
- ⇒ But inadequate stock of capital makes it difficult to adapt
- ⇒ Governments to be responsible for energy crisis in their own country?
- ⇒ Removal or subsidies necessitates investment, thus packages of public solutions (technical support and financial tools) to support private adaptation

Political barriers to removal

- ⇒ Social objectives often protect the interests of the rich fraction of the population
- ⇒ But the problem lies with the emergence of the middle class
- ⇒ Will develop totally inadequate consumption models
- ⇒ Will represent major share of population in a couple of decades

A possible option

1. Concentrate price evolution on new contracts, let the other die
2. New contracts : not just about price adjustment , but a new structure of tariff to take advantage of technology opportunities. New tariff structure becomes the only one available for new contracts
3. For today's consumers with technology in place : new contracts would impose a sharp increase of total bill
For new consumers : a possible saving, or a small increase
4. Involve the utility and make active dissemination of the new technical option and the new tariff together

A case study

City in eastern China, based on actual development plan of the city (population, urbanism, commodity networks)

Different scenarios regarding efficiency requirement for the new buildings, retrofit programmes, and investment choices in the energy supply (heat and combined heat and power)

Some scenarios make improvements of current efficiency requirements, but concentrate on supply available options

Other scenarios make the best out of the coal system (combined heat and power, combination with biomass), concentrate policy efforts on the stock of new buildings. Major decision on supply made for the next generation, when CCS/gas option will be sorted out

abatement cost / cumulative emissions	Coal BAU	CCS	GS
RT2005	-56	32	39
	93	75	84
A2	-38	43	67
	93	75	85
SWE	-43	7	8
	84	69	77
LC		11	14
		54	60