

# Issues with energy-subsidy definitions

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# Purpose of subsidy information

- *Transparency:*
  - Keep governments honest
  - Know where and to whom money is going
- *Analysis:*
  - Economic effects — international, macroeconomic, microeconomic
  - Distributional impacts — demographic, geographic
  - Environmental — geographic, industries



# Information and tools

<i>Transparency (Domestic &amp; Intl.)</i>	Government budgets & accounts Notifications to EC and WTO
<i>Macro-economic analysis</i>	National accounts (SNA) CGE models
<i>Micro-economic analysis</i>	Sectoral accounts (e.g., PSEs) Partial equilibrium or CGE models
<i>Distributional impacts</i>	National accounts Sectoral accounts (e.g., PSEs) Social Accounting Matrix (SAM)
<i>Environmental impacts</i>	Sectoral accounts (e.g., PSEs) Environmental parameters or indicators Partial equilibrium or CGE models

# Definitions of subsidies (1)

*UN Statistical Office (SNA)*

**Subsidies:** "Current unrequited payments that government units ... make to **enterprises** on the basis of the levels of their production activities or the quantities or values of the goods or services which they produce, sell or import."

**Investment grant:** "Capital transfers in cash or in kind made by governments to other resident or non-resident institutional units to finance all or part of the costs of their acquiring fixed assets."

*WTO (SCM Agreement)*

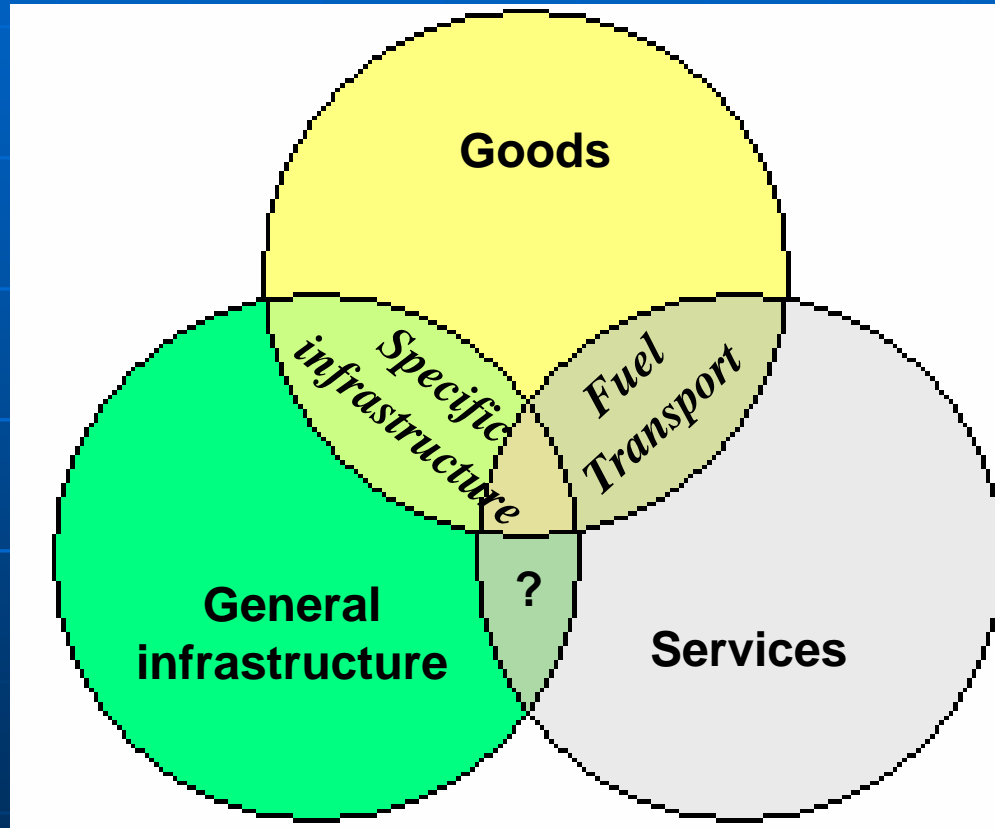
**Subsidy:** "A financial contribution by a government ... [in which] a benefit is thereby conferred." Distinction made between specific and non-specific (e.g., general infrastructure).

*WTO (GATS)*

**Subsidy:** Not yet defined! (But leans towards Article 1)



# WTO classification of subsidies



# Definitions of subsidies (2)

*OECD  
(Agricultural  
Directorate)*

**Producer Support Estimate:** "an indicator of the annual monetary value of gross transfers from consumers and taxpayers to support ... producers ... arising from policy measures which support [the sector], regardless of their nature, objectives or impacts on ... production or income."

*Some transport,  
fisheries and  
environmental  
economists*

**Subsidy:** Varying definitions, some including, in addition to OECD-PSE or WTO-SCM agreement, value of all environmental externalities, others excess of total social cost over total revenues, or of marginal social cost over price.



# Definitions of environmentally harmful subsidies

## Constantly evolving and not “agreed”:

- **OECD 1998:** “... all kinds of financial supports and regulations that are put in place to enhance the competitiveness of certain products, processes or regions, and that, together with the prevailing taxation regime, (unintentionally) discriminate against sound environmental practices.”
- **OECD 2003:** “a subsidy can be defined as ‘environmentally harmful’ if it encourages more environmental damage to take place than what would occur without the subsidy.”
- **Others (e.g., Green Budget Germany):** “those subsidies the phase-out of which would contribute to the improvement of the quality of the environment and the better management of natural resources.”



# Crucial point No. 1!

Many subsidies are *potentially* environmentally harmful, but classification of a particular subsidy as environmentally harmful is hazardous in the absence of analysis.



# Pros and cons of wide and narrow definitions of (energy) subsidies

- Wideness (up to a point) is preferable, but more important is level of accessible detail.
- One can have a fairly wide definition of a subsidy (or, less confusingly, “support”) even if data are not available — provided one is clear about what is missing. (See, e.g., SNA.)

*However ...*

## ... including non-internalised (environmental) externalities is problematic

- I. Subsidies usually refer to consequence of government action, not inaction.
- II. Externalities are important in their own right: combining them with subsidies can lead to double-counting (especially for EHS!) and confusion.
- III. Most subsidies can be quantified relatively easily; estimates of externalities are imprecise, potentially huge and often site-specific (except for GHGs). If un-internalized externalities must be included, then virtually every current subsidy estimate could be branded "incomplete", thereby undermining their credibility.
- IV. Those who argue for their inclusion only ever seem to be concerned about externalities important to them. Yet externalities are ubiquitous, and include more than just those that impact on the environment.

# Crucial point No. 2!

Not including externalities in the definition of a subsidy does *not* mean that they are thereby deemed unimportant or can be ignored.

It is the role of the analyst to then use the subsidy and externality information to, for example, determine socially efficient prices.



# So, which approaches to defining and classifying subsidies are appropriate for environmental evaluation?

- Compatibility with various needs and uses — e.g., aggregation of, or comparison among, different economic sectors — suggests that coverage of subsidies to energy be broad, but not extend to externalities.
- Use multi-dimensional classification based on objective criteria (e.g., sub-sector, production factor or input, geographic area).
- Design to be able to correlate subsidy information with tax and revenue data ...
- ... and environmental information.



# Boundaries

- In deciding what is an energy subsidy, how far should one cast the net?
- Clearly, support for the production of primary energy and transformation should be included.
- But what about subsidies to energy-consuming goods (like cars, ships and aircraft), or associated infrastructure (roads, harbours and airports)?
- Issue need not be resolved immediately, as long as accounts clearly identify what is being subsidized, so others can use only a sub-set of the estimates, if they so choose.



# In conclusion

- Ideally, people constructing sectoral (or satellite) subsidy accounts should use definitions that are consistent with general definitions already in use at international level.
- SNA and WTO definitions are compatible with each other, but it would be useful for somebody to do a detailed mapping to show how they relate to each other.
- Sectoral accounts need to identify their boundaries clearly, in order to avoid double-counting
- Externalities are important, but should be left out of the definition of “energy subsidy”.