Cost Recovery and Subsidies – who benefits from water utility subsidies?

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Outline

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- *The Role of Subsidies*
- *The Case of Quantitative Consumption Subsidies*
- *Conclusions*

I. Introduction

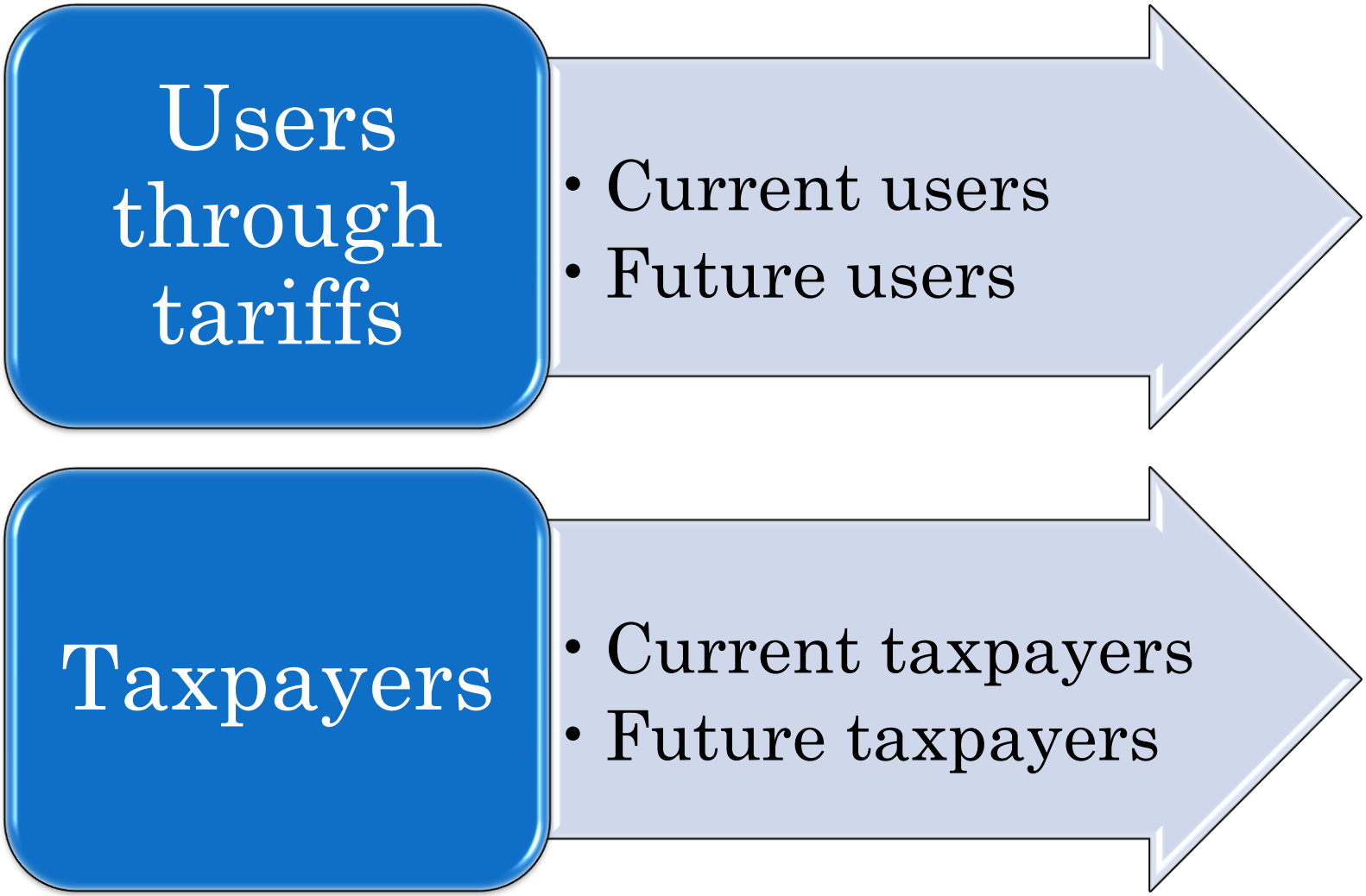
The Link between Cost Recovery and Price

- The most difficult question is not whether cost recovery should be implemented, but ……

WHO PAYS FOR WHAT?

- The costs of the service can be allocated in different ways:
  - Allocating the costs between users and non-users
  - Allocating the costs between current and future generations
  - Full cost recovery preferably being paid for by users, but in case of indirect beneficiaries, a fairness issue arises – the case of sewerage treatment

There is always somebody who Pays, even when the costs are not fully covered



Cost recovery in 2008

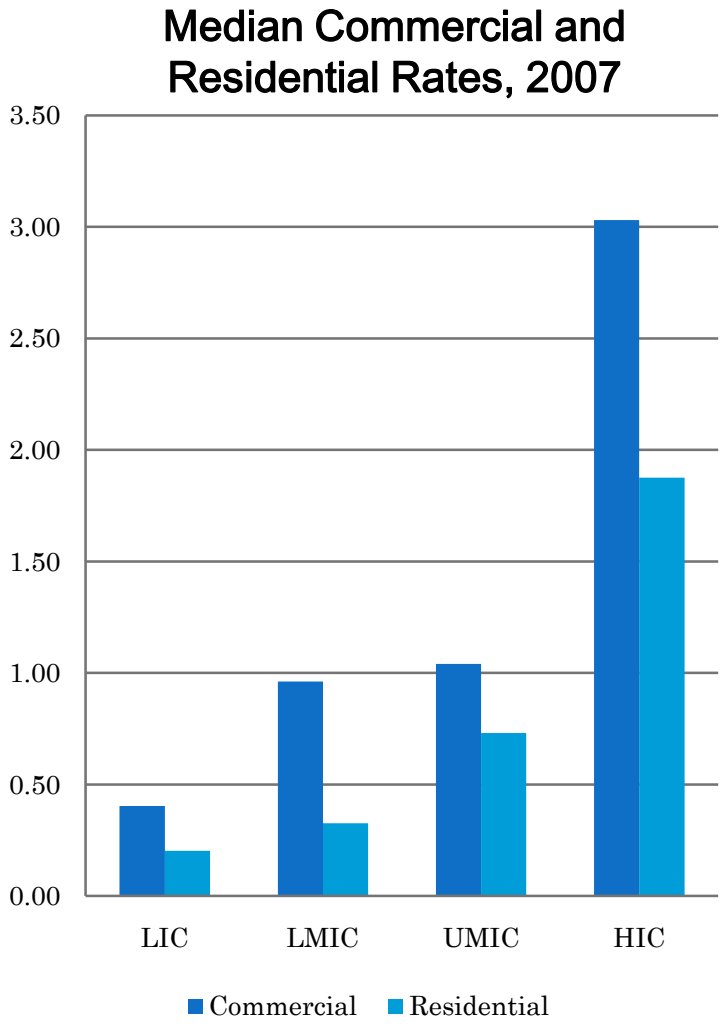
	Median tariff US$/m3	Degree of cost recovery			
		Partial O&M	O&M plus partial depreciation	O&M, depreciation plus partial capital	Above Full Supply Costs
HIC (2007)	2.36	17%	24%	30%	29%
UMIC	0.72	37%	44%	15%	4%
LMIC	0.44	67%	24%	7%	2%
LIC	0.24	40%	40%	14%	6%

Source: IBNET 2010

II. The Role of Subsidies

Consumer utility subsidies widespread

- Most residential customers are not charged the full cost of the water services they receive
- Most residential customers are not even charged the full financial (or supply) costs of the service
- Average residential tariffs only cover O&M



Source: IBNET

Assumptions behind subsidization

- A policy of subsidizing basic services is conceptually appealing…
  - Cost recovery prices are not considered "affordable"
  - Subsidies are assumed to help guarantee service for all
  - In-kind transfers are seen as easy to implement
- And… these services also lend themselves to subsidization…
  - Monopoly services
  - High fixed costs with long asset lives
    - Possible to get away with under-pricing in the short term
  - High percentage of non-attributable costs
    - Hard to assign costs to particular customers

Why are these subsidies a concern?

- Subsidies can be justified
- But there is concern about…
  - **Do subsidies really reach the poor?**
    - Some case study evidence suggests that despite all good intentions, most subsidies do not end up with the poor
  - **Effect of subsidies on incentives**
    - Inefficient water consumption
    - Disincentives on utilities to reduce costs
    - Disincentives on utilities to expand service
  - **Impact of "unfunded" subsidies** on customers as unfunded subsidies tend to adversely impact service quality

Different Types of Subsidies

	Prevalence
Consumption subsidies	
▪ Quantity-based	Almost universal use of IBT
▪ Geographical	Some examples in LAC
▪ Means-tested	Not very common
▪ Self-selecting	Public stand posts (where free)
Connection subsidies	Few explicit cases, general under-pricing of connections

Example: Colombia and geographical based Consumption subsidies

- All neighborhoods classified in Strata 1-6
  - Strata 1-3 receive explicit subsidies of 15-50%
  - Strata 4 pays the true cost of the service
  - Strata 5-6 pay explicit surcharges of 20%
- System based on concept of nationwide redistribution of surcharge revenues
- However, in practice, 40-80% of customers in Strata 1-3 leading to structural deficits

Example: Chile and Means-Targeted Consumption Subsidies

- **Objective:** maintain spending <5% income
- **Finance:** central government transfers to municipalities
- **Eligibility:** uses existing CAS index based on household interview
- **Incentives:** preserves payment culture
  - Covers only 25%-85% of the bill
  - Applies to only first $15m^3$ of consumption
  - Paid contingent on beneficiary contribution
  - Eligibility reassessed every three years

III. The Case of Quantitative Consumption Subsidies

Quantitative Based Subsidies

- These subsidies are the most commonly used
- How do they perform:
  - **How do they affect the poor?**
  - **How do they affect incentives ?**
    - Inefficient water consumption
    - Disincentives on utilities to reduce costs
    - Disincentives on utilities to expand service

Drinking water tariffs in Tunisia[7]	
Consumption in m³/3-month period	**Tariff in DT per m³**
0-20	**0.135**
21-40	**0.215**
41-70	**0.43**
71-150	**0.65**
more than 150	**0.79**

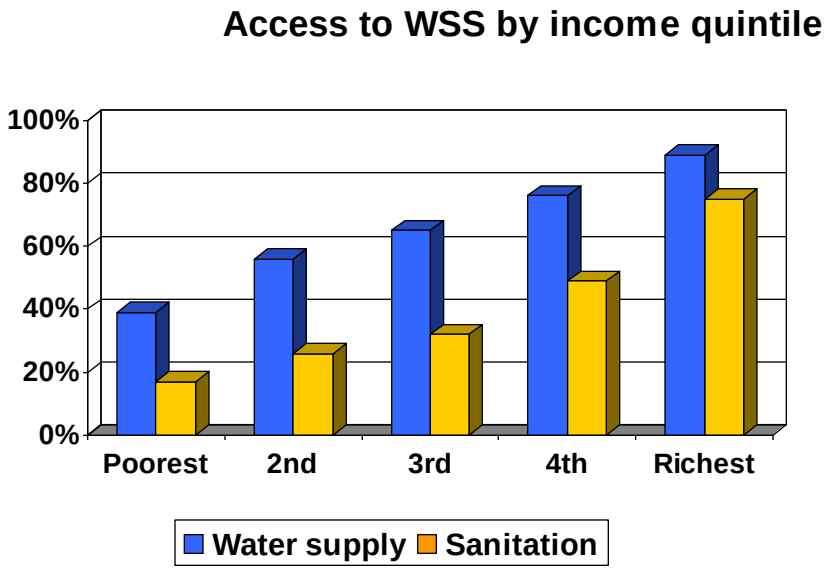
Performance regards Poverty

Quantitative consumption subsidies tend to be regressive, i.e., they do not help the poor

	Water subsidies	Other welfare programs
Consumption based	0.56	1.00
Geographical targeting	1.07	1.33
Means testing	1.63	1.55
Self-selection	1.84	1.89

Quantitative Subsidies are often **not** helping the poor

- Most existing subsidies are general subsidies to all or almost all residential customers
  - Few households pay average cost or cross-subsidize others
- Quantity-targeted subsidies usually provide a greater subsidy per unit to low volume consumers, but…
  - A smaller subsidy over more units of consumption = a larger total subsidy
  - If there is a fixed fee, the smallest volume users pay the highest average price per unit
- The assumption that poor consumers are low-volume consumers is not always right



Incentives and Subsidies: effect on efficiency improvements

Correlations between price of water and

- Collection efficiency (+)
- Staff per Connection (-)
- Hours of supply (+)
- Cross subsidies (-)
- NRW (?)
- Access (+)
- Consumption (-)

IV. Key Lessons

Conclusions

- Subsidies appear to be here to stay given major gap in cost recovery
- There is no easy way around the need to increase levels of cost recovery if service is to be improved and expanded.
  - The removal of existing regressive subsidies is widely unpopular.
  - Improving the targeting of subsidies won't change that.
- But raising prices or securing alternative sources of subsidies are not the only possible tools:
  - Improving revenue collection
  - Reducing operating and especially capital costs
  - Removing impediments to more flexible service levels, technologies, and modes of provision

Conclusions

- Subsidies requires careful design to ensure that (i) they help the poor and (ii) distort incentives as much as possible
  - Our assumptions on the poor and their demand for WSS services are not always very accurate without knowledge on household behavior at utility level
  - When designing subsidies, the need to take into account local situation, e.g. level of coverage

- Targeting subsidies is not so straightforward
  - Targeting performance of most common form of subsidies (quantity based consumption subsidies) is often very poor;
  - Alternatives exist but they also carry a price tag;
  - Funding of the subsidies will have an impact on their effectiveness