

# The manager's dilemma: pricing water for cost recovery, efficiency and customer satisfaction

David Zetland

Senior water economist, Wageningen University

ERRA Water Regulation Workshop

Budapest ~ 12 Jun 2013

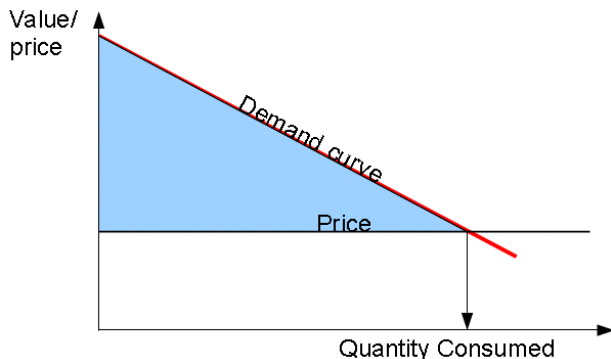
## A few questions

1. Who's from drinking water? Wastewater? Regulation?
2. How do you price water? Flat/RV? Volumetric?
3. Does price cover OpEx? CapEx? Resource fee?

## Water *is* different from energy

- ▶ You can store it
- ▶ Fixed costs are much greater
- ▶ Efficient cost mix varies (e.g., surface v. ground)
- ▶ Seasonal v. daily peaks
- ▶ Monopoly is stronger (e.g., different energy sources)
- ▶ Conflict over raw material with other sectors
- ▶ Much more local b/c water is heavy

## There's no single – or known – value of water



- ▶ Customer values vary
- ▶ Resource value  $> 0$  with scarcity (markets reveal it)
- ▶ Opportunity cost exists when resources are misallocated

**Waste:** Selling water below cost

# The regulator's dilemma

We can speak about optimal regulation, but there's a problem of path dependency

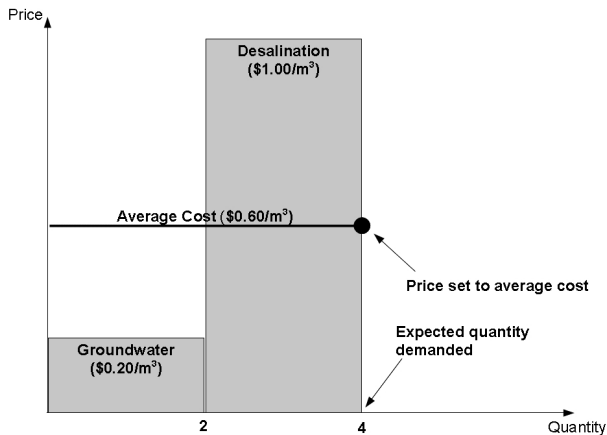
Like the holiday turkey

A sustainable (water, money) system delivers outcomes customers care about (price, quality)

Customers do not care about the mix of costs or inputs (e.g., energy vs. equipment) or outputs (e.g., km of pipes)

Try to avoid problems with asymmetric information (what's a "justified" cost?) by focussing on measured outcomes

## Cost recovery 1: the problem of average cost



Efficient pricing (on the margin) can pay fixed costs, but. . .

## Cost recovery 2: variable and fixed costs

- ▶ Ratio of fixed to variable costs depends on local conditions
- ▶  $FC/VC \neq FR/VR \Rightarrow$  volatility (e.g, 10% drop)
- ▶ Need FULL cost recovery (resources) plus cost matching
- ▶ Excess money can be invested or rebated (money in the mail!)
- ▶ Conservation via higher prices, education or technology.

Matching is easier to understand (e.g., car + petrol), but bills – your main interaction with customers – must reinforce the message

Can mom read the bill? Example: My dad and “37 CCF”

## Operational efficiency

- ▶ Both technologies and techniques
- ▶ Hard to track but important
- ▶ Benchmarking: national (VEWIN) or international (ib-net)
- ▶ Open access information. Consumer innovation.
- ▶ Performance insurance paper:  
<http://tinyurl.com/c254amg>

**Customers will pay for performance**



# Customer satisfaction

A happy customer. . .

- ▶ Gets value for money
- ▶ Understands and approves quality
- ▶ Knows economic *is* environmental sustainability
- ▶ Pays for water services (poor customers need to pay too)

# Questions? Advertising!

Blog: [aguanomics.com](http://aguanomics.com)

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Contact: [dzetland@gmail.com](mailto:dzetland@gmail.com)

This research project has received funding from the European Community's Seventh Framework Programme (FP7/2007-2013) / grant agreement #265213 Project EPI-WATER "Evaluating Economic Policy Instrument for Sustainable Water Management in Europe"

