ANEA First International Forum
on Regulation of Water Services and Sustainability
Rome, 21 January 2009

Investment in infrastructures and return on capital through tariffs.

Considerations based on experience in sectors other than water services

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- Tariff setting is an important aspect of regulation in all sectors
- In general: tariffs must be set at a level:
  - adequate to cover the (average) service costs of a reasonably efficient service provider (with transitory regimes for inefficient operators)
  - capable of providing an incentive to increase efficiency

- An **economic approach** to tariff setting has developed in the countries where (and in the periods when) provision of the services has been largely privatised
- The generally dominant approach to tariff setting was established having in mind a service in which both the cost of capital and the costs of operations matter

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- The most utilised **incentive-oriented method** consists in:
  - setting a maximum tariff level (**a price cap**) for a regulatory period (of 4-5 years generally)
  - during the regulatory period the tariff is annually adjusted upwards for inflation and downwards for the (predetermined) expected rate of productivity growth
  - at the end of the regulatory period there is a revision and a new cap is set for the next period
  - the new cap is set with some reference to the increase in productivity that has effectively materialised
- This method proved acceptable in services like energy and telecoms, and has been used until a sufficient level of competition was reached and full (or almost full) price liberalisation was introduced

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- When the cost of service is dominated by capital cost (as in motorways, water services) the price cap method, as described above, meets strong **objections** because investors ask for greater certainty for a longer period
- in these cases investors ask for a tariff set for the full period of economic life of the infrastructure
- in such services there is a strong and widespread tradition of the service being provided by the state rather than by a company; when privatising, it is crucial to establish a regulatory frame which can support the **confidence of investors**

- A long-lasting tariff must be subject to a **yearly adjustment**
- But even the yearly adjustment presents peculiar characters when the main task of the tariff is to recover the cost of capital:
  1. the rate of yearly increase in **productivity** is small
  2. the growth of **demand** is crucial

1. the rate of yearly increase in **productivity** is small
   - once the infrastructure is built, little technical progress can be introduced and organisational improvements affect the (already low) running costs rather than the (large) capital costs
   - therefore the X factor in the price-cap formula matters less than in other sectors, and errors in estimating productivity also matter less, so the regulatory period can be longer, as required

2. the growth of **demand** is crucial
   - the capital cost per unit of service mainly depends on the degree of utilisation of the infrastructure
   - consequently the capital cost per unit of service varies with the level of demand
   - either the tariff is adjusted yearly following the effective growth of demand (in this case the method used is a **"revenue cap"**; the benefits of a fast demand growth accrue to the consumers; but when demand falls the tariff increases)
   - or a **"price cap"** proper is used, and in this case the company enjoys extra profits if demand grows faster than forecast and may incur into losses if demand falls

- all the described difficulties can be overcome in setting a regulatory frame for infrastructure provided by private investors
- “pure” methods are useful for analysis and discussion, while in the actual making of regulatory arrangements a large variety of **mixed formulas** can be used to balance the opposite risks and objections

- but the real threat to the confidence of investors lays in the impredictible variations of **political preferences** and inclinations
- and consequently what really matters most is the **quality of regulation**
  - i.e. the technical competence, independence and ethical standing of the regulatory institution
  - the procedure that is followed in taking the decisions (transparent, with consultation of the interested parties, even with some negotiation)
  - the stability of the decisions once they are taken