

Final Research Workshop

Cross-Comparative Report D20

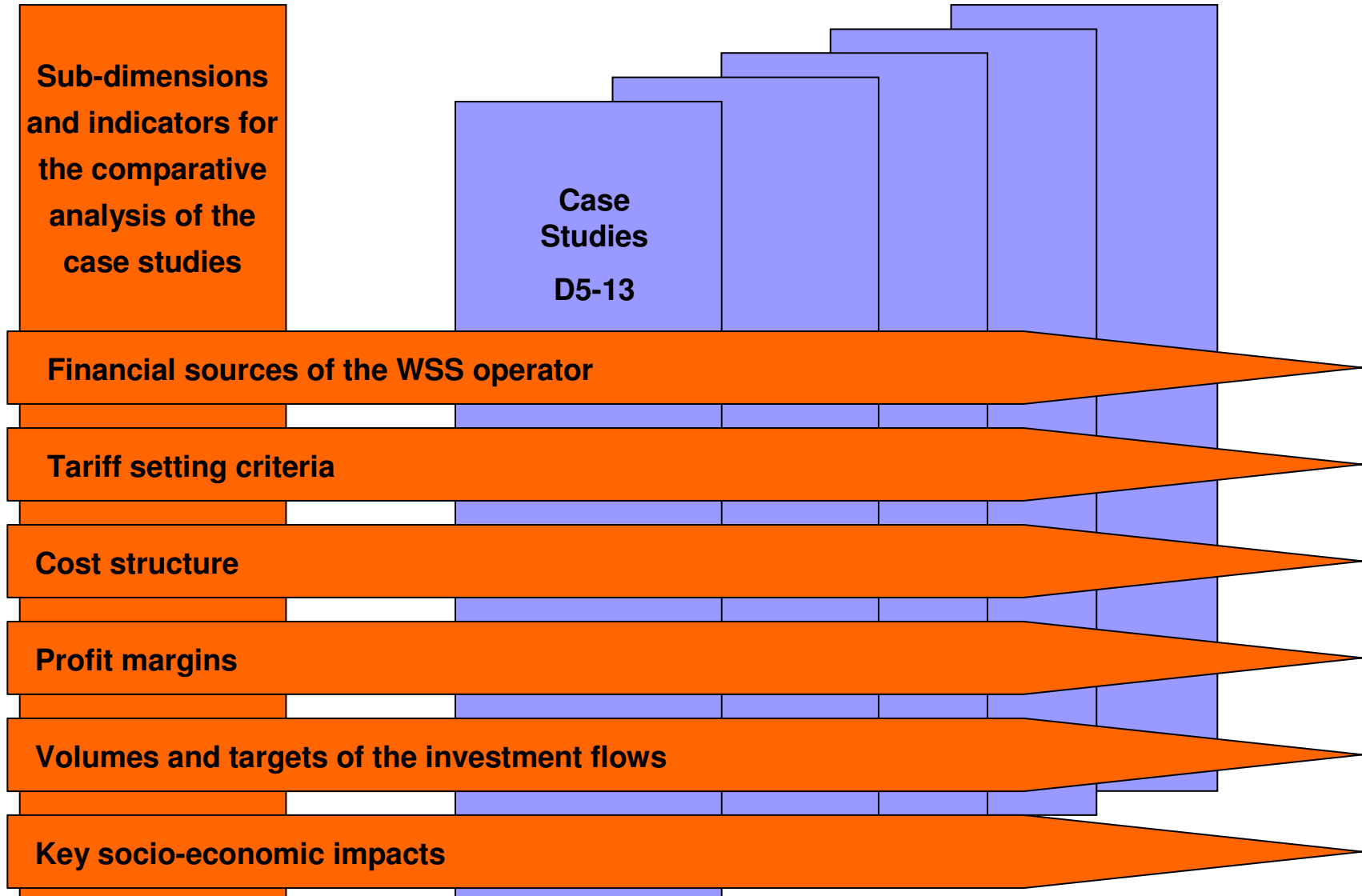
Economic-financial dimension

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Based on the report by Lic. Daniel Azpiazu (FLACSO Argentina)

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Criteria and Methodology





Sources of funding

- Strong evidence that
 - **revenues from WSS fees** –with some variations from case to case- are the **most important source of funding** for WSS operators, whether public or private
 - **direct state subsidies** and **borrowing** are the next most important sources of funding
 - these sources are increasingly becoming a structural component in WSS funding
 - but lack of transparency (e.g. about how these resources are allocated)
 - and scattered/incomplete information in most cases (e.g. about the actual level of borrowing of the operators)
 - “fresh resources” (own capital) have a significantly lesser role

Table 1

**Source of Funding – Aguas Argentinas S.A.,
May 1993-December 2001 (in dollars and %)**

Source	US\$ (millions)	Percentage
Revenues	3.640,2	78,1
Net indebtedness increase	706,1	15,2
Fresh capital from partners	120,0	2,6
Other financial income	140,0	3,0
Other	54,0	1,1
Total	4.660,3	100,0

Source: Elaborated from Economy Ministry – Commission for the renegotiation of Contracts for Public Works and Services (2002).

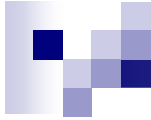


Table 2

Source of Funding – Thames Water Utilities Ltd.,
April 1999-March 2003 (in Sterling Pounds of 2002-3 and %)

Source	£ (millions)	Percentage
Revenues from water supply	2.335	40.7
Revenues from sewerage	3.191	55.7
Sub-total revenues (A)	5.526	96.4
Net indebtedness increase (B)	205	3,6
Total (A+B)	5.731	100,0

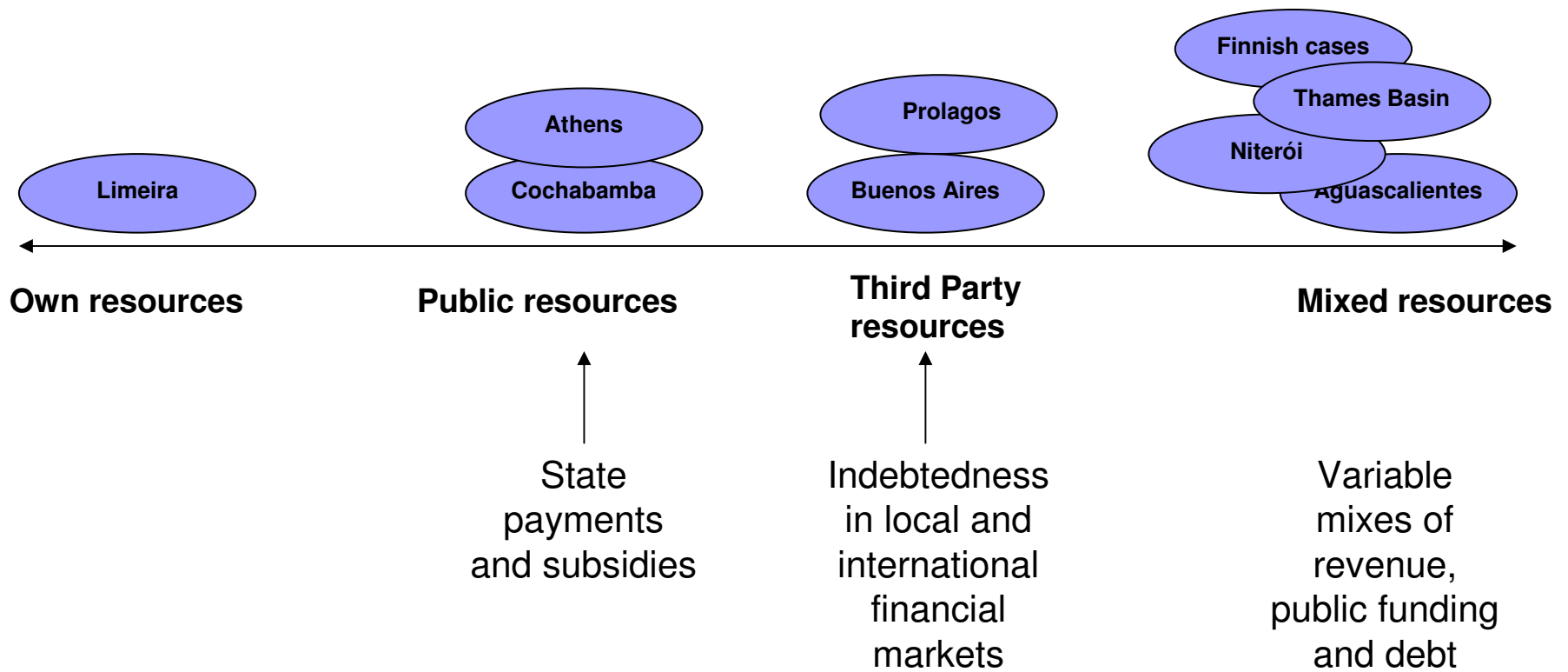
Source: Elaborated from OFWAT (2004).

Table 3
Source of Funding – EYDAP (Athens), 1998-2001
(in Euros and %)

Source	£ (millions)	Percentage
Revenues from water supply	761	61.8
Revenues from sewerage	232	18.8
Sub-total revenues (A)	993	80.6
Other (including state subsidies) (B)	239	19.4
Total (A+B)	1.232	100,0

Source: Elaborated from Kallis and Coccossis (2003).

Prevailing financial arrangements





Direct state subsidies (some examples)

- In Athens almost 20% of total income (1998-2001) from direct subsidies
- In Aguascalientes (Mexico)
 - network expansion publicly funded
 - private operator “rescued” by the public sector after financial crash in 1994
- In England and Wales
 - 1989 transfer of infrastructure from the state to the private operators at a significantly reduced cost (estimated at 10% of the assets’ value)
 - absorption of debt by the state prior to privatization (around 5 billion pounds)
 - “Green Dowry” (cash injection of 1.5 billion pounds)
 - Tax exemption of 1 billion pounds
- In Cochabamba, Bolivia
 - absorption of debt left by the private operator of concession cancelled in 2000
 - currently state funding for service operations
- In Niterói (Brazil)
 - Water sold by the public sector to the private operator below production costs
- In Limeira (Brazil) and Tucumán (Argentina)
 - Social tariff for poor sectors of the population subsidized by the public sector

Borrowing (some examples)

- **Companhia Aguas de Niterói (Brazil)**

- In 2001-3, about 50% of infrastructure investment, around 45 million dollars, was funded with loans from the National Development Bank (BNDES)

- **The case of Prolagos S.A. (Brazil)**

- In 2002 the company received loans for a total of 38 million dollars from different sources (including 22 million dollars from the Federal Economic Bank [Caixa]), while its annual turnover is 8 million dollars

- **Aguas del Tunari (1999-2000), followed by state takeover**

- Between 1999 and 2003 total indebtedness reached over 160% of total turnover
- However, while in 1999-2000 the ration debt/turnover was 4 to 1, this was reduced in 2002-3 by 50% (2 to 1)

- **In England and Wales**

- The total level of indebtedness of the privatized WSS is now around 19 billion pounds (2004), from 0 in 1989



Financial performance

■ Compliance with investment plans

- In almost all cases studied there is a record of non compliance with contractual commitments, in different degrees
- Systematic renegotiation of contracts to change (mostly reduce) original commitments
- Different patterns for water supply and sewerage, with the bulk of investments concentrated in water supply

Investment commitments (some examples)

Investments committed by contract

Actual investments

<p>Aguas Argentinas Investment of 3.935 million dollars over 30 years (1993-)</p>	<p>Between 1993 and 1999 1047 million dollars According to the regulator ETOSS the degree of non compliance was 42% during the period 1993-1998 and 33% for the period 1999-2002</p>
<p>A. del Aconquija (Tucuman) (1995-) Universalization of water supply by 2003 and sewerage by 2008</p>	<p>Almost zero compliance until cancellation of the concession</p>
<p>EYDAP (Athens) 1200 million euros for the period 2000-08</p>	<p>Trend of non-compliance since 2000 (the state is in charge of providing 60% of the investment)</p>
<p>Aguas de Tunari (Cochabamba) (1999-2000) 214 million dollars projected</p>	<p>No investments were made before the collapse of the concession in 2000</p>
<p>Aguas de Limeira (Brazil) 98 million dollars (35% in the first 5 years)</p>	<p>Lack of compliance (in 2002 the investment was 3 million dollars); The expansion targets set in the contract had already been achieved before the concession was granted</p>

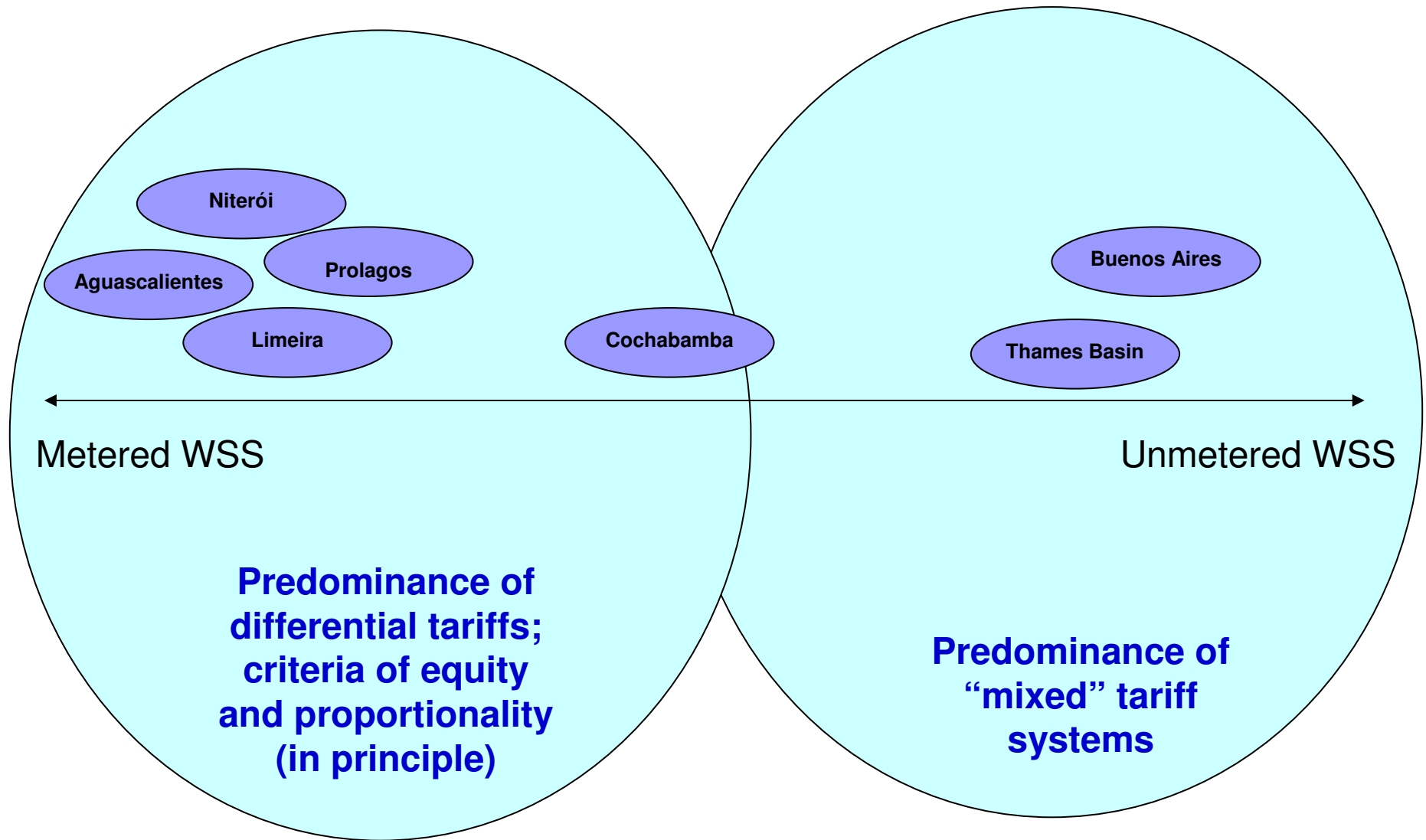


Tariff structures

- **Caveats for the comparative analysis (factors determining differences in cost structure that reduce the value of the comparison)**
 - Scale
 - Socio-demographic characteristics
 - Characteristics of the water resources
 - Income distribution patterns
 - Level of WSS coverage
 - Type of organization and management of WSS

- **Main aspects considered:**
 - Criteria employed to design the tariff
 - Tariff structure
 - Tariff adjustment mechanisms
 - Evolution of tariffs for different users
 - Distinctive characteristics of company performance
 - Identification of subsidies to lower income users (cross-subsidization, direct subsidy, social tariff, etc.)

Tariff structures ...



Examples of tariff structure

■ Aguascalientes

- Tariff system based on marginal costs
- Differential tariffs (aimed at cross-subsidy) according to
 - Socio-economic status
 - Consumption level
- However, the company applied bi-monthly increases of 10% indiscriminately (to all consumption levels and to all tariff groups)

■ Limeira, Niterói and Prolagos (similar systems)

- Differential tariff by consumption level
- Similar tariff for water supply and sewerage

■ Buenos Aires

- For unmetered users (the majority): basic tariff taking into account a) residential area, b) built surface, c) plot dimensions, d) building quality
- For metered users: 50% of the basic tariff + variable charge according to consumption (similar tariff for water and sewerage)

■ Cochabamba

- Unmetered users (around one third of the total) pay basic tariff estimated from average consumption of users in the same category (there are 2 categories: residential and special)
- Metered users: basic tariff (estimated at 12 m³ per month) + excess consumption



Tariff increase mechanisms and tariff evolution

- Ordinary or extraordinary tariff reviews
- In built indexation systems (period
 - Adjustments to account for alterations in the cost structure of the services
 - accounting for domestic inflation
 - indexation according to the evolution of US prices (Aguas Argentinas)
 - to face infrastructure investment
 - other

Tariff evolution (some examples)

	PERIOD	INCREASE	
		Tariff	Comparator
England and Wales	1989-1999	95%	
Buenos Aires (AA) (domestic)	1993-2002	88%	7% (consumer prices)
Tucuman	1995-96	78%	
Athens	1996-2000	4% domestic low 5% domestic high 35% public buildings	
Limeira	2001-2003	63%	40% inflation
Niterói	2001-2002	36%	17% inflation

Impact of tariff evolution on the operators' performance

Positive business results

Negative business results

<p>Aguas Argentinas (1993-2001) Average profit rate (over sales): 13% Average profit rates (over net assets): 20%</p>	<p>Aguas de Limeira (Brazil) (2002) 1% deficit over total assets</p>
<p>EYDAP (Athens) (1998-2001) Net profit over total turnover: 17%</p>	<p>Prolagos (Brazil) (2002) 33% deficit over total assets</p>
<p>Aguas de Niterói (Brazil) (2002) Profit rate over total assets: 9% Profit rate over liquid assets: 17%</p>	<p>A. del Aconquija (Tucuman) (1995-97) Systematic account deficits</p>
<p>RWE-Thames Water (1998-2003) Return rate over capital: 8%</p>	<p>SEMAPA (Cochabamba) (1994-2003) Systematic account deficits</p>
<p>Lahti and Kangasala (Finland) "Higher than expected" positive results</p>	



Some provisional conclusions

- **In most case studies, independently from national characteristics and type of operator**
 - **There is a trend towards progressive tariff structures**
 - **The degree of progressiveness differs from case to case**
 - **The impact of this progressiveness tends to be counter balanced by**
 - **The evolution of the tariffs over time**
 - **The incidence of this evolution on income distribution**
 - **The evidence gathered by comparing the evolution of WSS tariffs with the evolution of salaries or other indicators of consumer purchasing power shows that**
 - **the negative impact of tariff increases is much higher for low income users**
 - **this in turn has wider economic effects owing to the regressive implications for income distribution**
 - **This is compounded by the fact that in all cases (except RWE-Thames Water) the operator has the right of disconnection**



Conclusions ...

- **In most case studies, capital formation has been short of the expected results (according to contractual commitments)**

- **This is one of the crucial challenges ahead, in particular in developing countries (MDGs), owing to**
 - **The direct impact of WSS on the health and general well being of the population**

 - **The differential impact of these services on the most vulnerable sectors of the population**