Financing local public services: counterparts, financial framework and impact on user charges

Examples from the water and waste sector

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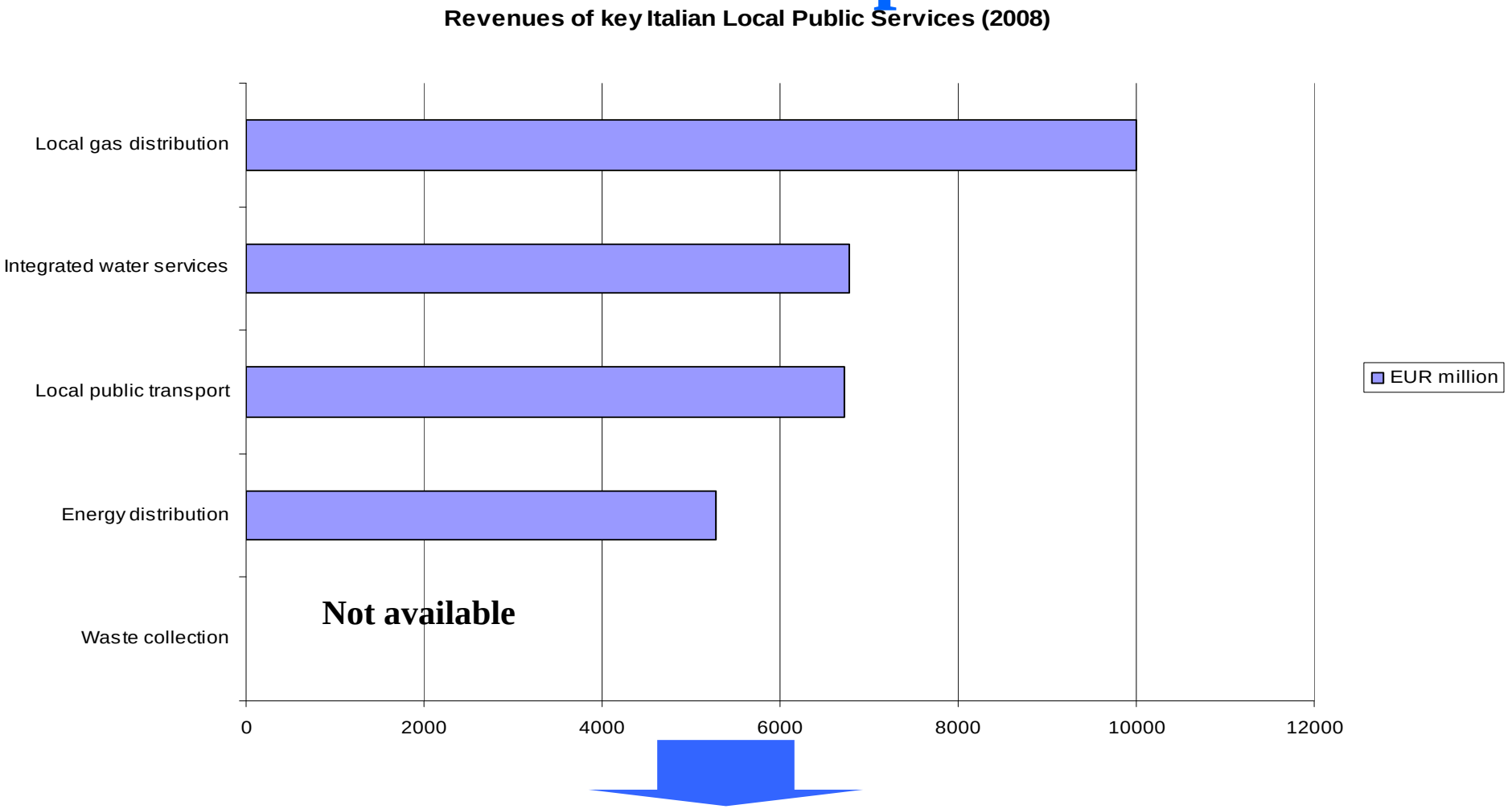
Agenda

- Definition of local public services
- The regulatory framework
- The key counterparts
- The tariff dilemma
- The impact on user charges
- Financing options
- Suggested reform
- Conclusions

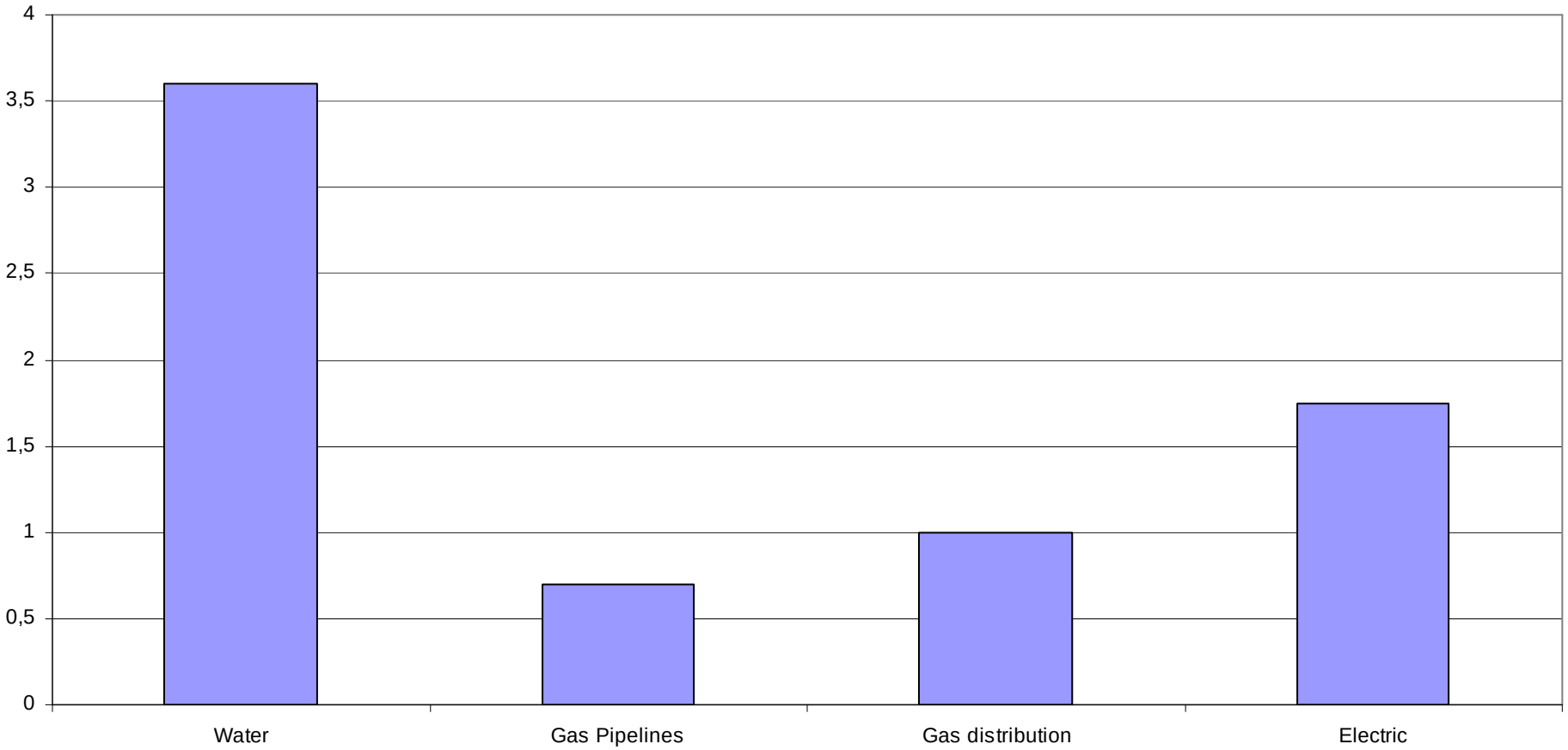
Definition of local public services



- Local monopolies with direct interface with user
- Public regulation of service quality/tariffs required

Capital intensity

Relative Capital to Revenue ratio



Source: Guido Borsani, Finlombarda, April 2008

The regulatory framework: water sector

Regulation	Regulated monopoly « UK model »	Delegated operation « French model »	Local public enterprise « German model »	A combination « Italian model »
Ownership	Private	Public	Public	Public
Operation	Private	Leasing / Service contracts	Private law public companies	-Private - Mixed -Public
Private sector risks	Investment + Operations	Market (part) + Operations	Not applicable	Investment+ Market+ Operations
Public sector risks	Regulator takes market risk	Investment risk (e.g. Agences de l'Eau)	Full cost recovery	Price cap mechanism

Source: Prof. Massarutto, « La legge Galli alla prova dei fatti »

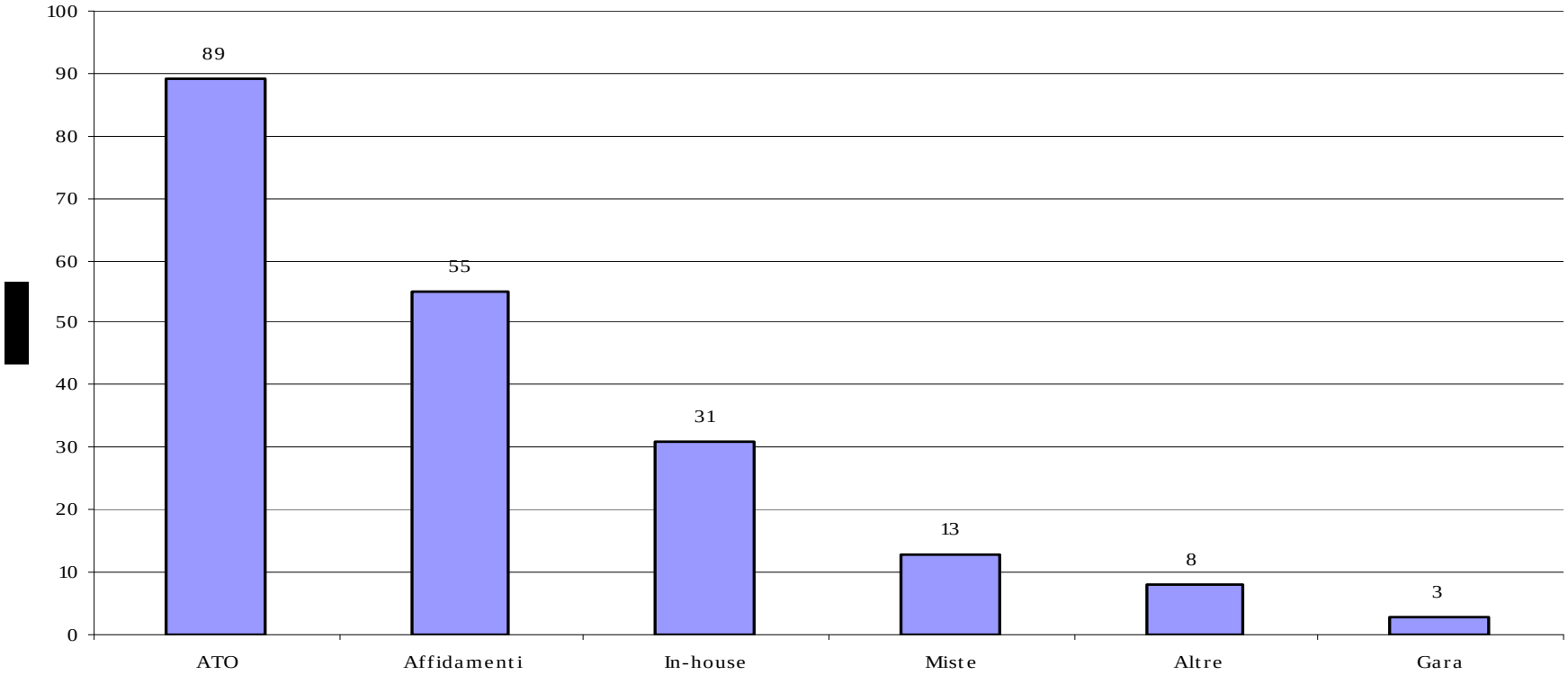
The key counterparts

- Ownership structure:
  - Fully private
  - Mixed public private
  - Fully public

- Other important criteria:
  - Size (economies of scale/density)
  - Multi- or mono-utility (economies of scope)
  - Track record / experience
  - Rated or non-rated

- Public vs. Private should not matter.
- Efficient risk allocation and incentive structure is key

Examples from the Italian water sector: on ownership



Concession awards in Optimal Territorial Areas – ATOs:

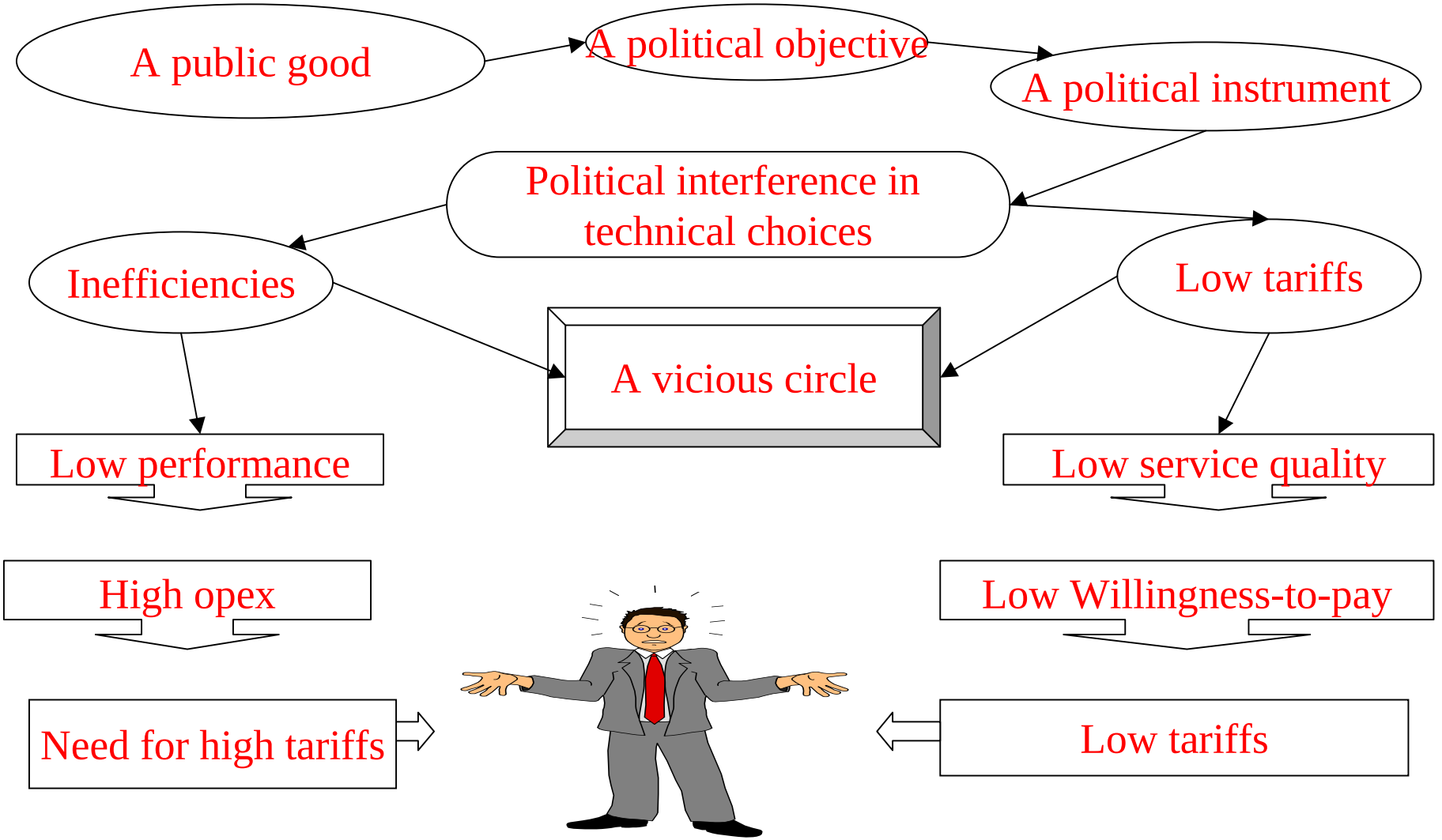
- 55 awards, of which 31 in-house
- 13 mixed companies
- 8 safeguarded concessions
- Only 3 fully private companies

Source: Blue Book, 2008

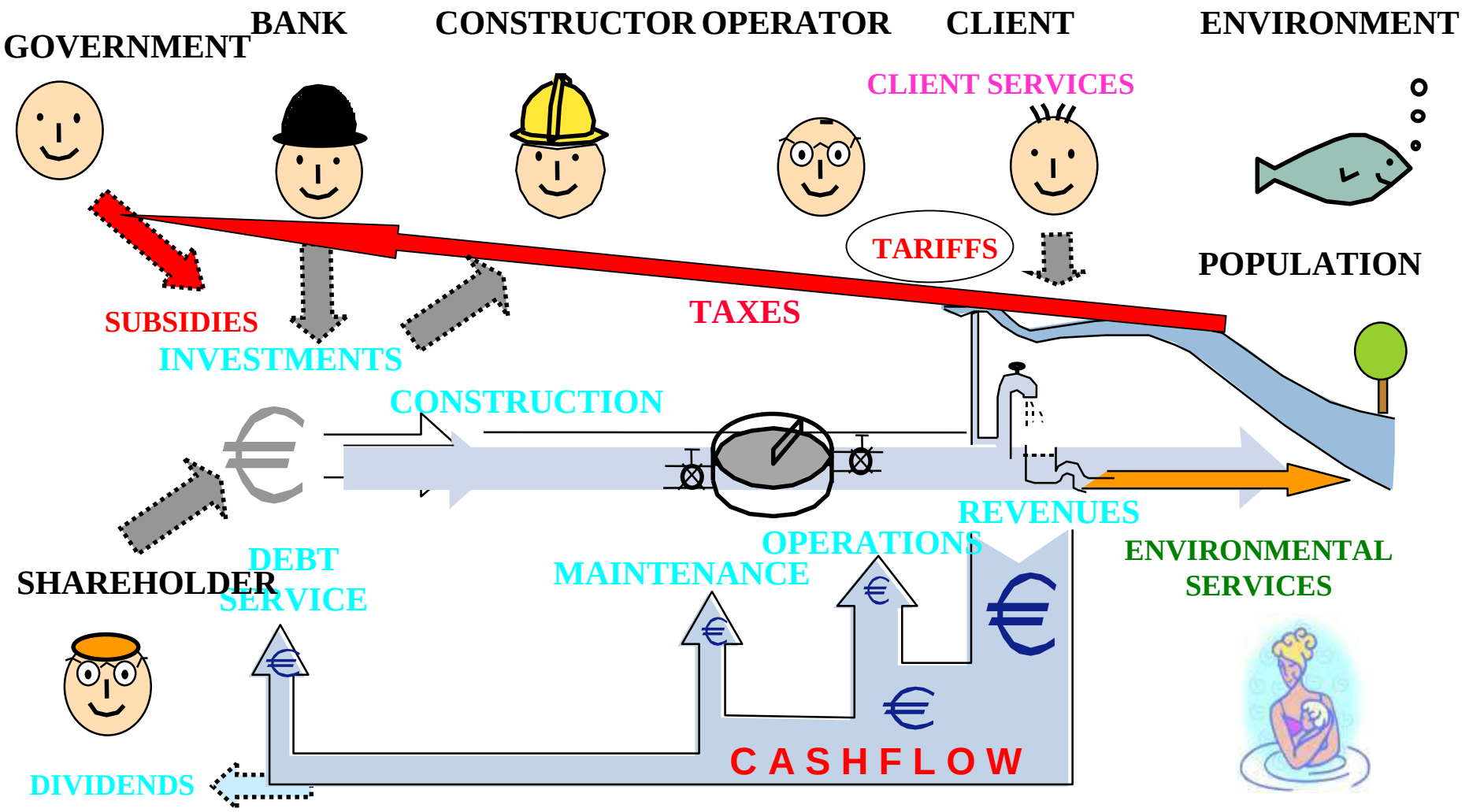
Examples from the Italian water sector: other criteria

Type of operator	Examples
Rated companies	Public / private multi-utility: ACEA, Hera, rated A
	Public mono-utility: Acquedotto Pugliese, rated BBB
Unrated corporate	Multi-utilities: Iride, Enia
Mixed public/private SPVs	Nuove Acque (Arezzo), Publiacqua (Firenze), Acque (Pisa), Acqua Latina
Fully public SPVs	Smat (Torino), Acquedotto Lucano (Basilicata)

The tariff dilemma



Tariffs or taxes?



The tariff formula

EU Directive 2000/60 « full cost recovery »

	Italian water tariff
- C= Operating and maintenance costs (personnel, materials, energy, chemicals)	Price cap (X-efficiency factor)
- A=Depreciation (extraordinary maintenance and life cycle costs)	Technical life or Concession term?
- R=Return on invested capital (WACC)	7% nominal return
- Scarcity or shadow value of the resource	Not applied

• Unit tariff depends on volume projections

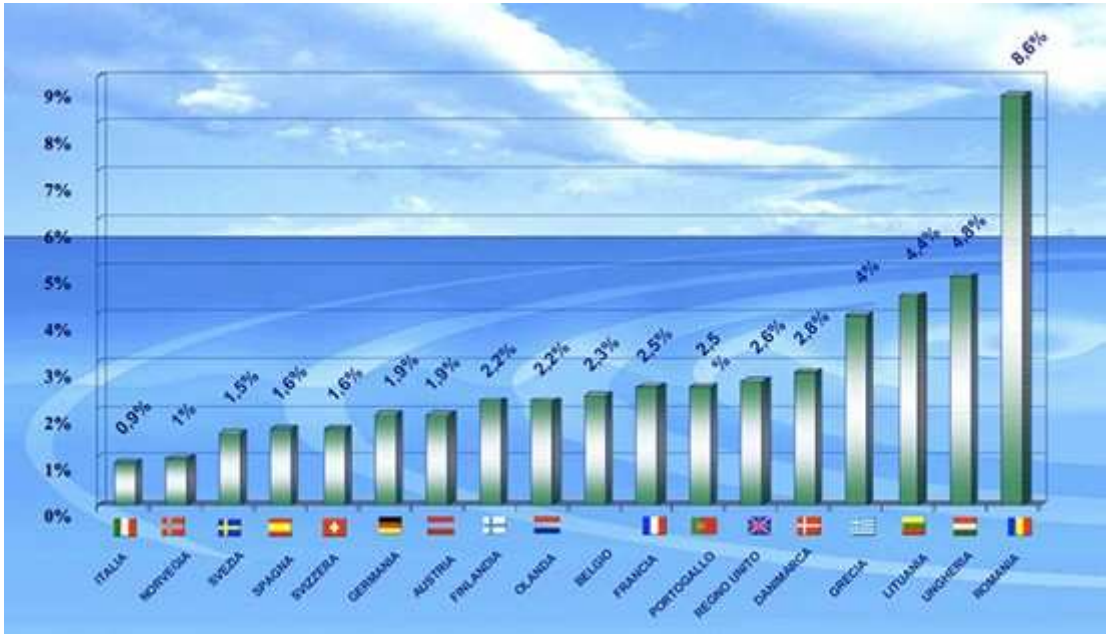
• The rules / timing for updating tariffs need to be clear

Water tariffs across Europe: Average cost per household

EUR/year

Source: IWA

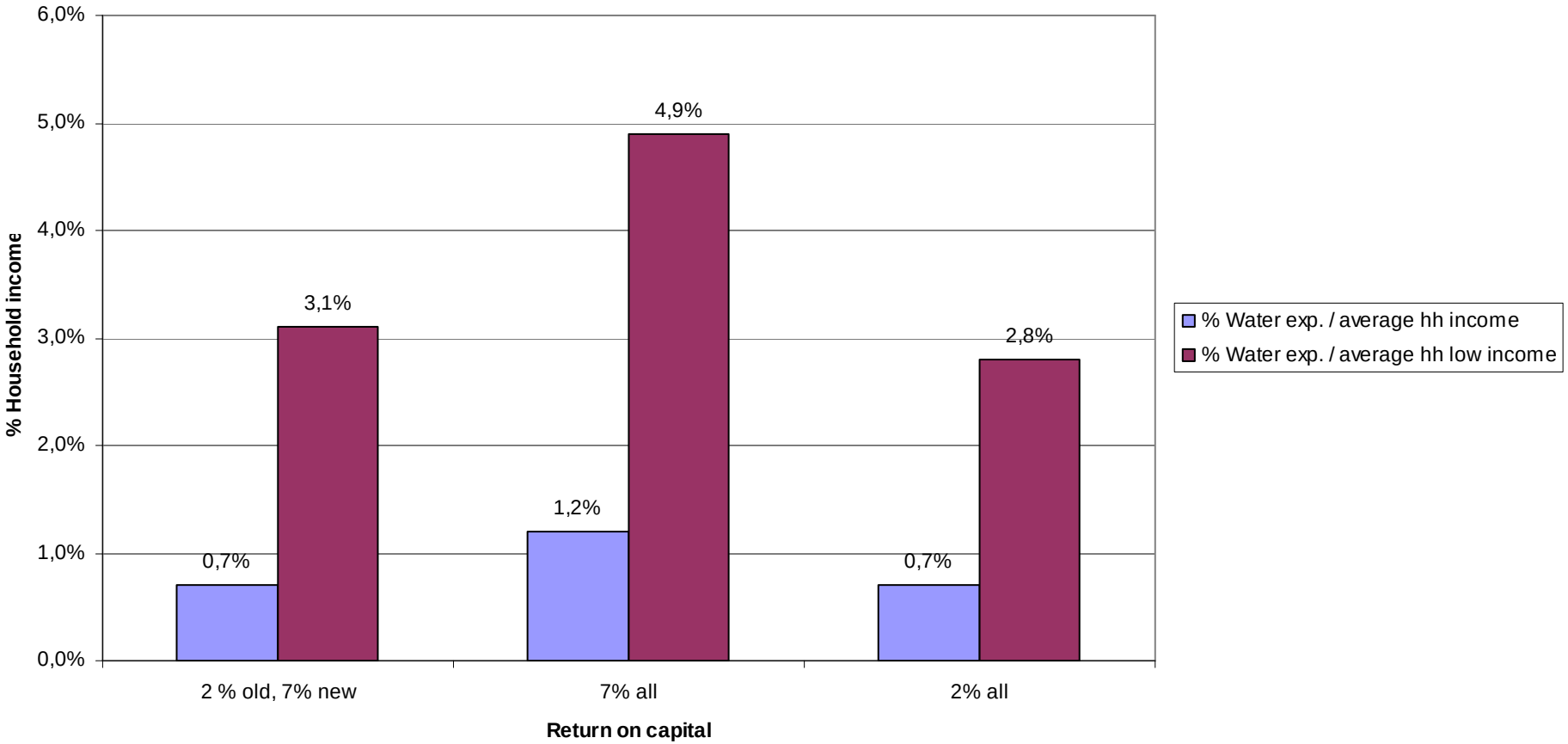
Water tariffs across Europe: % of household income



Source: IWA

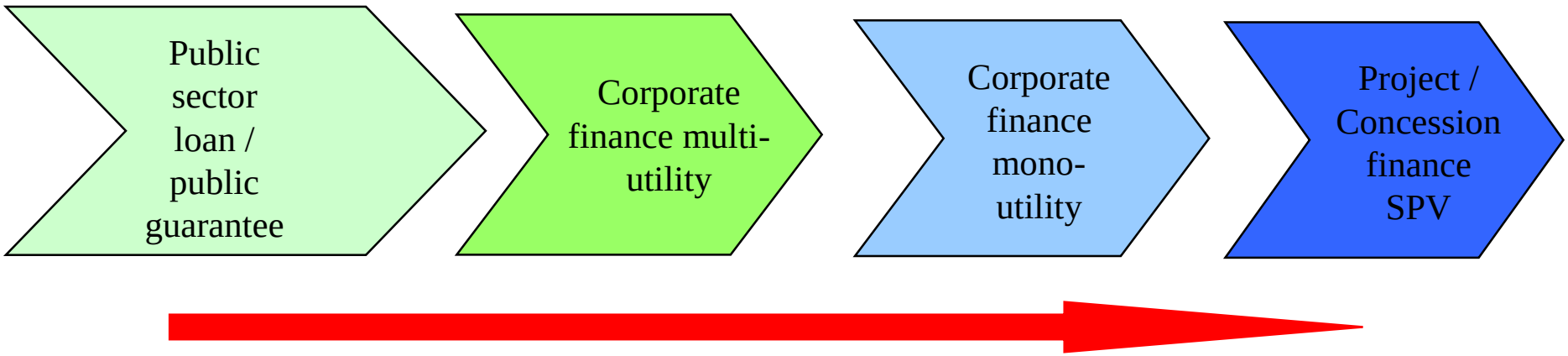
The impact on user charges

Effect of Return on capital on water tariffs (Lombardy region)



Source: Prof. Massarutto, « La legge Galli alla prova dei fatti »

Financing options



Increase risks / pricing

Regulatory uncertainty increases WACC

Corporate finance: Rating levels

Purely indicative

Financial ratios	**AA**	**A**	**BBB**
Available Cash Flow / interest expenses	5.0-7.0	3.0-5.0	2.0-3.0
Available Cash Flow / Debt (%)	30-40%	13-25%	8-16%
Debt / Total Assets	20-40%	40-60%	55-80%

Besides the regulatory framework, the cash flow and the debt/equity ratio are key rating parameters

Source: Standard&Poor's, 2004

Project / Concession finance

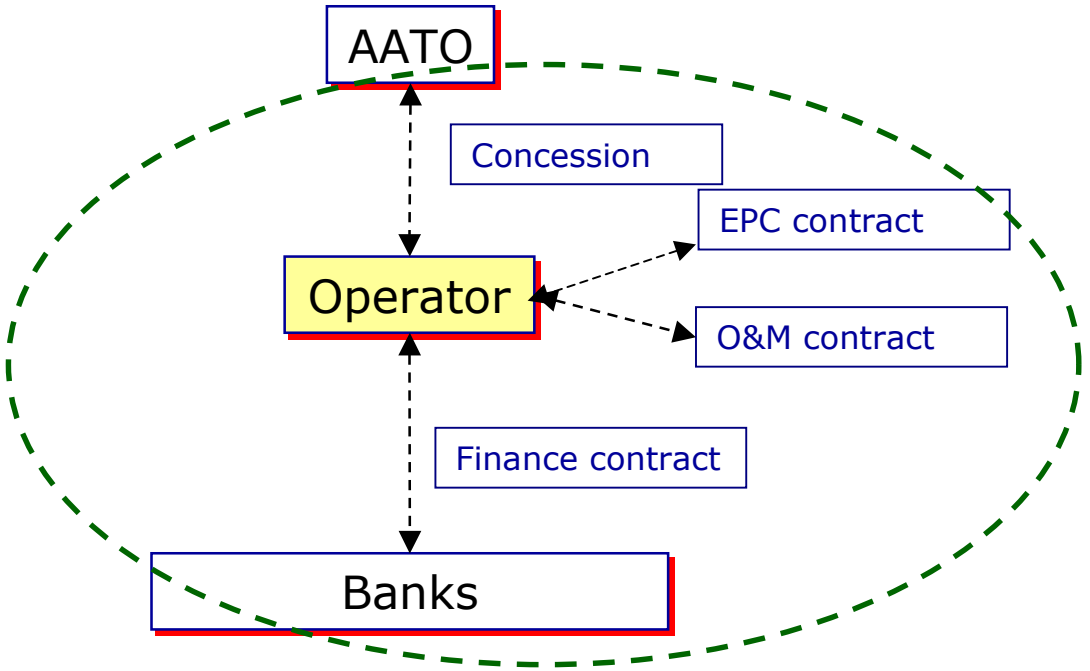
Security package

-Shares

-Receivables

-Accounts

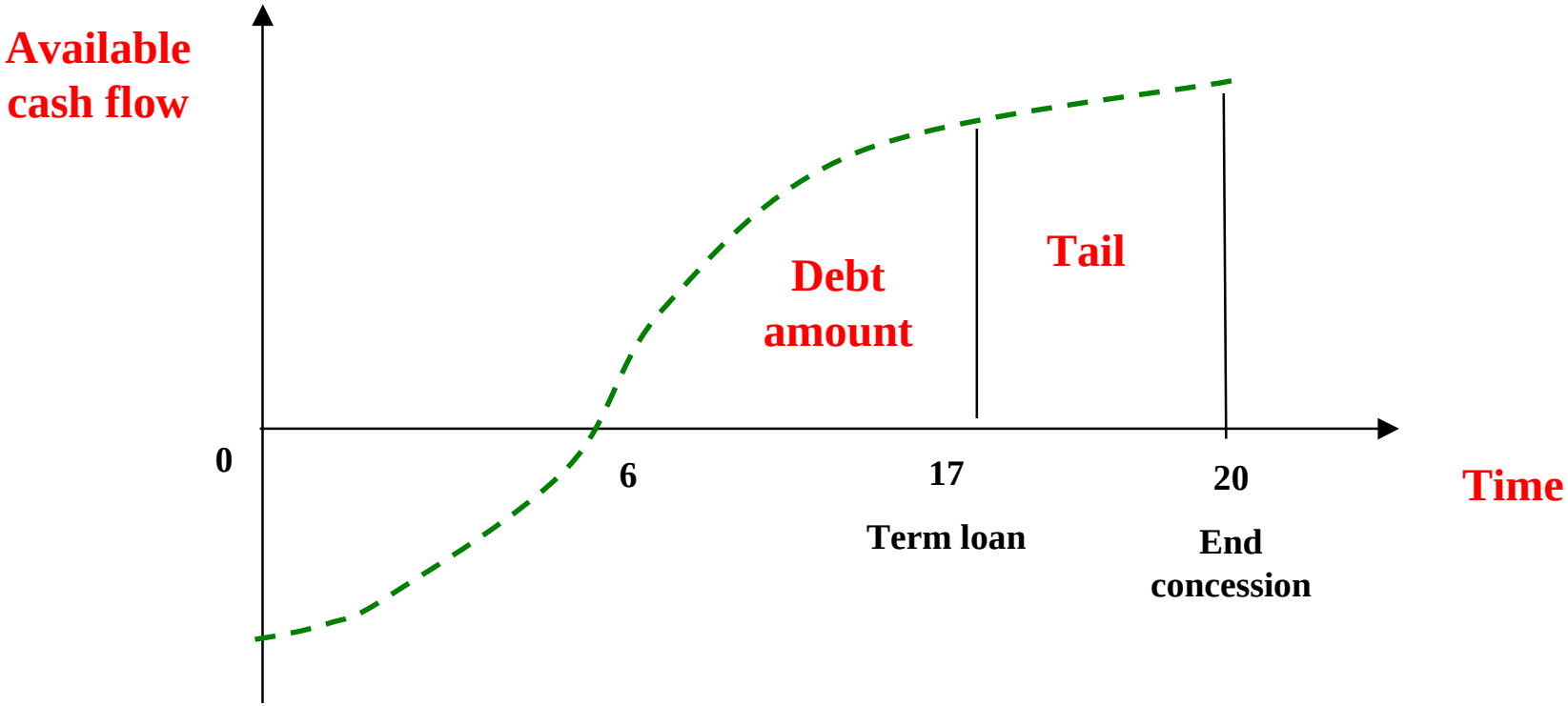
-All assets



Advantages: Tailor-made, high leverage, long term

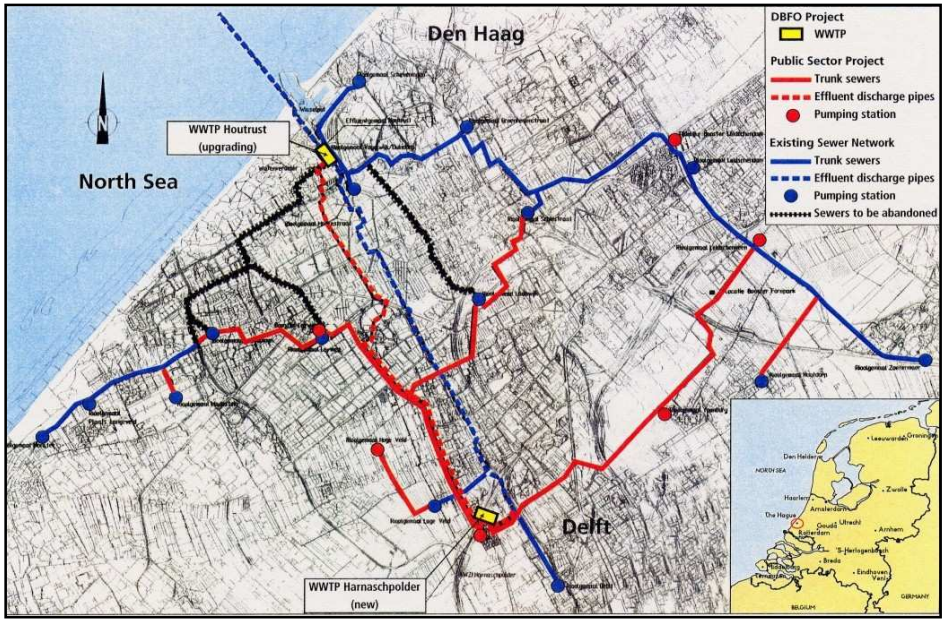
Needed: Certain size, water-tight documentation, risk allocation, DSCR > 1.5

Project finance: Cash flow based



Example: Long availability period (6 years) and 3 year tail

Example PPP: Delfland WWTP
DBFO - Holland

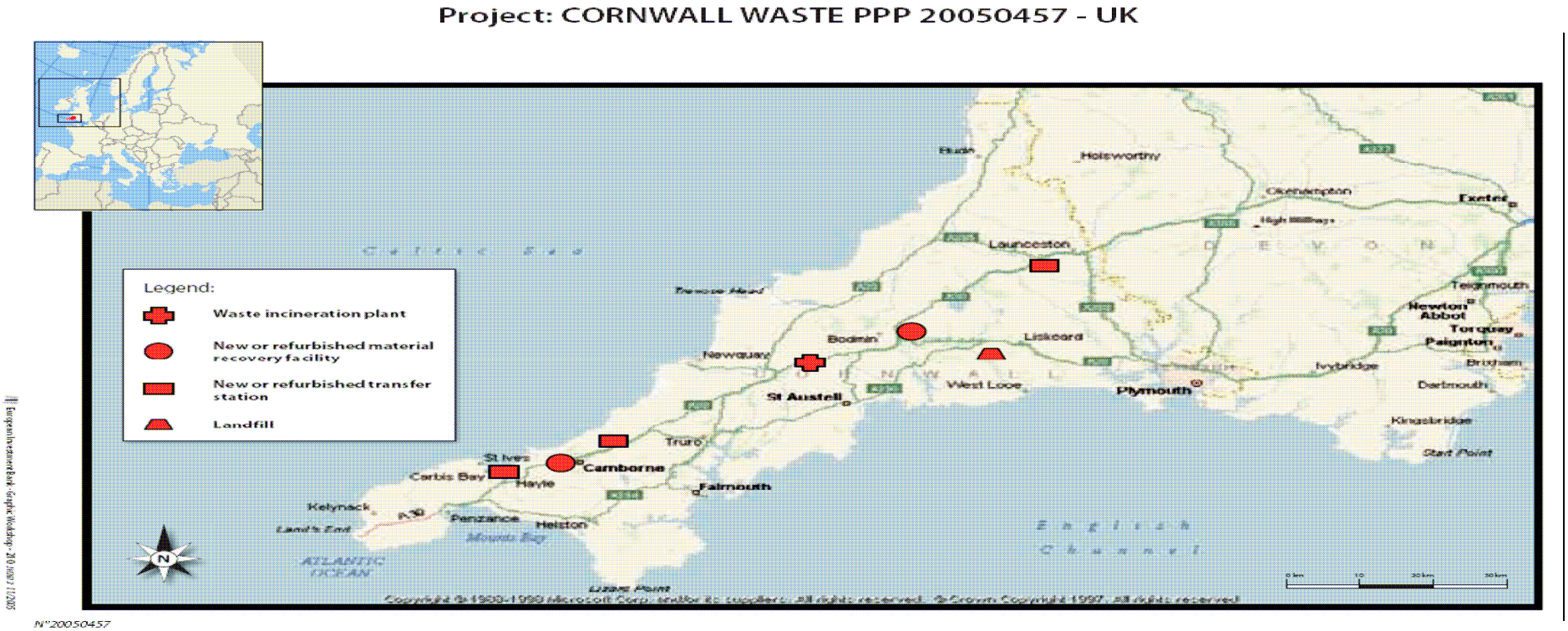


- 30-year wastewater treatment plant construction and operation contract
- 27 year loan
- Fixed payments with construction and performance risk
- 10% equity, WACC 7%

Investment: €320m

1.2 million people

Concession Finance Cornwall



- Ring-fencing: Collection and disposal of municipal waste (not hazardous waste)
- Economies of scale: population of 500,000 people producing 320,000 tons of municipal solid waste

Risk matrix Cornwall

Type of risk	Private	Public
Cosntruction (cost/time)	Fixed EPC contract	
Permits / expropriation	Best effort basis	X
Change of law / strikes / earthquake / Force majeure	Insurance	X
Volume	Cap on maximum volume	Minimum volume guarantee
Waste quality	Flexible plants	Rules on collection
Revenues	<20% from third parties	>80% availability payment
Penalties	O&M contract	
O&M costs	O&M contract	
Early termination	Step-in of banks, change Concessionaire	If public reason/fault: Termination indemnity covers debt

The Italian PF experience in the water sector

Borrower	Year of award	Financial close	ATO population	Private	Loan	Term	Grace period
Nuove Acque SpA	June 1999	December 2004	ATO 4 Alto Valdarno 293,130	Suez	EUR 70 m	17 years	7 years
Acque SpA	December 2001	October 2006	ATO 2 Basso Valdarno 751,050	Acea	EUR 255 m	15 years	7 years
Acqualatina SpA	August 2002	May 2007	ATO 4 Lazio Meridionale Latina 574,860	Veolia	EUR 115 m	25 years	5 years

Key factors: ATOs of a certain size

Promoter with proven track record

4-5 years start-up phase

Long grace period

The financing dilemma in the Italian water sector

Corporate Finance

Project Finance

SMAT

A2A - Milan and Brescia

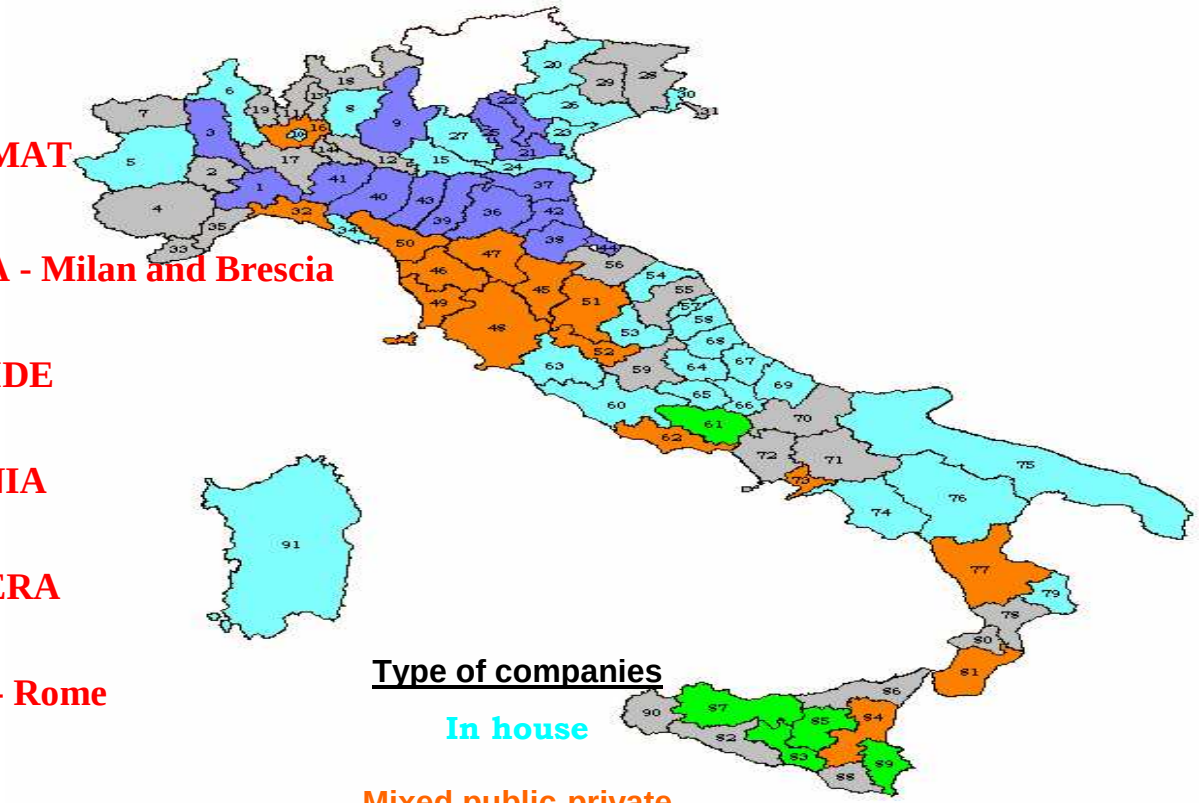
IRIDE

ENIA

HERA

ACEA - Rome

Acquedotto Pugliese



Type of companies

In house

Mixed public-private

Private only

Other (transitory, multi-utility)

Not assigned

Irisacqua (Feb 2008)

Arezzo PPP (Dec 2004)

Acque Pisa PPP (Oct 2006)

Acqualatina PPP (May 2007)

Only 4 PF operations…and the rest of the country…especially the South?

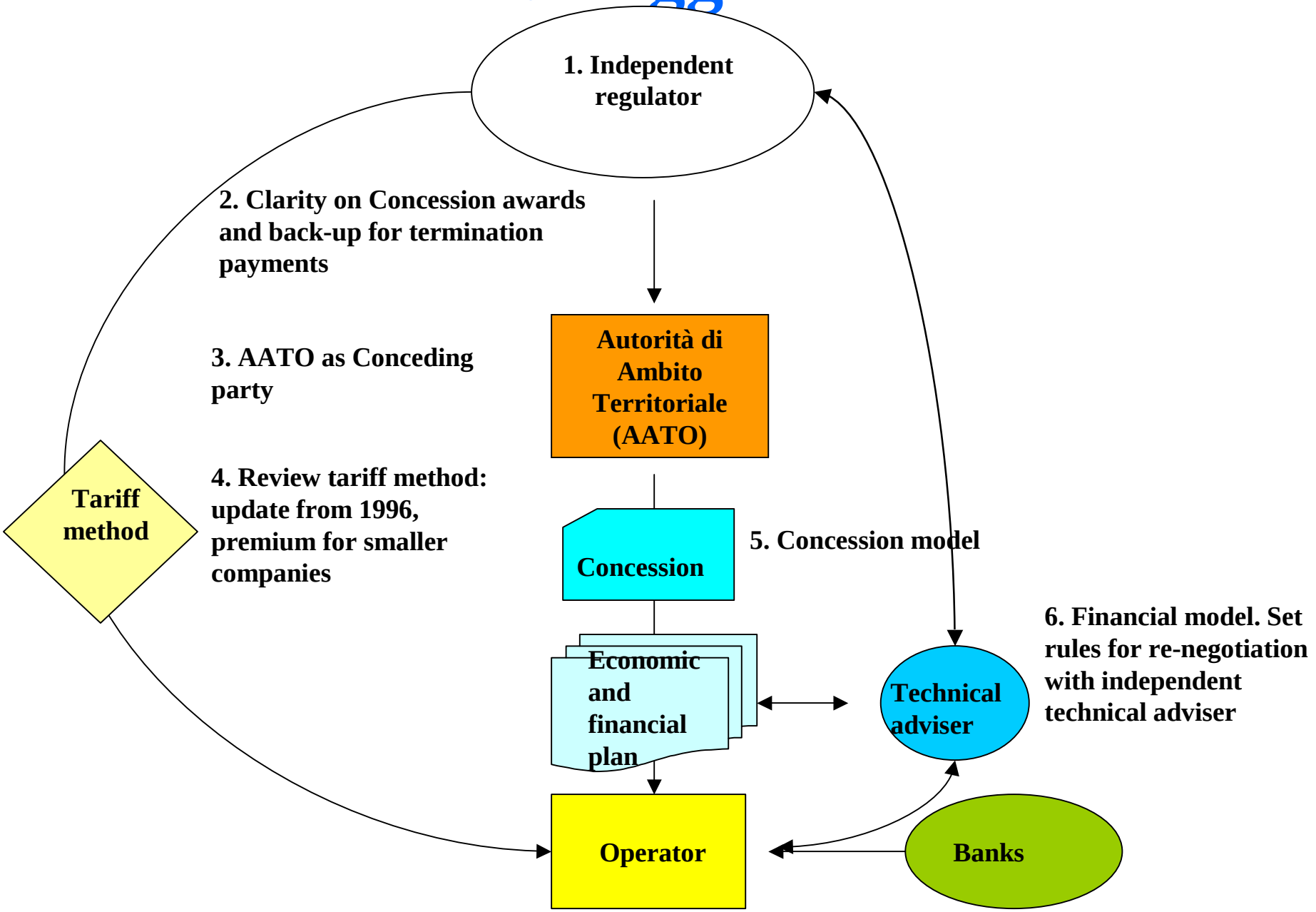
Summary of issues for financing

- Regulatory framework characterized by conflict of interest
- Changing rules on awards of local public services / on in--house
- High degree of fragmentation: diseconomies of scale
- Low equity level
- Non solid financial ratios and few companies with external rating
- “Non-bankable” Concessions

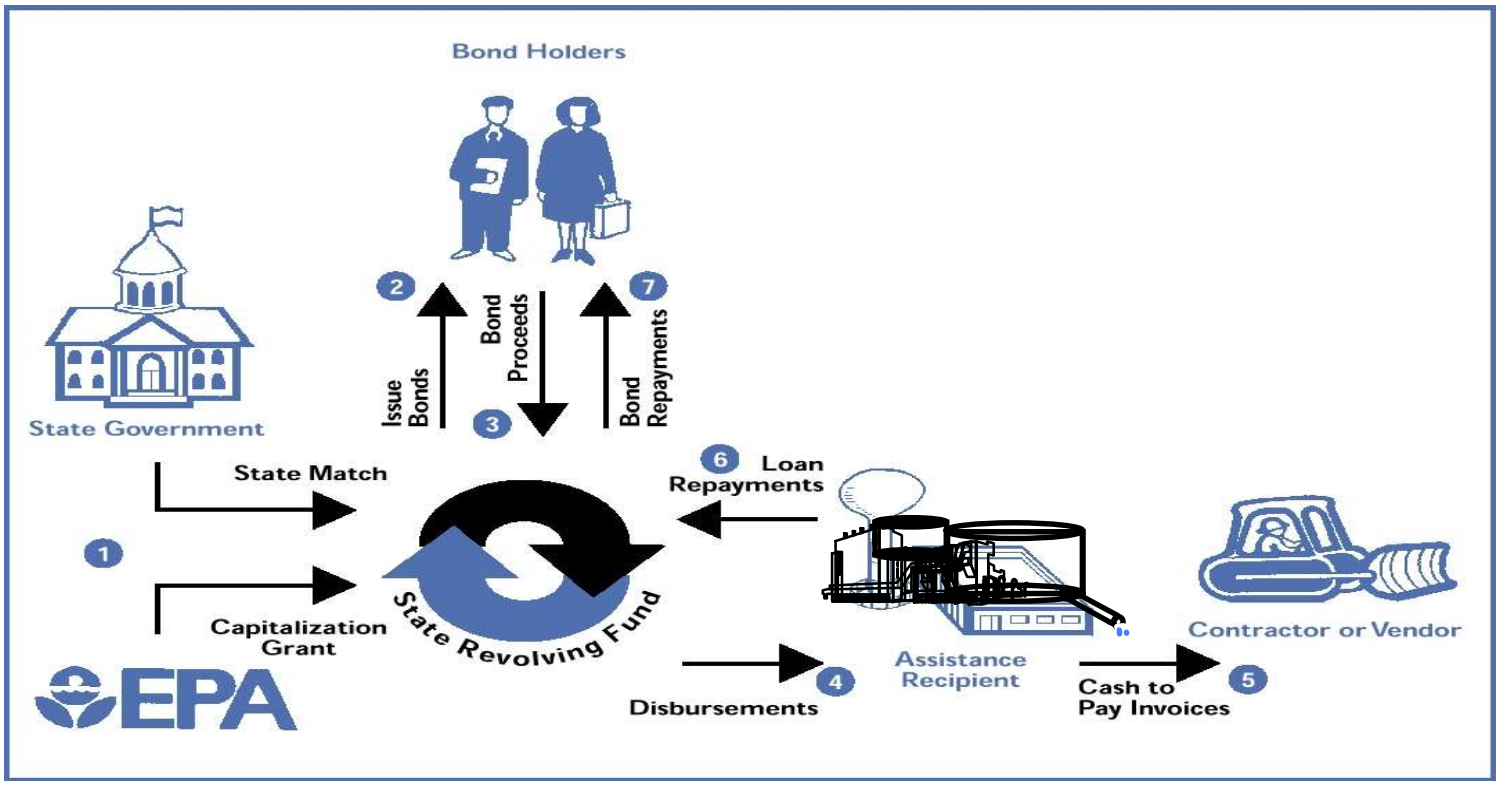
Non bankable Concessions

- Need for due diligence on the Economic and Financial Plans
- Debt remaining at the end of the Concession
- Unfair/inefficient risk allocation
- Unclear tariff review mechanisms
- Unclear service targets and penalty mechanisms
- Risk of early termination without adequate compensation

Conclusions: Suggested reform



Regional financing mechanism: example USA



Source: EPA/ Michael Curley, 2004

Leverage public funds through bond emissions

Conclusions: Advantages of regional financing mechanism

- Financial economies of scale: reach smaller companies
- Prepare standard Concession and financial model
- Provide regional first loss guarantee
- Provide incentives / create competition for public funds

Questions?