



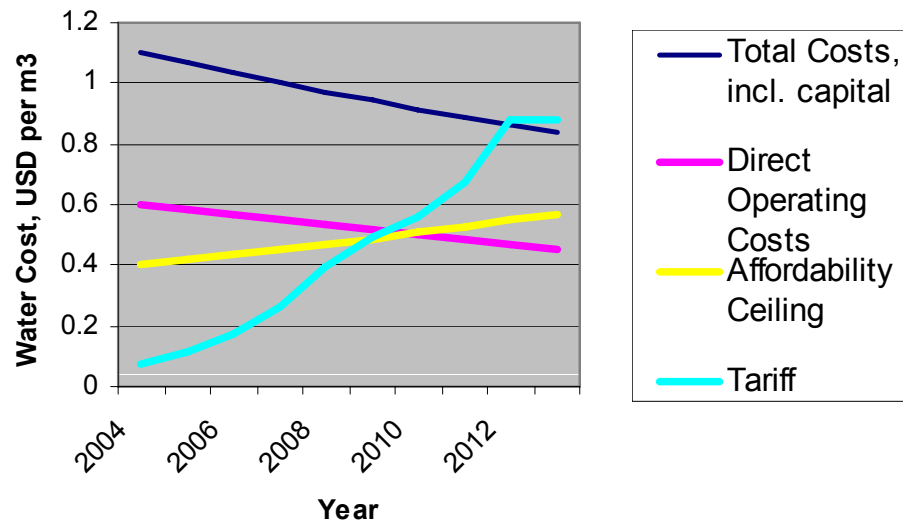
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ROLE OF PPP IN WATER SECTOR REFORM: A REVIEW OF TRENDS

Allen Eisendrath
Office of Infrastructure & Engineering
USAID/Washington



ARMENIA WATER COMPANY TRANSITION TO COST RECOVERY





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PPP in Water Sector Reforms

- Leases, management contracts, JVs and BOTs are common. Divestiture is uncommon.
- Concessions have had problems, and regulated utilities appear to be more effective than concessions.
- Many countries are using mixed approaches, including leases, management contracts, BOTs, concessions and JVs. This allows “benchmark competition.”
- Including “customer-facing functions” (metering, billing, collection, disconnection, connection) into the transaction is important. BOTs may not work if customer functions are inefficient.
- Many good models for dealing with capital portion of the business.



CONTRACT IT AS ONE BUSINESS

Take or pay requirement

BOT/BO
O
\$0.5 /m3

Payment

Bulk water

Water Distribution Business

Assumptions:

40% Non-Revenue Water

90% billing efficiency

90% collection efficiency

Weighted Ave. Tariff: \$0.3/m3

Average Revenue Realization:

\$0.2/m3

.5 - .2 = .3
Loss per m3

How can the Water Distribution Business pay for its water if its efficiency is low?

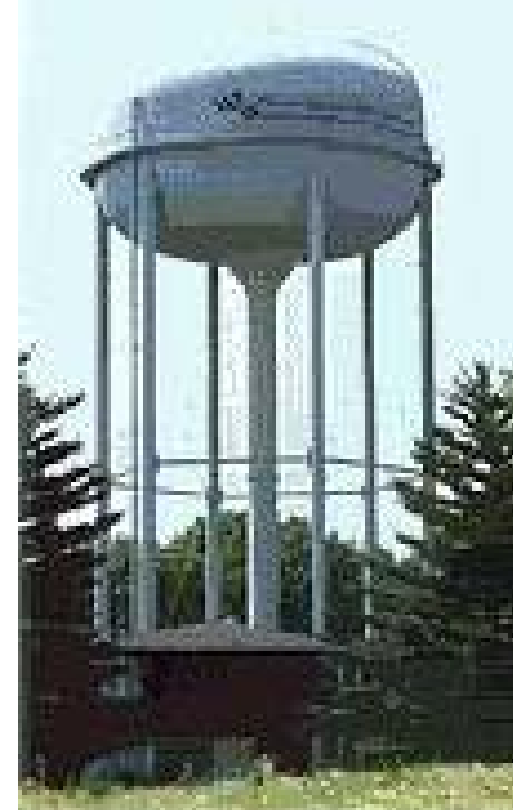


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KEY FEATURES OF SUCCESSFUL REFORMS

Argentina, Armenia, Australia, Brazil, Burkina Faso, Bulgaria, Chile, China, Colombia, Cote d'Ivoire, Czech Republic, France, Gabon, Ghana, Honduras, Hungary, Indonesia, Jordan, Laos, Lithuania, Malaysia, Morocco, Mozambique, Netherlands, Philippines, Poland, Romania, Russia, Senegal, Singapore, South Africa, Spain, Thailand, Trinidad & Tobago, Tunisia, UAE, Uganda, UK, US, Ukraine

- Better approaches to **corporate governance**
- Accountable, autonomous management
- Realistic business plans
- Progressive performance targets & attractive incentives
- Cost-based price setting
- Shifting from capital grants to grant/loan mixes





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FOUR ALTERNATIVE SECTOR STRUCTURES

- **Local Government Management**
 - Brazil, Colombia, Croatia, Czech Republic, Estonia, Germany, Hungary, India, Laos, Lithuania, Mozambique, Netherlands, Poland, Romania, Sweden, Ukraine, U.S., Zambia
- **Regional Management**
 - By free will: Czech Republic, Estonia, Germany, Kosovo, Macedonia, Malaysia, Netherlands, Poland, Sweden
 - By law: Armenia, Australia, Chile, Georgia, Romania, Thailand, UK
- **National Water and Sewerage Corporation as Single Operator**
 - Azerbaijan, Cote d'Ivoire, Egypt, Jordan, Morocco, Senegal, Tunisia, UAE, Uganda
- **National Water & Sewerage Corporation & Regional Operating Subsidiaries**
 - Afghanistan, Egypt, Jordan

**NOTE THAT CONTRACTUALIZATION IS COMMON IN ALL THESE
ALTERNATIVES**



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SOME SUCCESSFUL MODELS USE PPP

Armenia: Mixed Corporatization & PPP

- Form two national water corporations & two town corporations
- **Management contracts**, followed by a **lease** for Yerevan
- Establish national standards & enforcement mechanisms
- Establish national regulatory agency

Australia: Regionalization, Commercialization & PPP

- Establish policy for water reform: National Competition Policy & CoAG Water Strategy
- Form state water companies
- Allow regional government to make their own decisions on ownership, regulation and operation. **Some use PPP**
- National standards & enforcement mechanisms
- Each state establishes own regulatory agencies & method

UK: Regionalization, Corporatization & Divestiture

- Form regional companies
- **Sell to private owners**
- Establish national standards & enforcement mechanisms
- Establish national regulatory agency & method

Chile: Regionalization, Corporatization & Divestiture

- Form eight regional companies
- **Sell to private owners**
- Establish national standards & enforcement mechanisms
- Establish national regulatory agency & method
- Establish water market

Eastern Europe, France, Spain

- **JVs, Private Operators, Divestitures** @ local level
- Cost based & incentive based regulation



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PPP in Gdańsk (Saur Neptun)

30 year agreement between Gdańsk and Saur Neptun (owned by Bouygues) signed 1992.

First PPP in water supply & sewer services in Poland.

Gdańsk owns infrastructure & is responsible for CAPEX

Saur Neptun is operator & responsible for coordinating investment process (French PPP model).

Saur Neptun shares belong to Saur 51% & Gdańsk City 49%.

Saur Neptun provides services for 500,000 inhabitants from Gdańsk & city of Sopot.

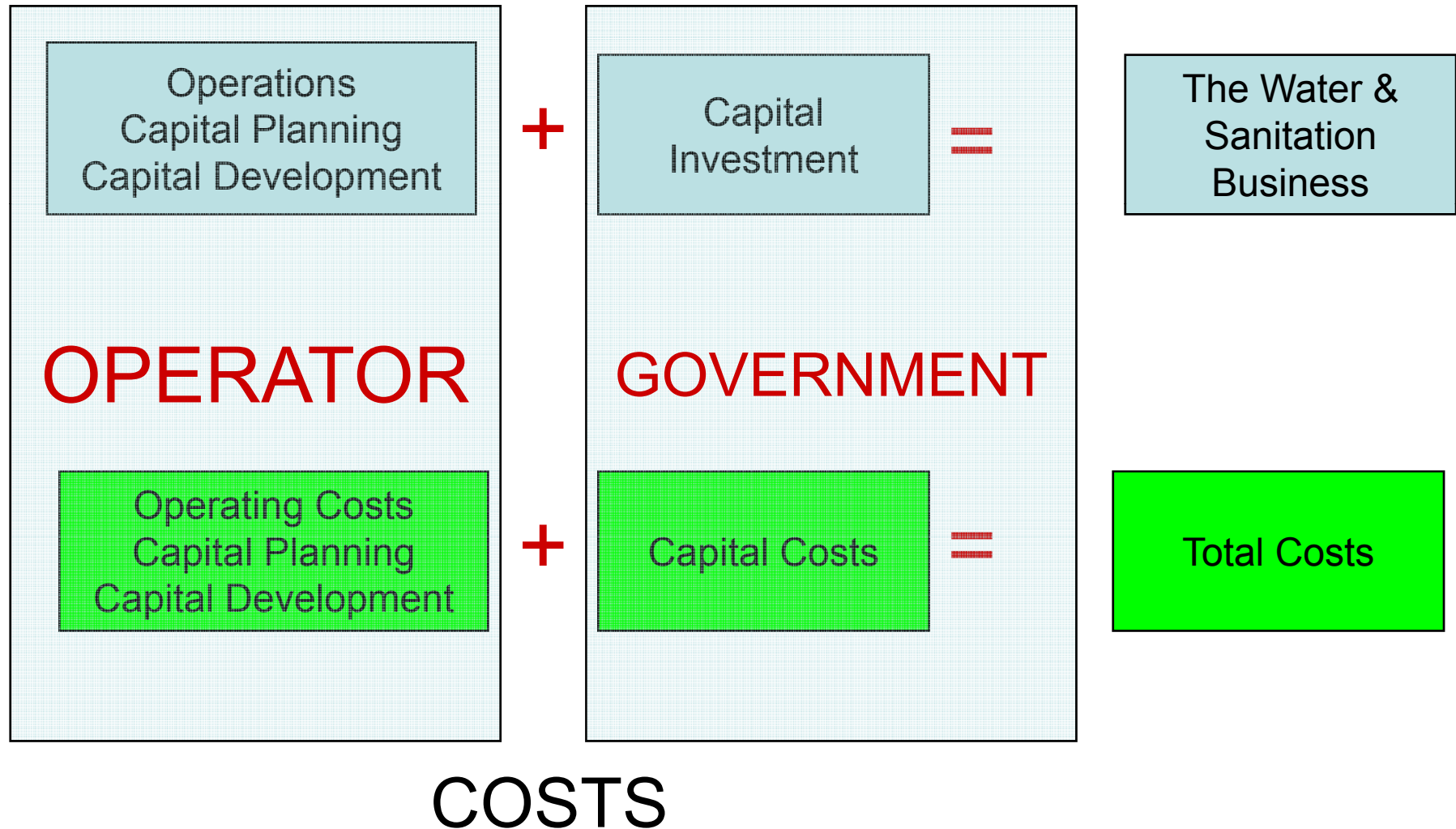
Tariffs have two parts: an operating fee (for Saur Neptun) & fee for modernization & CAPEX (paid to the *city* budget).





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RESPONSIBILITIES

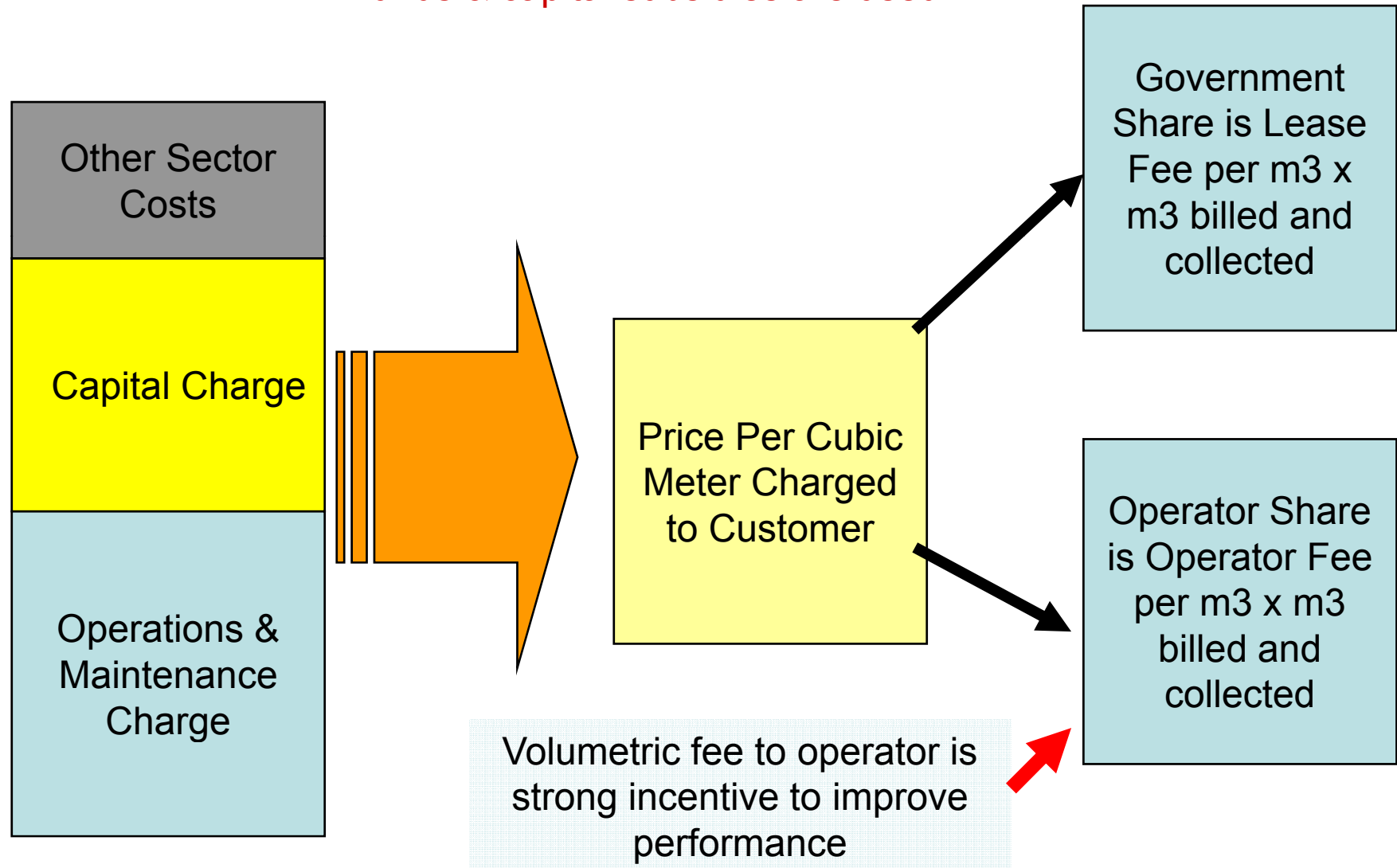




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HOW DOES THE TARIFF WORK?

Governments often subsidize the capital component of the business. Both revolving funds & capital subsidies are used.

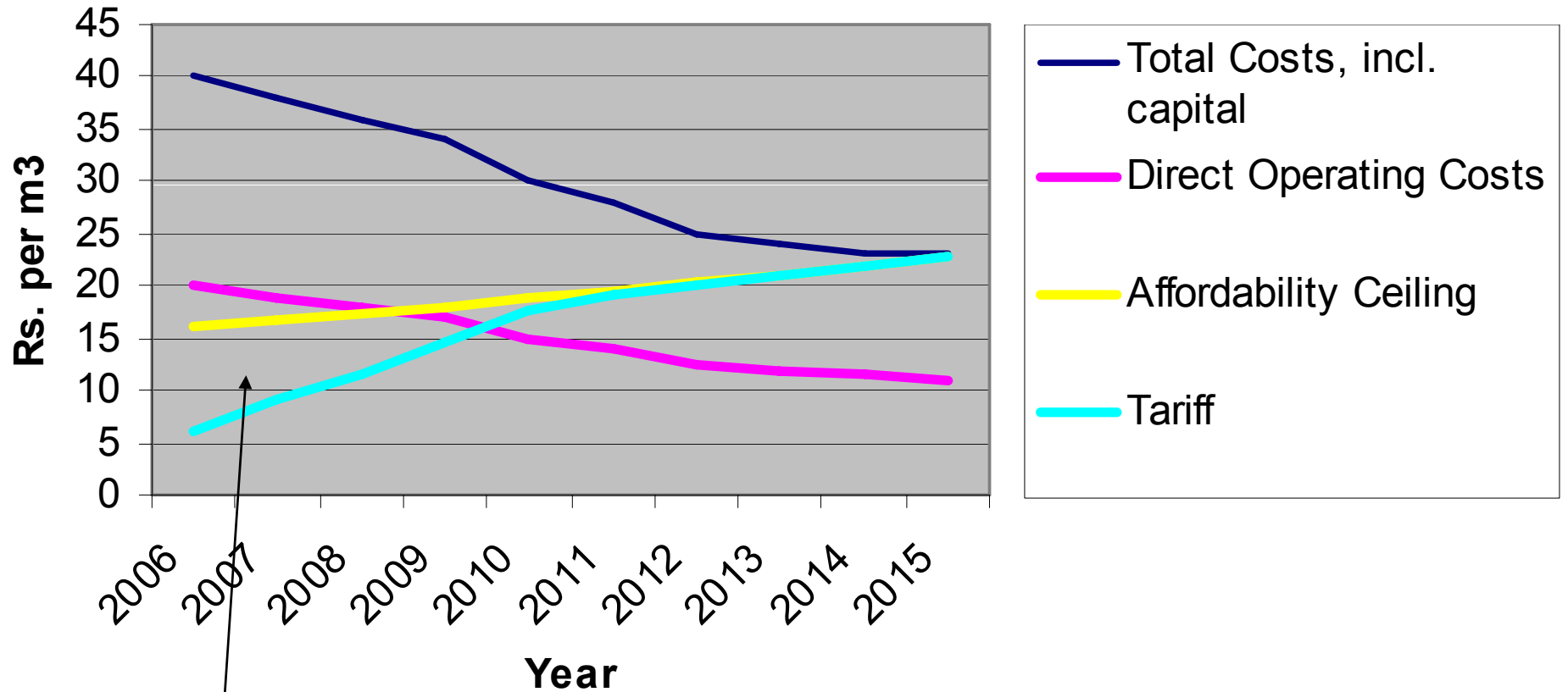




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MOST REFORMS INVOLVE A PLANNED TRANSITION TO COST RECOVERY

PLANNING TRANSITION TO COST RECOVERY

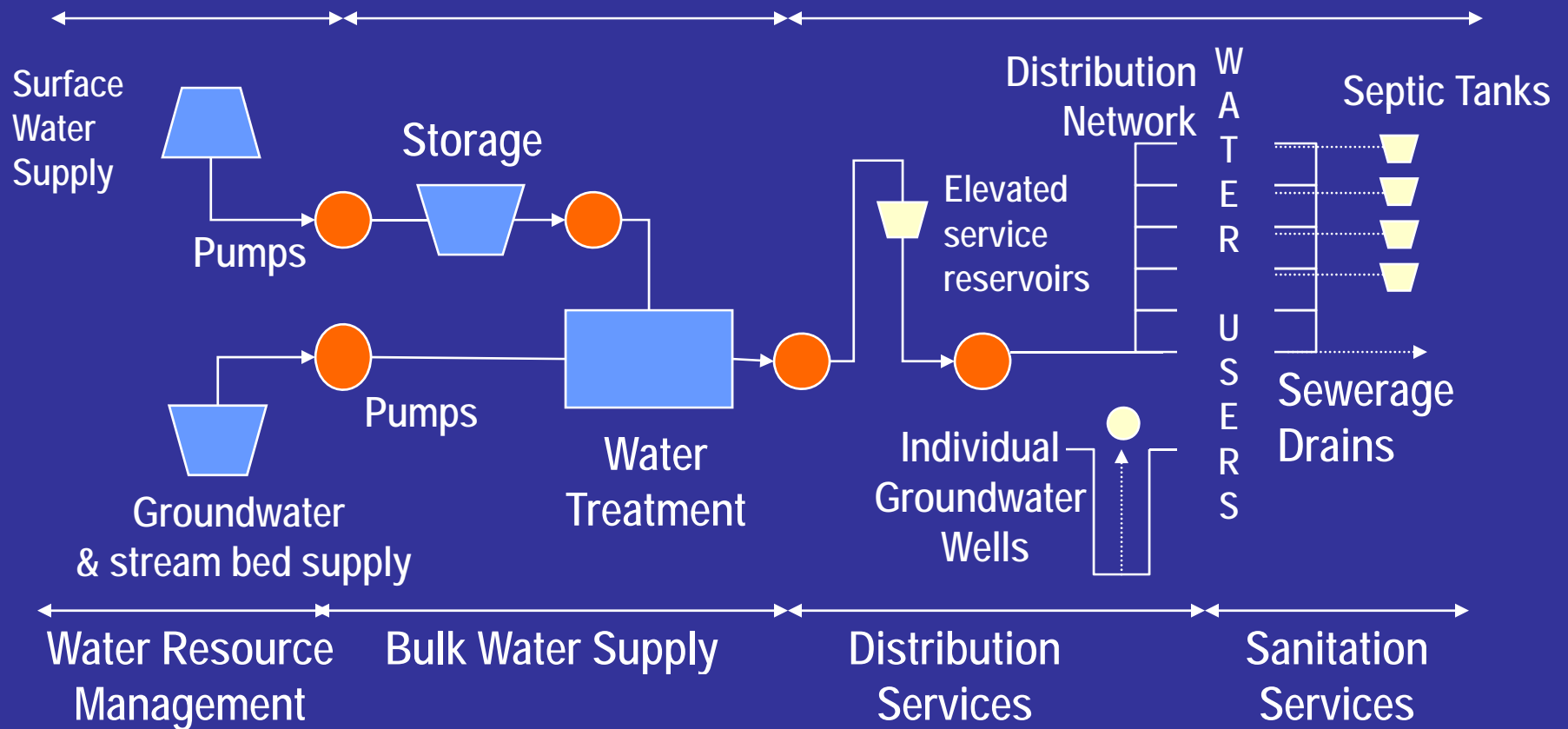


This is a cash subsidy
requirement



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THE CAPITAL ASSET PROBLEM: WHO PAYS THE CAPITAL COSTS OF WATER & SANITATION?





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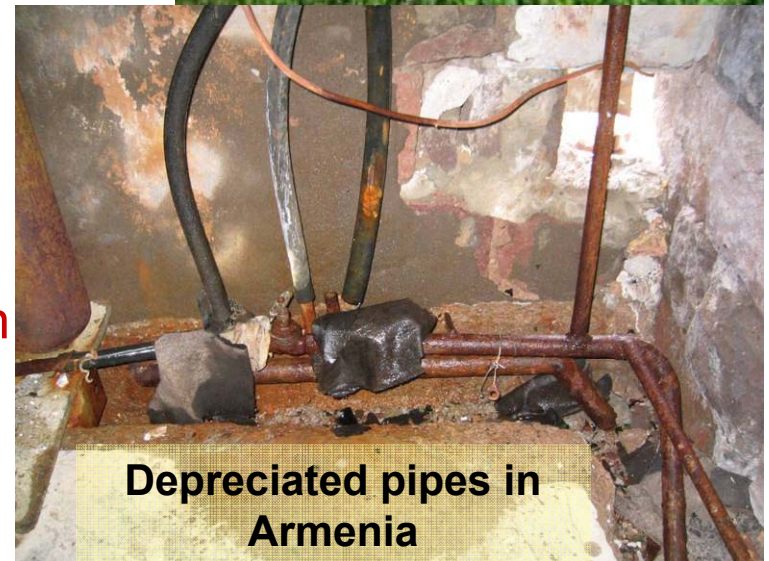
TRENDS RELATED TO CAPITAL ASSETS

- The main trend is to treat capital costs as part of the water & sanitation business
- A second trend is gradual, step-wise transition to recovery of capital costs from consumers
- A third trend is transition from grant-based capital financing to grant/loan mixes of financing
- Critical to all of these is reform of the utility sector
 - Reduction of losses
 - Breakeven on O&M costs
 - Building an effective business model
 - Revolving funds

PPP is used as an approach to (1) determine real costs; (2) improve performance; (3) begin a new approach to actually paying for debt service



Checking meters



Depreciated pipes in Armenia



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Example of Transition to full cost recovery: Hungarian water utility costs in 2004

	Billion HUF	In percentage (%) of operating revenue (75,2 billion HUF)
Materials	2,485	3,3
Energy	4,473	5,9
Depreciation + debt costs	12,743	16,9
Wages and social security taxes	6,571	8,7
Reparation and servicing	4,847	6,4
Other direct costs	9,096	12,1
Indirect costs	10,499	13,9
Other expenditures	15,847	21,1
Sewage penalty	0,216	0,3



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Summary of Successful PPP in Reforms

1. PPP is a key component of the water & sanitation reform process
2. PPP improves performance & can establish cost recovery
 - No single model dominates...but there are solid building blocks; PPP is one of them
 - There are well-developed approaches to splitting “operating business” from “capital business.” This is done when full capital cost recovery is not possible, & when performance improvement is critical
 - BOTs won't work if distribution system performance is poor

