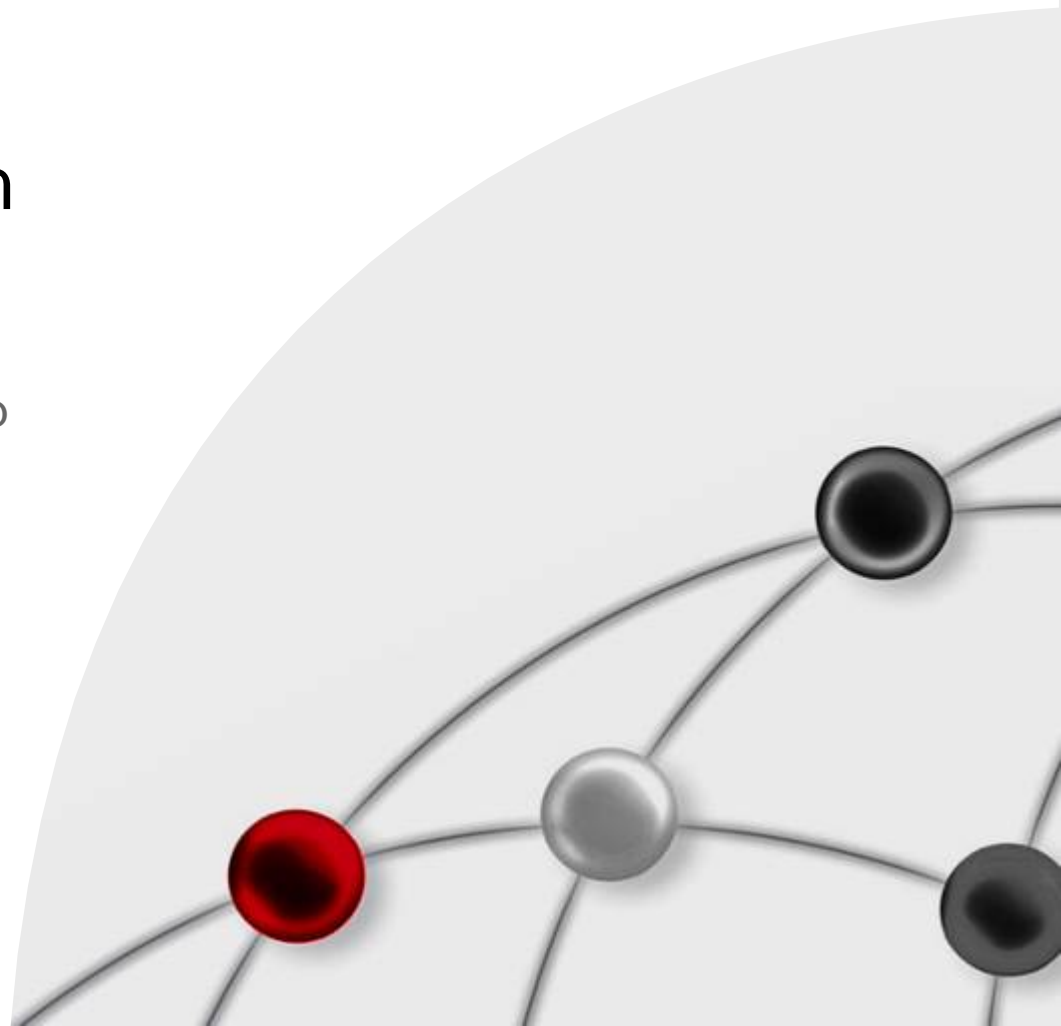


USAID infrastructure workshop presentation

December 17, 2008

Rick Albani – PA Consulting Group

(Presented with gratitude to
Severn Trent Services International
for providing sources of data and
developing these models.)



Presentation objectives

- To explain the potential contributions of the private sector to the water and wastewater sector
- To review common PSP models and frameworks in use internationally
- To discuss key characteristics of the different models selected
- To provide an international example from Sofia, Bulgaria

What private sector brings and expects

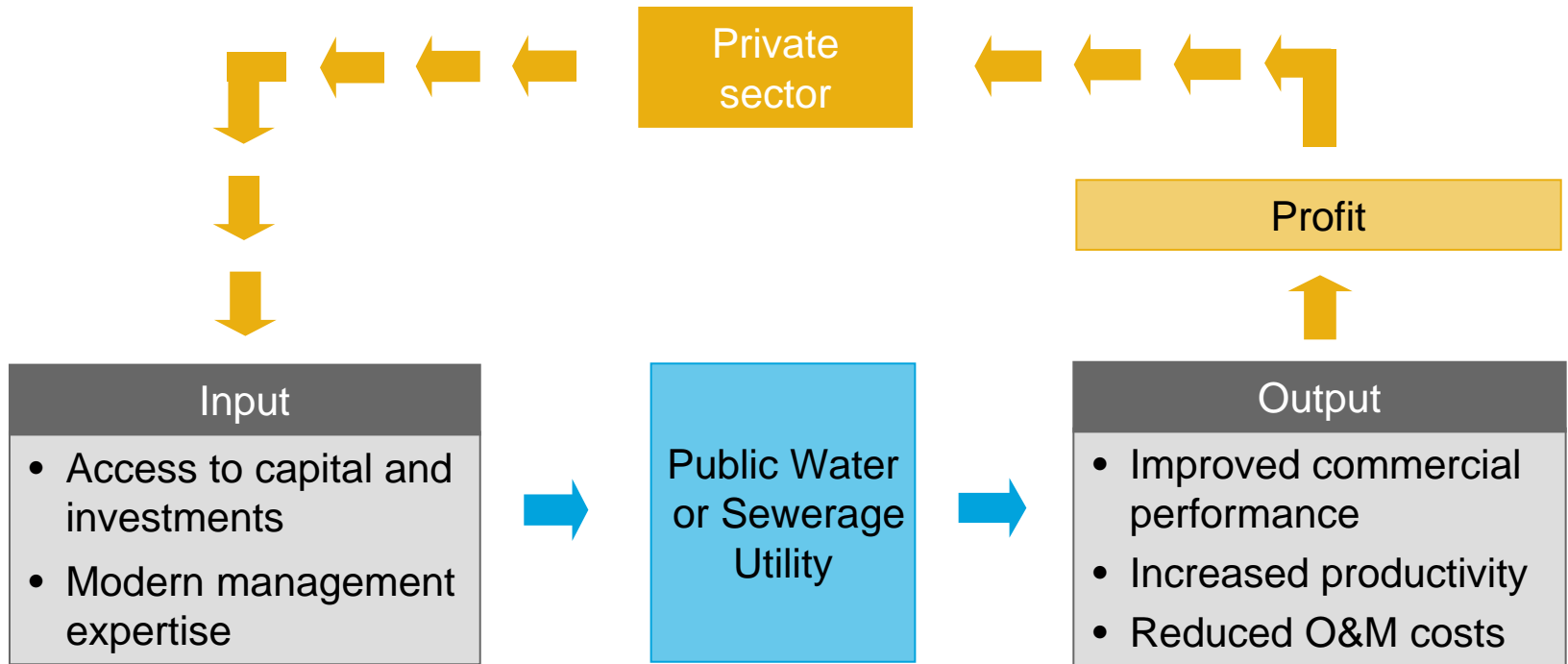
Brings:

- Customer Focus
- Performance Measurement
- Operational Efficiency
- Commercial Efficiency
- External Sources of Funding

Expects:

- Appropriate Profit Margins
- A Return on Investments
- Guarantees for Return on Investments
- Acceptable Risks
- No Uncontrolled Risks

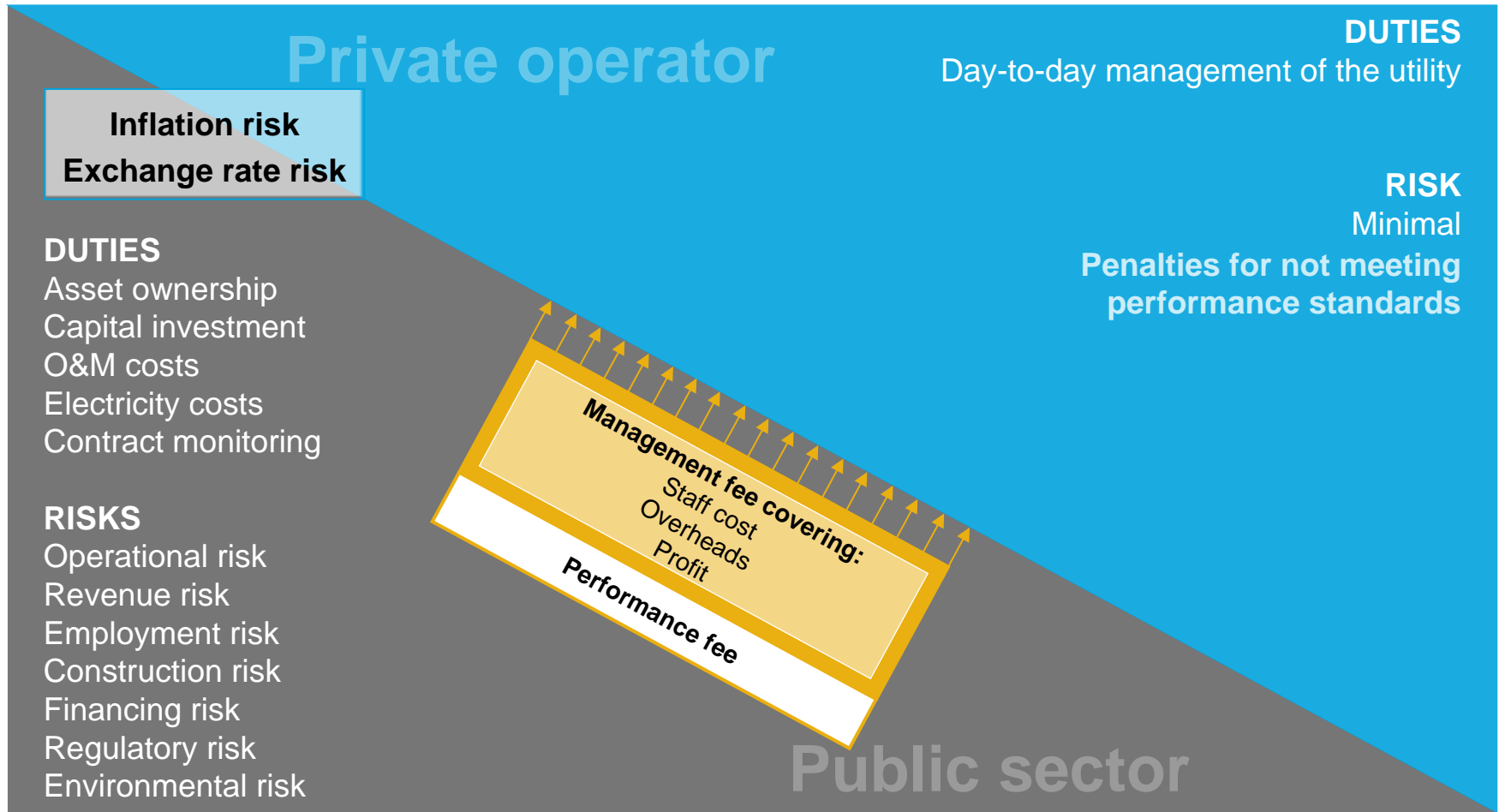
Principals for private sector participation



Overview of six common PSP models

| | Management contract | O&M contract | Lease contract | BOT/BOO/BOOT | Concession | Privatization |
|-------------------------------|---------------------|--------------|-------------------------|-------------------------------------|------------|---------------|
| Duration | 3-5 years | 3-7 years | 5-15 years | 20-30 years | | Indefinite |
| Ownership of Assets | Public | | | Private | | |
| Source of Capital Investment | Public | | | Private | | |
| Private Sector Responsibility | Mgmt | + O&M | + Some investment | + Investment | | Everything |
| Operation Risk | Public | Private | | | | |
| Revenue | Mgmt fee | O&M costs | O&M cost and rental fee | Tariffs based on full cost recovery | | |
| Infrastructure Development | Public | | | Private | | |

Key characteristics – management contracts



Pros and cons of management contracts

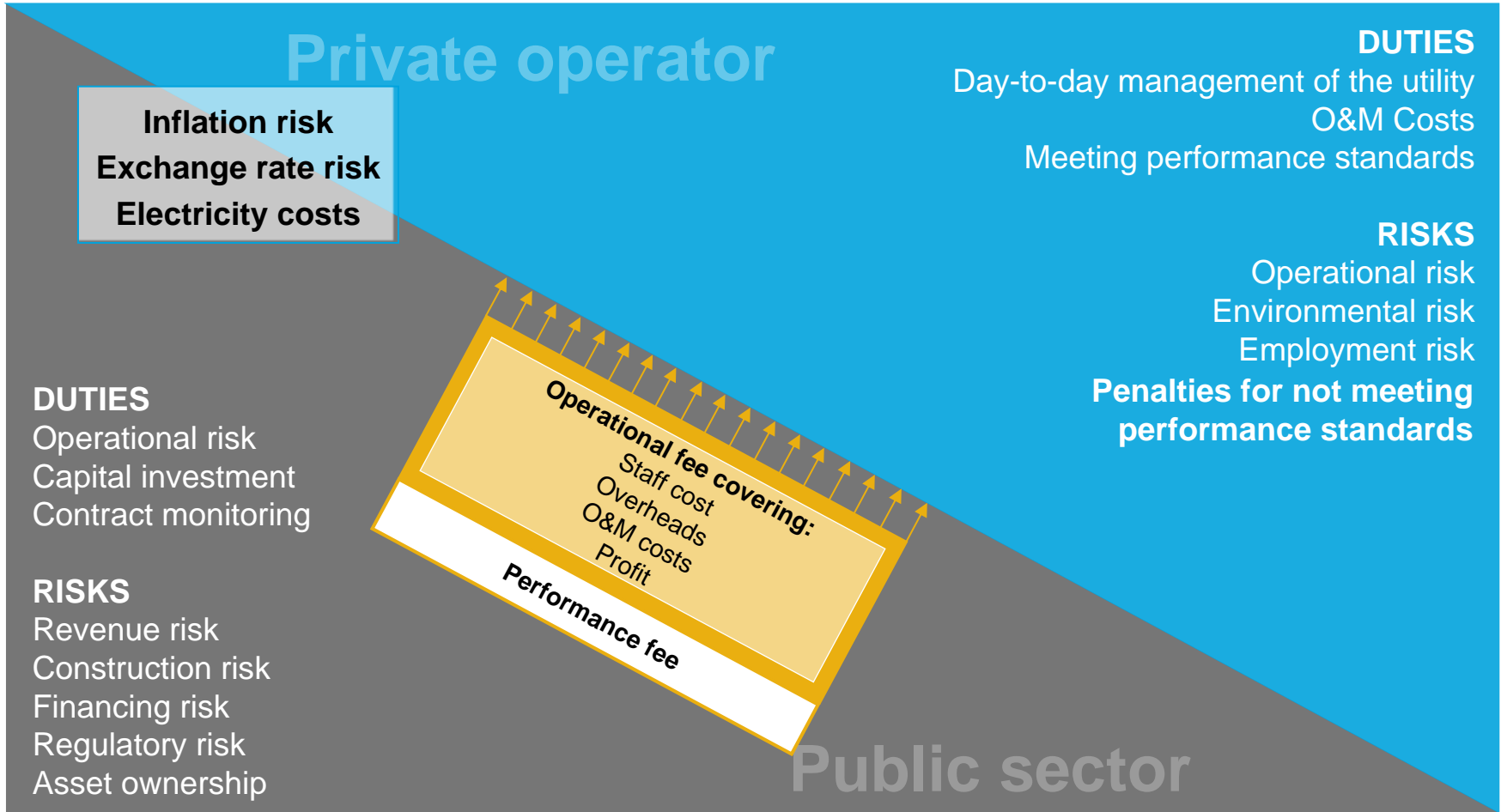
Pros

- ✓ In short period of time (three to five) introduces modern management practices
- ✓ Introduces business approach
- ✓ Addresses operational efficiency
- ✓ Addresses commercial efficiency
- ✓ Brings change management techniques
- ✓ Can be monitored/regulated by contract

Cons

- ✗ Limited powers
- ✗ Does not provide any investments with private funds
- ✗ Does not address infrastructure needs
- ✗ Can be too short to achieve improvements, particularly if there is resistance to change culture
- ✗ Can have limited impact if there is lack of data
- ✗ Costs to hire external (international) management
- ✗ Majority of risks remain within public hands

Key characteristics – O&M contracts



Pros and cons of O&M contracts

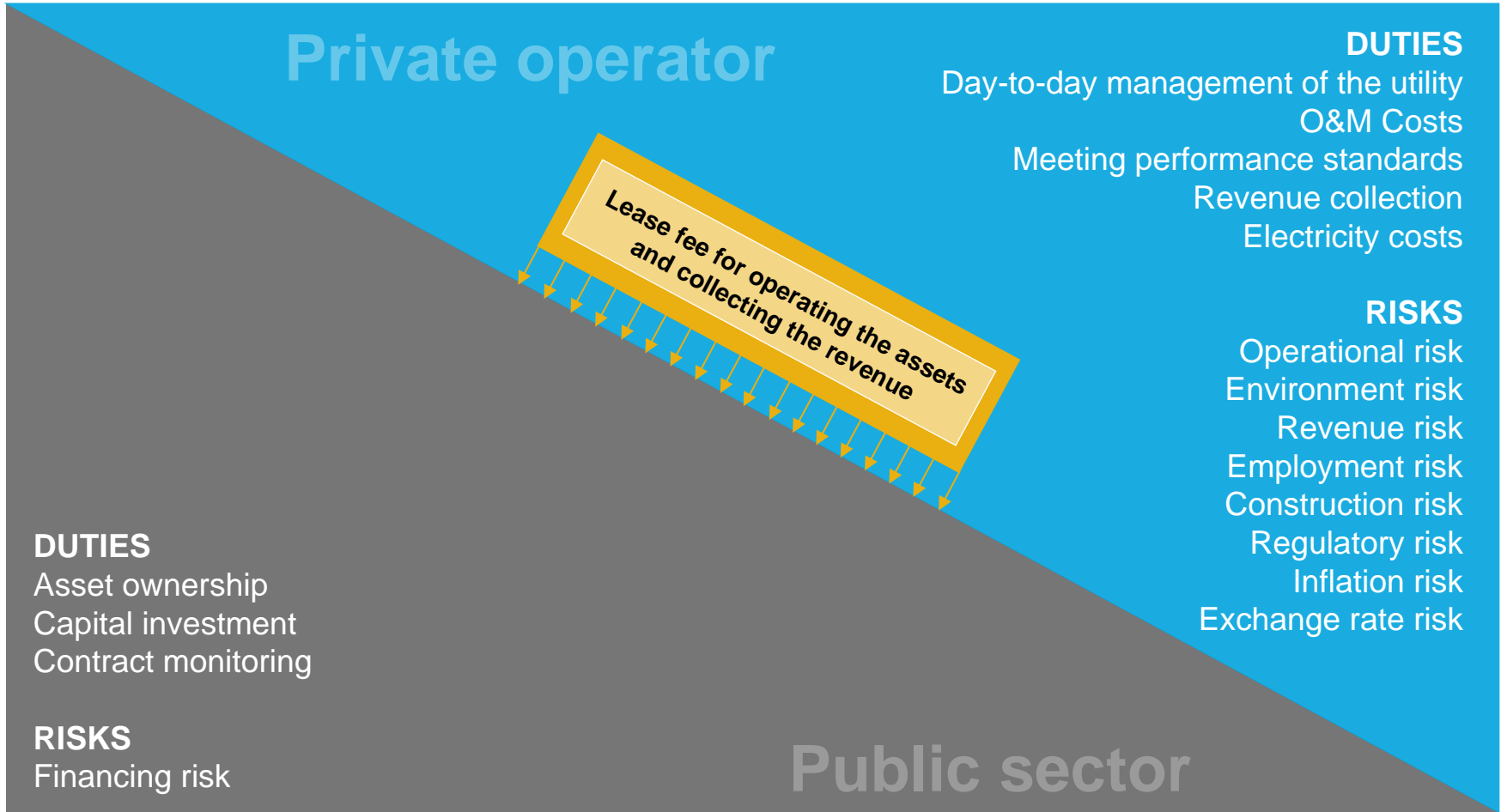
Pros

- ✓ Should reduce O&M costs
- ✓ Good for improving operational efficiency
- ✓ Good for introducing maintenance programs
- ✓ Good for improving commercial efficiency
- ✓ Good for optimizing performance of assets and staff
- ✓ Can be monitored/regulated by contract

Cons

- ✗ Does not provide any investments with private funds
- ✗ Does not address infrastructure needs
- ✗ No control over operational issues
- ✗ Majority of risks remain within public hands

Key characteristics – lease contracts



Pros and cons of lease contracts

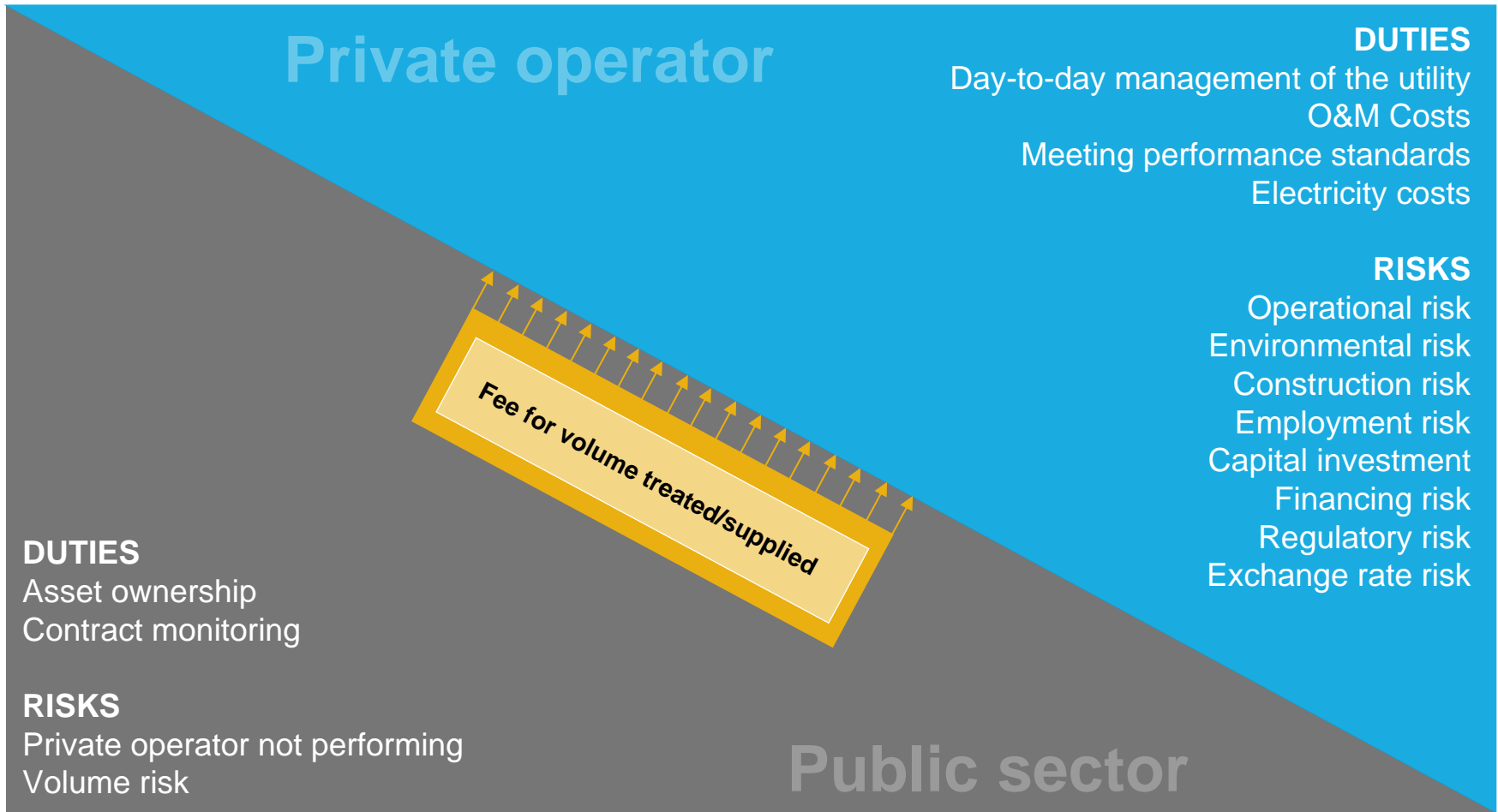
Pros

- ✓ Provides income to the asset owner by paying a lease fee
- ✓ Uses the knowledge of the private sector for new infrastructure construction
- ✓ Transfer greater risk to the private operator
- ✓ Can be monitored/regulated by contract, however contracts likely to be more complex

Cons

- ✗ Does not provide any investments with private funds
- ✗ No control over operational issues

Key characteristics – BOT/BOO/BOOT contracts



Pros and cons of BOT/BOO/BOOT contracts

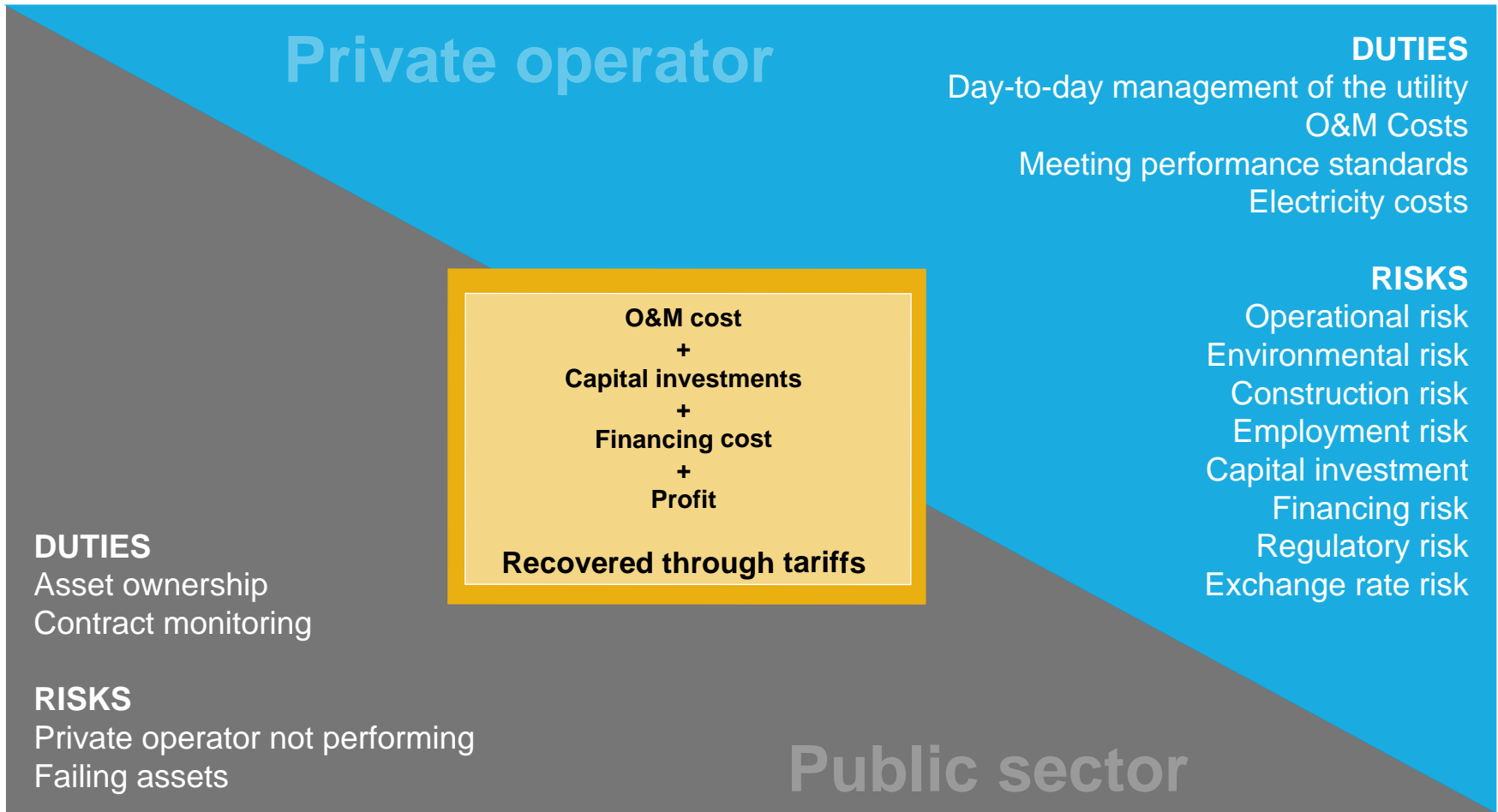
Pros

- ✓ Provides investments with private funds
- ✓ Access to external finance
- ✓ Uses the knowledge of the private sector for new infrastructure construction
- ✓ Good for new infrastructure/rehabilitation

Cons

- ✗ Private investor will seek to recover its financing costs and investments through charges to users
- ✗ No control over operational issues
- ✗ Long term contracts
- ✗ Requires complex contract

Key characteristics – concession contracts



Pros and cons of concession contracts

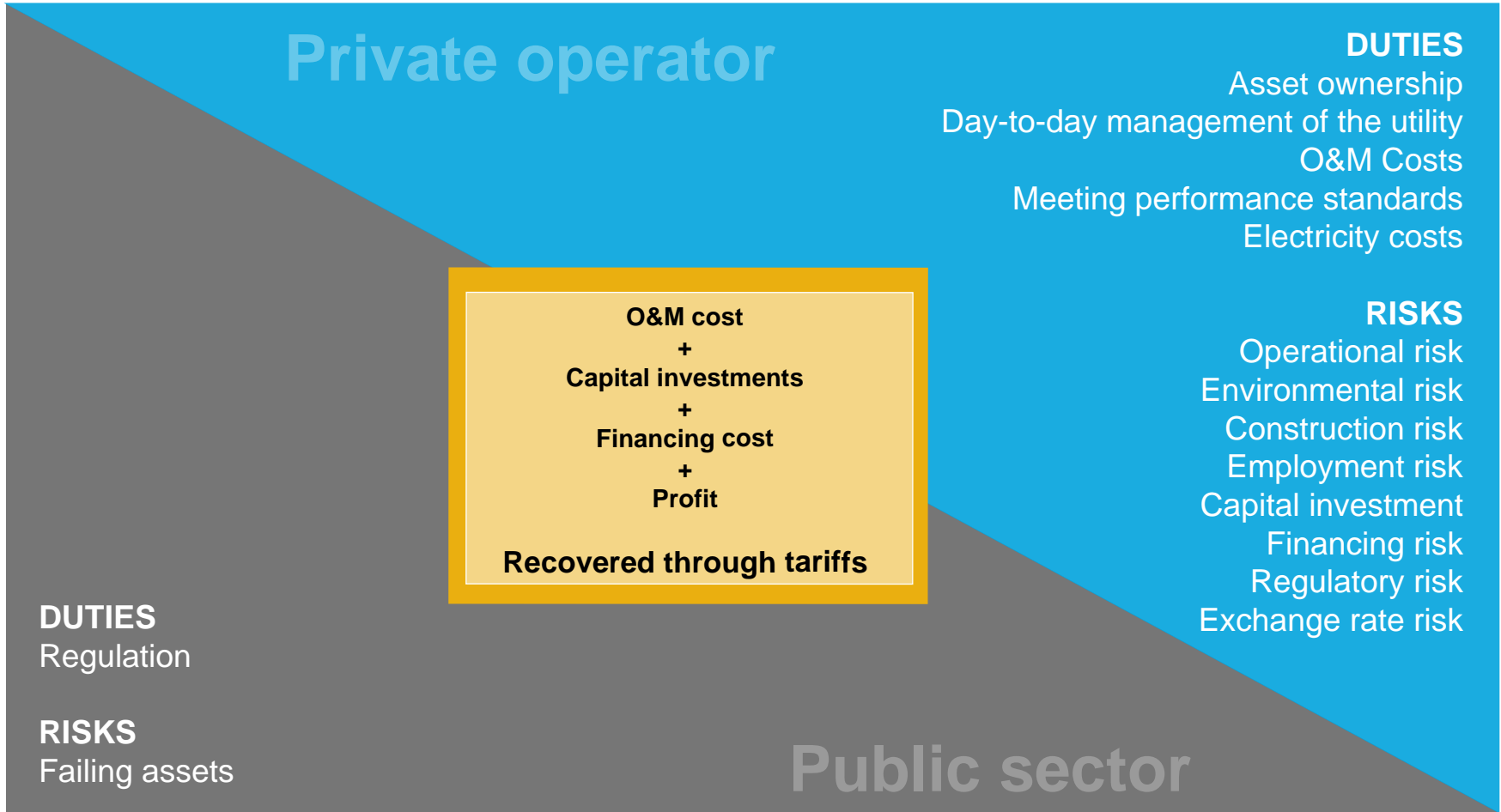
Pros

- ✓ Provides investments with private funds
- ✓ Access to external finance
- ✓ Uses the knowledge of the private sector for new infrastructure construction
- ✓ Good for new infrastructure/rehabilitation
- ✓ All risks transferred to the private operator

Cons

- ✗ Private investor will seek to recover its financing costs and investments through charges to users
- ✗ No control over operational issues
- ✗ Long term contracts
- ✗ Requires complex contract or regulatory regime

Key characteristics – privatization



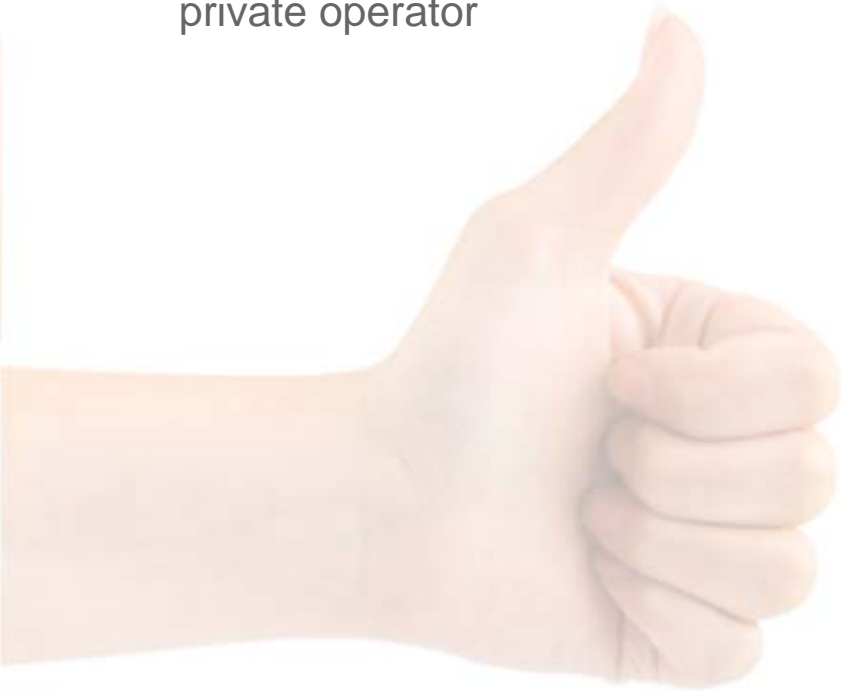
Pros and cons of privatization

Pros

- ✓ All investment responsibility transferred to the private sector
- ✓ All risks transferred to the private operator

Cons

- ✗ All assets owned by the private sector



Which model fits best?

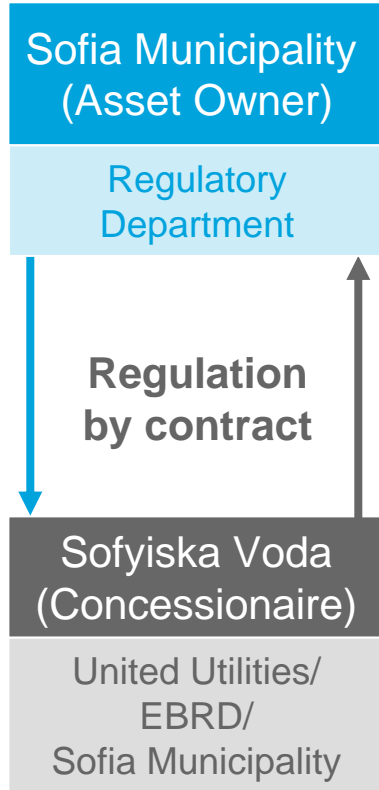
Depends on:

- Objectives for private sector participation
- Legislative framework
- Regulatory framework
- Economy

Sofia Concession – background

- Sofiyska Voda (Sofia Water) provides water and wastewater services to the people of Sofia City under a Concession agreement with Sofia Municipality
- Assets are owned by Sofia municipality but transferred to Sofiyska Voda
- Sofyiska Voda is jointly owned by United Utilities & European Bank for Reconstruction and Development (75%) and Sofia Municipality (25%)
- Contract started in October 2000 and will run for 25 years
- Sofiyska Voda provides services to 1.5 million people in Sofia and has more than 1,200 employees

Sofia Concession – initial regulation



Responsibility

- Contract supervision
- Monitoring Levels of Services
- Investment plan approval
- Tariff approval

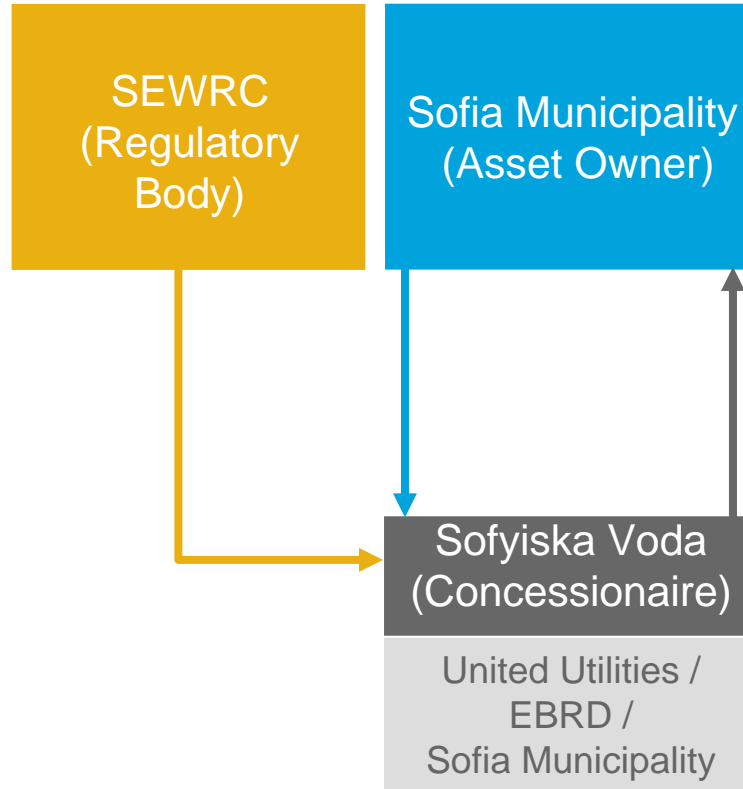
Responsibility:

- Water & Wastewater Operator
- Develop the infrastructure
- Increase water quality
- Reduce leakages and pollution

Sofia Concession – introducing national regulator

Responsibility

- Monitoring Levels of Services
- Investment plan approval
- Tariff approval



Responsibility

- Contract supervision
- Monitoring Levels of Services
- Investment plan approval

Responsibility:

- Water & Wastewater Operator
- Develop the infrastructure
- Increase water quality
- Reduce leakages and pollution

Sofia Concession – some results after eight years

- Sofiyska Voda maintains 4000 km water mains and 2000 km wastewater mains; has already replaced/built 80 km water + wastewater mains using internal funds
- Delivers > 250 million m³ clean drinking water/day; removes and treats 180 million m³ wastewater/day; meets EU water + environmental quality standards
- Invested more than GBP 51 million to rehabilitate and replace obsolete water assets; another GBP 280 million planned over remainder of the contract
- Customer satisfaction increased from 23% in 2000 to > 75% in 2008
- Significant improvement in overall water quality with a 75% reduction in non-compliant water quality samples
- Sofiyska Voda won UN award in 2004 for its contribution to environmental protection; won multiple awards for its community relations in education programs

Contact us

For more information, contact:

Rick Albani

PA Consulting Group

Tel: +1 571 227 9099

Cell: +1 571 232 1353

E-mail: rick.albani@paconsulting.com

Georgi Georgiev

Severn Trent Services International

Tel: +44 121 722 61 83

Cell: +44 781 88 30 162

E-mail: Georgi.Georgiev@stwi.co.uk