International Transport Forum

Private Investment in Infrastructure: Dealing with uncertainty in contracts

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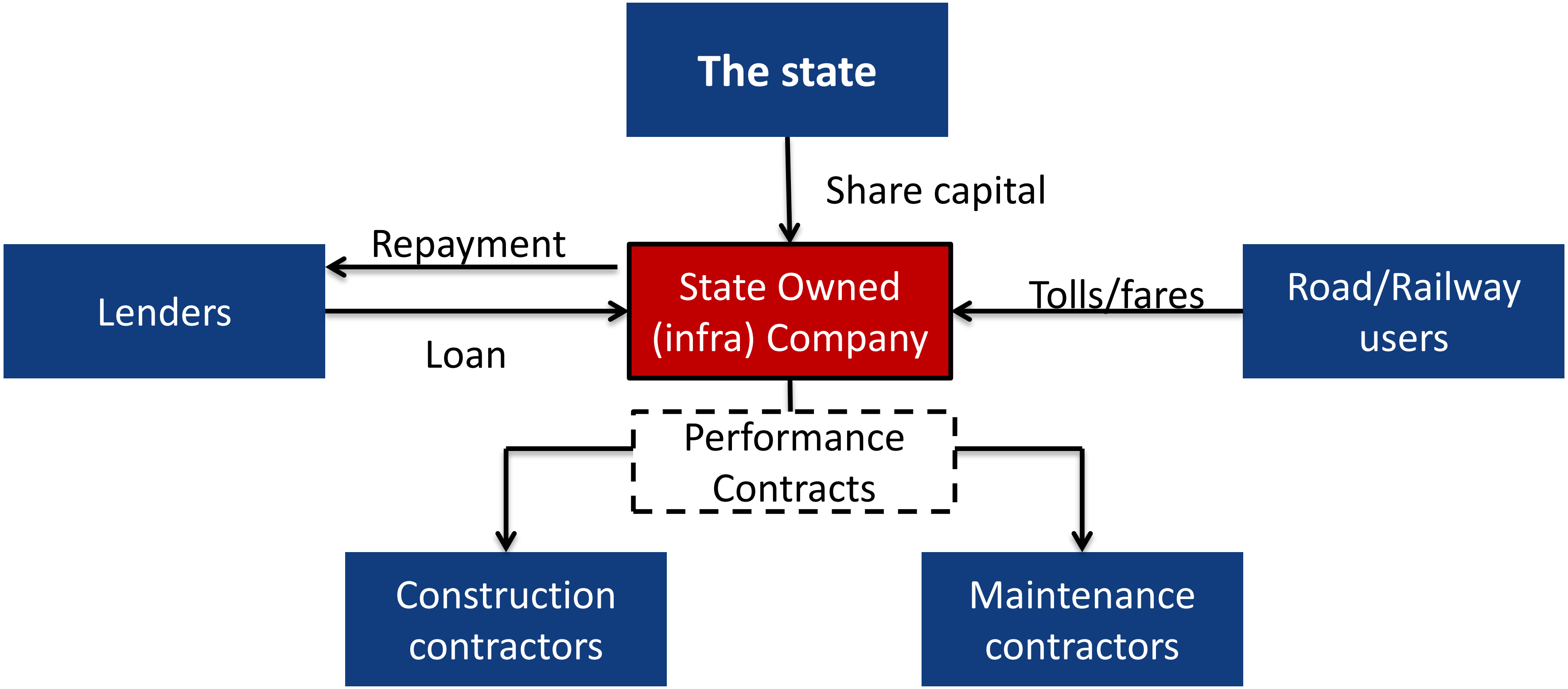
OECD

What was the WG's objective?

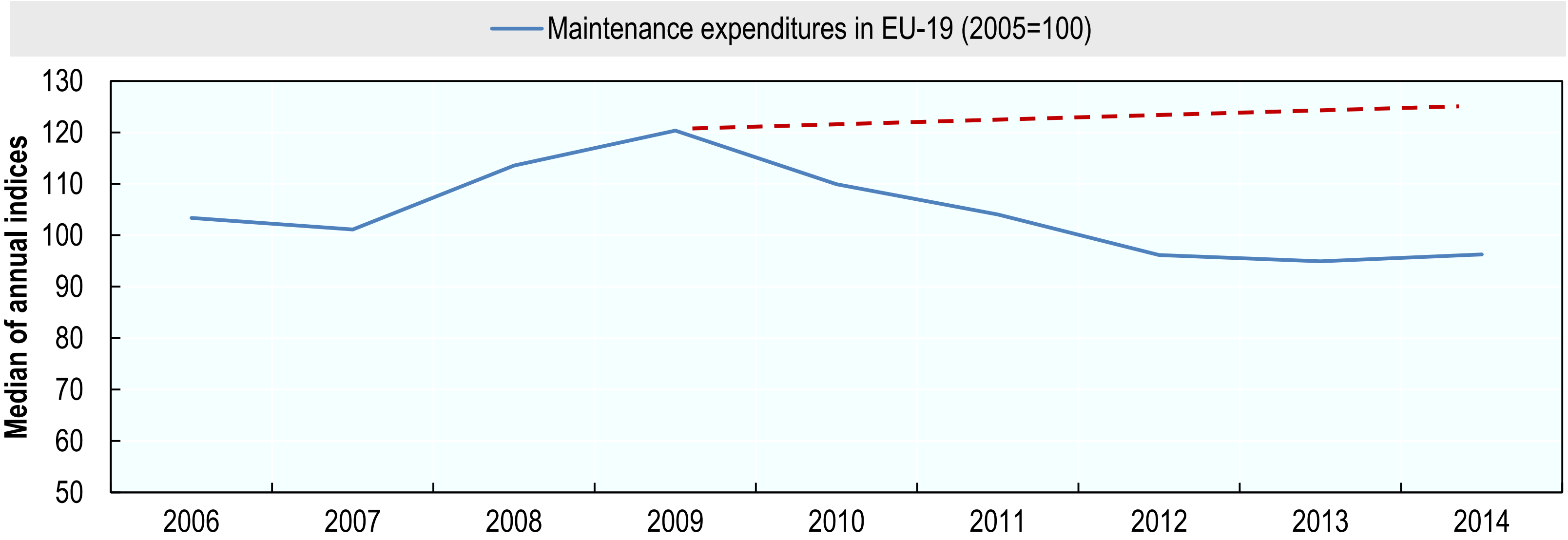
- **Clarify basics – what is the role of with PI?**
- **Take stock of most recent evidence (does it work?)**
- **Map how uncertainty matters in contracts**
- **See how private finance approaches handle uncertainty**
- **Provide guidance to policymakers**

What is the role of PI? (I)



When the state is judge and party

Road maintenance trends in selected countries, 2005-2014, (2005=100)



Evidence about PI in transport infrastructure

?

Positive

Mixed/limited experience

Positive

"Positive" is subject to conditions

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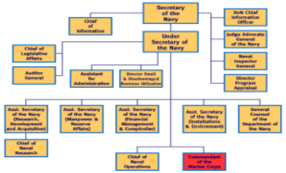

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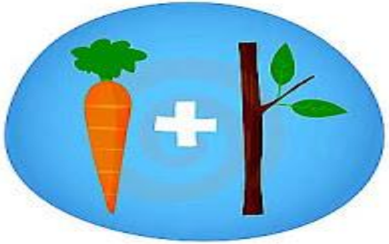
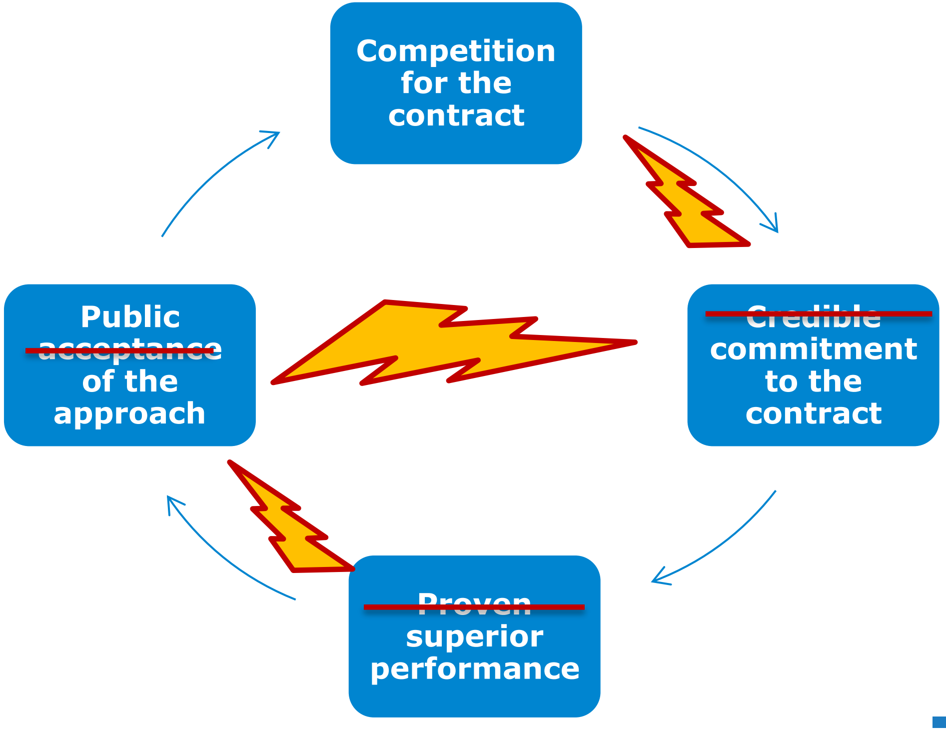


What is the role of PI in transport? (II)

Efficiency type	Relevance
Productive **(cost efficiency)**	✓
Allocative **(preventing bridges to nowhere)**	X
Dynamic **(extending the public borrowing constraint)**	X

Pursuing PI on the right merits matters!

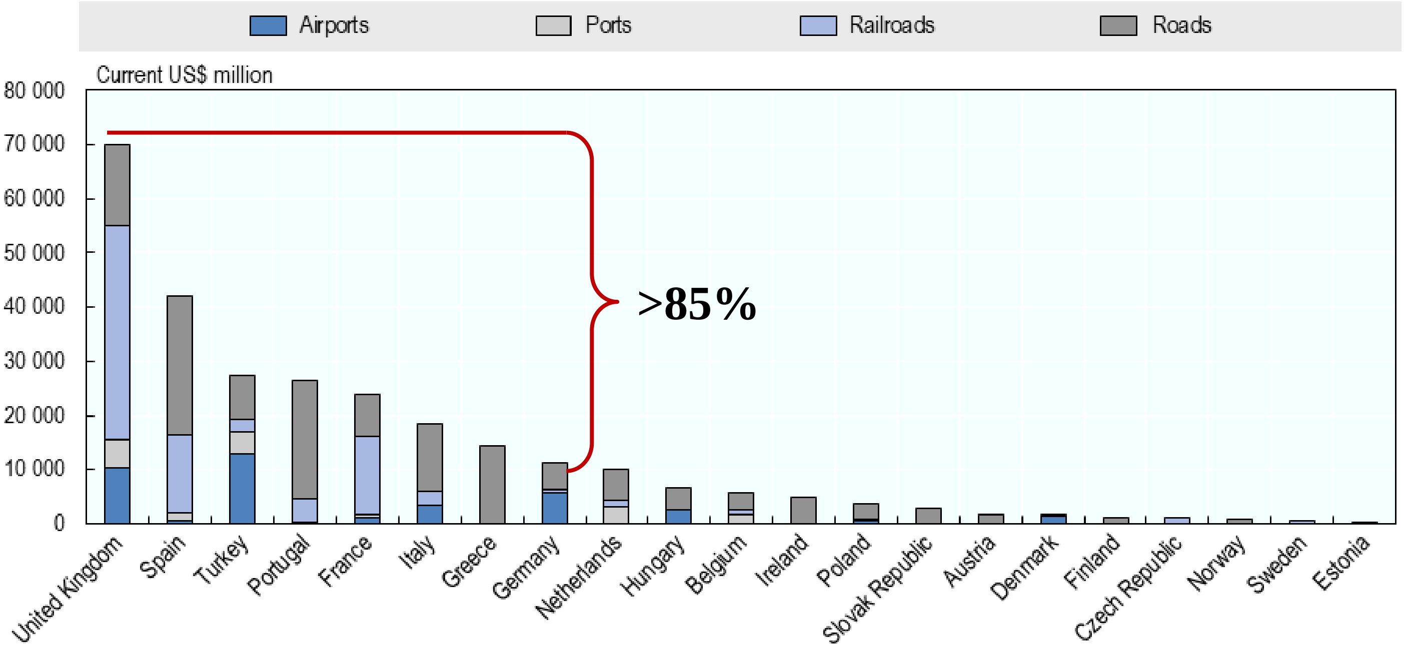


Why is it important to know what PI can do?

- Making choices about PI on the wrong merits will lead to adverse outcomes.
- Choosing PI on the right merits is still unsustainable, if we can't explain them to the civil society or provide evidence!

PI is concentrated in a few countries

Cumulative Private investment in transport infrastructure per European OECD country and mode, 1995-2016, US$ million



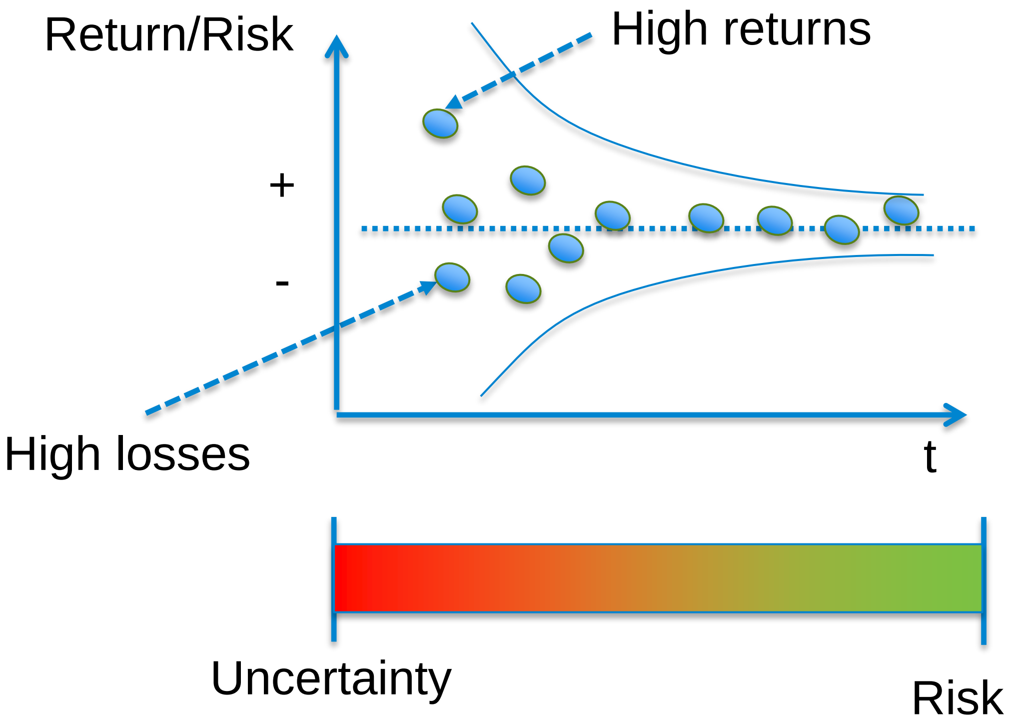
How uncertainty affects contracts?

The nature of any contract is risk transfer

$$\text{Transferred Risk} \times \text{Efficiency gains} - \boxed{\text{Transferred Risk} \times P} = \text{Value for Money}$$

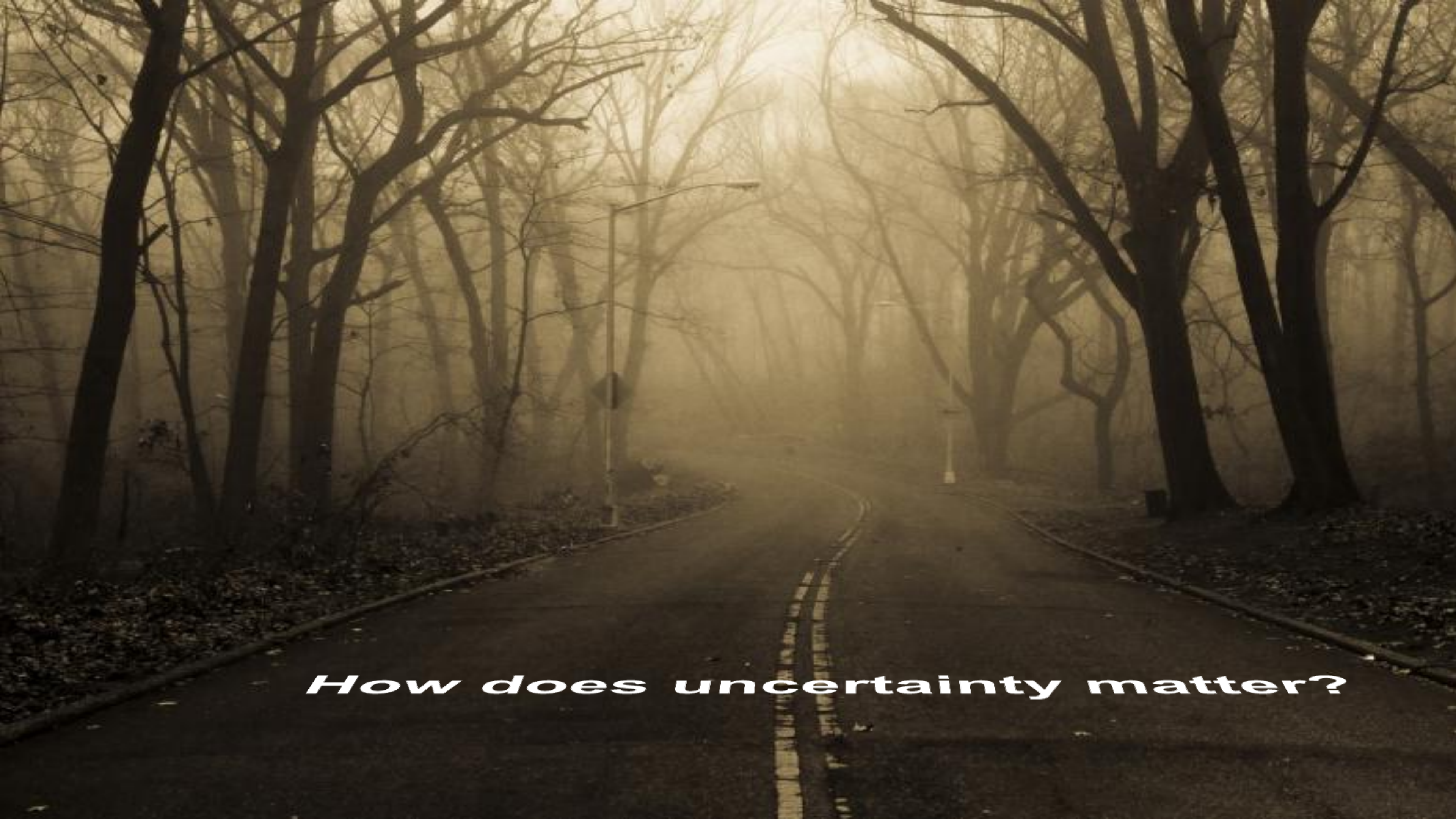
Project phase bundling (life-cycle costing), less cost overruns/delays, …

When is the price of risk “efficient”

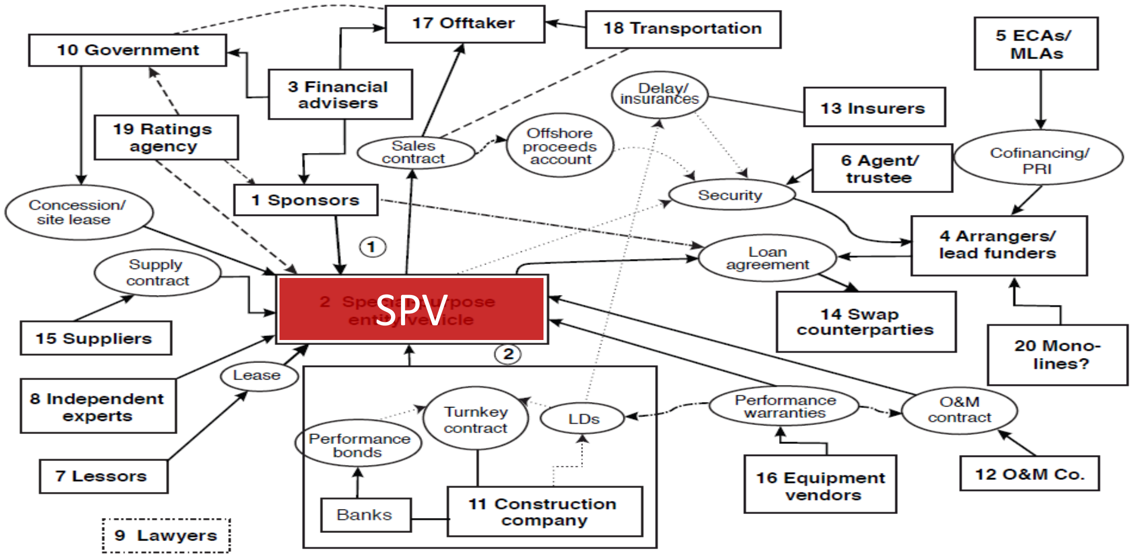


Two conditions for efficiency:

1. Credible commitment
2. Competition
3. **Information (about risk)**


How does uncertainty matter?

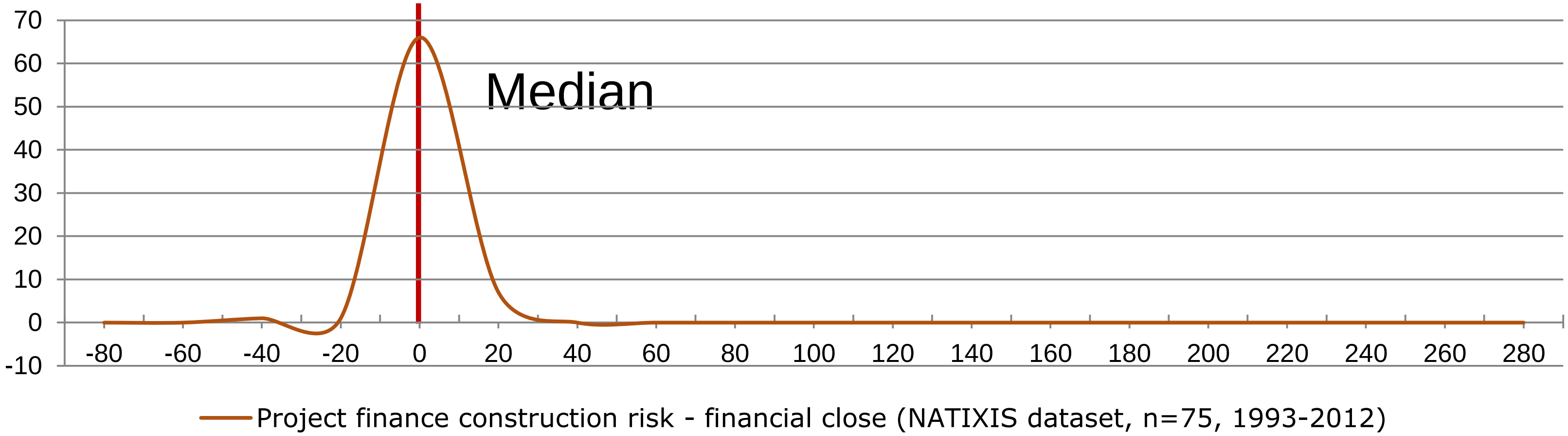
Uncertainty matters beyond finance



Source: International Advisory & Finance 2014

Short-term contracts and complexity (I)

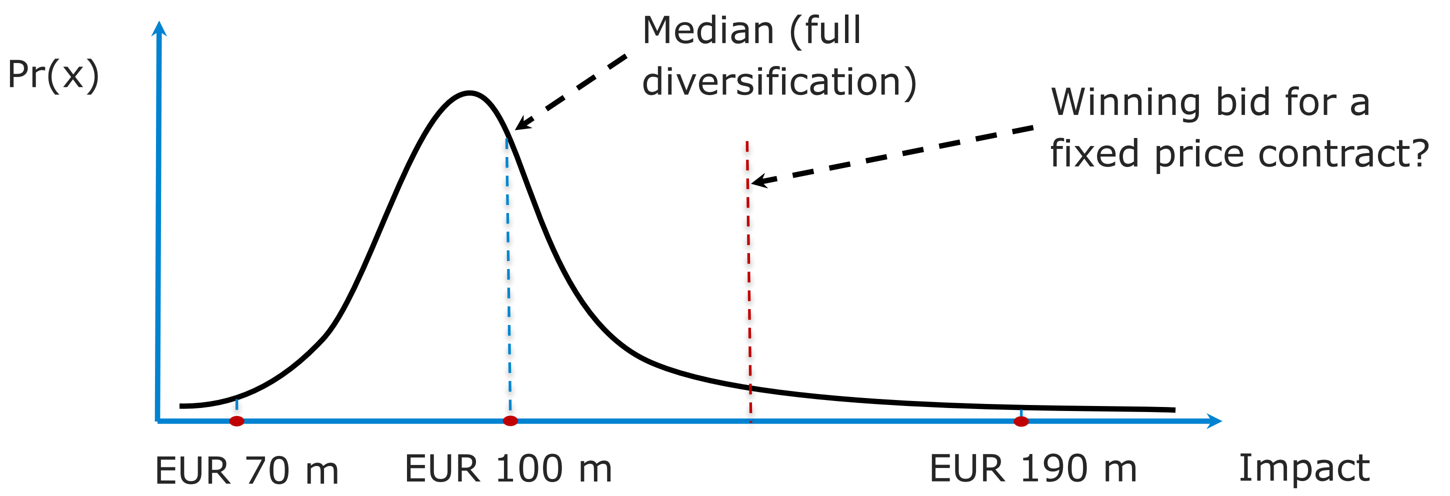
- Observed (median) construction risk for the SPV (outturn cost vs. contract value at financial close) is **zero**.
- “Insurance” against construction risk is effective.



Source: Blanc-Brude & Makovsek (2013).

High-powered incentives and risk?

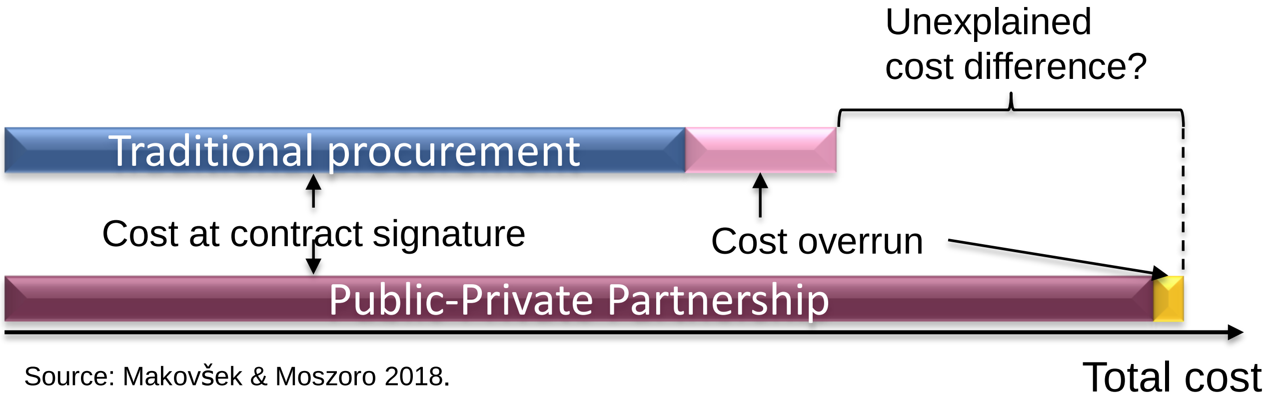
What if we place a very strict requirement (e.g. 100 % insurance) on an agent (contractor) with limited risk info?



Short-term contracts and complexity (II)

Applying a fixed price contract on a complex project

- Construction risk: risk premium in roads above ex-post risk (+20% in EU), LCC does not explain diff.)



Source: Makovšek & Moszoro 2018.

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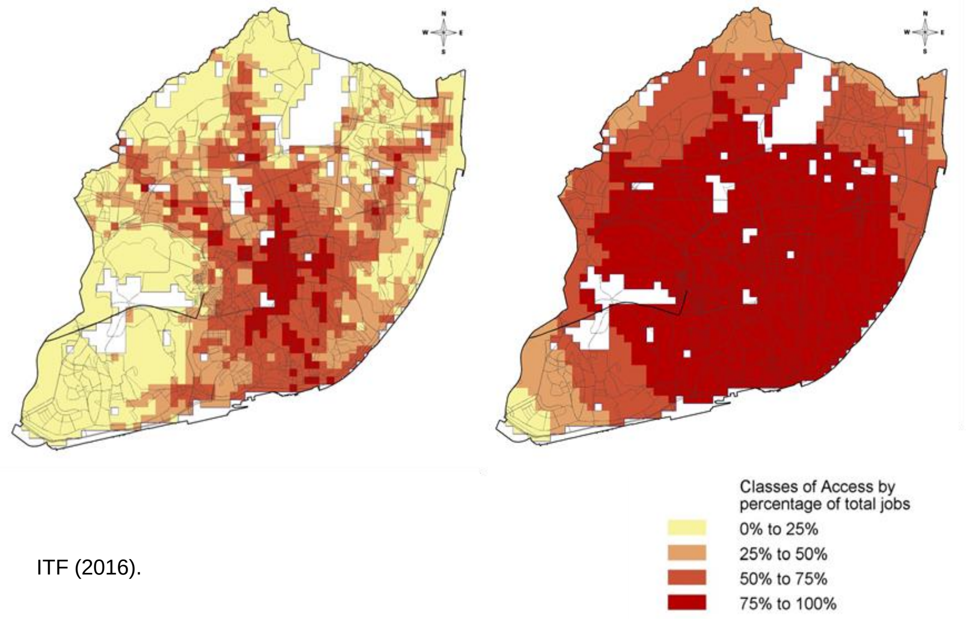
Long-term contracts – disruptive events

The accessibility to jobs within 30 minutes in Lisbon – current and in the "taxi-bot" model



ITF (2016).

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How does uncertainty matter - competition

What happens if more information is made available to the bidders? (e.g. publication of a detailed cost estimate)

Additional info (less uncertainty)

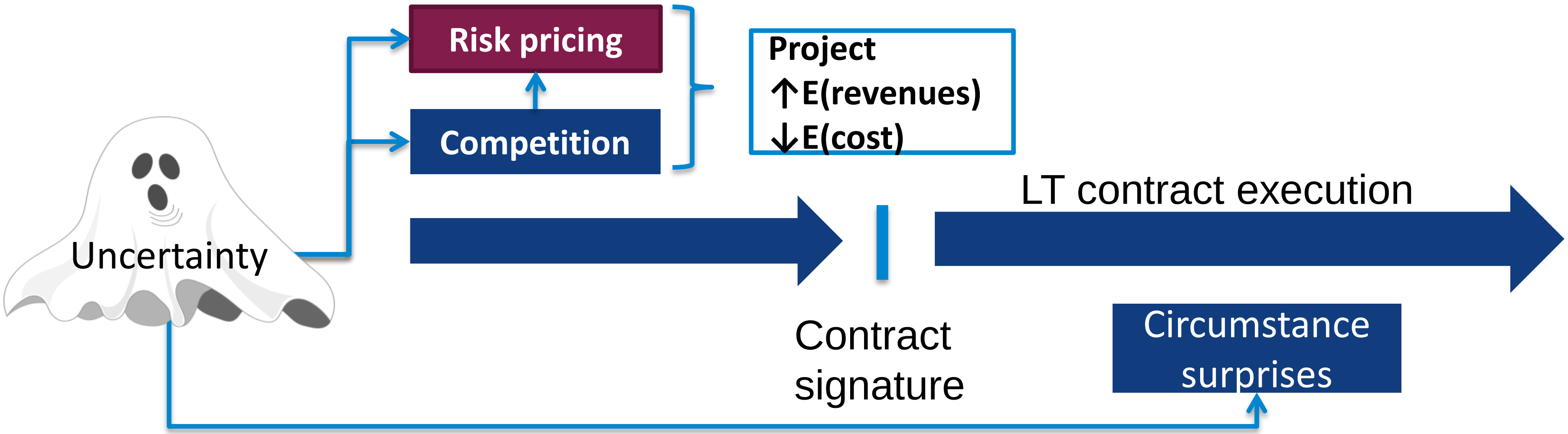
The market (bidders)

New market entrants

- 20% of them now offered lower bids (bid more aggressively)
- On average they stayed longer in the market (+37%).

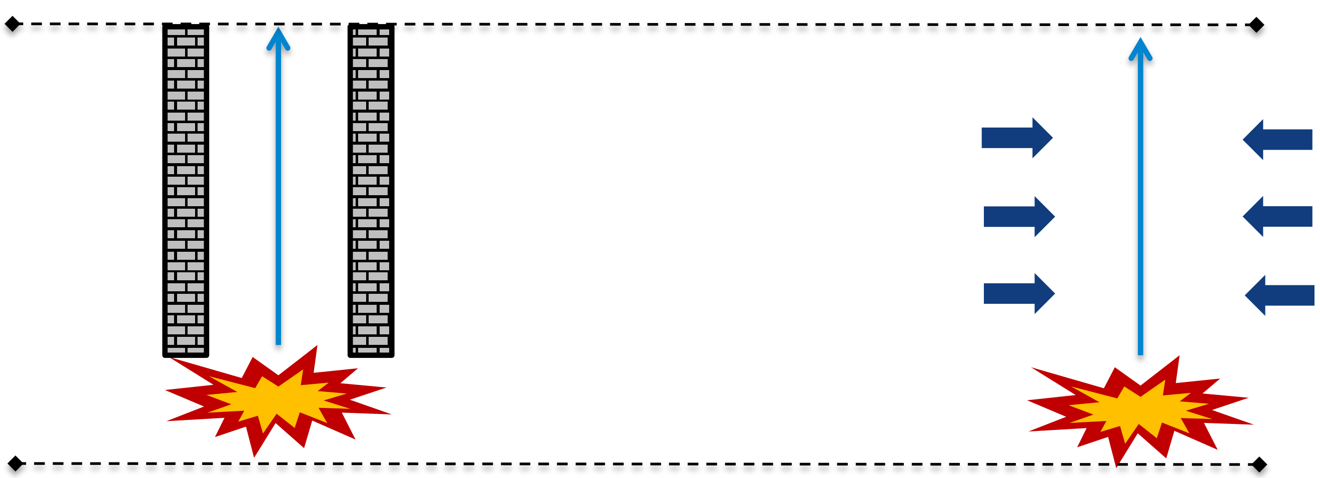
Source: De Silva et al (2009).

Uncertainty in contracts matters beyond risk pricing!



LT contracts, complexity, and unknown unknowns

Year 20
End of contract



Competition for the contract

Market type A
Roads, hospitals, railways, schools…

Market type B
Sea ports, airports, …

Reducing risk pricing inefficiency in the construction phase

- Greater information provision upfront (e.g. fully costed reference design)
- Use of select collaborative principles during bid preparation (e.g. joint-risk register)
- A critical need to build in-house capacity (e.g. IPA/UK, Sund&Belt Partner/DK…)
- ….

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Risk pricing in infrastructure delivery - Making procurement less costly

Discussion Paper No. 2018-xx

Prepared for the Working Group on Private Investment in Transport Infrastructure: Dealing with Uncertainty in Contracts

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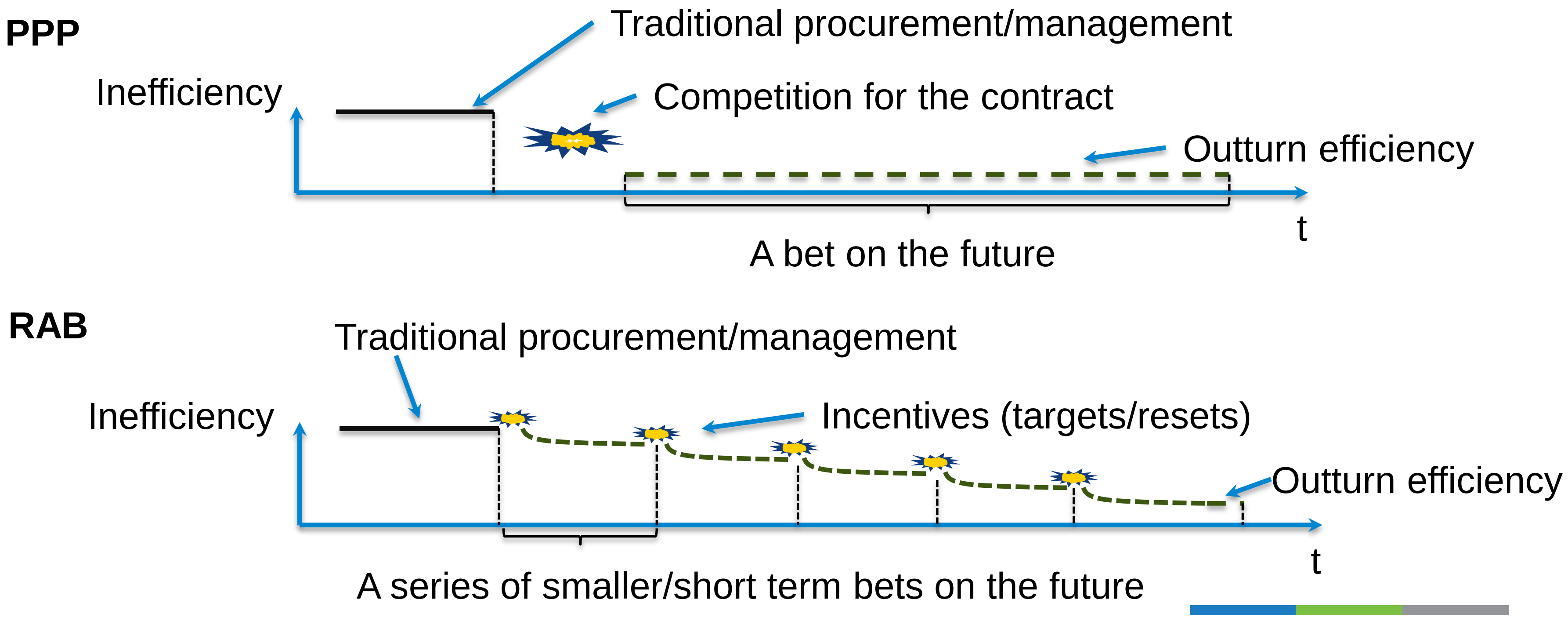
How to ensure continuous pressure for efficiency in a monopoly?



Thank you!

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