

Investments into Large Scale Centralized Renewable Power (including wind and solar facilities located in North Africa and connected to Europe via a SuperGrid)



Nadejda Komendantova
International Institute for Applied Systems Analysis
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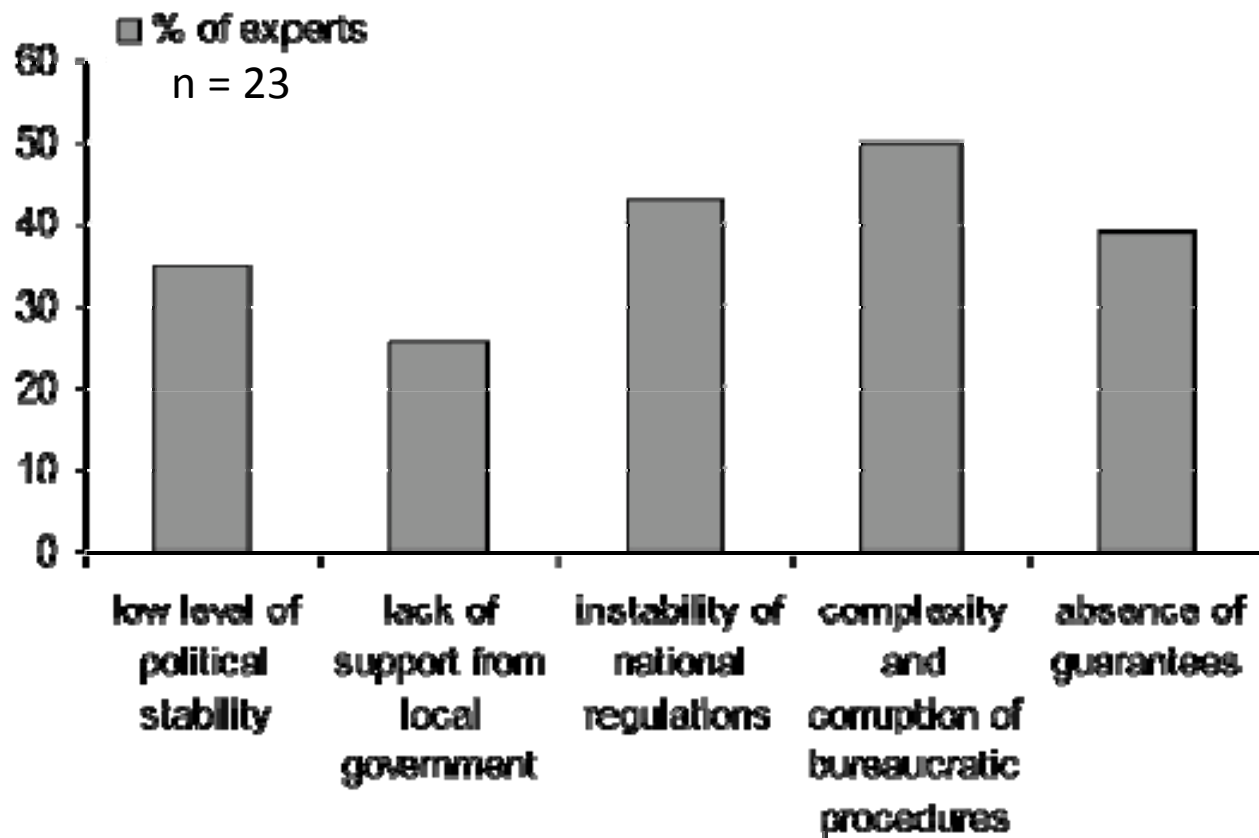
Despite existing drivers only few foreign direct investment (FDI) in North Africa

- FDI \$500 billion in 2007, in Africa only \$53 billion (UNCTAD, 2008)
- Investment mostly to oil and gas (MIGA, 2008)

IIASA research focus

- Risks and barriers for FDI in North Africa including generation and transmission
- Costs of reducing these risks

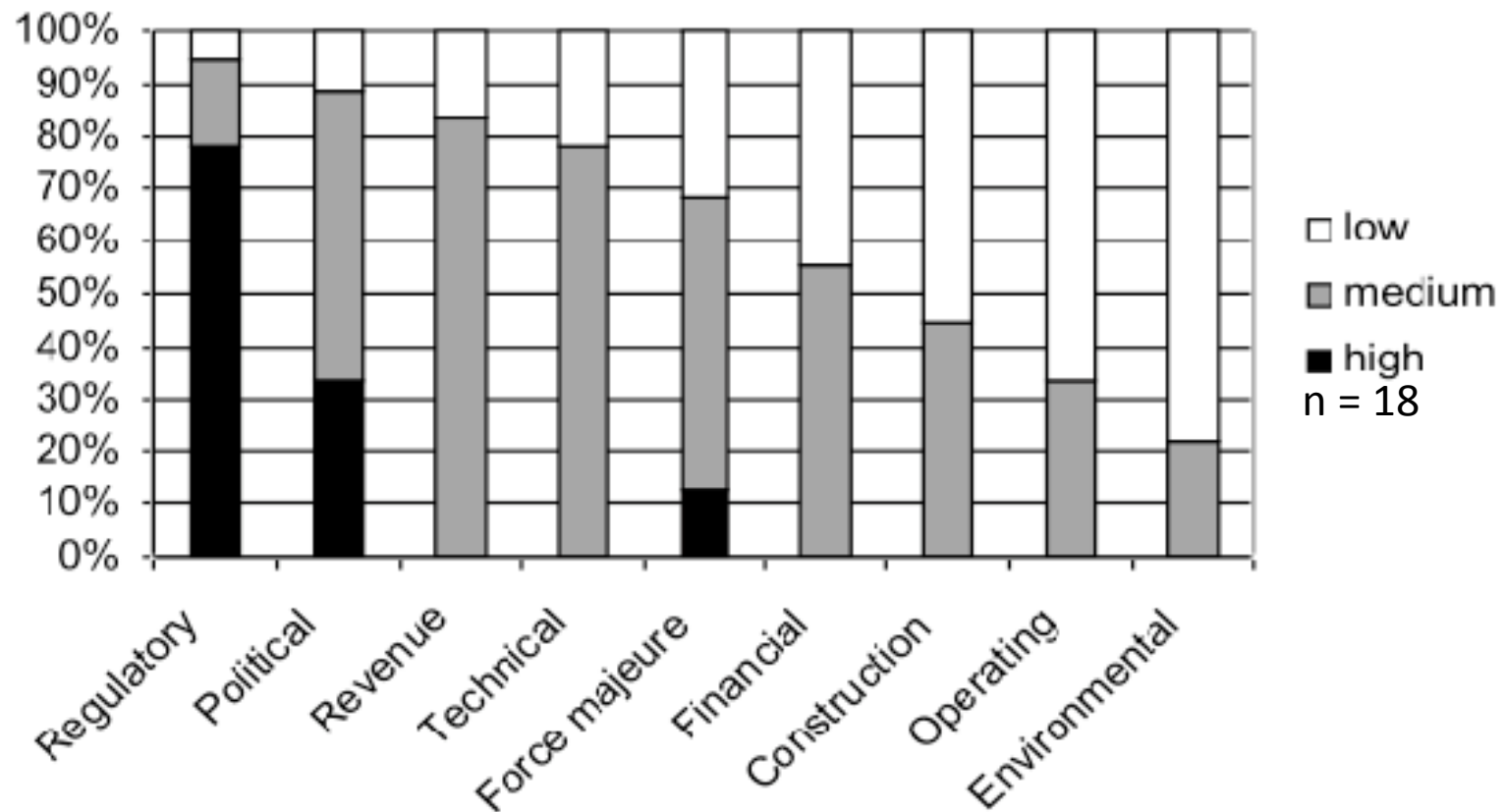
Risk is not where we thought it would be



Source: Komendantova et al., Energy Policy, 2010

Recent work on risk perceptions

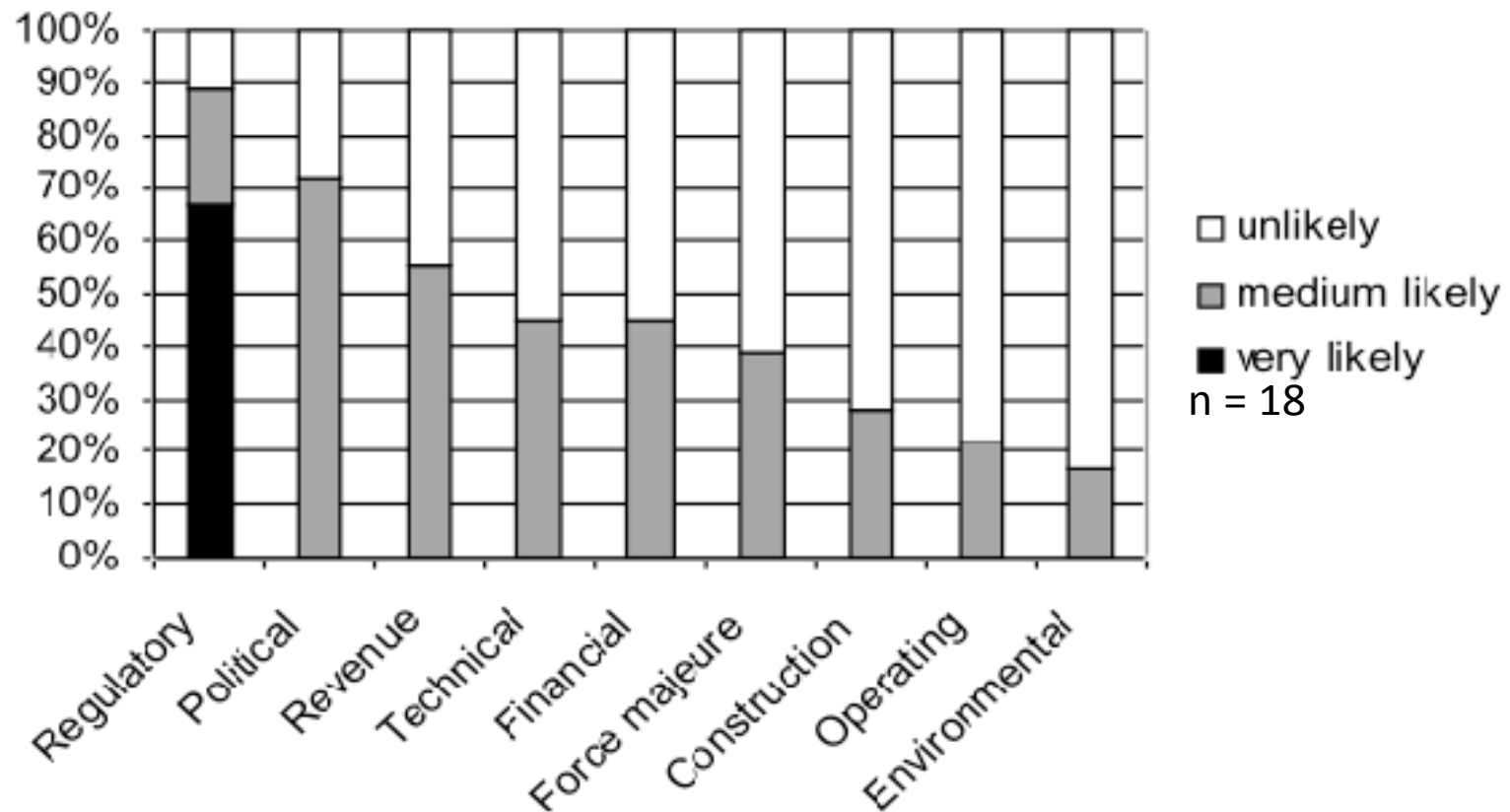
Seriousness of concern



Source: Komendantova et al., Energy Policy, 2010

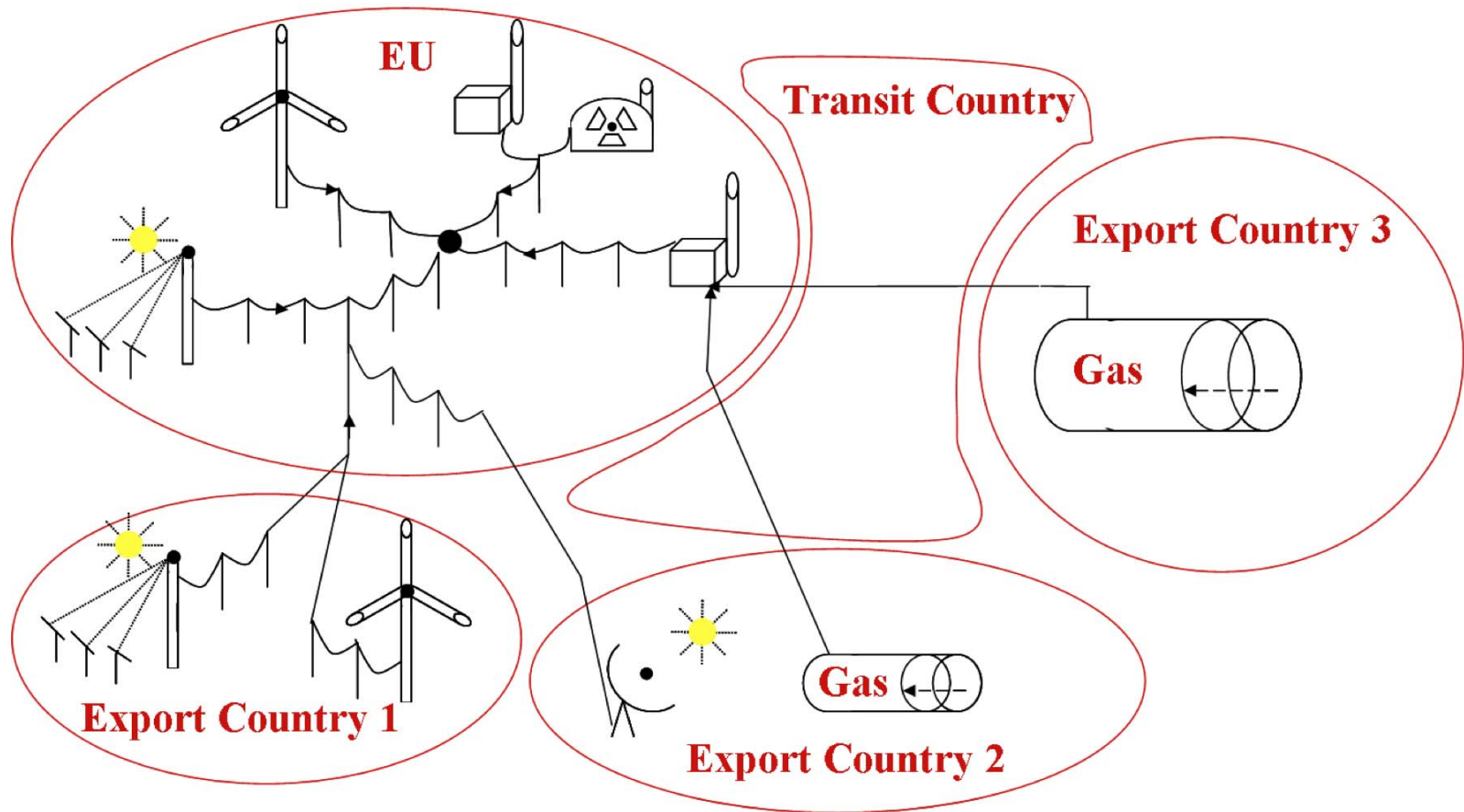
Recent work on risk perceptions

Likelihood to happen



Source: Komendantova et al., Energy Policy, 2010

Security of supply

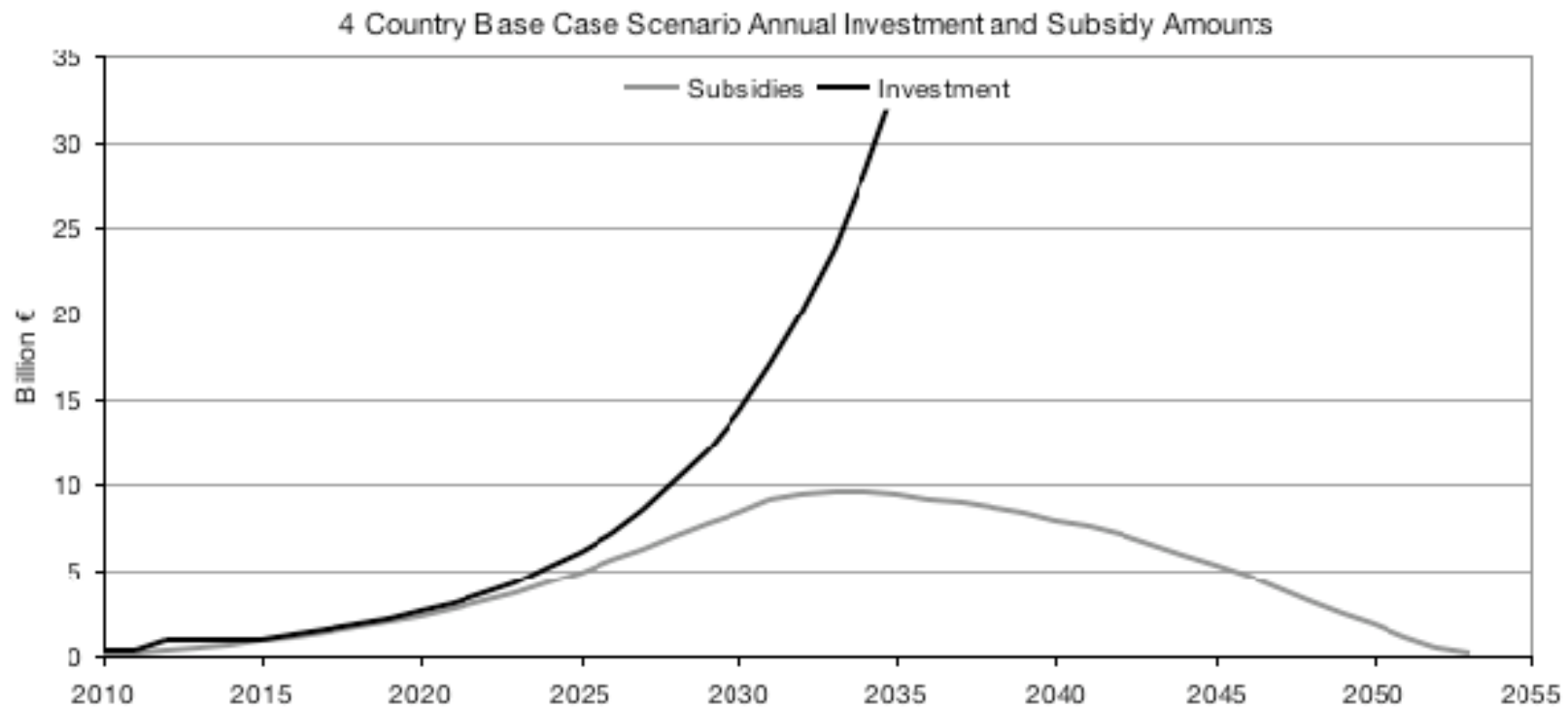


Source: Lilliestam et al., Energy Policy, in review

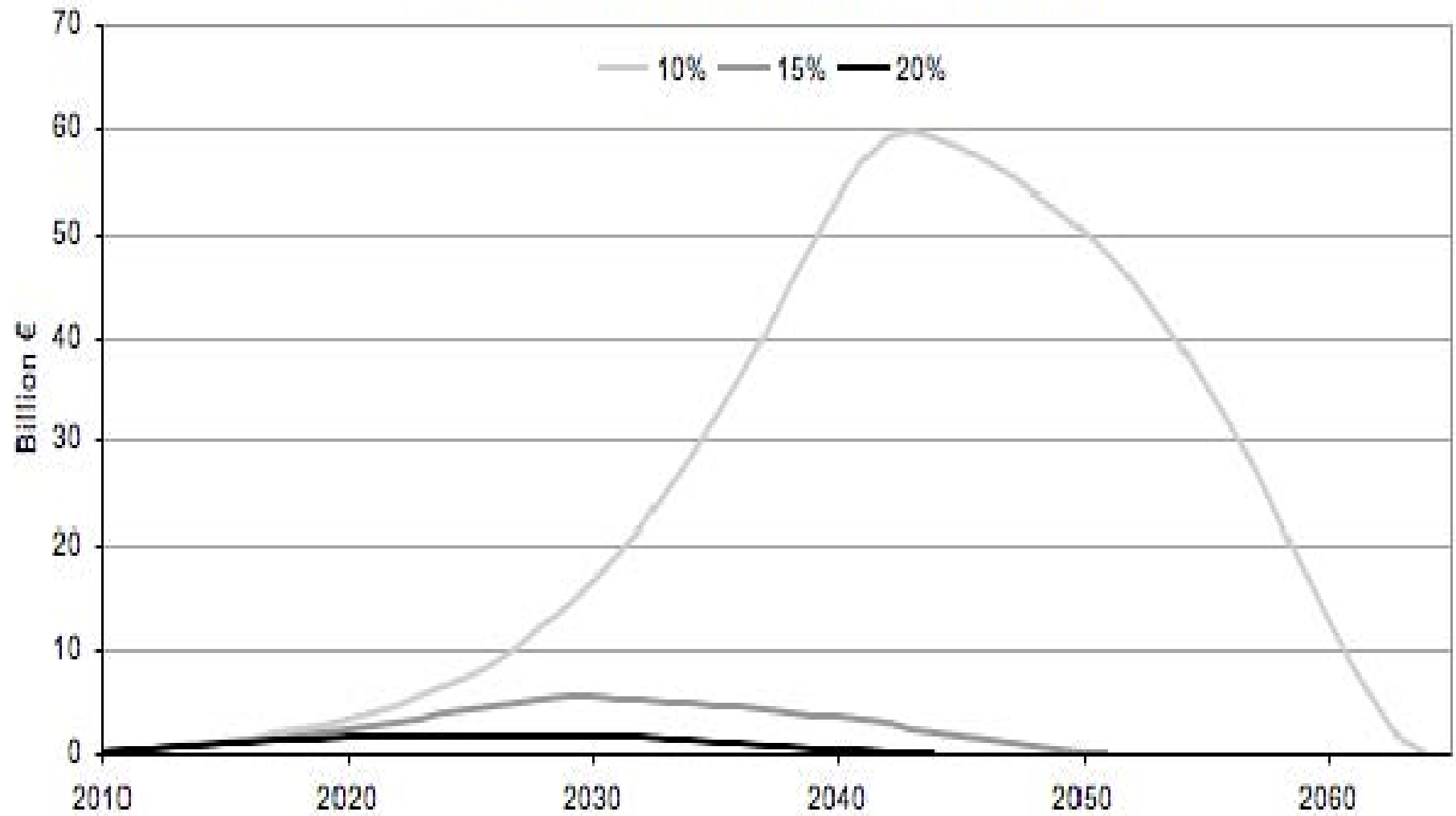
Risk perceptions are expensive

- Mediterranean Area Renewable Generation Estimator (MARGE) model
- Modeling the cost of perceived investor risk on CSP levelized electricity costs, and ultimately on a European support scheme

Baseline scenario



Total Annual Subsidies Required at Varying Learning Rates



Discussion

- Two kinds of risks need to be addressed: regulatory framework in North Africa and intermittency risks
- Measures to reduce risk will help to reduce costs of CSP technology deployment