Modelling for CBA: what to, why to, how to, how not to?

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What to model?

- Market modelling of infrastructure projects
- Diminishing indigenous production, increasing import need of Europe – infrastructure (PCI)
  - Well-connected mature market
  - Not a simple engineering problem
  - Infrastructure need is highly dependent on demand, political, regulatory inputs and assumptions
Why to?

- Define main risks and key drivers
- Define impacted stakeholders
- Show robustness
- Helps decision making for promoters
- Compare projects (PECI methodology)
  - Same set of projects come back (only TAP commissioned since 2013) – first mover advantage is with TAP
  - Project ranked positive did not turn negative and negative did not turn positive
  - Defining European infrastructure need – central planning approach – endogeneous investment modelling (SET-NAV)
How to model?

• Independent
• Transparent: ideal case – online PCI evaluation? Too complex problem
• Inputs and assumptions are crucial
  ‣ PRIMES, ENTSOG, IEA demand/production outlook as key driver > leads to completely different results
  ‣ Low infrastructure scenario > PINT and TOOT bringing the same results (PINT results are easier to interpret) – additional infra need of the project must be addressed!
  ‣ Political and regulatory assumptions: eg. Ukraine transit, limited TPA on infrastructure, delivery point of LTCs may create congestion
  ‣ Region definition (eg. Caspian region)
• Sensitivity is key
  ‣ Determine main risk factors
  ‣ Assign probability?
  ‣ No panacea for unexpected events
How not to?

- Reference selected should not be an outlier, must be based on realistic assumptions
- Some practical advice:
  - Verify the workings of the model on historical data
  - Set the reference independently
  - Define basic set of sensitivities (the more the better)
    - Demand
    - Supply
    - Key infrastructure setup
    - Lifting regulatory and trade constraints
- No cherry picking from beneficial scenarios
Thank you for your attention

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