

Using Back-of-the-Envelope Calculations in *Ex Ante* Evaluations

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Why do ex ante evaluations?

- **Definition**

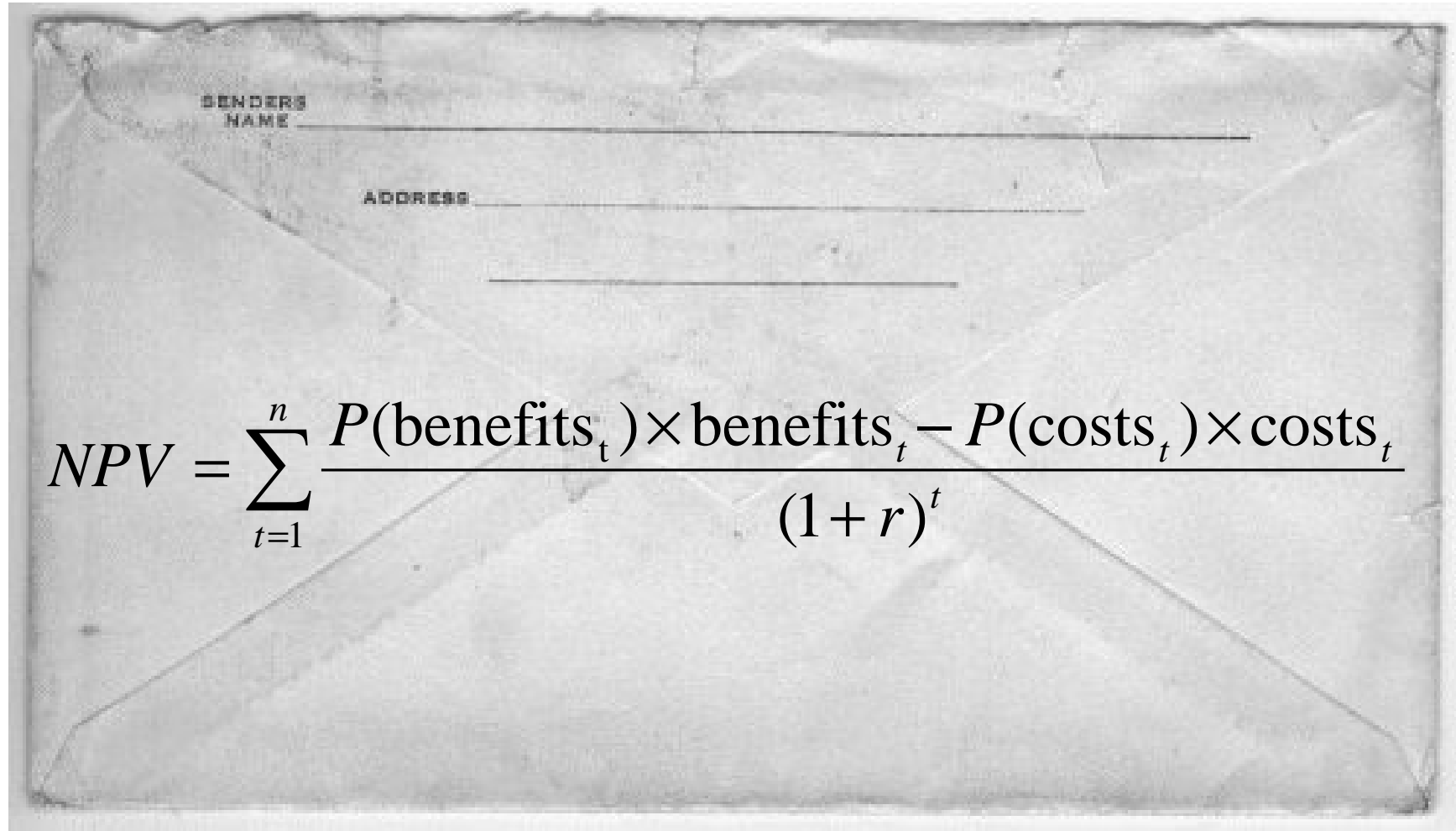
- Assessment of the likely result of a project before its initiation

- **Purpose**

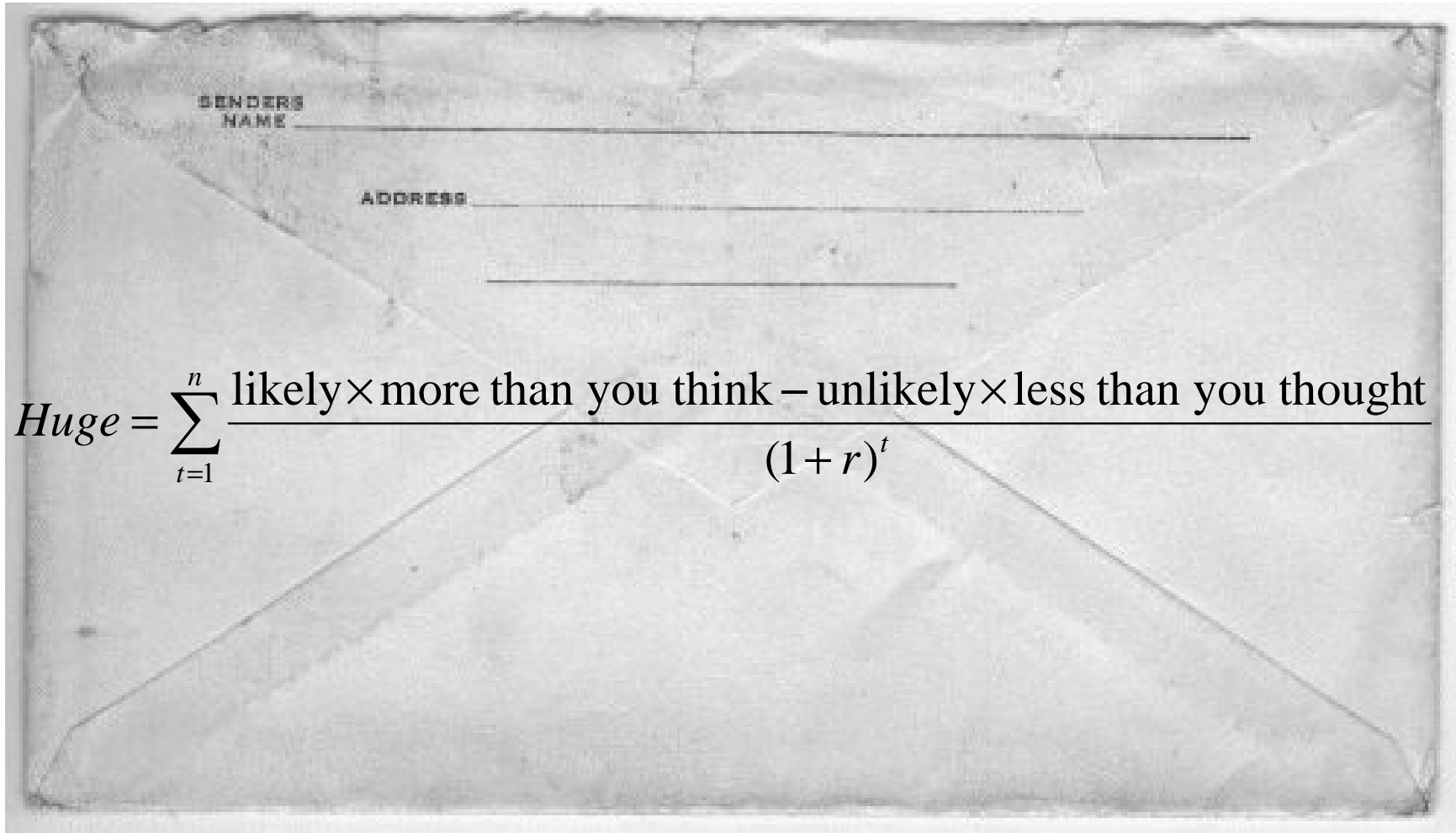
- Improve project design
 - » Test logic
 - » Identify critical design elements
- Provide basis for informed funding decision
 - » Likely to yield positive net benefits in terms of welfare gains
 - » Clear justification for WBG involvement



A simple back-of-the-envelope calculation...



... and a simple answer



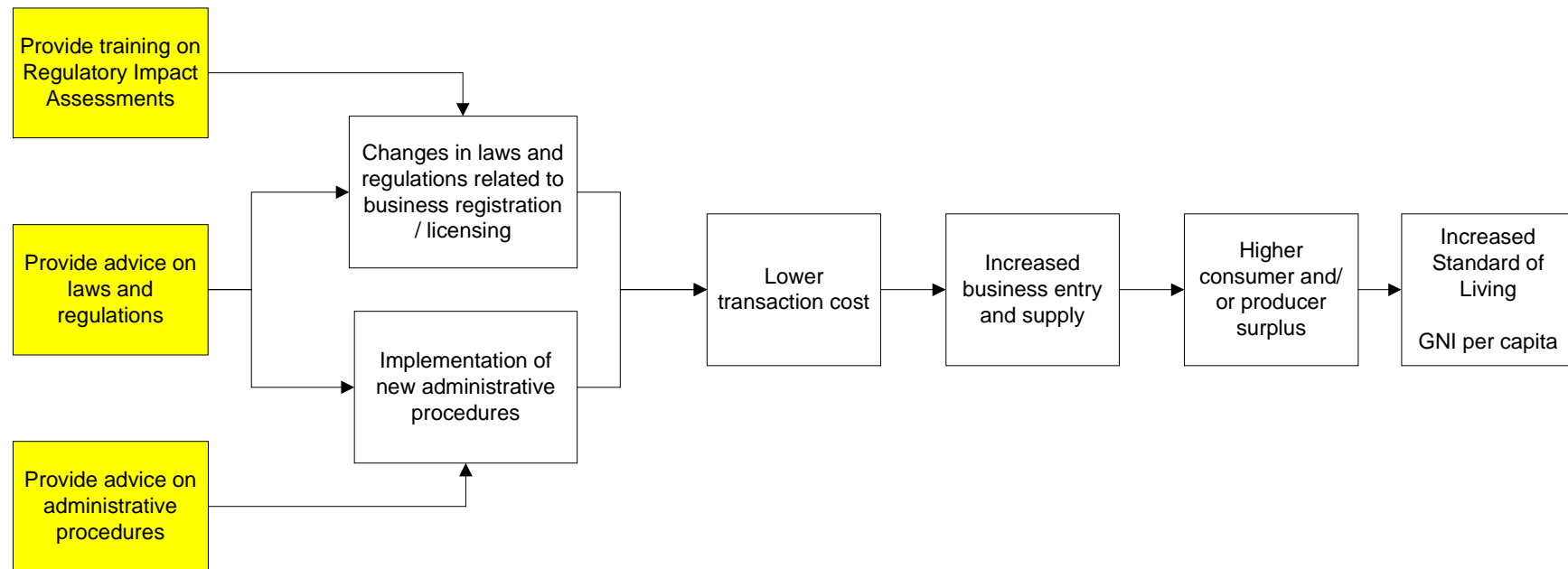
***Ex ante* evaluations should start with a clear statement of need**

- **What is the problem that the project is intended to resolve?**
- **Why are markets or existing institutions unable to resolve the problem?**
 - Market imperfections
 - Institutional failure



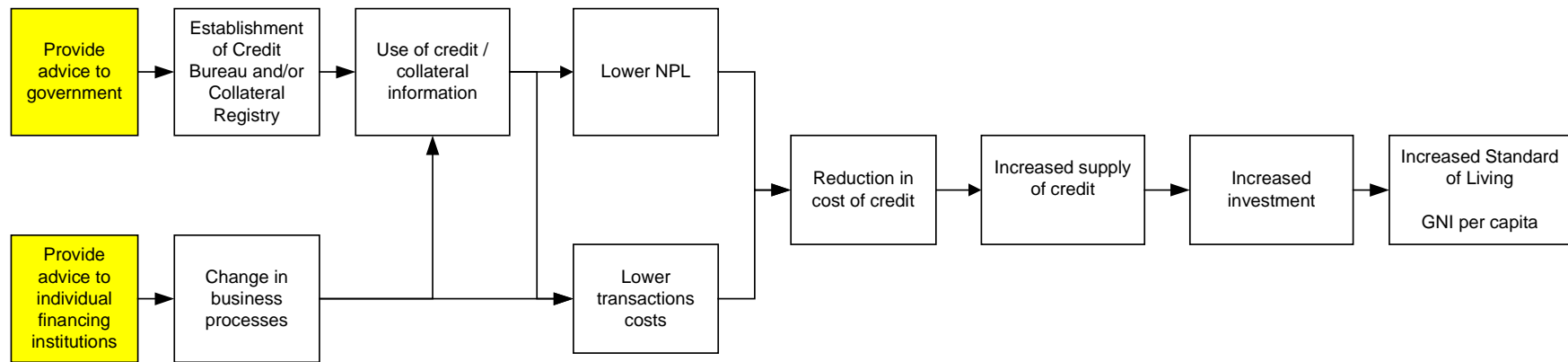
The proposal should specify *how* the project will lead to the attainment of stated goals.

Business Registration and Licensing Reform

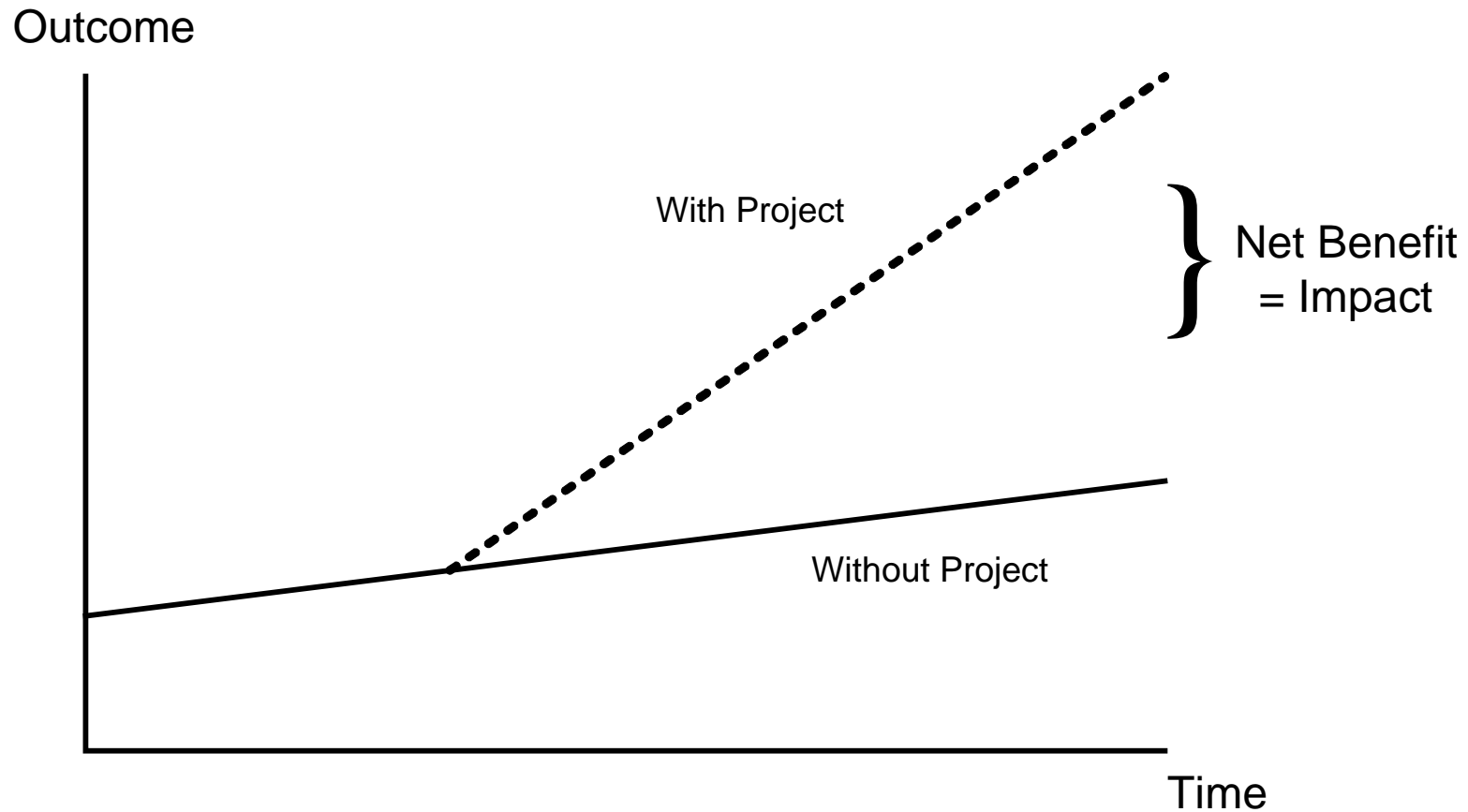


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Access to Finance



Net benefits should be expressed in comparison to a baseline projection



Estimates of efficiency gains and distribution effects require a complete accounting

- **Benefits are favorable economic effects and costs are opportunities foregone**
- **Three key questions:**
 - Who will win and who will lose from the project?
 - Is it theoretically possible for winners to compensate the losers and still be better off (pareto optimal)?
 - How will the poor or other disadvantaged group benefit?

Group	Benefits	Costs
WBG / Donors		Project expenditures
Partner off-budget contributions		Project expenditures
Government	Tax and fee revenues	Administrative costs
Direct beneficiaries	Revenues	Capital equipment Purchased inputs Labor Taxes and fees
Other affected parties	Income gain	Income loss
Social welfare	Consumer surplus Producer surplus	Deadweight loss



Two potential sources of data

- **Conduct original research**
 - but may be too expensive and time consuming
- **Use results from previous *ex post* evaluations**
 - but only if generalizable

- **Some things can't be quantified before the project**
 - Impact of establishing an RIA capability

- **Other things can't be monetized, but may still be important**
 - Political empowerment



Recognize and account for uncertainty in the analysis.

- **The commitment and absorptive capacity of clients and beneficiaries are uncertain**
- **The value of benefits and costs generated by changes in laws, regulations, and procedures are also uncertain**
- **Outcomes should be based on most plausible value or certainty equivalent**
- **Key assumptions should be presented**
- **Use sensitivity analysis to identify points where the decisions to go ahead with the project would switch**

- **Note that institutions tend to be risk-averse**

$$(0.001)(\$100,000,000) < (.1)(\$1,000,000)$$



So what to do?

- **Describe the causal link between activities and outcomes**
- **Identify major categories of benefits and costs**
- **Quantify as much as possible and highlight other significant unquantified consequences**
- **Acknowledge uncertainty**



Use the analysis as part of decision-making.

- **Analysis supports but does not eliminate judgment.**
- **Key questions:**
 - Is there sufficient evidence that the net social benefits are likely to be greater than zero and greater than other alternatives?
 - Is this something that the organization has the competency to carry-out successfully?
 - Are there are considerations that need to be taken into account?
 - » Resource requirements
 - » Geographical diversity
 - » Client relationship building
 - » Risk tolerance
- **Estimates of probabilities, benefits and costs should be updated during the course of the project.**

