

A Multiple Account Approach to Benefit-Cost Analysis

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Definition and Role of BCA

- An evaluation of the changes in resource allocation resulting from a particular “project” where a “project” may include:
 - A public or private investment project
 - A change in laws, regulations or rules
 - A broader program or policy of one or more levels of government
- Role is to *inform* public policy debates
 - Monetizes costs and benefits
 - Doesn't necessarily resolve debates

Traditional BCA

- Identify benefits and costs of a project
 - Aggregate to a single bottom line: net benefit
 - Provides simple ranking of alternatives
 - Typical approach: net benefit >0 \Rightarrow proceed with project
 - Opaque distributional consequences
- Social Benefit-Cost Analysis performs a market valuation of a policy or project, adjusting for social benefits and costs not reflected in market prices and costs.

Social versus Private

- Determined by the ***reference group***: the set of (only those) persons whose gains and losses are to be included as directly relevant to the project decision
- **Social**: the project reference group is some social group as defined by residency, citizenship or similar criteria
- **Private**: the project reference group is some narrowly defined set of agents
- Separate private and social analyses may be conducted side-by-side for the same project

Social versus Private

	Social BCA says ACCEPT	Social BCA says REJECT
Private BCA says ACCEPT	Consistent recommendations	?
Private BCA says REJECT	?	Consistent recommendations

Multiple Account Analysis

- *Multiple Account Analysis* performs a market valuation, representing social adjustments through the use of various stakeholder accounts
 - Acknowledges the role of **normative judgement** in decision-making
 - Recognizes that **values** are complex
 - Recognizes **not all consequences can be incorporated into a single measure** of net benefit
 - **Transparently identifies complex and imprecise measurement** of social benefits and costs
 - Clearly displays the **distribution** of net benefits across different stakeholders

Multiple Account Analysis – Typical Accounts

- Market Valuation Account
- Taxpayer Account
- User or Target-Beneficiary Account
- Economic Activity Account
 - Labour Activity
 - Business Activity
- Environmental Account
- Social Account
- Other Considerations – the baseline

1. Start with the Market Valuation

Discounted cash flows
adjusted for net effects

2. Social Adjustments by Account

User account

Taxpayer account

Economic activity account

Environmental account

Social account

3. Determination of net benefits and distribution

Net present value of market
valuation and all social
adjustment accounts

Benefits of MABCA

- Evaluation framework to systematically identify:
 - Different types of costs and benefits
 - Relative value or significance of consequences to different affected parties
 - Transfers of value between stakeholder groups (i.e., taxes)
 - Trade-offs and critical values associated with alternatives
- Does not monetize all impacts
- Does not provide a single bottom line answer
 - Matrix summary of consequences
 - Describes pros and cons of alternatives
 - Describes distributional effects
- Transparency

Example: Rapid Transit Project

- Reference group key for determining effects in each account
 - City vs region vs province
- Market Valuation
 - Benefits: incremental revenues from new transit riders, avoided expenditure, subsidies
 - Costs: operating and capital costs, additional needed infrastructure
- Taxpayer
 - Benefits: incremental tax revenue, federal/provincial contribution
 - Costs: incremental expenditure, foregone tax revenue, subsidies, change in road maintenance
- User/Target Beneficiary
 - Benefits: faster commute (transit users and drivers), lower cost of commute vis a vis baseline
 - Costs: cost of commute

Example: Rapid Transit Project

- Economic
 - Benefits: incremental businesses near transitway
 - Costs: lost activity from taxis, lower fuel purchases
- Environmental
 - Benefits: air quality improvements
 - Costs: land disturbance from transitway
- Social
 - Benefits: less urban sprawl, reduced neighbourhood traffic
 - Costs: noise from buses

Conclusions

- Multiple Account methodology **transparently** and **explicitly** identifies trade-offs associated with projects and policies
- Helps inform policy debates
- Allows discussion of tradeoffs and distributional consequences