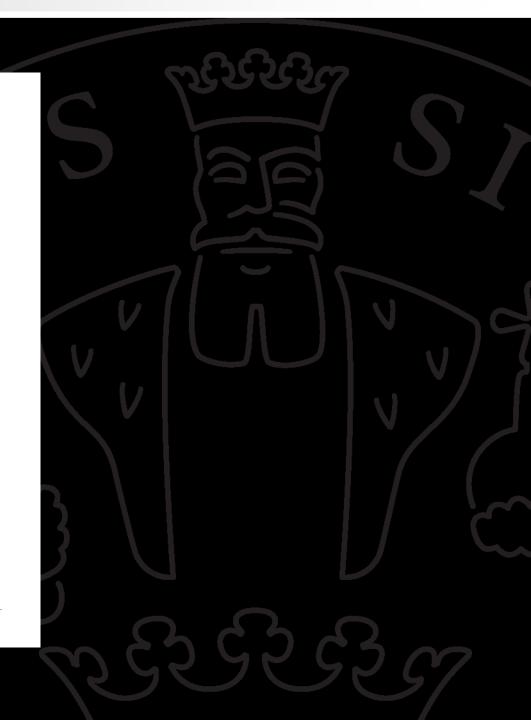
Cost-benefit analysis of transportation projects

Mogens Fosgerau Dpt. of Economics

UNIVERSITY OF COPENHAGEN





The role of the guidelines

Ministry of Finance

General guidelines General key figures

Ministry of Transport

- Manual
- Technical notes
- Spreadsheet CBA model
- Sector specific key figures

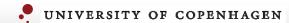
Discipline
Comparability
Transparency
Credibility - impact

Agencies

Agencies

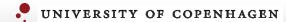
Consultants

Local authorities



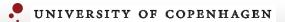
The MoT CBA framework

- Distinguish sectors
 - Public finances
 - Operators
 - Firms
 - Private individuals
- Account for costs and benefits at each sector
- Very detailed accounting of taxes and transfers
 - Universal spreadsheet model



Project types and challenges

- Traditional investment projects
 - Traffic infrastructure
- Taxation etc.
 - Fuel, vehicles, insurance
 - National road pricing, Copenhagen toll ring, Harbor Tunnel, Tolled bridges
- PPP
 - Many possible constructions
 - Leasing of rolling stock



MoT manual on distortion

Labor supply

Net wage

= gross wage

- income tax

- generalized transport cost

- Change in generalized transport costs for *commuting* and business have the same distortionary effect as net change in public finances
 - This ensures neutrality, it is not possible to game with tax distortion
- Generalized transport costs: money and time, risk
- Underlying theoretical and very simple GE model ensures consistency