

March 25 2025



Distributional issues in BCA: Introductory remarks

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*Conseil scientifique des méthodes d'évaluation
socioéconomique*

Paris, March 25, 2025

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01. The new scientific council on socioeconomic evaluation

Scientific Council on Socioeconomic Assessment Methods

Chair : Marc Fleurbaey
Vice-Chair : Luc Baumstark
Honorary Chair : Roger Guesnerie (Chair of Expert Committee 2016-2024)

Members :

Jean-Paul Bouttes, Dominique Bureau, Frédéric Cherbonnier, Karine Fiore, Jean-Michel Josselin, Yann Kervinio, Jean-Paul Ourliac, Aude Pommeret, Émile Quinet, Carine Staropoli, Frédérique Sachwald, Katheline Schubert.

SGPI representative : Pascal Gautier

FS supporting team : Nicolas Riedinger, Jincheng Ni



Missions of the Council

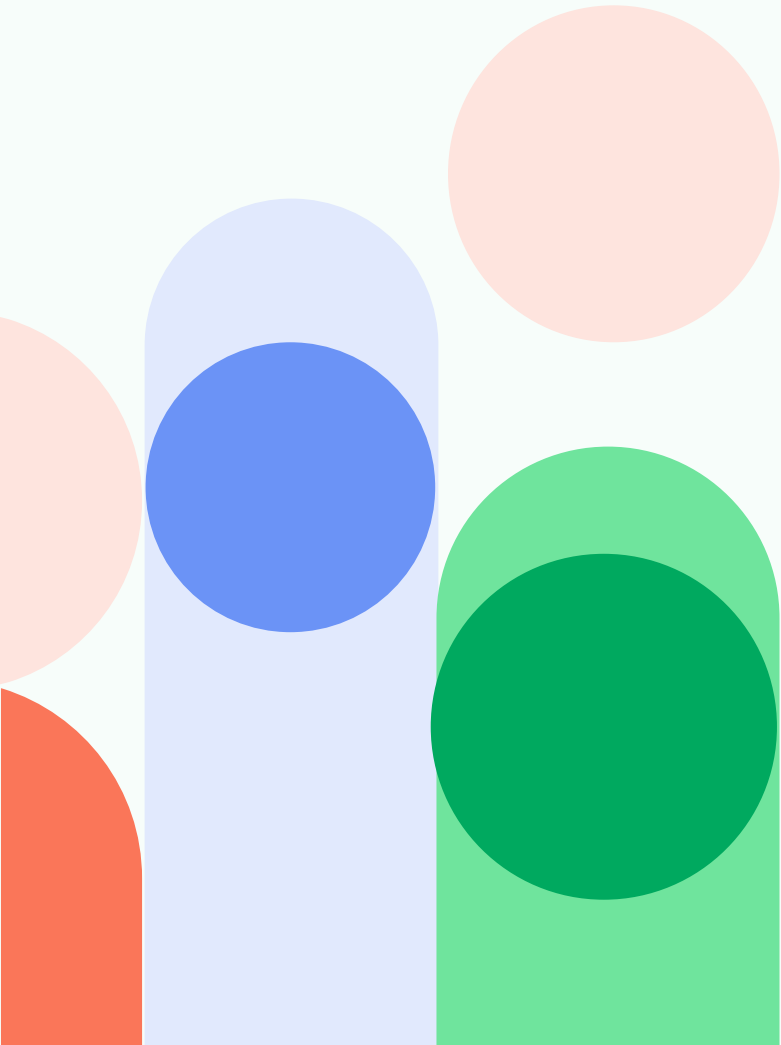
- Ensure the scientific quality of France Stratégie's publications related to the definition of the CBA methodology.
- Propose priority areas for the development and revision of the CBA methodology, identifying the necessary resources.
- Monitor developments and contribute to the debate on the issues, principles, and methods of CBA.
- Participate in international discussions on the subject and compare the methods applied in France with those implemented in other countries and international organizations.
- Help popularize and promote the practice of CBA, whether for investments or public policies, whenever it serves as a useful decision-making tool.
- Provide methodological support to the SGPI for its mission of developing a CBA reference framework by sector, making it easily accessible to project leaders.
- Contribute to the coordination of the network of socioeconomic evaluators for public investments.



Priority topics

- Environmental impacts
- Energy
- Innovation
- Buildings
- Distributive effects





02. Distributional issues are important and pervasive in project evaluation

1 - What is the fundamental aim of a Socio-Economic Assessment (SEA)?

1. Simple theoretical concepts but complex practice

« CBA is a policy assessment method that quantifies in monetary terms the value of all consequences of a policy to all members of society. »

In the end, does the project create social value for society or destroy it?

2. Some specific points to highlight

- The principle of general interest (not only individual preferences)
- The principle of exhaustiveness (Don't forget the main effects of the project : global assessment)
- The principle of project comparability (The ability to prioritize projects)
- The principle of applicability of the methods (concrete implementation in calculations)

3. In France, the law requires a SEA for all projects financed by the State

- It requires the analysis to go much further than just economic, financial, budgetary and technical considerations : what is the « social return » of the project
- Challenge for economists to be as close as possible to social expectations of the project (need to demonstrate benefits in a credible manner)



1 - What is the fundamental aim of a Socio-Economic Assessment?

4. What is expected by the Law (LFP 2012 and Decree 2013)

Article 2.III of Decree 2013-1211 states that:

...The socio-economic assessment file relating to any investment project [...] shall include in particular:

- ❖ a detailed description of the investment project, variants and alternatives to the investment project ;
- ❖ the main data on the size of the project and its provisional timetable;
- ❖ **relevant socio-economic indicators ;**
- ❖ **public policy performance indicators;**
- ❖ **a comparative analysis of financing methods;**
- ❖ opinions required by law and regulations;
- ❖ **risk mapping'.**



2- What exactly do we mean by distributional effects

1. The need for a broad view of the social impact of public investment (social effects)
 - Some investments (very often) have highly differentiated impacts on populations
 - Some investments contribute directly to social policies aimed at a particular target group (retired, unemployed, excluded, migrants, poverty level, etc.),
 - Most investments concern very different areas and territories with economic and social issues that are often specific
 - Public investment helps to reinforce social cohesion,
2. Considerations about vulnerable populations and territories that appear in SEAs
 - Economic situation
 - Health situation
 - Quality of life (environment, safety, etc.)
 - Quality of housing
 - Quality of access to essential public utilities (hospital, administrative services, university, culture)



3- The importance of practice and operational methods

1. The obligation imposed by law in 2012 to systematically carry out a SEA and a counter expertise of the SEA has led to significant progress in evaluation practices

Between 2013 and 2024 : 127 FSA of maior investment projects were subiect to counter expertise,

Domaines des contre-expertises	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total par domaine
Hôpitaux	6	2	6	2	3	3	2		1	3	1	5	34
Transports	1	4	5	1	3	1	3	5	4	1		1	29
Enseignement Supérieur		8						2	1			1	12
Justice					2		2		1	1	4	1	11
Recherche		1	1	1			1	1		2		1	8
Immobilier de l'État		1			1			1		1	1	5	10
Aménagement						2	2				2	2	8
Numérique			2		1				3	1			7
Culture		1						1				1	3
France 2030												3	3
Énergie		1							1				2
Total par année	7	18	14	4	10	6	10	10	11	9	8	20	127



3- The importance of practice and operational methods

2. Today, the social aspect is rarely, if ever, taken into account in evaluations even if the social dimension sometimes plays a significant role in motivating projects.

- Difficulty in assessing and characterizing them precisely (indicators, measures, etc.),**
- There's no clear reference method in the guides and recommendations to do it**
- Treatments are sometimes proposed, but not systematically**
- Some approaches have been implemented, but only on an experimental basis (results are weak and uncertain)**
- These first approaches are hampered by the lack of recognized methodologies, sector studies and french data**
- When a monetization is specified, it is difficult to integrate it directly into the NPV (possible double-counting).**



4 - A few examples of the challenges met in the social field, based on the questions raised in several studies

Project leaders are interested in making better use of the expected benefits of their project. They understand that it is in their interest to show that the project does not only have costs, but that it produces social value and provides answers to the ambitions of public policies.

- Operation of national interest to redevelop degraded condominiums (ORCOD-IN)
- Renovation of the “Centre Pompidou” in the center of Paris (Museum of contemporary art) which will be closed during a very long period
- Program to create 15,000 prison places (renovation and creation of new detention centers)
- Locating an administrative center (bringing together several administrations in one place) in a disadvantaged neighborhood
- A metro line with a highly negative NPV, which greatly improves access to several districts with strong urban regeneration potential
- ...



5 - A few ways in which practices can be improved

1. The SEA should not focus solely on the NPV of a CBA.

All ESE should be required to identify in advance all the impacts of the project on the population and on an area. The analysis should not be limited to qualitative considerations, but should draw up a systematic assessment differentiated by population category and quantify these effects systematically and in a similar way for all projects.

2. NPV= $\Sigma(Q.P)$: The fragility of the NPV often lies less in the price (economic value) used than in the measurement of the impacts to be taken into account.

Identifying and measuring the impacts in each economic sector requires major interdisciplinary scientific work (life sciences, sociology of behavior, medicine, engineering sciences, etc.).

3. The practicality of the proposed methods must be a priority.

- Enrich the economic calculation and reduce its costs at the same time. Don't over-complicate the calculation, be concerned about available indicators and data, etc.
- Develop tools that are easy to use. (Principle of proportionality)
- Produce readable and interpretable results.
- Ensure recognition of reference systems at the time of their construction and validation (appropriateness, acceptance of reference systems).
- Develop ongoing work to ensure that these guidelines are revised on the basis of practical experience and feedback.





03. Core methodology, variations and limitations

Cost-Benefit Analysis (CBA): a rotten core?

- The core principles come from compensation tests (Kaldor, Hicks): The net present value of a project is positive when the benefits exceed the costs — the winners could compensate the losers.
- Three problems:
 1. “A dollar is a dollar”: What if the winners are rich, the losers are poor, and no compensation takes place?
 2. Possibility of cyclical decisions: Reforms can keep improving the situation, and come back to the starting point!
 3. Everything is given a price: Health, life, social integration, nature...
- **Problem 3 is a red herring:**
 - Very few things have an absolute priority over wealth, and as soon as trade-offs are considered, the “price” of things can be elicited from individuals and decision-makers: willingness to pay (for a benefit)/accept (a compensation for a loss)
 - Assigning a monetary value to an object does not mean that this object can be traded on a market



CBA: The social welfare approach

- Problems 1 and 2 are simultaneously solved by the social welfare approach (Bergson, Samuelson)
- A social welfare criterion that depends on the level and distribution of individual well-being is the only approach that is consistent (avoids cycles) and respects individual well-being:

$$W(U_1, \dots, U_n)$$

- How does the social welfare approach differ from the core CBA approach?
 - For small projects, it only requires putting weights (marginal social value of money MSVM) in front of the willingness to pay/accept of winners/losers
- How does it differ from the Marginal Value of Public Funds (MVPF) approach?
 - It assesses whether a project improves on the status quo, whereas the MVPF is designed to select among projects
 - Social welfare is the basis for the MVPF calculus: every project must be assessed by its MVPF weighted by the average MSVM of the impacted people



Discussing objections: the weak ones

- “Weighting is rarely done”: Wrong, it is always done, since discounting is one of the applications of the social welfare approach — indeed, it is inconsistent to restrict weighting to intertemporal issues
- “Weights are arbitrary”: Wrong, there are standard approaches to computing MSVM, based on measures of individual well-being (objective, subjective, preference-based) and coefficients of inequality aversion — shortcuts based on income are commonplace
- “CBA is about efficiency, which should be kept separate from equity”: Wrong, because every project that makes winners and losers raises distributional, not just efficiency issues — the social welfare approach is the only game in town, if one wants to be rational and respectful of individual well-being



Discussing objections: the relevant ones

- Distributional impacts are hard to estimate, e.g., when they involve general equilibrium effects on prices, wages, real estate... or the multiple externalities of job creation.
- Social issues do not always come in the form of impacts on individuals' well-being, but as more diffuse effects, such as social interactions, culture spread, trust, or hard-to-monetize impacts, such as dignity and rights, deontological issues
- Impacts may bear on entities which have no known willingness to pay/accept (future generations, and the environment, insofar as it has intrinsic value)
- The population's willingness to pay may be endogenous to policy: large-scale programs may be more relevant for evaluation than piecemeal projects
- Behavioral and cognitive biases undermine the estimates, even the notion of subjective willingness to pay/accept
- It may be more politically expedient to use uniform values (e.g., for the value of life) than weights aimed at compensating for wealth effects on willingness to pay

Tentative lessons

- Applying differential weights to various impacted populations in the computation of the net present value has solid foundations, and is feasible in some cases
- However, one must be aware of the difficulties and limitations in the data on impacts and on monetized preferences (willingness to pay/accept)
- Documenting the key distributional impacts as a side information may be essential for the decision-makers





04. A few lessons from international experience

(Based on a review of guidelines and interviews)

- The documentation of distributive impacts, and their incorporation into the computation of a net present value, has rarely, if ever, been implemented
- However, guidelines do exist, with specific suggestions about how to introduce weights (typically, as some inversely proportional function of the income of the relevant subgroups) — see UK Green Book, EU guidelines, US revised A4/A94 (2023); or use uniform values (life, time...).
- These are rare cases, though
- They gloss over the question of inequality aversion and adopt a utilitarian (sum of utilities) approach, deriving weights only from diminishing marginal utility
- The revision of A4/A94 in the USA involved an interesting consultation process that is inspiring





05 Toward a revision of the guidelines in France

Is France lagging behind?

- Guidelines have been revised in 2017 and updated in 2023 with operational supplements
- They do include distributional considerations for discounting (growth rate), but not for other social issues
- We plan to include distributional issues in the next revision of the guidelines, and this conference is the first step of the consultation process
- Suggestions and advice, both from experts and from practitioners, are most welcome: please contact the members of the Council or France Stratégie (Jincheng Ni)





Program of the day

10:00 Round table: Identifying relevant social groups and estimating distributive impacts

Antoine Bozio, Paris School of Economics

Stefano Carattini, Georgia State University

Gabrielle Fack, University Paris Dauphine

Moderated by **Katheline Schubert**, University of Paris 1 Panthéon Sorbonne, Paris School of Economics

11:15 Round table: Distributive impacts in the computation of a net present value: International experience

Ben Groom, University of Exeter

Massimo Florio, Università degli Studi di Milano

Danaé Arroyos-Calvera, University of Birmingham

Doramas Jorge Calderon, European Investment Bank

Moderated by **Aude Pommeret**, University of Savoie Mont Blanc

12:30 Closing remarks : Marc-Antoine Lacroix, Director of Public Investment Evaluation, SGPI



Thank you for your attention