

Economic Analysis under the Fast Track Approvals Act

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June 2026

1 Introduction

This paper discusses options and makes recommendations for assessing project benefits under the Fast Track Approvals Act 2024 (FTAA). It specifically addresses the appropriateness of using cost benefit analysis (CBA) rather than economic impact assessment (EIA) that analyses impacts on gross domestic product (GDP).

The purpose of the FTAA is “to facilitate the delivery of infrastructure and development projects with significant regional or national benefits” (s.3). Consistent with this, the key analytical task for approving an application is to assess whether the project would have these “significant regional or national benefits” (s. 22(1)(a)). The Act does not define what is meant by *benefits* or *significant*, and it does not describe what is required for this assessment. As a result, different approaches have been used for individual assessments, and analyses provided by applicants have been subject to criticism of their methodology when panels or councils have different expectations.

In the absence of official guidance, Doug Fairgray has produced a paper which “considers assessment methods which are appropriate to meet the requirements of the Act for economic analysis.”¹ He suggests the Act’s purpose means “the outcome or benefit sought is **additional economic activity** ... on the basis that net additional economic activity is expected to generate a number of benefits and adverse impacts (costs), with a broad expectation that benefits will generally outweigh the costs of additional activity”² (emphasis added). We disagree. As noted above, the Act’s purpose is not to facilitate more economic activity. Rather it is to facilitate projects with significant benefits. The fact of economic activity does not define the benefits. The generation of significant benefits is what defines whether the economic activity is desirable. Understanding the meaning and nature of *benefits* is therefore crucial.

Building on economic theory and practice, this paper discusses options for analysing if there are “significant regional or national benefits” and sets out recommendations. These are personal views and they are provided for the basis of discussion.

2 Analytical Requirements under the FTAA

In addition to the criterion in Section 22(1)(a) for assessing if a proposed project would have “significant regional or national benefits”, two other Sections address the analytical task.

- Section 22(2) sets out matters the Minister may consider for the purpose of deciding if the project would have significant regional or national benefits”. This includes *inter alia*,

¹ Fairgray (2026), p3

² Fairgray (2026), p12

whether the project “*will deliver significant **economic benefits***” (22(2)(iv)) (*emphasis added*).

This suggests economic benefits are a subset of benefits not necessarily considered separately

- Section 85 sets out when a panel must or may decline an approval. The panel may consider whether there are adverse impacts that “***are sufficiently significant to be out of proportion to the project’s regional or national benefits***” (85(3)(b)) (*emphasis added*).

This suggests that adverse impacts are assessed separately from benefits, which suggests in turn, that benefits might be assessed in gross rather than net terms. This is somewhat problematic as it could imply a project is approved just on the basis of the positive side of the ledger with no consideration of costs.

We do not attempt to address the legal questions. Our intent in this paper is to address the following from an economics perspective only:

- how ‘*benefits*’ might be interpreted and analysed, assuming that a benefit (noun) is obtained when people benefit (verb) from the project. This would not occur if there are greater costs/adverse impacts than gross benefits, such that the assumption is of net benefits;
- what ‘*economic*’ might mean as a benefits descriptor; and
- methodologies for analysis of benefits.

3 Benefits, Utilitarianism and Economic Benefits

3.1 Benefits and Utilitarianism

The concept of benefit and its definition, particularly as it applies to a community of people, has been well discussed within public policy, both in theory and practice. Moral philosophers from the 18th and 19th Centuries asked what is the standard by which we judge whether an action (or law) is right or good? Jeremy Bentham, regarded as the father of utilitarianism, suggested the good decision is that which produces the greatest happiness for the greatest number,³ and by happiness he notes that he means the same as something that produces a *benefit* (or utility, advantage, good and pleasure).⁴

Welfare economics developed as the branch of economics concerned with how limited resources can be used to produce the most benefit for a community of people.⁵ Building on the work of Bentham and others, Italian economist Vilfredo Pareto (1848-1923) developed a criterion under which decisions are regarded as unambiguously good when at least one person

³ Bentham (1776), p.ii. see discussion in Galbraith (1987); Heilbroner (1953)

⁴ Bentham (1781), I(III)

⁵ Johansson (1991)

benefits and no-one is worse off.⁶ This Pareto criterion is difficult to satisfy as very few decisions have unambiguously positive outcomes for all. Adverse impacts on at least some people are inevitable, particularly for projects or policies with significant effects. In response, Nicholas Kaldor and John Hicks (writing in the 1930s) suggested an alternative decision criterion under which there can be a community benefit (utility improvement) even if some ‘lose’ (face costs) from a decision, provided the ‘winners’ could fully compensate the ‘losers’ and still be better off than without the policy or project.⁷ Under this *potential Pareto* criterion, compensation of losers does not have to be paid; what is important is that it could have been.⁸ The test is simply whether society is made better off in aggregate. Total wellbeing is maximised at a point defined as Kaldor-Hicks efficient, where efficient is used to mean ‘no waste’ – no other allocation of resources could have obtained more utility.

More recently, “*wellbeing*” has been a term used widely with the equivalent meaning to utility or community benefit. The New Zealand Treasury has adopted a Living Standards Framework (LSF) to measure impacts on wellbeing as the metric for the things that matter most for current and future living standards.⁹

What contributes to wellbeing can be highly diverse. In Treasury’s LSF, indicators of wellbeing have included housing crowding levels, housing affordability, health status, suicide rates, education levels, cultural capability and belonging, extent of social networks, in addition to income levels and employment rate.¹⁰ Other have included “*such qualitatively diverse goods as physical and mental health, freedom from pain, a sense of meaning, culture, clean air and water ...*”.¹¹ Wellbeing improvements result from anything that a person or a community would unambiguously want more of and not want less of, because these goods or outcomes make people’s lives better. Increases in any of these many factors can be considered a regional or national benefit.

Utilitarianism is the philosophy in which a decision is regarded as good if it is beneficial. It is not always the basis for good public or private decision making. Sometimes other issues beyond net benefits are important. This includes protecting people’s existing rights to use their property for their rather than community benefits, and concern with distribution of impacts, particularly on those most vulnerable. Within the FTAA, other issues taken account of in decisions include Treaty settlements and Government Policy Statements. However, in this note we are concerned only with the decision criterion relating to benefits which is taking a utilitarian stance.

3.2 Economic Benefits

The primary concern of the FTAA is whether the proposed project will produce regional or national benefits, with a secondary consideration of *economic* benefits. To understand what an economic benefit might be in contrast to benefit in general, we first explore the meaning of economics.

⁶ Johansson (1991)

⁷ Strictly speaking this is the criterion proposed by Kaldor (1939). Hicks (1939) proposed a similar criterion in which the losers were not willing to pay (or ‘bribe’) the winners sufficiently for them not to act.

⁸ Johansson (1991)

⁹ The Treasury (2021)

¹⁰ See Appendix 2 in The Treasury (2021)

¹¹ Sunstein (2018), p23

The word economics stems from the Greek word *oikonomia*, meaning management of the household (*oikos*). It is similar to *ecology*, which is formed from the combination of *oikos* and *logos* (study or reason), ie the study of the household. In both cases, the household refers to the entire *household* of humanity, ie the world in which people and other things live. From this perspective, everything that contributes to wellbeing is within the domain of economics and *economic benefits* has the same meaning as *benefits*.¹²

Economists do not have a single definition of their subject¹³ but most definitions are similar to or slightly expanded on Mankiw's: "the study of how society manages its scarce resources",¹⁴ where scarce means "what everybody wants adds up to more than there is."¹⁵ But this is descriptive of the subject matter of economics; it is what economists describe as *positive economics*. To understand *economic benefits* requires an understanding of the content of *normative economics*, ie the claims from economics of how the world should be or what makes it better. Utilitarianism provides one view of normative outcomes – using scarce resources to maximise utility or wellbeing in its widest sense. Other proposals include:

- Variants of utilitarianism with social welfare functions that, for example, give greater weight to outcomes for lower income households.¹⁶ For example, philosopher John Rawls suggested that in the pursuit of wellbeing improvements, the only wellbeing that matters is that of the poorest group.¹⁷
- An essentially value-free philosophy suggesting no community aspirations. Rather, private property owners should have rights to use their own property and other resources as they wish,¹⁸ regardless of community effects. From this perspective, utilitarianism is seen as a socialist philosophy because of its interest in the greater wellbeing of all people. By definition, this approach provides no guidance for Government decisions on how to generate significant regional or national benefits.

Most other examples of normative economics are variants on these approaches. None see narrow ideas of economic growth or of more economic activity as any kind of economic objective. At most these would be regarded as instrumental or prerequisite objectives in achieving the deeper wellbeing or property right objective. The benefit is not greater industrial activity; it is the result of that activity.

¹² Consistent with this view, Fairgray includes words from an Environment Court decision in the Okura Holdings Ltd appeal (2019) which held that:

In terms of benefits and costs, we find that the non-market costs of the effects of the OHI development on the biophysical environment at Okura (including landscapes, avifauna, freshwater and marine ecology) should be taken into account in the overall economic evaluation of the proposed development. This approach is consistent with the findings of the Court in the TKC Holdings case referred to in the Council's opening legal submissions. (Decision No. [2018] NZEnvC 87, para 519 as cited on p19-20 of Fairgray, 2026)

Confusingly, elsewhere Fairgray suggests a narrower definition of economic, suggesting that "*the gross economic benefit*" of a project is the "*total positive **financial** value generated by a project or policy, and measured by changes in output, GDP, incomes, jobs and productivity*" (emphasis added) (p11). While in another place he states "*An analysis to examine and compare the benefits and costs or positive and negative effects on the biophysical environment is no less an economic assessment than a comparison of a project's effects on \$ GDP*" (p19).

¹³ Backhouse and Medema (2009)

¹⁴ Mankiw (2021)

¹⁵ Sowell (2015)

¹⁶ See Adler (2016; 2019)

¹⁷ Rawls (1971)

¹⁸ See, for example, Cordato (2004)

To limit effects only to those that occur within markets, leaving wider effects on wellbeing, particularly those on the natural environment, outside of the domain of Section 22(2) *economic benefits* is at odds with the origins of economics and with how economists understand their own discipline.

4 Measurement Approaches

4.1 Cost Benefit Analysis

4.1.1 CBA for Measuring Net Benefits

The underlying idea behind CBA is no more than that proposed by Benjamin Franklin in 1772 of listing all the pros and cons of a decision.¹⁹ Since then it has developed into a more formalised technique when combined with the criterion of Kaldor-Hicks efficiency. The pros (or benefits) are the improvements in total community wellbeing, ie the sum of changes in wellbeing for every individual in the community. The cons (or costs) are the aggregated reductions in community wellbeing. CBA is the practical tool for applied utilitarianism in which all effects are regarded as economic.

CBA's do not usually use direct measurements of changes in wellbeing (although they could if such data were available, eg the stated quality of life of people before and after a decision). Rather CBA's assume that the changes in wellbeing that would result from different choices can be estimated from market prices of goods and services, and/or from estimates made from studies of revealed or stated preferences. This in turn assumes a set of conditions such that consumption of goods/services at prices observed in a market, or estimated via non-market studies, are proxies for changes in wellbeing.²⁰

A reduced form of CBA could be used to derive a sub-set of impacts measured only using monetary impacts derived from market prices, and this might be assumed to be the estimate of (net) *economic benefits* for the purpose of Section 22(2), but CBA's strength is that it derives all effects on wellbeing and is thus providing an estimate of total regional or national benefits as required under Section 22(1).

While acknowledging the usefulness of CBA and its suitability for assessing the net benefits of a project, Fairgray suggests it has limitations and is not consistent with the requirements of s85(3).²¹ He suggests CBA's limitations arise when the assessment is from a whole-of-economy perspective, by which he means the wider flow-on effects beyond the project or the direct market that the project is part of. Fairgray suggests EIA using input-output (I-O) or computable general equilibrium (CGE) analysis "*may be more appropriate to examine the effects of a project which will impact economic activity more generally, to generate direct and flow-on regional and national effects.*"²² The trouble with this suggestion is that, even if there are wider effects,

¹⁹ Beckerman (2017)

²⁰ It assumes prices in competitive markets reflect marginal willingness to pay (WTP) and that marginal WTP (as also estimated in non-market studies) reflects marginal wellbeing.

²¹ S85(3) requirements are noted in Section 2 above.

²² Fairgray (2026), p21

measuring them using GDP as the suggested measure of economic activity, does not provide a useful estimate of changes in benefits. We explore this more below.

4.1.2 General Equilibrium Effects in CBA

A partial equilibrium analysis assesses the impacts of a project or policy limited to a part of the economy. CBA is not inherently a partial equilibrium analysis, although in practice it is frequently applied in that way. For example, if assessing the impacts of a new industrial plant, a CBA might assess the value of the output (quantity times market price) as an estimate of benefit, set against the costs estimated as the costs of capital (including land), plus labour and other operating costs. There are assumed to be no effects in other sectors because:

- the effects are negligible, having little impact on prices or quantities in other markets, and/or
- because all inputs are priced at their opportunity cost of supply from efficient sectors, and outputs are sold into competitive markets in which the new output has no impact on price.

In theory, CBA is intended to be a general equilibrium technique. It aims to measure the total change in wellbeing across the entire economy or community caused by a project or policy. Unless projects are very large, CBAs in partial equilibrium mode will usually capture the majority of the impact. CBAs can be supplemented by general equilibrium analysis where the effects are expected to be significant, including price effects. However, to measure benefits, as discussed above, the useful output from a CGE model is not the change in GDP but a measure of the impacts on a measure of wellbeing. To examine this, we first we explore what GDP is measuring in contrast to the wellbeing outputs of a CBA.

4.2 Gross Domestic Product

Gross Domestic Product (GDP) has a quite different history and basis from the moral philosophy that underlies welfare economics. Following the great depression and two world wars, the US government wanted reliable measures of total economic activity to track the recovery. GDP was developed as an indicator of market throughput. It is estimated by adding together the value of all final goods and services that are produced and traded in a year or by adding the sum of all the payments to people in the form of wages or profits.²³

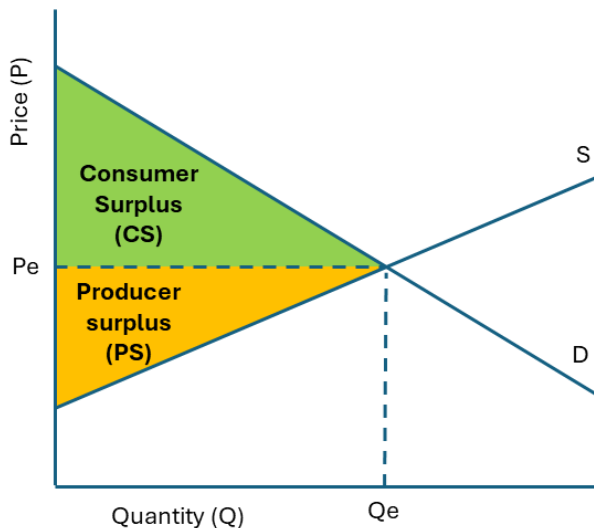
In contrast to CBA which attempts to measure changes in total wellbeing in a nation using proxies for wellbeing changes, GDP makes no pretence of measuring wellbeing. Thus, Fairgray's argument is not that GDP is a measure of wellbeing but that it is a measure of activity and that the activity results in benefits (or wellbeing). More activity more benefit.

To illustrate the differences, a supply-demand chart is drawn below for a single market (Figure 1). It shows the components of total economic surplus, which is the output of a CBA. The total surplus is made up of two components:

²³ Costanza et al (2014)

- The consumer surplus (CS) which is the sum of the differences between the market price of a good, assumed here as the market equilibrium price P_e ,²⁴ and the willingness to pay (WTP) for the good or service, represented by the downward sloping demand curve (D).
- The producer surplus (PS) equal to the sum of the differences between P_e and the marginal costs of production, represented by the upward sloping supply curve (S).

Figure 1 Economic surplus



The total (CS + PS) is the total economic surplus, which, with some further adjustments, is what is measured in a CBA as the total net social benefit of a project or policy. The adjustments made are as follows:

- The social costs of supply will often be higher than the private costs of supply because they include negative externalities, such as the impacts on the environment and/or health borne by people who are not necessarily participants in the market.
- The WTP for some goods may be higher than is expressed in a single market when there are positive externalities. For example, a new toll road will have benefits beyond the users of that road as it will reduce congestion elsewhere in the wider road transport network.
- The price paid by consumers for goods includes tax. This is a transfer payment within the economy from consumers to the Government and, unless it is internalising an external cost, is not part of the costs of production and results in less consumption of a good than otherwise would occur, or than is socially optimal.

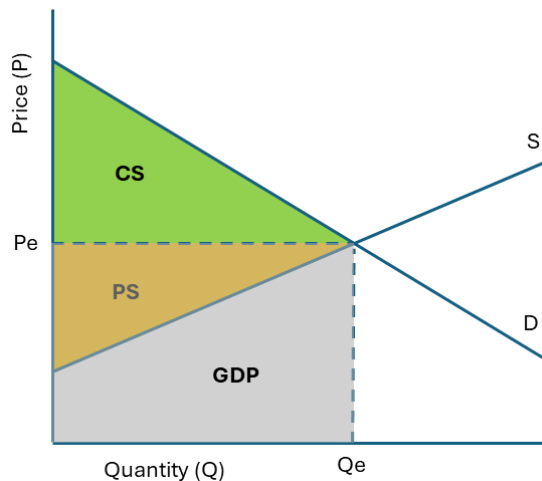
When estimating the impacts of a new project, the task is to estimate the change in total CS and PS for the community, taking account of these adjustments to market estimates. For the basis of the discussion here, we ignore these adjustments for the moment.

²⁴ At price P_e there are no more consumers willing to pay for the good or service, and no more producers willing to produce than represented by quantity Q_e .

In contrast to the estimate of economic surplus in CBA, GDP is calculating the rectangle estimated as $Q_e \times P_e$ (see grey area in Figure 2 which includes PS). This is calculated in one of three ways, all of which yield the same result. In a simplified, single-market economy:

- **The Expenditure Approach:** GDP measures total spending on final goods ($Q_e \times P_e$).
- **The Income Approach:** Every dollar spent by a buyer is a dollar of income for someone else. Under this approach, $Q_e \times P_e$ is broken down as wages to workers, payments for raw materials, and Gross Operating Surplus (profits) to business owners.
- **The Output (Value Added) Approach:** GDP sums the "value added" at each stage of production (Output minus Intermediate Consumption). For a final good, the sum of all value added across the entire supply chain scales up to equal exactly the final market price (P_e) multiplied by quantity (Q_e).

Figure 2 GDP vs Economic Surplus



This means GDP is measuring some things that are regarded as costs in a CBA, including the costs of producing a good. In a CBA these costs are counted as opportunity costs as it is assumed that all resources have other potential uses, each with a value, so using a resource for one use means it is unavailable for another. The estimation of costs includes some estimates of company profit: some level of profit is treated as the "normal" result from the investment of capital; only some additional or "super-normal profit" is counted in PS.

The Treasury's comments when comparing EIA with CBA are relevant. They note that EIA "differs from CBA in that it measures the economic impact of a project, that is to say the activity generated, rather than the net benefit created. **Because it measures the activity generated, it treats costs as a benefit**"²⁵ (emphasis added). The Treasury goes on to conclude that "EIA can provide useful contextual information for decision-makers, but it is not suitable as a tool for measuring the balance of costs and benefits of a decision to society".²⁶ Such a balance is exactly what the requirement is for the analysis under the FTAA.

²⁵ The Treasury (2015), p54

²⁶ *ibid*

4.3 Other Outputs from General Equilibrium Analysis

Above we suggested some outputs from general equilibrium analysis might be used to address the wider effects within a CBA. Specifically, there are different outputs from GE models from GDP that are more suitable as estimates of the benefits of a project. This includes:

- Private or household consumption;
- Real gross national disposable income (RGNDI); and
- Equivalent variation (EV) – but see discussion below.

In all cases, these measures capture financial impacts or market consumption, rather than wider impacts on wellbeing, such as from changes in leisure time or ambient environment.

4.3.1 Private Consumption

Private (or household) consumption is a common output from CGE models and refers to household expenditure on goods and services. Changes in private consumption are often interpreted as indicating changes in household living standards, on the basis that higher consumption generally reflects greater access to goods and services. Private consumption therefore moves one step closer to material living standards than GDP.

Private consumption is typically determined by household income, prices, and the behavioural assumptions embedded in the model regarding household preferences and expenditure patterns. Increases in real private consumption will result from policies or projects that increase productivity, wages, or purchasing power.

4.3.2 Real Gross National Disposable Income

Real Gross National Disposable Income (RGNDI) measures the real purchasing power of the income available to residents of a country after accounting for changes in international prices and income flows with the rest of the world. In practical terms, it reflects the amount of goods and services that national income can purchase. RGNDI differs from GDP because it incorporates:

- changes in the terms of trade (ie, changes in export prices relative to import prices);
- net income flows to and from overseas; and
- other transfers affecting national disposable income.

In CGE modelling, RGNDI is often regarded as a useful indicator of changes in national economic wellbeing because it reflects the real income available for consumption or saving. Compared with GDP, it provides a more comprehensive picture of the economic resources available to households.

Nevertheless, RGNDI still encompasses GDP and therefore other macroeconomic aggregates such as investment (gross fixed capital formation) and government consumption. In the short term, a dollar allocated to investment is a dollar that deprives private consumption. Eventually though that dollar enables more consumption. In a standard partial equilibrium CBA applied over time that does not present a problem, but in a CGE model, even a dynamic one, the end of the modelling period must include some investment, the benefits of which extend beyond the model's horizon. To address this, the utility function could include a variable that reflects the (discounted) value of future consumption based on current investment.

Government consumption is often actually consumed by households – for example health services, suggesting that private consumption does not fully measure utility. However, projects under the FTAA are unlikely to change levels of Government consumption such that changes in private consumption can be a reasonable proxy for readily monetisable changes in utility

4.3.3 Equivalent Variation

Equivalent variation (EV) measures the amount of income that households would be willing to pay, or would need to be compensated by, in order to achieve the same level of utility associated with a policy change or the effects of a project. In addition to changes in income and consumption levels, it also reflects changes in relative prices and the ability of households to substitute between goods and services in response to those price changes. For this reason, EV is generally regarded as a theoretically rigorous measure of economic wellbeing.

It is the CGE measure most directly aligned with the objective of estimating changes in aggregate wellbeing. However, EV is also sensitive to the assumptions embedded within the CGE model, including:

- the form of the utility function;
- assumptions regarding household preferences;
- substitution elasticities; and
- the level of aggregation used in representing households and commodities.

Another complication is that, when EV is calculated in a partial equilibrium, the change in income required for the calculation is entirely hypothetical. In CGE modelling, however, a change in income has to come from somewhere – higher wages, a tax change, social benefit income etc. Each mechanism would be likely to yield different EV estimates due to general equilibrium effects. Some sort of mean EV, that might be close to the change in private consumption, could probably be derived by running many scenarios, including covering the above bullet points..

Private consumption and RGDNI are primarily measures of resources or opportunities, whereas EV is a measure of utility change derived from preferences.

Table 1 Summary of CGE Outputs that Approximate Wellbeing Measures

Measure	What it measures	Main strengths	Main limitations
Private consumption	Household spending on goods and services	Intuitive; closely linked to living standards	Ignores leisure, distribution, non-market effects, environmental quality
Real Gross National Disposable Income (RGDNI)	Real purchasing power of national income available to residents	Captures terms of trade and income flows better than GDP	Still largely income/consumption-focused rather than utility-focused
Equivalent variation (EV)	Monetary value of the change in utility from a policy or shock	Directly linked to utility theory and consumer preferences	Depends heavily on model assumptions and utility specification

There are few if any examples of EV as an output of CGE analysis in New Zealand, but examples where private/household consumption (more common) or RGDNI (less common) have been reported in recent New Zealand studies include the analysis of the impacts of meeting

greenhouse gas (GHG) emission targets²⁷ and of dietary improvements.²⁸ Household consumption expenditure is reported as part of StatsNZ's national accounts data.

4.4 Models

The different potential measures of general equilibrium effects suggested in Section 4.3 are outputs from a CGE model. Often simpler approaches using I-O based multipliers have been used for FTAA analyses. An I-O model may:

- estimate changes in household income arising from a project or policy;
- then apply fixed consumption propensities or multipliers to estimate induced household spending.

However, these estimates are fundamentally different from CGE estimates of private consumption because standard I-O models:

- do not model household utility maximisation;
- do not allow relative prices to change;
- do not model substitution between goods; and
- generally assume fixed production coefficients and unconstrained resources.

As a result, I-O analysis can estimate induced consumption expenditure effects, but it cannot robustly estimate welfare-related changes in consumption possibilities under changing prices and resource constraints.

I-O models cannot be used to estimate RGNDI or EV.

4.5 Combined Approaches

Fairgray proposes a combined approach to analysis involving CBA (because it can estimate the full range of benefits and costs) and EIA (because it can measure additional activity, including the wider effects in the economy). However, he appears to assume the combination provides the outputs of a CBA to estimate the broad range of direct effects on wellbeing and wider effects in the economy using GDP. This would give decision makers two different types of information, which cannot be readily combined.

We suggest the better approach is to either:

- Use CBA alone, assuming that the wider effects are negligible; or
- If there are expected to be wider effects, estimate these impacts to combine with CBA results using CGE analysis that calculates impacts on private consumption, RGNDI or EV.

5 Summary and Recommendations

Building on the musings and publications of moral philosophers, there is a long history in policy analysis of using utility or wellbeing as a definition of benefits to a community. Measuring changes in wellbeing is formalised in CBA but CBA practice is frequently limited to direct effects

²⁷ NZIER (2019); Winchester and White (2022)

²⁸ NZIER (2025)

of a project or policy in a partial equilibrium framework. Such analysis assumes that wider effects, via changes in prices and/or demand will be negligible at most, and readily ignored. However, CBA does not have to be implemented as a partial equilibrium technique. Wider effects can be measured using outputs from other models, particularly CGE models. The outputs required are those that measure wellbeing effects or, as a proxy, the impacts on final consumption by households. GDP impacts are not a suitable measure of national or regional benefits.

From this perspective, we suggest that the approach used to estimating the benefits of projects proposed under the FTAA are either:

- use CBA alone, assuming that the wider effects are negligible; or
- If there are expected to be wider effects, estimate these impacts to combine with CBA results using CGE analysis that calculates impacts on private/household consumption, RGNDI or EV.

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