

Cost-Benefit Analysis in Public Project Appraisal

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The main problem in the most public projects appraisal is their uneconomic nature and impossibility to measure such data, like as turnover and current costs, necessary for NPV or IRR calculation. An appraisal of economic efficiency, as a measure of the net contribution of a project to overall social welfare, should be conducted to each single case. Standard appraisal methods based on projected profits and investment expenditures are not applicable because of intangible nature of pure public projects. In such cases Cost – Benefit Analysis (CBA) has been applied. The purpose of CBA is to ensure that the public sector allocates scarce resources efficiently to competing public sector projects. A basic assumption of CBA is an identification the crucial benefits effected from a project and their valuation to conduct project appraisal in terms of its effectiveness. A mixture of benefits and costs will be differentiated, because of project purpose and designing. The cost of a project should be somehow related to the benefit expected from it. The rule that has evolved over many years is that benefits must exceed the costs from a project. CBA estimates and totals up the equivalent money value of the benefits and costs to the community of projects to establish whether they are worthwhile. This means that all benefits and costs of a project should be measured in terms of their equivalent money value and in particular time.

The most useful financial results in a CBA appear in a time-based cash flow summary. The basic rule of CBA is that project should be performed only then, when discounted benefits would be higher than discounted investment expenditures. As the investment expenditures are treated exact cost of investment and operation costs after project putting into life.

After some years of CBA exercising such analysis has still prompted some doubts connected mainly to choice of appropriate discount rate, externalities, risk and irreversibility. Their override is a subject of research of many economists. Despite of critical remarks and some simplifications CBA has still been treated as a simple tool with numerous applications in various spheres, especially in environmental and other pure public projects, used commonly by banks and investors, more rarely by state agendas and local governments – especially in less developed countries.

The aim of a paper is to present problems and controversies with Cost–Benefit Analysis application to public project appraisal. The paper consists of five parts, in which there are distinguished public goods, key assumptions to public project appraisal, the main rules of Cost-Benefit Analysis, discount rate issues, and a background of project choice.

Keywords: *appraisal, public project, Cost Benefit Analysis, discount rate, public choice.*

Introduction

The main tasks of public projects are to provide public services to community - most often of non-profit profile. The main problem is to choose the best one among others in certain needs and terms.

An appraisal of economic efficiency, as a measure of the net contribution of a project to overall social welfare, should be conducted to each single case (Infrastructure, 1994). Standard appraisal methods based on projected profits and investment expenditures are not applicable because of intangible nature of pure public projects.

The basic method of public project assessment is the Cost–Benefit Analysis (CBA) as a useful technique at the appraisal of environmental, infrastructure, health care, cultural and sport projects, or untypical architectural objects, etc.

Throughout the last three decades, the focus on CBA as a vehicle for economic efficiency appraisal of public projects has increased. Several studies (Pearce, 1983; Musgrave, Musgrave, 1984; Mishan, 1982; Dixit, Pindyck, 1994, Brealey, 1995) have shown that a crucial role play a choice and valuation of benefits and costs in public projects evaluation. However more often there have indicated problems of proper discount rate choice (Baumol, 1977; Kirkpatrick, Weiss, 1996; Ackerman, Heinzerling, Massey, 2004 and others).

The aim of paper is to present the main rules and problems of using CBA tools in public project appraisal.

Public goods

Public services are referring to so called *pure public services*. Their role in national and local economy is undoubtedly enormous. Public goods can be used at the same time by one or several users without any obstacles for other users (Pareto improvements), and it is not possible to dispose anybody from taking part in such consumption (Begg, 1994). The main attributes of pure public services are that until any threats have performed (public or individual) people do not have a need of such services, and they have thought that expenses for their fulfilment have been too high or even unnecessary. The situation will be changed suddenly in case of any internal or external constraints.

There are three groups of goods needed by communities. The first group consists of public goods, that means goods, which are by their nature, serviced to community

(national or local), and those which cannot be splitted, are secured, maintained and covered from public funds. The second group is referred to social goods, which can be by their physical feature the private one, but because of social policy provided by the state or local community, are available to each person lived in there (education, health care, social security). The third group is created by private goods, that means goods used and financed by people from their own funds (Owsiak, 1999).

Appraisal of public project

If the feasibility study or business plan shows that project will bring direct tangible benefits, the classical methods of project evaluation can be applied. Having data of projected capital expenditures, projections of turnover, income and cost statement projections and in effect on expected cash flows the further evaluation can be lead through four stages. The first one is the calculating of the payback period ratio, accounting rate of return and break-even-point (Mishan, 1982). The second one, the most popular, is the assessment based on changes of value in time that is calculating of discounting ratios, like as NPV or IRR. The third step is getting through sensitivity analysis, different scenarios or simulation game (Myers, 1984). The fourth stage, more complicated, takes into consideration investment uncertainty and risk (Dixit, Pindyck, 1994; Brealey, 1996).

An application of classical methods to public projects appraisal can cause some difficulties; especially those strictly connected with providing the pure public services. The main reason is an impossibility of standing apart income from operations because of intangible nature of public services or in case of charging for services insufficient cash flows. It has occurred more commonly for example in case of environmental or health care projects (Hawranek, Behrens, 1991).

The cost of a project should be somehow related to the benefit expected from it. The rule that has evolved over many years is that benefits must exceed the costs from a project.

Cost–Benefit Analysis

A commonly applicable technique in public investment assessment is Cost–Benefit Analysis (Musgrave, Musgrave, 1984) developed by J. Dupoit at the beginning and lately by J. Hicks. Such analysis is widely used for planning, decision support, program evaluation, proposal evaluation, and other purposes, in organizations of all kinds. CBA facilitates decisions that should be undertaken by investors referring to costs of project and optimal choice among different alternatives. Such solutions are especially crucial in a case of many social needs and scarce funds. Situations like mentioned above, force to choosing the most important or the most effective project¹. In other words, CBA, when properly conducted,

will allow the analyst or policy maker to identify potential Pareto improvements and measure the scale of the difference between gains and losses. CBA provides information for decision making process, but it does not by itself make decisions.

The purpose of CBA is to ensure that the public sector allocates scarce resources efficiently to competing public sector projects. But it should be remembered that some public investment programme might be considered to serve distributional objectives rather than efficiency objectives (Brown, Jackson, 1990). The distributional effects of public expenditure programme rather than efficiency considerations may weigh heavily on the decisions of the politicians. The short-term distributional objectives may come into conflict with longer-term efficiency and distributional objectives.

CBA estimates and totals up the equivalent money value of the benefits and costs to the community of projects to establish whether they are worthwhile. This means that all benefits and costs of a project should be measured in terms of their equivalent money value and in particular time.

The most useful financial results in a CBA appear in a time-based cash flow summary. The basic rule of CBA is that project should be performed only then, when discounted benefits would be higher than discounted investment expenditures. An exact cost of investment and operation costs after project putting into life are treated as the investment expenditures.

A comprehensive cost-benefit analysis consists of main three steps (Samuelson, Marks, 1998):

- 1) Identification of all the factors (favourable and unfavourable) which can flow into community because of that project.
- 2) Financial valuation of costs and benefits.
- 3) Choice of the best alternative with net social benefits, that means a surplus of total benefits on total costs.

A valuation of benefits of non-market nature and intangible benefits should be based on one from three possible methods:

- direct valuation,
- indirect market value,
- social values.

In practice exact estimation of benefits and their amounts is very difficult. In many cases appealing to indirect intangible benefits has been useful. For example, valuation of people's lives can be assessed in indirect way through calculating discounted income (net present value - NPV) expected by each person or group of people or through determination of effective demand on life insurance or through calculating the perks for work in polluted or dangerous environment. Other example – an education brings with itself only intangible benefits in form of intellectual and cultural wealth of community, but simultaneously thanks to the better-educated people the more sophisticated and complicated works can be done in the region and in consequence would result in increased economic gains.

One stream of benefits and costs should be compared with at least one other stream of benefits and costs. To

¹ As earlier was mentioned any decisions connected with public funds are strongly dependent on political decisions. So, there are cases that as a result of political impact have been undertaken decisions about investment project, which evaluation is negative, but because of political interests such decisions will attract or increase a political support.

compare and thus decide which alternative will be the best, it is necessary to define “best”, to develop the costs and benefits of each alternative over its lifetime, to allow for the fact that these benefits and costs will appear over time, and to compare the alternatives according to the same methodology (Steiner, 1980).

Similar results can be obtained from cost analysis. But undoubtedly it is a comparative evaluation and, as each method based on projections, can bring only approximate results. In case, when there are not possible to working out, even approximately, indirect benefits of project, the evaluation should be based on cost analysis and among alternative projects with similar parameters, the project of the least costs should be chosen.

A nature of project and possibility of its valuation can lead to choice of appropriate form of analysis as cost-benefit or costs or benefits analysis.

Benefits and costs are expressed in terms of money and only money. Other consequences also exist that are not usually conceived of in money terms. These types of consequences are known as externalities (alternative terms are spillovers, external effects, or social effects), and may be recreational, social, and political. There are positive and negative effects to be evaluated and added to the benefits of the direct recipients of the goods purposely produced by the project. Steiner argued that externalities involved for the project, either public or private, should be taken into account, but not by adjusting the social discount rate, but by quantification and listing of the use of a social welfare function. For externalities accounting all are better methods than lowering the discount rate (Steiner, 1980). By reducing the positive and negative impacts of a project to their equivalent money value CBA determines whether on balance the project is worthwhile.

Future cash flows should be estimated on the incremental basis (Guidance, 2006) and be supplemented by inflation rate. Another important thing connected with estimation and valuation of cash flows is that it should be estimated on an after-tax basis only after occurring of them, but not when the work is undertaken or liability incurred (Brealey, 1996). Apart from cash flows performed during basic operations there are additional flows which should be added to that basic flow (for example all-incident effects or indirect inflows or outflows) and also opportunity costs.

Discount rate problems in cost-benefit analysis

The next issue is a selection of discount rate. After estimation of benefits and costs and even only the costs², the appraisal is performed through discount patterns. If there is a little disagreement about prospective costs and benefits, then a choice of the discount rate may cause a divergence between acceptance and rejection of a project. As Baumol stated (Baumol, 1977) an acceptable discount rate plays the same role as the allocation of resources. There are different approaches to the discount rate

² The majority of public sector services are not sold; therefore there are no-market price to observe. This means that the only data readily available are public expenditure data (for example costs of providing public services).

choice. For example, there are cases to apply the discount rate on the level used in similar projects in the past with omitting the various circumstances, which might take place in a meantime. Most commonly, the discount rate used for present value calculations is an interest rate from financial markets. In practice, discount rate is taken as a average interest rate in case of market-oriented projects, and as inflation rate, or (but very rarely) annual GDP rate in case of pure social projects. The difference is resulted from another target of investment. The more correct is a selection of social discount rate, with taking into account an opportunity costs, taxes, risk and externalities. This can produce discrepancies in the rates of return either in public or private sector, or both. In fact, the correct discount rate is a weighted average over all tax and risk circumstances and externalities, of the rates of return that would otherwise be earned by the resources used in governmental projects.

One of a recent approach to discount rate choice is to use one of so called experimental methods, like as choice tasks, matching tasks, pricing tasks, or rating tasks (Kasiewicz, Rogowski, 2006).

Another problem connected with choice of the discount rate is an expanding result of applied discount rate for future situation in the market. A low discount rate will lead to approval a large number of public projects, and the greater the number of undertaken projects the greater is the contribution to the nation's prosperity. Artificially low rates introduce serious inefficiencies into investment processes in the way of withdrawal of resources from high-yield areas and their transfer to projects, in which return is low.

The present value is calculating from projections as the expected stream of generated profits and present value of expenditures required for project and the possibility of delay and other risks may make the whole project unreal in aspect to taken assumptions. This can undermine the simple net present value rule³.

Because of difficulties in benefits assessment, creation a basis to benefits evaluation and valuation methods cost-benefit analysis has been often criticised. In the late sixties and early seventies cost-benefit analysis was treated as a standard appraisal tool for public sector investment. But during the seventies international institutions and national planning agencies made serious changes to implement the shadow pricing for project appraisal. In the eighties there was noticed a decline in the theoretical and practical assumption to shadow pricing, because of market liberalisation and setting the prices on market or semi-market level. Such situation changed a mind regarding the CBA, which again recovered its position as a standard method of appraisal public investment projects (Kirkpatrick, Weiss, 1996). An empirical study

³ The reason is that certain investor with the opportunity to invest is holding an option as a right and not an obligation to buy an asset in the future. If he makes irreversible investment expenditure he loses an option, because he cannot disinvest. Such lost option is an opportunity cost which should be added to the cost of an investment and in such way rule of net present value has been modified. Ignoring of opportunity costs events may lead to errors and deforming the evaluation calculation. Such opportunity cost is very sensitive to uncertainty of investment and changes of economic conditions (Dixit, Pindyck, 1994).

of several environmental projects from the 1960s and 1970s made by Ackerman team has concluded that CBA would have yielded undesirable results, and should not be carried out at all (Ackerman, Heinzerling, Massey, 2004). Contrary to those conclusions CBA can play a useful role in decision-making process as a tool for summarizing the economic efficiency of a project at a specific time based on benefit and cost information available at the time a decision needs to be made (Carlin, 2005). Despite of some CBA disadvantages, like as ignoring risks covered by individuals (Arrow, Lind, 1970), use in every case discounting methods, and results of environmental interruption for communities, low level of objectivity and transparency this is widely used technique in almost all public projects.

Choice of a project

The final step of using of investment criteria is a selecting a set of investment projects from a large number, subject to economic, political, and social constraints (Kamińska, 1999). The general of this problem is that there are several objectives, single or multiple, to be served in one or in several regions. For each of these single or multiple objectives in a given region there is a number of alternative projects, all of which are technically feasible. The set of chosen projects must be an optimum that means that community would prefer to spend a capital for this set of projects that for any other set.

In CBA for public projects two other basic problems should be taken into consideration, less connected with economic evaluation of the project, but more with political pressure. The one of them, mentioned before, is that investment decisions are based on supporting reasons. For example, when current party on power have promised key election group to build a new infrastructure object the governmental official would make a lot of efforts to prove project effectiveness that means a surplus the benefits on investment costs through adding more and more additional indirect benefits. The another one, but not a less important, is that the persons, who are looking forward to employing for investment process or after putting it into operation, can also be involved in assessment process of evaluation. In such a case they will be truly interested in pointing out a high effectiveness of projected investment.

Public sector projects are usually subject to some sort of political judgement, and public project analysis is often made only to support political decisions with logic. Decisions regarding to social investments are strictly bounded with political problems and pressure. They are banded to the behaviour of politicians, such as continuing the missed ineffective projects (abandonment of them can be viewed as a confessing to their fault, and may cause on loss of their functions); or undertaking projects supporting interest groups; or undertaking temporal “anti-crisis” decisions; or problems with managing with official bureaucracy (difficulties in controlling over performance effects, tendencies to increasing overhead expenses, monopolistic position of official agencies and offices).

The policy-maker from public side has a possibility to create a proper choice and in some way to insist on

performance of the project. Apart from direct analysis of costs and benefits resulted from project there are usually several types of externalities (Kamińska, 1998), which should be accommodated to CBA. The problem is the identification the most suitable cases for a given situation. There are various approaches to solve such a problem (Davis, Kamien, 1977):

- solution by a prohibition,
- solution by a directive,
- solution by a voluntary action,
- solution by taxes and subsidies,
- solution by a regulation,
- solution by an action.

A strict prohibition of explicit case (for example a request for observing no water pollution) causes a technological externality is almost certain to prevent attainment of social optimality, but an appropriate level of externality is needed. In the example a prohibitive action might cause that in certain stream water quality can be in proper level and water deterioration will be stopped, but in other streams it will cause a complete deterioration

The control of externalities by directives is difficult in practise, because it demands a setting the overall quality standards. A determining such a standard is very complicated because it needs a careful measurement and weighting of costs and benefits. A control by directives involves administrative costs of policing the directives, which cannot be ignored in its evaluation. This type of solution is treated as an obviously inappropriate.

There are also some views that collective action is not needed to correct the market solution when there are technological spillovers. There is a motivation for private sector to act correct the situation through one from two common methods: bribes and mergers.

The classic form of governmental intervention in situation when voluntary arrangements among entities are impractical or not forthcoming is the payment of subsidies to units which actions bring external effects and the levying of taxes upon these entities whose actions bring diseconomies. In general, the plan is to encourage those activities that contribute to the “common good” and discourage those that destruct from the “common good”.

Solution by regulation is connected with additional administrative costs, which should be relevant, and not to be overlooked. It should be remembered that regulations have inflexible nature when the other factors (costs, benefits) are flexible.

Solution by action is simple and direct actions, which can be taken to ameliorate the effects of an externality.

The policy maker should consider the problem of choosing proper tools of CBA and imagine the application of the alternative approaches to it. Each measure of policy (including that of doing nothing) will have costs and benefits associated with it. The policy-maker should select that measure for implementation, which produces the greatest net benefits.

It seems to be clear that governments do not always make the wisest or best decisions about projects, but it should be possible to improve decision process. There are several purposes of public projects. For each of these purposes, single or multiple, in a given region there is a

number of alternative projects, and all of them are technically feasible. The problem is that of choosing one project within the limits of available funds. The set of investment projects must be an optimum for community of choosing this set rather than any other set (Guidelines, 2003).

Conclusions

CBA is an important technique for project appraisal in the public sector. It is a process of weighting the total expected costs versus the total expected benefits of one or more actions in order to choose the best or most profitable option.

It should be taken into account that in effect of performed project various benefits and expenses are generated with different adjustments for project appraisal. A mixture of benefits and costs will be differentiated, because of project purpose and designing. Theoretically, project is treated as an efficient, when the benefits achieved by one user do not disturb to any other user. A classical CBA has not taken into account project irreversibility and uncertainty. The simple calculation based on net present value can lead to errors and deforming the results. Many researchers put their attention on CBA theory. Some of them argued that it is the simple and appropriate method of project efficiency assessment, and others on a contrary have been treated it as a wrong way of public projects evaluation.

Despite of critical remarks and some simplifications CBA has still been treated as a simple tool with numerous applications in various spheres, especially in environmental and other pure public projects, used commonly by banks and investors, more rarely by state agendas and local governments – especially in less developed countries.

A successful use of CBA needs the proper assumptions in regard to choice of social benefits and costs, method of calculating them and discount rate. Another problem is a choice of one project among others – also economically or socially viable.

It should be underlined that an importance of CBA is still growing, mainly due to EU regulations, in which CBA is determined as an essential tool for estimating the economic benefits of projects, especially in case if project is applicable for EU funds. CBA is required for twofold reasons – first, that must be shown that the project is viable from economic point of view, and secondly as an evidence of necessary contribution of EU funds to make such project economically viable. CBA is also required in PPP (Public-Private Partnership) projects, according to Guidelines, as a base to present that a private partner involvement into public project should bring more benefits from social point of view than other solutions.

Summing up, Cost Benefit Analysis, despite of its disadvantages, remains a basic tool in public projects estimation, and is recommended as a main appraisal method in projects co-financed by EU.

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Naudos ir išlaidų analizė, įvertinant viešuosius projektus

Santrauka

Daugumos viešųjų investicijų efektyvumo vertinimo pagrindinės problemos yra neekonomiškas jų pobūdis ir negalimumas matuoti duomenis, tokius kaip pajamų dydis ir grynoji dabartinė vertė (*net present value - NPV*), vidinė pelno norma (*internal rate of return - IRR*) bei apskaičiavimui būtinų einamųjų išlaidų. Ekonominio efek-

tyvumo įvertinimas, kaip įdėtų į visuomenės bendrąją gerovę neto investicijų matas, būtinas kiekviename projekte. Efektyvumo vertinimo standartiniai metodai, kurie paremti vertinamaisiais pelnais ir investicinėmis išlaidomis, nepritaikomi dėl nematerialaus viešųjų investicijų pobūdžio.

Tyrimo tikslas – išnagrinėti problemas ir nesutarimus, susijusius su naudos ir išlaidų analizės taikymu vertinant viešųjų investicijų efektyvumą.

Tyrimo metodika – mokslinės literatūros sisteminės analizės ir apibendrinimo metodai.

Darbas sudarytas iš penkių dalių, kuriose aptartos problemos, susijusios su viešosios naudos išskyrimu, svarbios prielaidos efektyvumui vertinti, pagrindinės naudos ir išlaidų analizės normos, diskonto lygio pasirinkimo problemos ir viešojo pasirinkimo problemos. Straipsnyje akcentuojama, kad viešųjų investicijų efektyvumas gali būti tiriamas taikant naudos ir išlaidų analizę (angl. *Cost-Benefit Analysis*). Naudos ir išlaidų analizės tikslas – įsitikinti, kad viešasis sektorius svariai nurodo nepakankamus tarpusavyje konkuruojančius viešųjų interesų išteklius. Naudos ir išlaidų analizės pagrindinėmis prielaidomis laikytinas pagrindinės naudos, kylančios iš investicijų, identifikavimas ir jų taksacija efektyvumo skaičiavimui atlikti. Nauda ir išlaidos bus diferencijuotos priklausomai nuo investicijų pobūdžio ir jų projektavimo. Investicijų išlaidos turėtų būti tam tikru būdu susijusios su laukiama nauda. Kelerius metus taikyti principai nustato, kad laukiama nauda turi viršyti investicijų išlaidas. Vadinasi, visa laukiama nauda ir įkainotos investicijų išlaidos turi būti išreikštos piniginiomis kategorijomis pagal atitinkamas sritis.

Naudos ir išlaidų analizei vykdyti naudingiau imti laukiamus einamųjų metų pinigų srautus. Darbe aptariamas priemonių kompleksas leidžia pagerinti viešųjų projektų įvertinimą. Naudos ir išlaidų analizė palengvina vadybininkams ir sprendėjams pasirinkti sprendimą, susijusį su investicijos parinkimu viešajame sektoriuje. Pagrindinė taisyklė nustato, kad sumanymas turi būti realizuotas tik tada, kai diskontuota nauda, esanti (atsirandanti) šiame projekte, bus didesnė negu diskontuotos investicijos išlaidos (lėšos). Naudos ir išlaidų analizės taikymas yra susijęs su būtinumu parinkti atitinkamą naudos kriterijų, parinkti efektyvumo įvertinimo metodus ir pasirinkti diskonto normą. Atsižvelgiant į naudos įvertinimo, įkainojimo bazės apibrėžimo problemas ir naudos taksacijos metodą, naudos ir išlaidų analizė buvo ne kartą kritikuojama, be to, atkreipiamas dėmesys į problemas, susijusias su viešųjų reiškinų piniginiu įvertinimu. Tiksliai naudos (pelno) dydį įvertinti praktiškai labai sunku. Viešųjų investicijų naudos (pelno) ir išlaidų (lėšų) vertinimas gali sukelti mažesnių ar didesnių problemų. Naudos ir išlaidų analizė reikalauja sprendimų, kuriuos turi atlikti investoriai ir kiti sprendėjai, susiję su

projekto išlaidomis (lėšomis) ir optimalaus pasirinkimo iš galimų pasiūlymų. Tokie sprendimai yra nepaprastai reikšmingi esant įvairiems viešiesiems poreikiams ir mažoms finansinėms galimybėms. Tokios situacijos verčia parinkti svarbiausią arba efektyviausią projektą. Naudos ir išlaidų analizė ir toliau sukelia daug svarstymų pirmiausia parenkant diskonto normą, išorės veiksnius, riziką ir nepatikimumą. Jų nugalėjimas yra daugelio ekonomistų ateities tiriamųjų darbų objektas.

Remiantis atliktais tyrimais konstatuota, kad CBA metodas yra svarbus vertinant viešųjų investicijų efektyvumą. Tai procesas sukuriant visu veiksniu laukiamą išlaidų ir nauda, renkantis geriausią ir naudingiausią variantą.

Į tai turėtų būti atsižvelgta, nes realiai projektų vertinimas atliekamas įvertinant visų veiksnių laukiamą išlaidų ir nauda. Visi veiksmai laukiamų išlaidų ir nauda bus diferencijuojami dėl projekto tikslo ir projektavimo. Teoriškai projektas nagrinėjamas kaip efektyvus tik tada kai vieno vartotojo nauda nekenkia kitam vartotojui. Klasikinis CBA nevertina projekto negrįžtamumą ir nepatikimumą.

Paprastas skaičiavimas, pagrįstas tik turimos vertybės vertinimu, gali sąlygoti klaidas ir rezultatų iškreipimą. Daugelis tyrinėtojų labai vertina CBA teoriją. Vienų nuomone tai paprastas ir atitinkantis projekto efektyvumo vertinimą metodas, kiti jį kritikuoja ir mano, kad tai nelabai efektyvus metodas.

Nepaisant kritinių pastabų ir kai kurių supaprastinimų, CBA vis dar laikomas kaip paprastas instrumentas, daug kur naudojamas skirtingose srityse, pavyzdžiui, ekologiniuose ir kituose viešuosiuose projektuose, paprastai naudojami bankuose, rečiau valstybinėse institucijose ir vietinėse savivaldybėse, ypač mažiau išsivysčiusiose šalyse.

Sėkmingas CBA panaudojimas turi atitikti reikiamas prielaidas parenkant socialines pašalpas ir išlaidas, parinktą skaičiavimo metodą ir apskaitos tarifus. Kita problema - projekto išrinkimas iš daugelių galimų, taip pat ekonomiškai ir socialiai naudingų.

Reikia pažymėti, kad CBA svarbumas vis dar auga, labiausiai dėl ES instrukcijų, kuriose nurodyta, kad CBA yra svarbus instrumentas norint įvertinti projekto ekonominį efektyvumą, ypač jei projekte panaudojamas ES kapitalas. CBA reikalingas dėl dviejų priežasčių: pirma, reikia parodyti, kad projektas gyvybingas ekonomine prasme. Antra, norint įrodyti, kokį ES kapitalą reikia įdėti, kad jis būtų ekonomiškai gyvybingas.

Naudos ir išlaidų analizės metodas, nors ir nepatogus, yra pagrindinis instrumentas vertinant viešuosius projektus ir rekomenduojamas kaip pagrindinis instrumentas vertinant projektus, finansuojamus kartu su ES.

Raktažodžiai: *įvertinimas, viešasis projektas, naudos ir išlaidų analizė, diskontuota norma, pasirinkimas alternatyva.*

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