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VALUE BASIS FOR THE DEFINITION OF REAL TRANSPORT COSTS

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These days there is already long discussion running about real costs of transport. Scientists, but not only they are asking for proper estimation and for more fair pricing of different transport modes, before it will be too late. This problem becomes appeared to be serious also in Czech republic. The reason is simple - car ownership increasing what further implies preference for individual transport and remarkable decrease of public transport. This is significantly caused by the fact, that drivers do not pay full costs of transport, it seems, that price disturbance even favours them. On the other hand, public transport especially rail transport, which is the most environmentally friendly transport modes as well as caused much less external costs as other transport modes is by this, not fair pricing discriminated. Why this situation happened and is there any way round?

Answer to the first question is pretty simple, brief historical overview would help, but this is not to be content of this article. Concerning second question - I would like to describe the first step, how to get right answer. As I already mentioned, some research people are trying define methodology for fair pricing. In some countries parts of this methods are already successfully used. But this is still far from being absolutely fair. There is many external and political factors, why it is not possible till now.

My objective for this article is to try to define basis for cost estimation of transport mode. As a example I choosed rail. The problem as I can see it is the fact, that first of all we have to identify real value of transport, before we will try to price it. And sometimes real value goes far beyond what we guess on the first sight to be real value. And another problem arises while taking into account future generations - and we can't forget them. They are future of this world.

Economic values reflect individuals willingness to pay for benefits or their willingness to pay to avoid costs. Typically, the values that count belong to those actually exercising the

choice: the current generation. But a particular feature of all costs and benefits is, that they often accrue to people in generation yet to come. How are their values to be counted?

Counting only the current generation preferences biases the choice against future generations unless there is some built in mechanism to ensure that current generations are not present to have their votes counted, this is the problem of intergenerational incidence. Whether they are present or not, future gains and losses tend to be played down in economic decision making, because of discounting the future.

An analogous form of bias arises even within a generation: willingness to pay is weighted by the incomes of those expressing their willingness to pay. The economic votes of the poor count for less in the market place than the economic votes of the rich. This is the problem of intergenerational incidence.

Both inter- and intra- generational bias are present in the willingness to pay criterion for eliciting economic values. Both biases are strongly debated by economists, yet their significance may be overstated for two reasons:

- generations overlap. The current population includes three generations: parents, children and grandchildren. Economically said, the rate at which current parents discount the future is likely to incorporate a „coefficient of concern“ for the future through the direct effects of children’s „well-being on parents“ well-being. But whether these concerns are consistent with the kinds of discount rates used in practice (often 10% in real terms) is open to serious question
- redesigning project and programs to allow for distributional fairness within a generation may be an inefficient way of serving the goal of fairness. It is often preferable to secure the gain to overall development by concentrating on efficiency gains and losses, and that correcting the distributional impact in some other way (e.g. through lump sum transfers). More seriously, than same rationale for ignoring distributional considerations cannot be advanced so firmly in the context of policy choice.

There is no consensus on how to integrate inter and intra generational considerations into economic decision making about the railways. While economists would typically favour the use of positive rates for discounting the future, some argue that there is no particular rationale for discounting future well-being. Most economists would probably focus on efficiency gains and losses in project and program appraisals, but others favour the explicit recognition of multiple social goal or „ multicriteria“ and seek for some form of calculus for trading off between such goals when they conflict.

Valuation is fundamental to the notion of sustainable development, which has been loosely defined by the World Commission on Environment and Development as development that „meets the need of the present generation without compromising the ability of future generations to meet their own needs“.

What is Economic valuation

It is important to understand what is being done when economic valuation is carried out. Economic values are measured by the summation of many individuals willingness to pay for a particular good. In turn, willingness to pay reflects individuals preferences for the good in question. Valuation is therefore of preferences held by people. The valuation process is anthropomorphic. And this is the key to any further evaluation and pricing. Human beings are very strongly influenced by artificial development which occurred within this century, and

peoples' values are not corresponding to any sustainability at all (this trend is supported by advertising's and producers of consumer goods).

That's why the language of economic valuation is often misleading. Similarly, because changes in environment caused by transport, affect health, it is necessary to define valuation of changes in health status, the ultimate change, of course being the cessation of life itself, hence, references to „the value of life“. All these terminology generate an unfortunate image of economic valuation.

But in practice, what is being valued is not the „life“ or damages caused by transport means, but simply people's preferences for (and against) changes in the level of risk to their life and comfort.

The second value, which is of same importance, sometimes independent of human preferences in „intrinsically„ value. Yet, there is not reason to reject idea of intrinsic values because the idea of measuring preferences is adopted. What is being assessed are two different things: the value of peoples' preferences for or against environmental change (economic value), and the value that intrinsically resides in assets. Economic valuation is essentially about discovering the demand curve for goods and services.

Once it is accepted that both form of value exist, the issues become one of which values should inform and guide the process of making public choices. The answer is, that since both values are legitimate, both are relevant to decision making. Making decisions on the basis of economic values alone neither describes real world decision making, nor would it be appropriate given that governments and other agents involved in the development process have multiple goals. One difference between the economic and intrinsic value approaches is that while economic values can, in principle, be measured, intrinsic values cannot.

If decision makers do not feel the need for quantified assessment of gains and losses, then lack of quantification may not be an obstacle to decision making. Otherwise it will often prove difficult to make choices between competing projects or alternative policies with different impact on society.

Yet at more practical level, the „society and development“ debate often centres on the high relative value of development in a context of social problems. The social welfare (clean environment, health of people, ...) tends to be viewed as a luxury to be afforded later, not now while the struggle for the development is under way.

To get on more practical level, I would like to introduce total economic value. This is of major importance for us, as far as this value should reflect comprehensive value of railways. Total economic value comprises use and existence values. Use values comprises direct values, indirect values, and option values. Existence values comprise willingness to pay for rail assets conservation even though at present there is no significant economic benefit present.

What those different values means for railways?

Use Values:

- direct value (benefit to operator, benefit to user - travelling, commuting, business trips etc.)
- indirect value (land development, rail as a alternative transport mode with less harmful effect on environment, possibility to socialise est.)
- option value (sort of insurance payment to reflect the value of a future use if the option to use the railway is exercised)

Non-use Values:

- railway as a object of intrinsic value, as gift to others, cultural and heritage values

This approach of TEV was originally developed to assess natural resources. But later on it was shown, that this view on value is very comprehensive and realistically reflects real situation for many different assets which are of social importance as well. Most of those assets were mainly evaluated by financial criteria, but need for more and comprehensive analysis was identified.

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Resumé

HODNOTOVÝ ZÁKLAD PRO DEFINOVÁNÍ REÁLNÝCH DOPRAVNÍCH NÁKLADŮ

Jana NAGYOVÁ

Otázka skutečných nákladů dopravy je otázkou v poslední době velice často diskutovanou. Jedním z prvních problémů je definování skutečné hodnoty dopravy. V současnosti je hodnota definovaná ekonomickým zájmem, případně nezájmem jednotlivců za daný produkt zaplatit. Tyto platby však respektují jenom zájem současné generace, čímž vzniká intergenerační konflikt. Kromě tohoto konfliktu je proces oceňování spojen také s intrageneračním konfliktem - to znamená, že cena je definovaná zejména tou částí populace, která má vyšší příjmy a hlas které je ekonomicky „relevantnější“.

Správné hodnocení je základem pro trvale udržitelný rozvoj, který je definován jako uspokojování zájmů současné generace bez kompromitování zájmů budoucí generace. Nakolik ekonomické hodnocení je zejména antropomorfní proces reflektující psychologii jedinců v daném momentu, zájem o trvale udržitelný rozvoj je potlačen do budoucnosti, až si budeme moci tento „luxus“ dovolit, přicházíme s pojmem „Celková ekonomická hodnota“. Tato hodnota je složená z několika hodnot (přímá hodnota, nepřímá hodnota, možná hodnota, neuživatelská hodnota), které odrážejí realitu a berou v potaz nejen ekonomické zájmy.

Summary

VALUE BASIS FOR THE DEFINITION OF REAL TRANSPORT COSTS

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Question of real transport costs is often discussed these days. One of the crucial point within this discussion is definition of real value of transport. Currently is value of the transport defined by individual willingness to pay, or willingness to pay to avoid costs. This system reflects only interest of current generation and intergenerational conflict appears. This type of evaluation also creates intragenerational conflict - what means, willingness to pay is weighted by the incomes of those expressing their willingness to pay. The economic votes of the poor count for less in the market place that the economic votes of the rich.

Fair pricing is base for sustainable development. But as far as economic valuation is entirely anthropomorphic process reflecting psychology of individuals and not sustainability, we defined expression „Total economic value“. This value comprises direct value, indirect value, option value and non-use value. If evaluation process is based on total economic value, then we can see that pricing will reflect reality.

Jana Nagyová:

Zusammenfassung

WERT ALS GRUNDLAGE FÜR DIE DEFINITION DER EFFEKTIVEN VERKEHRSKOTEN

Jana NAGYOVÁ

Die Frage der realen Kosten des Verkehrs gehört zur Zeit zu den meist diskutierten Fragen. Unter den wichtigsten Problemen steht Definition des Realwertes des Verkehrs. In der Gegenwart ist der Wert durch das ökonomische Interesse definiert, eventuell durch die Interesselosigkeit der Einzelnen für das bestimmte Produkt etwas zu bezahlen. Diese Bereitszahlung respektiert nur das Interesse der heutigen Generation, wodurch der intergenerationale Konflikt besteht. Ausser diesem Konflikt ist der Bewertungsprozess auch mit dem intragenerationalen Konflikt verbunden - das heisst der Preis ist vor allem von dem Teil der Population definiert, die höheren Einkommen hat und deren Stimme ökonomisch relevant ist.

Die richtige Bewertung bildet die Grundlagen für nachhaltige Entwicklung. Die nachhaltige Entwicklung definiert man als Befriedigung der Interesse der heutigen Generation ohne die Interesse der zukünftigen Generationen zu kompromitieren. Die ökonomische Bewertung ist vor allem der anthropomorphe Prozess, der die Psychologie der Einzelnen im bestehenden Moment widerspiegelt. Durch diesen Prozess ist das Interesse um die nachhaltige Entwicklung an die Zukunft gerichtet, "bis man sich diesen Luxus leisten kann". Darum bildet man den Begriff der ökonomische Gesamtwert. Dieser Wert besteht aus den folgenden Teilen - der direkte, der indirekte, der mögliche Wert und der Benutzungswert. Die verschiedenen Teile des Gesamtwertes widerspiegeln die Realität und nehmen nicht nur die ökonomischen Interesse in Frage.