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WORKSHOP ON STUDIES FOR NORTHERN DIMENSION

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Abstract: This report describes the economical and institutional aspects and processes of the policy on Northern Dimension. By studying these issues the papers presented in workshop enlightened many problems which are faced up to in the policy implication of Northern Dimension. The current meaning of the term is related to promoting the economic stability of the Northern Europe. The economic problems stem from structural barriers effecting the development of economic sectors and markets in the Northwest Russia, the Baltic and Poland. Because of such problems the integration of these countries with the rest of Europe is difficult. It is crucial question increasing investments in infrastructure (transportation, energy, telecommunication, etc.) for promoting economic growth in the future.

Key words: Northern Dimension, economic growth, institutions

SIIVONEN ERKKI – HUIKURI SATU (Toim.). WORKSHOP ON STUDIES FOR NORTHERN DIMENSION Kalastajatorppa 30 – 31 May, 2002. Helsinki, VATT, Valtion taloudellinen tutkimuskeskus, Government Institute for Economic Research, 2002, (C, ISSN 0788-5016, No 290). ISBN 951-561-431-7.

Tiivistelmä: Tässä raportissa kuvataan pohjoisen ulottuvuuden taloudellisia ja institutionaalisia piirteitä sekä arvioidaan pohjoisen ulottuvuuden politiikkaan vaikuttavia taustatekijöitä. Taloudellisten ja institutionaalisten ongelmien esiintuominen seminaarin esitelmissä on valottanut niitä kysymyksiä, joihin *Pohjoisen ulottuvuuden* politiikassa on jatkossa paneuduttava. Tutkimustehtäviä joudutaan syventämään erityisesti Itämeren alueen ja muun Pohjoisen Euroopan taloudellisten kysymysten tutkimiseen. Talouden ongelmat liittyvät paljolti Luoteis-Venäjän, Baltian ja Puolan kansantalouksien kehityspyrkimyksiin ja integroitumiseen muuhun Eurooppaan. Investointiasteen nostaminen ja laajaan infrastruktuuriin liittyvien hankkeiden priorisointi ovat tulevien kasvuedellytysten kannalta keskeisellä sijalla.

Asiasanat: Pohjoinen ulottuvuus, taloudellinen kasvu, instituutiot

Summary

The overall goal of the workshop was to provide a forum for exchange information and discussion of topics for researchers sharing interests in economics of Northern Dimension. The workshop on Strategic Baselines for Research Programme is to offer an opportunity for researchers, institutions, and organisations interested in the economics of Northern Dimension to discuss how we should coordinate efforts in this research field. One result of the workshop were an effort to help establishing a new research network in the field of economics of Northern Dimension

Generally speaking, the economic development and prosperity of any national economy or sub- or supranational region always relies on an fruitful interplay between reliable and efficiency-inducing infrastructure and institutions, on one hand, and successfully vibrant enterprise, based both on the location-specific advantage of the economic region and on innovative accumulation of distinguishing resources and assets, on the other. The utilisation of all these factors paves the way to an overall insuperable competitive advantage for the region's enterprises vis-à-vis companies from other regions. The lasting prosperity of region is buttressed by competitive advantages of the region's companies resisting imitation and steadily keeping innovatively ahead of companies of other regions, but, at the same time, sustainable extra-regional competitive advantages do not lead into sustainable intra-regional monopolies, to the contrast, effective competition is secured intra-regionally.

The political and economic changes that took place in Eastern Europe at the turn of the 1980s and 1990s, and the return to free market system, have stressed the importance of the division of entrepreneurs into those operating under public rules and those operating under the system of private law.. It was at that very time 1990s that a turn in the ways of thinking was accepted, promoting free enterprise as the necessary form of human activities, contributing development of the country. It was finally recognised that by means of enhancing and developing entrepreneurship, improvement in the well-being of the whole society can be achieved. It is widely recognised that institutions play a critical role in economic performance and development. The new institutional economics interpret institutions as the rules of game in the society or more formally, the humanly devised constraints that shape human interactions. Social infrastructure is one part of these institutions. Legal system, credibility, trust, social capital, contract enforcement of property rights , strong business culture etc. Are essential part of social infrastructure. When applied to the objectives of the Northern Dimension, the postulates of institutional economics have one, at least, very important implication: institutions in countries in a similar stage of development will have many common features.

Contents

Plenary Session I

“Northern Dimension Research Programme – Concepts and Best Practices for Meeting the Needs of Programme Partners”

Anthony Ogus

The Importance of Law-and-Economics for Regulation in Transitional Economic

Abstract: In this paper I argue that the sub-discipline of law-and-economics provides scholars and policy-makers with essential tools for devising and evaluating regulatory systems which play such a crucial role in transitional economies. I show how law-and-economics can provide the analysis necessary for an appropriate selection of regulatory instruments, having regard to the economic and social justifications for intervention and of their predicted impact on the regulated community. I then consider the procedures and processes by which regulatory policy is formulated and implemented, concentrating not only on questions of expertise, transparency and accountability, but also on cost-benefit analysis. I conclude with a list of research issues which this analysis can generate for regimes in particular transitional economies. The appendix contains a case-study of taxicab regulation, which illustrates many of the themes of the paper.

Keywords: Law-and-Economics, regulation-taxicabs

1. Introduction: transitional economies and "good" regulation

Countries with transitional economies wish to encourage enterprise and generate wealth. It is obvious that regulatory structures and institutions play a key role in the environment necessary to promote such aims. The UK Government Department responsible for assisting overseas development published in 2000 a document which refers to the need for

"*competent legal and regulatory institutions … and sensible regulation on health and safety, business registration and trade licensing*" (DFID, 2000, para 3.6.2.),

contrasting that with

"a heritage of heavy state intervention, unfavourable government policy, outdated law and excessive regulation [which] still persists, factors that heavily constrain enterprise" (ibid, para 3.6.4).

What are the main characteristics of a "good" regulatory system? The answer to the question has two dimensions. The first relates to **the instruments or legal**

forms selected to achieve the desired objectives. These should be appropriate in the light of the economic and social justifications for intervention and of their predicted impact on the regulated community. The second relates to **the procedures or processes** by which the instruments are formulated and applied. Clearly a regulatory regime cannot succeed unless its operation has legitimacy within the community it serves. To this end, certain process values must be recognised, including those of expertise, transparency, and accountability.

In this short paper, I argue that the sub-discipline of law-and-economics provides scholars and policy-makers with essential tools for devising and evaluating appropriate regulatory systems. In the next section, we see how these tools have been developed. There follows an account of how they are applied to the two dimensions of regulation identified above, with particular emphasis on cost-benefit appraisal. In the appendix, I provide a case-study of taxicab regulation, which illustrates many of the themes of the paper.

2. What is "law-and-economics"?

Law-and-economics involves the application of economic theory and methodology to legal principles and institutions, in order to predict the behavioural response of individuals and firms to different legal forms – the positive dimension of - and to evaluate the capacity of different legal forms to generate allocatively efficient outcomes – the normative dimension. The focus of most of the early law-and-economics literature was on private law (a subject of law which, in its economic impact is of the greatest importance to transitional economies (Rubin, 1998), but which falls outside the scope of my paper). Nevertheless the University of Chicago, where the origin of law-and-economics is to be located, was also a prime mover in the critical evaluation of public law, in particular regulation. Economists there, notably Milton Friedman and George Stigler, had in the 1950s and 1960 remained hostile to Keynesian arguments for state intervention. They sought to show that regulatory structures were not conducive to efficient outcomes. Their work was linked to that of the Virginia School of public choice. The **private interest theory** of regulation which emerged seeks to explain how politicians and bureaucrats may be motivated to meet the demands of private interest groups for regulation of a particular form.

Such an approach proved to very valuable for lawyers who, perhaps naively, had tended to assume that government was predominantly well-intentioned in its approach to regulation, attempting to generate outcomes consistent with the public interest. In their view, if regulation failed, in general this was because it was insufficiently stringent or inadequately enforced. Private interest analysis, as we shall see, was an alternative and powerful tool for understanding regulatory failure. But there was a danger of oversimplifying the debate in the light of such analysis. The

policy solution could not always be a crude abolition of interventionist measures since in many areas there existed a significant degree of market failure. The question then became one of investigating whether the measures could be adapted to meet the failures at lower cost - in short, whether a more sophisticated analysis could lead to more efficient solutions.

To meet this challenge, mainstream law-and-economics, which hitherto had applied standard price theory, transaction-cost analysis and organisation theory primarily to private law institutions and principles, developed a new branch of **public interest analysis**, sometimes referred to as "progressive law and economics" (Rose-Ackerman, 1988). The new approach involves a three-stage inquiry. First, there is a need to identify and explain instances of market failure, generally in terms of externalities, information asymmetries or coordination costs (though distributional goals should not be ignored). Secondly, alternative methods of correcting the failure have to be investigated. Thirdly, the predicted response of actors to the different methods must be assessed, with particular attention to the minimization of administrative costs, notably information and enforcement costs.

Such analysis can lead to the selection of optimal regulatory forms. However, the insights generated by private interest theory also remain important for normative purposes. Predictions of how legislative processes can be manipulated to confer regulatory benefits on powerful interest groups clearly has major implications for the procedural dimension of "good" regulation, because it becomes necessary to explore what constitutional and procedural arrangements can best constrain behaviour of this kind.

3. Regulatory instruments and forms

The choice of an appropriate regulatory instrument must, in the first instance, depend on the justification for the intervention. Once the justification, or justifications, has/have been identified, the policy-maker is then faced with a choice between different instruments, each with its own set of advantages and disadvantages. Although other modes of reasoning are not to be excluded, the question then typically becomes one of selecting the instrument which can meet the regulatory objective at lowest cost (Ogus, 1994).

3.1 Justifications for Intervention

Logically regulation should only exist where the unregulated market will fail to reach the desired outcomes. But historically governments have perhaps been too ready to embark on regulation without first ascertaining whether the intervention is really necessary. In consequence it is often difficult to identify the exact rea-

soning which motivated the intervention. Nevertheless, on the basis of the standard literature, we can attempt a non-exhaustive list of the justifications most often cited. These may be conveniently divided into *economic* and *non-economic*

The main economic instances of market-failure are:

- **Monopolies** or other significant impediments to a competitive market;
- **Inadequate or asymmetrical information** affecting the relationship between suppliers and consumers;
- **Externalities** (spillover effects) whereby activities affect third parties in ways not reflected in the prices set by producers;
- **Co-ordination problems**: though desired outcomes can in principle be achieved by private transactions, the costs of co-ordination are so high that it is cheaper for the law to prescribe conduct.

Among the most important non-economic justifications are:

- **Distributional justice**: the unregulated market leads to outcomes which do not accord with what is a perceived just distribution of resources;
- **Paternalism**: individuals are (in relation to the particular area of intervention) assumed not to be good judges of, or are not trusted to act in accordance with, what is in their own best interest.

It is not always appreciated that, in relation to most of the phenomena described above justifying regulation, private law remedies exist, capable in principle of solving the problem. So, for example, private property rights are used to internalize externalities and contracts are sometimes not enforceable where they are used in situations of information asymmetry. Arguably, such private solution should take priority because they allow those adversely affected to have their grievances addressed directly, without the heavy hand of state intervention. If that is right, those arguing for (public law) regulation should be able to demonstrate a failure of private law to solve the given problem.

3.2 Choice and Design of Regulatory Form

There is a wide variety of regulatory instruments and no consensus on how they should be classified (Mitnick, 1980). To illustrate the law-and-economics approach, we can take a brief look at the main forms used for social regulation which deals with such matters as health and safety, environmental protection and

consumer protection and tends to be justified by reference to externalities and asymmetric information.

Prior approval requires that firms, before lawfully engaging in an activity or supplying a product or service, must first obtain a licence or permit from an authorizing agency; and for such approval they have to satisfy the agency that certain conditions of quality are, or are capable of being, meeting the regulatory goal. The administrative costs of scrutinizing all applications is very high and to these must be added the opportunity costs arising from any delay before the licence is granted. Moreover, significant welfare losses arise if the system is used for the anti-competitive purpose of creating barriers to entry (Moore, 1961). The benefit from prior scrutiny must therefore be very large to justify, on public interest grounds, these substantial costs.

The **mandatory standards** technique allows the activity to take place without any ex ante control but the supplier who fails to meet certain standards of quality commits an offence and will be subject to pennal or administrative sanctions. Standards can be subdivided into: **performance** (or **output**) standards requiring certain conditions of quality to be met at the point of supply, but leaving the supplier free to choose how to meet those conditions; and **specification** (or **input**) standards compelling the supplier to employ certain production methods or materials; or prohibiting the use of certain production methods of materials. The most important economic variables in choosing between these types of standards are the costs of being informed on the technological means of achieving the regulatory goals, and the administrative costs of formulating appropriate standards and monitoring compliance (Stewart, 1981). In principle, firms should be given choice as to how to meet the goals, since that encourages innovation in health and safety technology Hence, there is a presumption in favour of less interventionist measures. However, the benefits of such measures might be outweighed by the costs of administering them and/or the costs to firms of acquiring information on the appropriate technology.

Standards (whether performance or specification) may be either uniform or differentiated according to region, industry or firm. Uniform standards are very much cheaper to formulate and enforce and they are less susceptible to being manipulated to protect private interests. But if the public interest goal is to minimize the sum of the costs arising from a given activity and of the costs of modifying that activity to reduce the harm, both sets of cost may vary according to the circumstances of the firm, its location, or the population affected by the activity. Formulating standards on the basis of "average" costs will then inevitably lead to some mismatches and welfare losses. Standards should then be differentiated where the benefits of reducing these losses exceed the additional administrative costs of formulation and enforcement (Latin, 1985).

Rather than impose standards on suppliers, forcing them to adopt optimal loss abatement, legislation may simply require that they **disclose to purchasers and others information** regarding harms or risks which may arise from the activity or product. If regulation forces suppliers to reveal adequate information as to quality/safety, on the basis of which consumers can exercise choice, market transactions will ensure that preferences are met; and there will be no welfare losses from consumers being deprived of choice, as can occur under a standards regime (Schwartz and Wilde, 1979). Moreover, mandatory disclosure will reduce costs where the consumer is the least cost-abater, notably by responding to published warnings. The administrative costs of formulating and enforcing disclosure rules are also relatively low, given in particular that policy-makers do not themselves have to determine optimal levels of loss abatement.

On the other hand the potential application of this technique is limited since not all those affected by the product or activity will receive the information and be able thereby to adapt their behaviour. Moreover, even within the narrower group of purchasers who can use the information there may be problems. It may be impossible to summarize the necessary information in a form which the great majority will read and understand. The "bounded rationality" of individuals may constitute a further obstacle: there is evidence that individuals tend to overestimate risks associated with low-probability events and underestimate those arising from higher-probability events. Given the often significant costs to purchasers of assimilating information and making decisions, it may be cheaper to force suppliers to adjust the product or service to what purchasers would presumptively have chosen if those intellectual processes had been completed. This solution may be particularly apposite where the costs arising from consumer error are high, for example where death or serious personal injury may result.

4. Regulatory structures and processes

All regulatory systems require a number of tasks to be performed: as an exercise of policy-making, the goals of a regime must be established; those goals must then be translated into the principles and rules which control behaviour; and there must be procedures for enforcing the principles and rules and for the adjudication of disputes arising from them. Important structural issues arise in determining how these tasks are to be allocated to different institutions. The determination of an appropriate allocation of power contains dimensions both horizontal (the extent to which authority should be conferred on institutions other than the legislature or executive) and vertical (the degree of control exercised over such institutions). There are, in addition, key process values which assist in conferring legitimacy on the institutional structure and protect it from being diverted away

from the public interest regulatory objectives; these include transparency and accountability.

4.1 Regulatory Rule Making

Within a single jurisdiction, regulation can be more or less centralized. For the purposes of exposition, assume that a federal state has different provinces. In general, regulation can supply to citizens different levels of protection at different prices, given that the cost of complying with regulation rises with its severity. If it be assumed that citizens across the federation do not have the same preferences, then there is a strong theoretical argument for decentralized regulation. Provincial lawmakers can more easily be informed about local preferences; and, should they reach decisions which do not meet those preferences, then citizens can move to another province where the package offered is more to their satisfaction. For their part, the suppliers of products or services subject to the regulatory controls can engage in trans-boundary trade or establish in regions where they are best able to satisfy consumer demand.

There are, however, obvious problems with this approach. First, it assumes that citizens are well-informed regarding the regulatory package, and alternatives available in different localities, and that migration is an easy option. Secondly, the regulation may have trans-boundary effects. Thirdly, provincial governments may come under pressure from their industries, who bear some of the cost, but none of the benefits, of regulation to override citizen preferences or exploit their lack of information. And if one province succumbs and reduces regulatory protection, the pressure on other provinces to do the same becomes all the greater.

Regulation at a federal level can, in an idealized form, solve these problems. It will also have the beneficial effect of reducing the amount of law as to which those engaged in market transactions, whether suppliers or consumers, will need to be informed. But centralization generates its own set of serious problems. It has to adopt what its lawmakers perceive to be the common denominator among regional preferences; and what emerges may in fact meet the preferences of only a small proportion of the greater population. Moreover, the very process of searching for the common denominator gives rise to problems of strategic behaviour between decision-makers and agreement will be difficult to obtain.

The above analysis suggests that neither exclusive decentralized regulation nor exclusive centralized regulation will be satisfactory. Some compromise between the two extremes is therefore called for. There should be a tendency to adopt harmonized federal regulation in areas marked to a significant degree by the following features: a homogeneity of preferences across the federation; serious trans-boundary effects; a strong likelihood, as a result notably of information problems, for provinces to engage in a race to the bottom. Where these features

are not so significant, regulatory rule-making should be left at the provincial level.

4.2 Delegation

Legislation often only lays down general principles, delegating the power to make more detailed rules to other institutions. An important policy issue is whether such institutions should be government bureaucrats or rather specialized agencies, to some degree independent of government.

Expertise can be concentrated and accumulated in specialized agencies in a way which is not always possible with government bureaucracies; and if the agency is also responsible for enforcement, that experience can beneficially feed back into the rule-making process. Further, distance from government may reduce the dangers of political interference, encourage a longer-term perspective and (perhaps) facilitate consultation and more open decision-making (Baldwin, 1995).

Politicians may face the dilemma of having to placate powerful pressure groups with conflicting demands. They may recognize that a particular regulatory policy will benefit one group and impose costs on the other. A statute containing a vague principle may gain them the support of the first group, without incurring substantial opposition from the second group. The costs to the latter will become more apparent when the detailed rules are formulated; but, if this task is delegated to an agency, that institution, rather than the politicians, will bear the brunt of the criticism. Such a strategy will, moreover, be favoured by powerful pressure groups if they are confident that they can "capture" the agency for their own ends.

4.3 Accountability

We may usefully distinguish between three different forms of accountability (Loughlin, 1986). First, there is **financial accountability**: regulators should satisfy certain standards of financial management; they should minimize administrative costs and not waste resources. This aspect is almost self-evident and most countries have systems of public audit designed to ensure that public authorities and officials operate within their budget and spend resources only for authorized purposes.

Secondly, their procedures must be fair and impartial (**procedural accountability**), such that there is an appropriate framework for making rules and decisions which serve the public interest and for resisting the undue influence of private interests. The principles are commonly grouped under the heading of “due process” (Mashaw, 1985). Where regulators make decisions affecting individual per-

sons or firms, such as the issuing of licences, they are usually subject to the natural justice requirement of a fair hearing. This requirement can be extended to other forms of regulatory rule-making, so that, for example, the regulators are bound to consult outside interests and to publish their proposals. Some are obliged to give reasons for their decisions.

Such procedures, it is often argued (e.g. Birkinshaw, 1996), encourage administrative rationality and thus lead to better rules, in the sense of facilitating adherence to public interest goals and constraining diversion to private interests. But it should it not be forgotten that "open" procedures generate substantial administrative costs and sometimes delays. They might serve to reduce inequalities in the power of pressure groups but, the closer the rule-making procedures are to adjudication, the more likely it is that the decision-makers will strive for outcomes which constitute a compromise between competing special interests that are represented in the proceedings; and that may force them to lose sight of a broader conception of the public interest.

The third form, **substantive accountability**, is the most ambitious. It seeks to ensure that the rules and decisions are themselves justifiable in terms of the public interest goals of the regulatory system in question. But this is not easy to achieve. Certainly scrutiny by legislatures is unlikely to be effective. But experiments have been made with other devices, of which perhaps the most interesting is regulatory impact analysis. Regulatory agencies, when preparing their rules, are in some countries required to issue a statement of the projected costs and benefits which the measure is likely to generate. This should at least impose some discipline on public officials to take account of the economic consequences of what they are doing (Froud et al. 1998).

Judicial review – the power of the independent judiciary to review the activities of public authorities – constitutes an important but also controversial instrument of accountability (Horwitz, 1977). Judges are well-equipped to assume the tasks imposed by procedural accountability. On the face of it, judges might also seem to be appropriate for monitoring substantive accountability. Their independence and autonomy, as well as the rules of the judicial process, should mean that they are insulated from political pressures to a greater degree than regulatory agencies. On the other hand, if the gates of review are opened too widely, the administrative costs of regulation may escalate and private interests will have an incentive to exploit the process for tactical purposes, thereby frustrating the implementation of public interest goals. Moreover, courts do not possess the expertise normally associated with regulators and the adversarial setting of the judicial process does not always lend itself to grappling with the range of problems encountered. (Fuller, 1978).

5. Conclusions and research Issues

In this paper, and drawing on the law-and-economics methodology, I have sought to identify the main characteristics of "good" regulation, such as to be consistent with the goal of promoting enterprise in transitional economies. The research issues to be derived from these characteristics can be summarized as follows.

- **Regulatory regimes applying to specific sectors**

  - What are the justifications (economic or non-economic) for the regulation?

  - Is there a failure of the market and private law to reach the desired outcomes?

  - Are the legal forms used appropriate in the sense of being cost-effective and well-targeted?

- **Regulatory regimes generally**

  - Is there an appropriate degree of decentralisation and differentiation in regulatory rule-making?

  - Is regulatory administration delegated to appropriate institutions?

  - Are there appropriate systems of accountability?

Appendix: A Case Study of Taxicab Regulation

"The taxi trade should be a model of textbook economics. There are lots of sellers (drivers), lots of buyers (passengers) and low barriers to entry (the price of care). It isn't. Throughout the world the trade is distorted - by government rules, monopoly, political lobbies, mafias, racial exclusiveness and every other sin in the free marketeer's book".(The Economist, 22 December 1990)

1. Introduction

Taxicab regulation provides an excellent subject-matter to illustrate the law-and-economics approach to regulation, because there are significant variations between regimes in different jurisdictions. The allegations that many of these regimes are ill-targeted and/or excessive also enable us to investigate how well the institutional structures perform in meeting public interest objectives.

2. Quantity controls

Limiting the number of taxicabs permitted to ply for trade is the most direct form of entry control. It has been a feature of most regimes and still operates in many jurisdictions, including London and New York. Given the adverse effects generally attributed to quantitative controls, limiting the availability and variety of services to consumers, and enabling supra-competitive profits to be earned, strong public interest arguments are necessary to justify them. “Excessive competition”, by itself, has little meaning (Breyer, 1982, 29-35) and if the concern is rather with possible deteriorations in the quality of the service, these can be addressed by means other than quantitative controls. The same applies to important externalities such as road congestion and pollution.

Where regulation has imposes quantitative limits, it has often conferred considerable discretion on the authority responsible for issuing licences. And such power is obviously open to abuse, encouraging corruption or at least capture by rent-seeking individuals.

There are some quantitative measures which seem to proceed on the assumption that the supply of taxis in a free market will not match demand, although it is difficult to find support from economists for the proposition. But why should regulators be able to assess supply and demand better than those exercising, or seeking to exercise, the particular trade (Ogus, 1994, 232)? Take, for example, peak demand periods. Regulating the quantity of supply to meet this problem is almost impossible, while in an unregulated market vehicles which have other functions during off-peak periods can enter to meet the demand, the result being reduced costs and prices (Australian Trade Commission, 1999, 17).

3. Other entry controls and licensing generally

Whether or not quantitative limits are applied, regulatory systems invariably require that both taxicab vehicles and their drivers are licensed. It follows that many of the standards involved in vehicle and driver quality controls have to be verified and satisfied prior to any lawful supply of the service. The administrative costs of such an ex ante scrutiny system are very high. As regulation theorists have been telling us for some time, there is also the risk that standards imposed under such a system are used to limit the number of suppliers, even though they are ostensibly designed only to control quality (Ogus, 1994, chap.10).

What then is the justification for the use of this method of quality regulation? The most powerful argument for the licensing technique is one based on enforcement considerations (Gallick and Sisk, 117; and see more generally, Shav-

ell, 1993). The capital invested and acquired in licence plates by the licence-holder operates as a bond which the latter will forfeit to the authority should he or she, or the vehicle, fail to comply with the quality standards imposed. Reliance on the ex post infliction of financial penalties, notably fines, generates insufficient incentives for compliance, especially where the probability of apprehension is relatively small and the resources available to pay the penalties are limited (Ogus and Abbot, 2002).

4. Price control

Where road space is very limited and congestion is a major problem, price controls can be used to regulate the demand for taxis relative to that for other forms of transport (Yang et al, 2000, 321). Indirectly, this amounts to a pricing of road use, justifiable by reference to externalities. But there are several more traditional economic arguments justifying price controls (Frankena and Pautler, 1986). First, demand for the services is inelastic since a customer hailing a cruising cab will not be able, at low cost, to compare the price offered with that of an alternative supplier; and the same applies at a taxi stand insofar as there is in operation there a “first-in; first-out” allocation scheme. In addition, the costs of bargaining a fare may be unduly high, or such as to enable the supplier to exploit the customer.

Of course, these arguments do not apply where cabs are hired by telephone or otherwise in advance. A separate regime, without price (and entry) controls, may thus be established for vehicles which are not allowed to solicit custom in the street or at ranks. Further, it may be possible to dismantle allocation practices at stands enabling customers to exercise freedom of choice. Deregulation of price controls should then be possible, provide that customers have sufficient information as to prevailing tariffs before entering a particular vehicle, and this can be achieved by a “price-posting” regime.

Price controls remain in most jurisdictions and the problems that they generate are typical of a number of programmes which require regulators to estimate what prices would have obtained if ordinary competitive market conditions had existed (Ogus, 1994, 305-317). Historically, the introduction of the meter considerably facilitated the task of pricing individual journeys, but working out a precise formula which captures the marginal costs of supply involves complexities, since “every taxicab ride is a relatively unique service”; the cost is a function of distance, duration and destination (Gallick and Sisk, 1987, 117).

5. Quality control

Customers hiring a taxi, whether from a stand, by hailing or by pre-trip reservation, will normally be insufficiently informed on the safety and quality of particular vehicles and their drivers. To some extent, the problem may be alleviated where firms supplying in the market are able to develop a reputation for the quality of their service. But since it is only consumers able to identify and select cabs operated by the firm who will be able to rely on this reputation, the argument does not apply to large areas of the market. It is therefore widely accepted that safety and quality regulation is necessary. The more difficult questions are how extensive the regulation should be and what forms it should take.

Let us first examine what systems typically demand of drivers. Uncontroversially they must have the relevant driving skills, competence in the relevant language and a specialist knowledge of the area where they seek custom. Some regimes go clearly beyond what can be accommodated within the information asymmetry justification for quality control. A good example is the regulation of the driver's appearance. And where the conditions to be fulfilled by the licence-holder are vague, there is always the risk that they can be used to restrict entry on arbitrary grounds.

Quality conditions applying to the taxicab are subject to similar considerations. The consumer information problem can certainly justify regulations concerning the installation and maintenance of meters as well as the means of identifying the cab and its driver. So obviously as regards the safety of the vehicle. But what are we to make of regulations which, as in London and some other British cities, require that taxis conform to a certain design and appearance? No doubt they may be more easily identified and many customers may be reassured to be conveyed in the traditional format, but if cheaper designs were to meet their needs just as well, why should these customers pay for the increased cost?

6. Systems Control

Whether, and if so how, taxi services should be organized by the regulating authority raises important theoretical and practical questions. In the first place, we must remember that the services may be viewed as part of a general public transport system and as such subject to public service obligations, for example twenty-four hour availability. More particularly, a municipality or regional authority may, on cost efficiency grounds, wish to substitute taxis for bus, trams or trains; or in other ways use them for public interest purposes, such as the transportation of schoolchildren, the disabled or the elderly (Trudel, 1999). In such circumstances, the authority is effectively hiring the services from suppliers but

without the problem of information asymmetry. Ordinary contractual relationships should thus be the relevant governance instrument, although the dimensions of frequency and duration might point in the direction of franchise and other so-called relational contracts which companies will compete to secure (Goetz and Scott, 1981). Positive externalities or distributional considerations might here justify subsidisation.

In some jurisdictions all licensed taxis have to be linked to a centre operating a radio booking system. The key argument is that of economies of scale and scope advanced by Teal and Berglund (1987) on the basis of an empirical study of taxi deregulation in the USA. They contend that, given the customer-specific nature of the taxi trade, large and experienced firms have considerable cost advantages over small and certainly single-owned taxis. Another regulatory option is to issue cab licences only to taxicab firms satisfying certain standards and with a minimum number of vehicles.

Among other "systems" controls, the convention or rule that cabs entering the rank first must be hired first is of some vintage and has generated some interesting policy debate. We have already seen that such a system is inconsistent with price competition and for that reason has been abolished in those jurisdictions which have deregulated price controls. On the other hand, it obviously avoids the hassle which a free-for-all will generate and that might be particularly beneficial in locations such as airports where space is limited and there is a large flow of passengers requiring the service (Australian Trade Commission, 1999, 16).

7. Institutions and procedures

The key issues here are the nature of the regulatory authority and the degree of its accountability. Insofar as good taxi regulation requires detailed information on local conditions, then there are clear advantages to decentralized decision-making.. However, public choice theory and conventional wisdom suggest that the more localized the decision makers, the more they are vulnerable to capture by private interests (Noam, 1982). The optimal solution would then appear to be local regulators, but subject to legislative principles or guidelines which articulate public interest aims and to procedures which are transparent and for which the decision-makers are accountable.

The general framework for taxi regulation is often to be found in national (or state) legislation and that sometimes, but not always, includes standards governing quality and "systems". Rule-making of this kind is by a democratically elected body and is transparent, but the principles emerging are often vague, leaving much in the way of discretion to the local regulatory authority. Conversely where, as typically occurs in North America, the rules are to be found in

municipal legislation, and thus the result of less transparent processes, they tend to be much more detailed. The national legislative framework may include criteria for the award of licences, but the key role of processing and determining applications is invariably for the local regulatory authority. Normally there are rights of appeal to a specially constituted committee of that authority. Beyond that, there may be a possibility of judicial review by a court or tribunal of a more general jurisdiction, thus enhancing the accountability of the process. On the other hand, in some jurisdictions such review may not enter into the merits of the case, but rather be restricted to ensuring that proper procedures have been observed. Traditionally, it has been assumed that, to protect the public interest, the members of the authority should be entirely independent of the industry. In London, rather anomalously, the police assume this function, but more often it is a commission with members representing, or nominated by, the local government, with the evident risk that local political considerations may unduly influence decisions. The possibility of capture is no doubt reduced if, as in New Zealand, the authority has responsibility for other transport or commercial undertakings.

Of course, if – and to the extent that – the processes of deregulation begin really o bite, and the industry becomes more competitive, the regulatory tasks are less with licensing and pricing and more with safety, achieving fair competition and broader policy questions. In such a context, there is an advantage in securing the industry's cooperation and perhaps granting to it a more substantial input into the regulatory processes (Taxi Study Panel, 1999; 54-57).

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Forest Sector Programme for the Northern Dimension: Progress through knowledge and technology transfer

Abstract: The forests of the Northern Dimension have immense global importance because of their broad expanse, biodiversity, their role in the global carbon cycle, and their actual and potential influence on international trade of forest products. The goal of increased integration of the forest sector in Northern Europe is to identify and achieve common targets for sustainable forestry and livelihoods through collaboration amongst Northern Dimension countries. In the Barents cooperation, the role of the forest sector was recognised in 1999. The Forest Sector Task Force was established by the Working Group on Economic Cooperation to prepare the Forest Sector Programme for the Northern Dimension. Utilisation of forest resources and related forms of wood processing has traditionally been the cornerstones of many livelihoods and social systems of the region. In addition, tourism has become a particularly prominent economic sector in the last few decades. Together, with continuing forest product extraction, a great challenge is evident in trying to achieve the balance between economic, ecological and social uses. The BEAC has a great challenge to increase sustainable forest management and use in northern Europe. Closer integration of the Russian forest sector will provide imposing new opportunities for European contribution to global forest sector development by putting emphasis on local and regional development. The joint programmes of human capacity building together with improvement of forestry and related industries, especially SMEs, are key elements for sustainable development in the Northern Dimension Area.

Key words: Sustainable forestry, regional development, integration of the forest sector

1. Background

In the Barents cooperation, the role of the forest sector was recognised in 1999. An initiative was set up with the goal of improving rural development in the Boreal forest region covering the forested areas of Norway, Sweden, Finland and Northwest Russia. The forest sector initiative was formulated in the meeting of the Committee of Senior Officials of the Barents Euro-Arctic Council (CSO/BEAC) on 21 April 1999. Relying on this initiative and the subsequent expert seminar organised by the Working Group on Economic Cooperation (WGEC/BEAC) in Petrozavodsk, in October 1999. The Barents Euro-Arctic Council welcomed the decision to create a Forest Sector Task Force in March

2000 in Oulu. One of the main aims of the Forest Sector Task Force was to prepare the Forest Sector Programme for the Northern Dimension (Forest Sector…2001).

2. Forest resources for development in the Northern Dimension

The forests of the Northern Dimension have immense global importance because of their broad expanse, biodiversity, their role in the global carbon cycle, and their actual and potential influence on international trade of forest products. The goal of increased integration of the forest sector in Northern Europe is to identify and achieve common targets for sustainable forestry and livelihoods through collaboration amongst Northern Dimension countries (Puurunen 1999). Achieving sustainable forestry and livelihoods will require diverse actions in different places, but will all need to demonstrate that they are ecologically beneficial, economically efficient and socially productive.

The annual growing period of forests is short in the northern part of Europe. This results in slow growth rate and low yield in biomass. The annual growth in the most northern exploitable forests may be 10 times lower than in central Europe (Assman 1970, Finnish Statistical…2000). Due to the internal growth processes of trees and the dynamics of biomass accumulation, the differences in standing volume between the northern and southern forests are much smaller than differences in annual growth and yield. This fact, along with large forested areas, gives preconditions for the exploitation of the northern forests.

The forested areas of the northern Europe are sparsely populated. In many regions the population is less than 10 people per km^2. Due to the reversed figures of population and forested area, the opportunities to utilise these forest resources are different in the Northern parts of Europe than from other parts. An important aspect of the European dimension of the forest sector is to analyse the needs and opportunities of different regions. One of the most urgent tasks is to integrate the forest sector in Russia with the European union. The promotion of cooperation in the field of sustainable management of forest ecosystems is one of the key actions in the Northern dimension policy.

The Northern Dimension forestry and forest industries are an important source of livelihood for the forested regions of every country. These can provide post-modern information societies with limited opportunities for local work and income. Many regions have realised that great numbers of people are moving to cities. The reason they are moving is because they are not able to find work in rural areas.

Table 1. Key facts about forests and people in some Northern Dimension countries (Burdin 1999, Finnish Statistical…2000, Pisarenko et. al. 2000, Swedish Statistical…1999)

	Norway	**Sweden**	**Finland**	**Northwest Russia***
Forests Area	8.7 million ha forest-land	25 million ha forest-land	20 million ha forest-land	108 million ha forest-land
People Population size, forest per capita Estimates of forest-dependent people	4.4 million inhabitants 2 ha forest/inhabitant and 147 m^3 standing volume/ inhabitant. 5,500 employees in the forest, 25,300 employees in forest industry	8.9 million inhabitants, 2.8 ha forest/inhabitant and 335 m^3 standing volume/ inhabitant. 17,300 employees in the forest, 79,600 employees in forest industry	5.16 million inhabitants, 3.9 ha forest/inhabitant and 380 m^3 standing volume/inhabitant. 23,000 employees in the forest, 72,000 employees in forest industry	13.86 million inhabitants, 5.62 ha forest/inhabitant and 601 m3 standing volume/inhabitant

* Northwest Russia includes two economic areas: Northern (Arkhangelsk Region with Nenets Autonomous District, Vologda and Murmansk Regions, Republic of Karelia and Komi) and North-West (Leningrad, Novgorod and Pskov Regions) with a total area of 1,662,800 km^2

In order to avoid this depopulation, the post-modern societies have tried to develop rural areas. These rural areas need a sound policy, institutional and legal framework will be needed, as well as sustained and optimal production of forest products, protection of the environment and active contributions to people's livelihoods. This means not only sustaining timber yields, but other products and services are important and may have a high social value. Practical sustainable forestry is therefore about undertaking the best available practices, based on current scientific and traditional knowledge. This will allow multiple objectives and needs to be met, without degrading the forest resources (Forest Sector…2001).

3. Forest-linked livelihoods, challenges for the Northern Dimension cooperation

3.1. Increasing diversity

Forests in the north of the region have been home to indigenous people for thousands of years. Their lifestyles have centred on hunting, herding and harvesting a diversity of forest products. Even in the past, forest degradation was obvious due to large-scale shifting cultivation and tar production. These methods have resulted in limited problems of erosion and other hazards to the northern conditions, but the structure of the forest has changed remarkably. The modern utilisation of the northern boreal forests is characterised by three special features and constraints. First, are the protective functions of the timberline (pretundra) forests. Secondly, protection of biodiversity and recreation are increasingly important uses. Thirdly, the profitability of forestry is a key issue for rural development in the north (Pelkonen and Saastamoinen 1999).

Utilisation of forest resources and related forms of wood processing has traditionally been the cornerstones of many livelihoods and social systems of the region. In addition, tourism has become a particularly prominent economic sector in the last few decades. Together, with continuing forest product extraction, a great challenge is evident in trying to achieve the balance between economic, ecological and social uses.

New uses of forest goods and services provide a good potential for development of local and regional economies. New innovations and entrepreneurship are turning towards a range of small- and medium-scale forest enterprises. Forests as a desirable environment, and wood as an ecologically sound construction material and fuel-source, are notions gaining ground amongst environmentally oriented consumers. In addition to the more traditional livelihoods, preservation is also offering working opportunities for local people. With the proper monetary valuation of public utility, income from nature preservation could increase in the future.

A great number of concrete steps have been taken in the development of various types of preservation areas. The magnificent chain of preservation areas, such as the biosphere reserve in Ilomantsi-Lieksa, Finland, Oulanka and Paanajärvi along the Finnish-Russian border, and Lake Vodla preserve in the eastern part of Russian Karelia. Even the largest European preserves of the Republic of Komi have been, and will be a challenge for international cooperation (Titov et al. 1994).

3.2. International tools for development

3.2.1. Model forests

The Model forest concept, which has been developed in Canada, has provided a tool to develop all the elements of the sustainable forest management. This internationally developed concept, with the balanced promotion of ecological, social and economical needs, has been applied in various ways in Russian Karelia, Komi and in Pskov.

The principle behind the model forest program is simple: To demonstrate how partners with different backgrounds, representing a diversity of forest values, can work together to achieve sustainable forest management using innovative, region-specific approaches. It has proven very effective. Since 1990, 11 model forests have been established across Canada representing six forest regions (www.modelforest.net, Fundy Model…2001). The concept has also been adopted by numerous other countries around the world, and is gaining momentum. In Europe, there are model forests only in Russia, developed by global NGOs and forest industries.

The main objective of the model forest concept is to improve and give opportunities of participation for local people. This is to strengthen equality among the stakeholders of forest utilisation and forest management. A wide variety of participatory methods are available which could be introduced for rural development processes.

The new European approach of model forests will put emphasis on collaboration between private and public sectors. The main aim is to encourage SMEs to take a more active role in networking, and to provide preconditioning to increase the entrepreneurship of different interest groups of forest sector development.

3.2.2. Certification-based timber production and trade

Forest certification and monitoring of timber origin are key market-based instruments emerging from environmental concern – with impact on forest management, supply chains and policy thinking (Mayers and Bass 1999). Nordic countries are increasing, but also in different ways encouraging, the spread of the Forest Stewardship Council and the Pan-European Forest Certification systems. There are major challenges of introducing certification as an effective tool in Northwest Russia. These need to be tackled concertedly.

Every relevant measure is needed in trying to promote trade in the Northern dimension region. A significant economic cooperation is taking place in timber trade. One should not undervalue the fact that wood and timber exports from

Northwest Russia to Finland have been close to 15 million m^3, including the millions of cubic meters exported to other countries of the region. The origin of the timber, and the transparency of the whole production and logistic chain are questions, which need special emphasis in order to improve forest sector cooperation under the pressure of global and market oriented forestry. The next steps of development will focus on the industrial east-west cooperation. The signals dealing with an improved investment environment of Russia during the last few months, gave optimism for the progress of the whole forestry sector.

4. Increasing international global context and links

4.1. Global interests and products

Globalisation is an inescapable set of forces. This fact has to be taken seriously in the development of regions. People of local communities and regions are more and more faced with interests and conflicts of global forest companies and NGO's. The interconnectedness of people with different cultural backgrounds materializes in local forestry actions.

The timber, pulp and paper industries in particular are becoming global. For instance, the biggest European forest companies have quickly globalised with numerous mergers and efficient processes of rationalisation during the last ten years. The location will be determined on the basis of the most profitable factors of production. The forest sector of the Northern Dimension has to take into account a great number of challenges regarding real global competition.

Where conditions of secure tenure and appropriate regulations prevail, large companies may have considerable strength to raise their capital and employ the best technology and management skills. These strengths will exploit comparative advantages through long-term investments in forestry. In the world of global players, local groups can potentially produce some new 'global' commodities – such as carbon storage – as well as 'niche' products such as organic non-wood products. Profits from the expanding markets have forced local producers to make risky efforts of internationalisation. This sort of development has been practised in Finland's North-Karelia, for instance, where local producers started large-scale mushroom exports to Italy.

A further feature of globalisation is that forest policy is no longer the main influence of the forest stakeholders. In addition to forest owners and wood processing companies, an increasing number of other urban interest groups are defining their needs towards forests. Big effects are often produced by policies from beyond the forest sector, such as international processes, communications and market movements that influence consumer demands. An increasingly important chal-

lenge is to develop the governance required to reconcile, trade-off, and attempt balance between globalisation and its emerging counterweight – localisation – the forces building for more locally rooted decisions.

4.2. Interconnection of global policy and local actions

The need to develop national and regional forest programmes has been spelled out in recent proposals of the Intergovernmental Panel on Forests (IPF). This approach has gained great support among many funding organisations. Practical implementations have taken place in order to improve the forest sector in countries with economies in transition.

The IPF defined national forest programmes as covering a wide range of approaches to conservation and sustainable management of forests. The IPF turned into the Intergovernmental Forum on Forests in 1997, which in turn reported to the CSD in 2000 and established the UN Forum on Forests (UNFF), which had its first session in 2001. The Northern Dimension countries are showing the NDFSP their intention to fulfil their international commitments as well as to provide a source of lessons from experience, which will be of considerable international interest.

UNFF has put serious emphasis on the fact that global forests represent a very important industrial sector and a source of income. Over 300 million people are directly dependant on forests and forest products for their livelihood. The pressure of consumption towards the boreal forest, including timber production related to the Northern Dimension, will be strong both from Europe and Asia. The human population of Asia is ten times greater, and is using ten times less paper products per capita than European inhabitants.

Globalisation is directing sustainable forest management everywhere amongst local communities. In this context, the secretary-general of the United Nations has defined five specific areas important for the World Summit on Sustainable Development, to be held in Johannesburg. The first (water), the second (energy) and the fifth (biodiversity) of the areas (Annan 2002) have clear consequences on sustainable forest management. Vigorous forest ecosystems provide tools for the development of fresh water management, the utilisation of renewable bio energy, as well as for preserving and increasing the global diversity of species.

These key areas of the World Summit, together with the carbon sequestration as the key element of the Kyoto protocol, will change forest management practices in the Northern dimension forests during the next decades. It is probable, that more than ever, forests have to be studied according to the multidisciplinary approach. Due to the international nature of the problems, globally oriented law and economics, development of ethical codes of conduct in addition to modern ecol-

ogy, will be the core areas of education and research related to forests in the future.

5. Key challenges of human resources development

5.1. Great problems and challenges in Russia

The scale of the problems of Northwest Russia is of a different magnitude than those in the forested regions of the Nordic countries. Forestry, and related industries, has not had a very high priority of development in Russia. Here, economic reform has clearly found first ground, especially in Moscow and other big cities. Dynamic market forces have had less influence in remote, forested regions.

Production volumes in forestry have collapsed to a half or a third of their former levels. This calls into question the future economic viability of many population centres in the forested regions. There are high unemployment rates in many rural forest villages, which together with the low salaries, makes life intolerably hard. Many sorts of social problems, such as frustration and uncertainty, with respect to the future perspectives, are serious consequences of inefficient forest sector. Recently introduced western harvesting technology provides little opportunity for local people to compete in the labour market.

Table 2. The development of future perspectives among inhabitants in Koivuselkä forestry village in Russian Karelia in 1994 (117 persons) and in 1997 (72 persons) (Oksa 2000)

Development	**1994 %**	**1997 %**
Village will disappear	36	63
Village will develop	12	1
Future as a summer village	9	4
No change	18	21
No answer	25	11
	117 persons	72 persons

Forestry in the region has received a lot of criticism over the last decade. Ecological sustainability has been undervalued and environmentally oriented interest groups and authorities have done a lot of work. These efforts improved the conservation of biodiversity and important forest ecosystems. The next major frontier to tackle is social – the viability of forest communities and the livelihoods of people working and living in the forest.

5.2. Problems with common nature but different time frame

The northern dimension countries are hardly alone in facing environmental, economic, social and cultural problems associated with forests. These issues resonate worldwide. More often than not, it is a question of a clash between values, knowledge, rights and capabilities (Pelkonen 1997). Most of those participating in debates on forests are genuinely trying to promote a pathway to development with the welfare of the region in mind. They have differing views on the appropriate balance between ecological, economic and social factors. It will be difficult to reconcile the extreme mainstreams since there is a great gap between the instrumental values of industrialists and intrinsic values of environmentalists.

Different actions are needed in different countries and places. Institutional and legal framework is a sound policy that will be needed everywhere. Sustained and optimal production of forest products, protection of the environment and active contributions to the people's livelihoods will also be needed. This means not just sustaining timber yields, but other products and services are important too. Practical sustainable forestry is about undertaking the best available practices, based on current scientific and traditional knowledge. This allows multiple objectives and needs to be met, without degrading the forest resource. It is not possible to maximise production of everything, all of the time.

Rural development has been faced with the rapid move of population to bigger cities during last decades in the Nordic countries. Not a long time ago, the authorities realised the disadvantages of uninhabited countryside and overpopulated urban metropolises. The lack of forest workers in large areas of the Nordic countries will be a serious problem for the timber production and related industries. Social sustainability in forestry is seriously threatened.

Table 3. Development of Kontiovaara village in North-Karelia, Finland (Rannikko 2000)

	Inhabitants	**Development of the infrastructure and services**
1955	*290*	*School, shop, health centre, 35 farms, public transportation*
1965	*160*	*School, shop, health centre closed*
1975	*45*	*Public transportation brought to an end*
1995	*20*	----

During last few years forest companies have realised the threat caused by the uninhabited countryside. Forest managers must define the balance of different objectives in sustainability that they are aiming to achieve. These objectives may also change over time as different products and services become more valued,

and as we learn more about what the forest can sustain. In many current contexts in the Northern Dimension, small and medium-scale enterprises, if developed with sufficient capability and support, show the greatest potential to deliver the above vision.

6. Need for improved and attractive education

In the rapidly evolving societies of Northern Europe, the forestry sector has encountered a large number of unexpected barriers to development. Lower interest, than in the past, towards traditional forestry education has also been found in the Nordic countries. However, during these last years, along with the difficulties in the IT-sector, the number of applicants has slightly increased in Finland and in Sweden.

In northern universities of Russia, education in the field of forestry and related industries has been popular among young people. There is great human resource potential for technology and knowledge transfer when young talented people are studying forestry and wood technology in the Universities of Northwest Russia.

Institutional and human capacity building is one of the most challenging areas for the improved integration under the label of the Northern Dimension. Integration of highly knowledgeable Russian students in Natural Sciences, especially Mathematics and Physics, together with strong orientation towards applications in western countries, gives a good basis to meet the challenges of the markets, which value environmentally friendly forest products. It is difficult to foresee a boom in groundbreaking innovations in the wood product sector of the western Northern Dimension countries, due to a lack of interest among young people.

7. Conclusion and the future steps of the NDFSP

7.1. Main integration principles for the forest sector of Northern Europe

NDFSP adopts the following ‘key principles’ for national forest programmes:

- National sovereignty and country leadership
- Consistency with national policies and international commitments
- Integration with sustainable development strategies

- Partnership and participation

- Holistic and inter-sectored approaches

Objectives and *action points* have been prioritised in the NDFSP. These need to be converted into specifically implemented projects and initiatives by a diverse range of stakeholders:

1. Management of NDFSP. Development of a coherent, prioritised programme building stronger forest management systems, and fostering cross-institutional learning and complementary joint programmes.

2. Policy development. Development of forestry research and information systems, national forestry programmes, legislation and workable rules, restructuring of institutions and forest ownership, cross-sectored policy integration, and forest environmental services.

3. Investment. Financing mechanisms, investment incentives and conditions for a diversity of production strategies, business-to-business exchanges, new markets, small- and medium-scale enterprises and company-community forestry partnerships.

4. Participation and learning. Participatory forest management, communication and extension programmes, and in-service learning systems.

5. Forestry operations. Integrated model forests, best practice in forest-linked livelihood strategies, and forest products adding to local value.

7.2. First conversions from objectives to practical actions

The BEAC has a great challenge to increase sustainable forest management and use in northern Europe. Closer integration of the Russian forest sector will provide imposing new opportunities for European contribution to global forest sector development by putting emphasis on local and regional development. In order to improve forestry and related industries, especially SMEs in the Northern Dimension Area, WGEC/BEAC decided to encourage the establishment of new model forests (http://www.forest.joensuu.fi/barents). The model forest programme gives prerequisites for the development in local communities according to the above-mentioned objectives and action points 3, 4, and 5.

The model forest concept, which has been developed in Canada, provides an internationally accepted tool for the development of sustainable forestry. The principle behind the program is simple: Demonstrate how partners, representing a diversity of forest values, can work together to achieve sustainable forest man-

agement using innovative, region-specific approaches. It has proven very effective. Since 1990, 11 model forests have been established across Canada representing six forest regions. The concept has also been adopted by numerous other countries around the world, and is gaining momentum. In Europe, model forests exist only in Russia and were developed by global NGOs and forest industries.

The main objective of the model forest concept is to improve and give opportunities of participation for local people to strengthen equality among the stakeholders of forest utilisation and forest management. A wide variety of participatory methods are available which could be introduced for rural development processes.

7.3. Technology transfer from research to concrete development

The aim of RTD through the model forest concept is to combine the main elements of sustainability and interactions with the relevant functions of the forest sector. The matrix of RTD task is as follows:

	Elements of sustainable forest management			
Area of forest sector	*Economical*	*Ecological*	*Social*	*Cultural*
Timber production	Medium importance medium-term	High importance immediate	Very high importance immediate	High importance short-term
Biodiversity preserv. and environmental	Medium importance Short-term	Medium importance medium-term	Very high importance short-term	Medium importance medium-term
Carbon trade and bio-energy	Very high importance immediate	Very high importance short-term	High importance medium-term	Medium importance medium-term
Services: eco-tourism, recreation, etc	Very high importance short term	High importance Medium-term	High importance Short-term	Very high importance immediate
Non-wood products berries, mushrooms	High importance Short-term	Medium importance Short-term	Very high importance Short-term	Medium importance Medium-term

A coherent RTD programme, which uses and develops relevant and efficient interdisciplinary methods for comparative analysis and synthesis, will provide a holistic approach for rural development and local participation. The same RTD orientation will be used in different geographical locations and conditions. The main aim is to develop model forests as learning organisations and systems, which can be strengthened through various interactions.

The outcomes of the RTD process will be based on the collaboration of diversified model forests in different parts of northern Europe. Applying the modern ICT, the remote and isolated forested regions with special local livelihoods can be introduced as a learning space for fruitful partnership. Technology and knowledge transfer between the partner regions will be the key element. Every developing model forest will be a specialised innovation centre in the network of rural

development of forested areas. The thorough analysis of global trends made by the research partners will frame the future opportunities of the regions. Only a synthesis, which has been made in harmonious collaboration with the research community, development organisations and practical actors, will offer balanced progress for the future in sparsely populated areas.

7.4 Model forest in North West Russia: Invitation to Tender as the first step

As a concrete action, the Working Group on the Economic Cooperation/Barents Euro Arctic Council, decided to establish a Model Forest area in North West Russia (http://www.forest.joensuu.fi/barents). The purpose of the Model Forest Project is to promote the sustainable usage of forests in North West Russia, at the heart of which is the promotion of economic and social interests in the area.

The objectives of the Model Forest are:

1. *To accelerate the implementation of sustainable development of forestry practices, in particular the concept of integrated resource management.*
2. *To develop and apply new and innovative concepts and techniques in the management of forests.*
3. *To test and demonstrate the best sustainable forestry practices available.*

A sizeable budget will be made available for the Model Forest. These funds will be mainly directed towards development of human resources in the area.

Invitation to Tender has been given to all Leskhoz in the region in July 2002. The Leskhoz are asked to submit a significant portion of their area to Model Forest use. The exact details of what will be required of the accepted Leskhoz, and the support given, will be defined during the identification process. The first BEAC model forest has been planned to start at the end of 2003.

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Michael Rodi

Northern Dimension and the Concept of Sustainable Development - integrative frameworks for environmental and economic policies

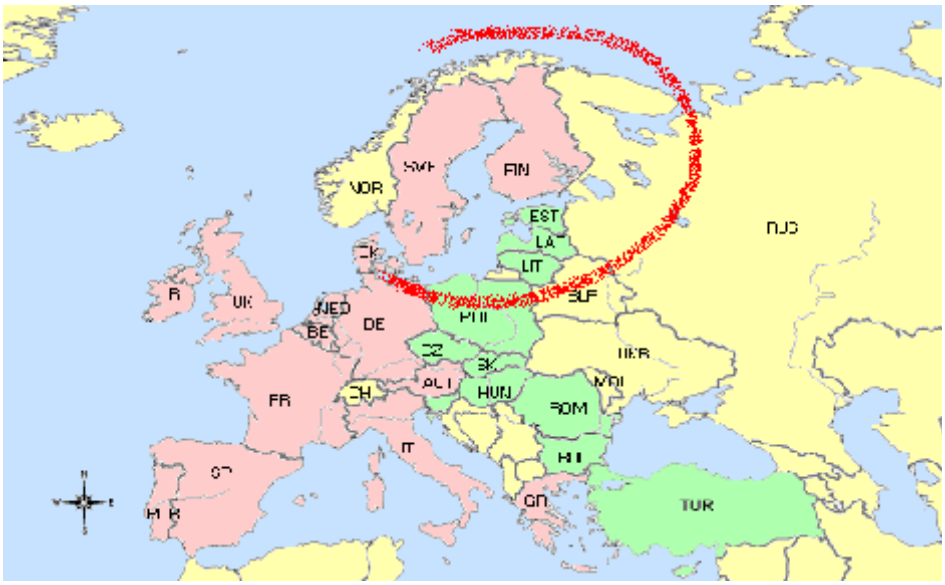
Abstract: Northern Dimension is a rather broad political and geographic framework concept connecting quite different countries within and without the European Union and linking quite different policy fields. Thus, it resembles another „umbrella concept“ – the concept of Sustainable Development, which currently is being incorporated into political, legal and economic discussions worldwide and on an European level. There are many similarities between these two concepts: they are interdisciplinary in nature (linking mainly political, economic and legal aspects), international in character (connecting countries of quite different structure and economic situation); they are referring to similar policy fields and political problems (e.g. environment, economic development and social cohesion) and developing new instrumental concepts to solve them (e.g. horizontal integration of policies). Both are like „guiding lights“ open for further development and have great potential, which is far from being fully explored yet. Beyond that background the methodic foundations of a „Northern Dimension Research Programme“ should be closely linked to the concept of Sustainable Development. This would not only create scientific synergies, but bring clearer outlines to the Northern Dimension concept.

Keywords: Northern Dimension, Sustainable Development

1. Conceptual Frameworks for Northern Dimension

The notion of Northern Dimension is linked to a geographical area: from Iceland in the west across to North West Russia, from the Norwegian, Barents and Kara Seas in the North to the Southern Coast of the Baltic Sea.

The Northern Dimension geographical area[1]



The concept of Northern Dimension, as it gradually evolves nowadays, reaches far beyond geographic aspects. For the people, states, regions, municipalities, business and non-business organizations in that area it is a common link in identity based on common history, common problems and the will to find common solutions for them. In a static view it covers everything which contributes to the homogeneousness of the geographic area in a political, mental or practical way in everyday´s life. In a prospective view it provides ideas and visions for a common development, common aims and ways to achieve them.

For the European Union the Northern Dimension is - similar to the Mediterranean policies[2] - official part of its external relations. At the Luxembourg European Council in December 1997 it was first recognized EU-wide. In the following years, it was developed into a more concrete concept: The European Commission produced among other documents a communication on a „Northern Dimension for the Policies of the Union“,[3] „Guidelines for the Implementation of the Northern Dimension“,[4] an „Inventory of Current Activities under the Northern Dimension“,[5] an „Action Plan for the Northern Dimension in the External and Cross-border Policies of the European Union“,[6] a „Full Report on Northern

[1]Northern Dimension - Overview, in: http://europa.eu.int/comm/external_relations/north_dim/index.htm.
[2]See for that European Commission, The Barcelona Process - 2001 Review, Luxembourg, 2nd ed. 2002.
[3]Adopted by the Vienna European Council in December 1998.
[4]Adopted by the European Council in Cologne in June 1999.
[5]Adopted by the European Council in Helsinki in November 1999.
[6]Adopted by the Feira European Council in June 2000.

Dimension Policies“[7] and, finally, a „Northern Dimension Action Report“[8]. In this process a specific setting of policy fields and policy instruments has evolved which are endorsed by a common and integrated commitment of financial instruments.

With a „Northern Dimension Research Programme“[9] these conceptual developments shall be acompagnied scientifically. Here, it is not sufficient to trace the regional and identity-related outlines of an ongoing process. In procedural aspect all existing and future research efforts have to be linked in an interdisciplinary network. Substantially the concept has to be broken down into specific topics and methodical approaches. For this purpose integrating strategies have to be developed serving as common base and denominator for the research activities.

The idea of Northern Dimension is a political and geographic umbrella connecting certain countries within and without the European Union and linking quite different policy fields including economic, environmental, social and democratic aspects. Thus, it resembles another umbrella framework – the concept of sustainable development, which currently is being incorporated into political, legal and economic discussions worldwide and on an European level. There are many similarities of these two concepts beyond their interdisciplinary nature: both are seen as guiding lights for political development, and great expectations have arisen for them, although the capacity of neither of them has been fully explored. This contribution will elaborate on how these concepts can be combined in order to strengthen the scientific base of the Northern Dimension Research Programme.

2. Sustainable Development in its Northern Dimension

2.1. The Concept of Sustainable Development

The concept of Sustainable Development meanwhile is broadly accepted in the political as well as in the scientific sphere. Thus, in this context a rough draft of its meaning and content should be sufficient to call it back to memory.

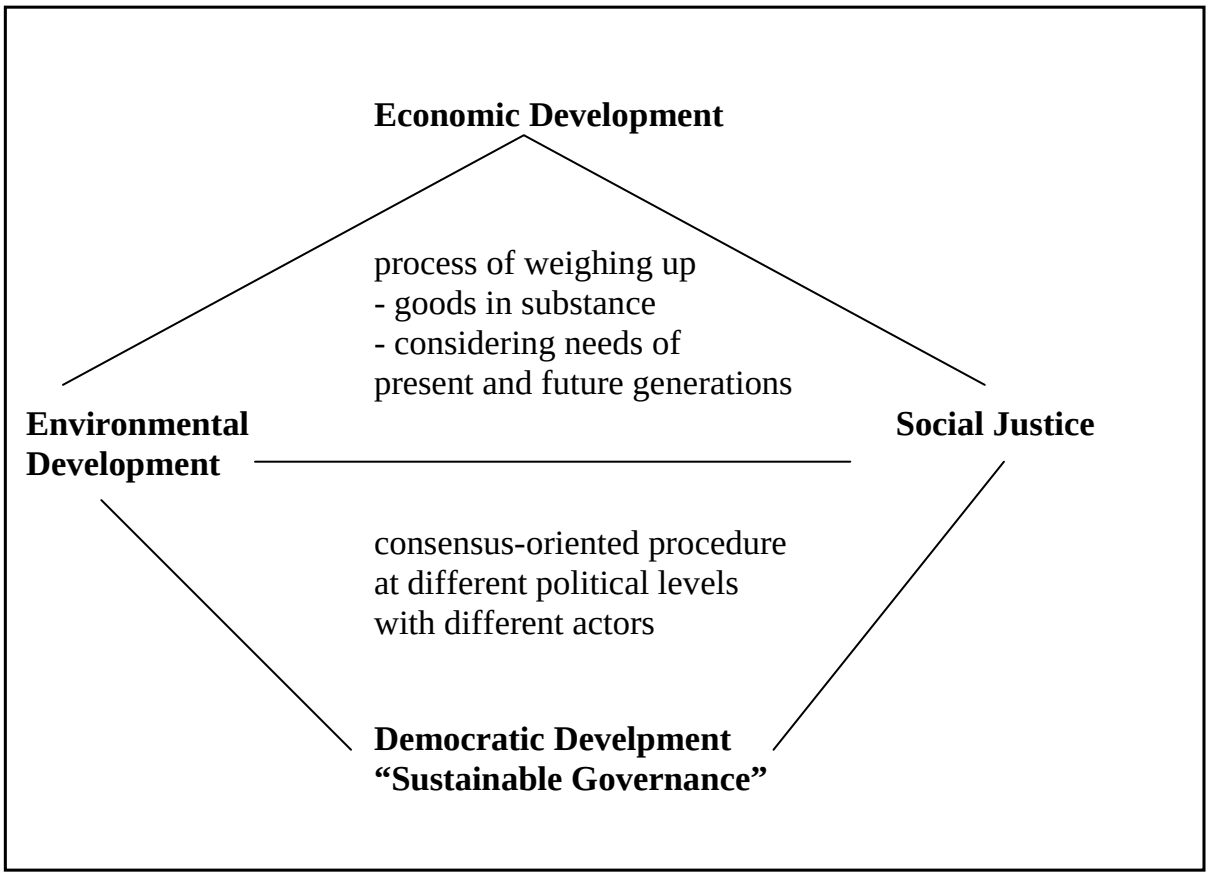
2.1.1. The Global Discussion

According to the Brundtlandt-report of 1987[10] sustainable development „meets the needs of the present without compromising the ability of future generations to

[7]Endorsed by the Göteborg European Council in June 2001.
[8]Planned by European Commission before the end of 2002.
[9]See for that http://www.northerndim.org.

meet their own needs“. From the very beginning the concept of sustainable development linked the environment to human behaviour, striving to shape it in a way that would maintain the foundations of life for future generations. At the same time, ecological aspects have been linked to the topics of economic development and social justice, forming together a „magic triangle“ with much tension in between (as „magic“ skills and power are needed to balance them in an optimal way considering the needs of future generations). Taking the procedural aspect seriously, meaning that those goals can only be achieved in a democratic, bottom-up process involving civil society one should rather call it a „magic quadrangle“.

Sustainable Development



[10]World Commission on Environment and Development (WCED): „Our Common Future“, Oxford 1987; see for „Brundtlandt Commission“: J. Barry/J. Frankland (eds.), International Encyclopedia of Environmental Polotics, London/New York 2001, p. 60 f.

Thus, the concept seeks for totality giving equal reference to each of its cornerstones, which have to be weighed carefully. With the element of intergenerational justice it exceeds frontiers of time and with the element of globality it exceeds geographic frontiers, especially linking interests of developed and developing countries. Sustainable development is a normative and dynamic notion; still its precise meaning cannot be discovered scientifically, but has to be found in ever new discussions. So it cannot be described by an authority, but has to evolve from a dialogue between international, governmental and non-governmental actors and groups in a consensus-oriented procedure.

2.1.2. The European Level

Sustainable development is a central goal of the European Union, as can explicitly be derived from the preamble and Art. 2 of the European Union Treaty. It is equally mirrored in the description of Community tasks in Art. 2 EC. When according to Art. 6 EC the requirements of environmental protection have to be considered within all Community policies and measures special reference is made to sustainable development as well.

Still the concept of sustainable development is of political importance on the European level far beyond these legal requirements. According to the „Cardiff process“, based on an initiative of the European Council meeting 1998 in Cardiff, all formations of the Council – especially traffic, energy and agriculture – were required to develop strategies to implement environmental concerns and sustainable development strategies into all policy fields. The „Lisbon strategy“ for „employment, economic reform and social cohesion“, established in March 2000, focuses on the economic and social dimension of the sustainability strategy. The basic outlines of the strategy of sustainable development were fixed by the European Council in Göteborg. From an institutional point of view this policy has been complemented by the aspect of „good governance“ or „sustainable government“, as sustainable development requires sustainable institutions and ways to regulate.[11]

2.2. Sustainable Development and Northern Dimension: Common Features

In first place there is an intuition that the concepts of Sustainable Development and Northern Dimension are overlapping in a way that might produce synergies

[11]European Commission, European Governance. A White Paper, COM (2001) 428; European Commission, EU Sustainable Development Strategy. A Case for Good Governance. Position Paper of the European Consultive Forum on Environmental and Sustainable Development, Luxembourg 2001.

and reinforcing effects.[12] But this assumption can be affirmed by referring to numerous common features of the two concepts.

2.2.1. International Dimension

Sustainable Development and Northern Dimension have an inherent international dimension exceeding geographic frontiers and linking countries with quite different (economic, social or cultural) backgrounds. Thus, the genesis of the notion Sustainable Development contains the idea of balancing the interests of developing and developed countries. The concept of Northern Dimension obviously refers only to a region, but nevertheless is international by definition (and also with quite different structure, wealth and economic abilities).

Certainly also as a consequence of this fact both concepts play an important role within the framework of the European legal and political system, as has already been mentioned.

2.2.2. Interdisciplinary Character

Moreover, both concepts are necessarily linking different policy fields having at least economic, environmental, social and democratic aspects. Thus, it is evident that they cannot be analysed by just one discipline or scientific method. Research related to them obviously should be done in an interdisciplinary approach.

2.2.3. Political „Umbrella“ Frameworks with a Limited Legal Foundation

The concepts of Northern Dimension and Sustainable Development both are primarily political concepts and have only a limited legal foundation. Thus, in both cases the political aspect should not be hidden behind legal arguments. Both can be characterized as political “umbrella” frameworks setting „guiding lights“ for a sustainable political development. Both are normative notions, which is more than legal, and both are evoking great expectations.

On the other side, both concepts have still to be developed and put into concrete terms in a multi-level and multilateral dynamic discussion process. Their contents cannot be „discovered“ scientifically (even not in an interdisciplinary ap-

[12]See e.g. Council Conclusions of 31 May 1999 (and again in June 2000) on the development of a Northern Dimension for the Policies of the European Union: “The European Union and its partner countries believe that the Northern Dimension process will contribute to reinforce positive interdependence between the European Union, Russia and other states in the Baltic Sea region, also taking into account the enlargement process and thereby enhancing security, stability and sustainable development in Northern Europe“.

proach), but have to evolve from a dialogue between many actors of a governmental and non-governmental nature and many scientific disciplines in a consensus-oriented procedure. And that is why the notion of "good governance" (or „sustainable governance") plays a central role on both sides.

2.3. Applying the Concept of Sustainable Development to the Northern Dimension

All these common features indicate that the concepts of Sustainable Development and Northern Dimension might be combined in a fruitful way.

2.3.1. The Northern Dimension of Sustainable Development - Basic Features

The Northern Dimension is an ideal area to field-test and implement the strategy of sustainable development as a legal and political concept.

The Northern Dimension is linking countries with quite different structures and backgrounds: It covers European Union Member States (like Finland, Sweden or Germany), European Union candidate countries with Europe Agreements (like the Baltic States and Poland), parts of the European Economic Area with Free Trade Associations (Norway) and last but not least it can be referred to the Partnership and Cooperation Agreement with Russia. The range between these countries regarding economic development, infrastructure, social and environmental situation is extremely wide. Despite that the Northern Dimension Concept tries to build bridges, recognizing the interdependencies and that there are similar and even common problems in the region.

Regarding the environmental dimension of Sustainable Development the area of Northern Dimension is characterized by common transnational environmental problems. As examples it can be referred to special effects of climate change in the area (with relatively higher temperature increases in nordic countries), to the special ecological sensibility of the Baltic and the Barents seas and to the massive concentration of nuclear power plants (to which Finland is about to contribute at present).

Regarding the economic dimension a natural common economic area is concerned. This is not only manifested by common historic roots (e.g. the Hanseatic Alliance). Namely since the political change in Eastern Europe traditional trade relations as well as traffic and transport communications have been revived. In this context the Baltic Sea plays a special role.

The assumption that the Northern Dimension is an ideal area to field-test and implement the strategy of Sustainable Development can be endorsed by ongoing developments. The area has already proved to be sort of a „laboratory“ in developing new political concepts based on the idea of Sustainable Development. Quite a number of modern environmental policy instruments like ecotaxes have been developed and field-tested here; of course, special reference can be made to Scandinavian countries in this regard.[13]

Moreover, there is an extended practice of bottom-up processes in participating civil society. Reference can be made for example to the Baltic 21 (the Agenda 21 for the Baltic Sea Region), the Baltic Sea States Sub-regional Cooperation (BSSSC), the Union of Baltic Sea Cities, the Baltic Sea Parliamentary Conference, the Baltic Sea Trade Union Network, the Business Advisory Council, the Arctic Council etc.

In the context of this bottom-up process common research and research networks have already in the past contributed substantially; and this shall be further reinforced by „Northern Dimension Research Programmes“. Speaking „pro domo“ the cooperation between the University of Joensuu (especially Prof. Kalle Määttä) and the University of Greifswald has developed to a nucleus for different kinds of networks. Moreover, a new, interdisciplinary oriented department for Baltic Studies in Greifswald is starting its activities at the moment, serving as a platform for further Baltic Sea research networks.

2.3.2. The Northern Dimension of Sustainable Development - Common Instrumental Concepts

Comparing the concepts of Sustainable Development and Northern Dimension some common features regarding strategies and instruments for implementation can be discerned.

Both concepts are characterized by the idea of integrating policy approaches and combining policy instruments („horizontal integration“); this applies to integrated financial frameworks as well, which have to reinforce substantial policy goals and complement each other in a synergetic way.

A central mechanism to reach that is the concept of internalization of external costs. A current topic is the implementation of a CO_2 emission trading system[14]. But the internalization idea reaches far beyond environmental policies, e.g.

[13]See for that OECD, Economic Instruments for Pollution Control and Natural Resources Management in OECD Countries: A Survey, Paris 1999.

[14]See for that European Commission, Green Paper on greenhouse gas emissions trading wirhin the European Union of 8.3.2000, COM (2000) 87 final; European Commission, Proposal for a Directive establishing a scheme for greenhouse gas emission allowance trading within the Community of 23.10.2001, COM (2001) 581 final

avoiding negative external effects in social security systems and considering the interests of future generations.

A third common instrumental aspect of Northern Dimension and Sustainable Development regards procedural concepts in the decision making process („vertical integration"), mainly with an involvement of civil society. As instituted by the European Council of Göteborg this concerns exchange and cooperation on the municipal level or in the field of business and labour relations.

2.3.3. The Northern Dimension of Sustainable Development - Policy Fields and Topics

Considering the European Union´s Northern Dimension Action Plans or Inventories of Current Activities as well as the outlines of the Northern Dimension Research programme a certain agenda of policy fields can be discerned. And it is no accident that there is a far-reaching though not complete overlapping with the sustainable development agenda. Also from here the Northern Dimension research agenda can sharpen its profile, if the correlation with the concept of Sustainable Development is accepted. Thus, there should be a focus on the following topics, which shall addressed in more detail further down.

1. economic development (e.g. trade policy)
2. environment (e.g. climate change)
1. + 2: agriculture and energy policies
3. social policies (e.g. health care)
4. civil society (substantive aspect): e.g. telecommunication and media; justice
5. civil society (formal aspects): bottom-up participation process

The Northern Dimension is characterized by tremendous differences in wealth and all kinds of economic activities. Sustainable economic development including sustainable economic growth and wealth creation is certainly a key task for common policies and research activities. In the words of the Göteborg Council the primary economic goal is to make the Northern Dimension region a level „playing field" for business to allow trade and investment to grow.[15] The importance and maybe even priority of the economic aspect can be underlined by the fact that all other objectives (environmental protection, social cohesion and civil society cooperation) are depending on a minimum of economic balance or, on the other side, are endangered by economic disparities. Closely linked to the topic of sustainable economic growth are problems of trade and transport, which will play a central role in the Northern Dimension Cooperation.

[15]According to the Council this playing field has to be based on the principles of fair competition, equal-treatment, non-discrimination and transparency in the business environment.

It is not primarily the day-to-day economic policies that scientific work and research should deal with in this context. The research activities should rather concentrate on basic preconditions of a coordinated economic development, especially trans-boundary investments. Special reference should be made to the compatibility of the technological infrastructure, the labour force (regarding skills and working conditions) and transport. In this respect an economic analysis of the legal system (including competition rules, corporate law and taxation) seems to be necessary.

In line with the sustainable development discussions on international and European Union level it is self-evident that a sound development of the (natural) environment is another cornerstone for research activities regarding Northern Dimension; this view is shared in the papers of the Commission and the Council. Main topics (among others) are climate change (which will have a predominant effect in the northern part of Europe), water pollution in the Baltic and Barents Sea, threats linked to a lack of nuclear safety and safe disposal of radioactive waste, the preservation of natural diversity (e.g. creating nature protection networks) and the sustainable use of natural resources.

Giving special reference to the sustainability aspect of environmental protection it is the long-term perspective on the one side and the close connection to economic aspects that should govern research activities here. Good examples are the possibly positive effects of fundamentally new policies, the relationship between the growing importance of the Baltic Sea as a transport way and maritime environmental protection or the economic preconditions to finance environmental protection can be named.

As prescribed by art. 6 EC and developed by the Cardiff process the central challenge of sustainable development will be a new environmental orientation of policy fields which were dominated by economic concerns and interests groups in the past, above all agriculture (including fishery and forestry), traffic and transport and energy[16]. A fundamental reorientation in these policy fields is a vital precondition of sustainable development and deserve also special attention in the context of Northern Dimension. With good reason this view is shared especially with regard to energy, which is according to the Commission „one of the key sectors in which significant added value of the Northern Dimension is expected“.[17]

As indicated above the „magic triangle“ of sustainable development has an inherent social component. The global aspect of adjusting living conditions in developed and developing countries can be directly referred to the Northern

[16]For political measures on European level see European Commission, Third communication from the European Community under the UN Framework Convention on Climate Change of 30.11.2001, SEC (2001) 2053.
[17]European Commission, Communication from the Commission: Strenghening the Northern Dimension of European Energy Policy.

Dimension, as this area is dramatically divided in poor and rich. Basically this is part of the above mentioned objective of wealth creation.

Specific social policy aspects have played a less prominent role in global sustainability discussions as well as on the European level; in the EU Northern Dimension programmes the only exception concern public health policies.[18] Nevertheless the Northern Dimension would be a perfect forum for another important social task closely connected to sustainable development: the reform of our social security systems in general, esp. the retirement and pension systems. Next to inter-generation equity aspects these questions imply severe financing problems with economic as well as competition implications.

Like the sustainable development concept the concept of Northern Dimension is a civil society concept (thus leading to a „magic quadrangle", as indicated above).

On the one side this has a substantial policy aspect („knowledge-based society and social cohesion"): telecommunication and information concepts and networks have to be developed, not only in the light of economic interests, but in order to strengthen civil society in the Northern Dimension. As far as justice and home affairs have been seen as part of the Northern Dimension concept in the past, this exceeds the outlines even of the sustainable development discussion. Extending the Northern Dimension concept to this extend would only water down the concept. In this regard it should be limited to economic relevant aspects, mainly to secure the legality of cross-border activities despite the disparities of living standards.

Like for the sustainable development concept the procedural part of the civil society aspect seems to be more important for the elaboration and development of the Northern Dimension concept as well. The already existing bottom-up process in developing the concept has to be strengthened including municipalities and local authorities, business representatives and organisations, non-governmental organizations and last but not least universities and other research institutes – so the Eurofaculty idea has to be pursued.

3. Research Agenda and Future of Northern Dimension

In the words of the European Commission „the Northern Dimension initiative needs to be seen fundamentally as a sustainable development initiative..."[19] It has

[18]See Council of the European Union, Northern Dimension Action Plan of 14.6.2000.

[19]Environment in the Northern Dimension (Position Paper Commission), p. 4.

been shown that this statement can be applied to the future research agenda of the Northern Dimension. Thus, basic elements of the Sustainable Development concept should be transferred and field-tested in the Northern Dimension providing the ladder with a clearer structure. On the other hand the Sustainable Development concept can serve to limit the scope of Northern Dimension concept, which is endangered by being too broad and thus vague; it seems to be reasonable to restrict it to topics covered by the Sustainable Development concept.

Stefan Speck

National Experiences with Economic Instruments for Environmental Policy

Abstract: A move towards greater and more consistent use of economic instruments as a complement or a substitute to other policy instruments, such as regulation, can be found in environmental policies in Central and Eastern European countries. One reason for this development is the integration process of environmental concerns into economic growth and development policies, which has emerged as a priority concern of modern environmental policies since the 1970s. This development has also to be seen in the context of the EU accession process, and changes in the system of economic instruments applied in CEE countries can therefore be expected. However, policy makers are facing a real challenge in combining aspects of economic efficiency and political and social acceptability on one, and the environmental effectiveness of economic instruments on the other hand.

Economic instruments are a powerful tool for protecting the environment and enhancing economic efficiency. Furthermore, their use can improve policy integration, for example, under the assumption that all sectors in an economy are subject to taxes resulting in the internalisation of environmental externalities and providing the same marginal incentives to all sectors. Importantly, politicians should keep in mind that the use of economic instruments for environmental policy is not a 'panacea'. There is almost unanimous agreement that the correct place for using economic instruments is as a part of a whole policy package, i.e. in combination with other environmental policy instruments.

This paper discusses national experiences gained in the Baltic states, Poland. A brief analysis of the advantages of environmental taxes compared to command-and-control measures is undertaken showing that economic instruments are a powerful tool for protecting the environment and enhancing economic efficiency. The following chapters discuss the current situation with respect to the implementation of economic instruments relating to energy, air pollution and the water sector in the Baltic states and Poland comparing with the situation in some EU member states. A conclusion is drawn in the last chapter.

Key words: Economic instruments, EU accession, Central and Eastern Europe, energy taxes

1. Introduction

The integration of environmental concerns into economic growth and development policies has emerged as a priority concern of modern environmental policies since the 1970s. During the 1970s and 1980s, environmental policies in industrialised countries were based primarily on a system of regulations. During this period, however, it became increasingly recognised that traditional regulatory environmental policy, despite some successes, failed to address new environmental pressures and prevent further unacceptable environmental damage. Moreover, these policies imposed potentially high costs to achieve environmental quality objectives. In recent years, economic instruments, as opposed to 'command and control' regulations, have been recognised for their flexibility and cost-effectiveness in attaining environmental objectives.

The process of transition to a market-based economy in the countries of Central and Eastern Europe (CEE) creates a different context for environmental policy-making and opportunities for environmental improvements that do not exist in OECD countries. Since 1990, economic reforms and restructuring have helped to reduce the role of pollution intensive industry in the economy, and investments have been made to tackle existing environmental liabilities and introduce modern technologies. Moreover, transition creates a unique opportunity for the introduction of charges and taxes for environmental purposes, as market prices begin to reflect real costs. Many countries of the region, led primarily by those most advanced in economic transition, have adjusted existing economic instruments and introduced new ones with the objective of supporting and promoting environmental improvements.

In the context of the EU enlargement process, arguably the most difficult challenge for the countries of Central and Eastern Europe to-date, the European Commission expresses support for the use of economic instruments to help achieve the requirements of membership in a cost-effective way (EC 2000a, p.5):

Market-based instruments offer additional possibilities to the candidate countries to effectively implement EU environmental law in practice. They could thereby facilitate the achievement of Community environmental standards in a cost effective way.

This paper reviews national experiences gained during the recent decade regarding the use of environmental taxes and charges with a special focus on the situation in the Baltic states, Poland and Russia.[20] It starts with a discussion about economic instruments in general. In economic and political terms, this past decade has been dominated by two processes, transition to the market economy and

[20] Detailed analysis of the situation and development of the 15 Central and Eastern European Countries can be found in REC (2001a, 2001b, 2001c, and 2001d) and also on the website: www.rec.org/siei

integration into the EU, which have advanced at different rates across the region. A short introduction of the implementation of economic instruments (EIs) relating to energy, air pollution and the water sector in the Baltic countries and Poland is presented before a conclusion is drawn in the last chapter.

2. Economic Instruments: Methodology and Major Economical Issues

Economic instruments comprise a rather broad group of policy instruments. Their common element is found in their reliance on market price mechanism to internalise costs and provide financial incentives to economic actors. Because of their flexibility, economic instruments are traditionally discussed in contrast to regulatory or 'command-and-control' instruments. While theoretical treatments often consider EIs as alternatives or substitutes for regulatory instruments, the margin between the two is sometimes very narrow. Many of the most effective examples of achieving environmental policy targets illustrate that regulatory and economic instruments are interrelated and complementary. Moreover, several environmental pressures exist for which the application of economic instruments is not an effective policy tool. For example, economic instruments may not be appropriate in areas such as hazardous wastes, or concentrated 'hot spot' pollution areas that pose risk to public health. In such cases, the use of EIs is limited, and it needs to be in conjunction with other policy measures.

Evaluations of the different instruments applied in environmental policies find that economic instruments are regularly introduced in parallel with other environmental policy measures, so it is often difficult to isolate the impact of the instrument when reviewing environmental quality trends.[21] Some of the most common economic instruments in use today are:

- Taxes and charges: which are discussed in further detail below;

- Subsidies: all forms of explicit financial assistance to polluters or users of natural resources for environmental protection e.g. grants, soft loans, tax breaks, i.e. tax exemption and tax relief, and accelerated depreciation;

[21] Among the OECD countries, two broad trends have emerged beginning in the 1980s and 1990s: the U.S. has relied primarily on marketable type instruments, i.e. tradable permit regimes for air emissions to implement its Clean Air Act (leaded gasoline phase-out, Sulphur Dioxide, and Nitrogen Oxides trading programs), and European countries have focused on taxes, such as Carbon Dioxide, SO_2, NO_x , and energy taxes as well as taxes in the waste and water sector. The use of marketable instruments has recently been receiving increased attention in Europe in particular in climate change programmes. See OECD (1999a, 1999b, 2000) and EC (2000b) for further discussion.

- Deposit-refund systems: payments made when purchasing a product (deposits) are returned (refund) when the product is returned to the dealer or a specialised treatment facility;

- Marketable permits, rights etc.: based on the principle that any increase in pollution or resource use must be offset by a decrease of an equivalent quantity. Often referred to as 'emissions trading';

- Financial incentives: including non-compliance fees, performance bonds, and liability payments; these instruments are financial commitments linked to improved environmental performance.

Taxes and charges, which are the main focus of this report, play an increasingly significant role in environmental policies, particularly in Europe. Based on varying concepts of the role and purpose of these instruments in practice, however, a generally accepted definition of the term 'environmental taxes' does not exist in current literature (EC 2000a). The European Commission summarizes the issue as follows: 'In the area of environmental taxation, different meanings are often given to similar terms in different Member States, and no precise definitions are offered by EU legislation' (EC 1997, p.3). The current generally accepted definition in Europe by the European Commission, the European Statistical Office (Eurostat) and the OECD is based on the rationale that an environmental tax is defined through the tax base. According to this definition, an environmental tax is 'a tax whose tax base is a physical unit (or a proxy of it) that has a proven specific negative impact on the environment' (OECD 1997 and EC 1997).

Further, a distinction is generally made between the terms tax and charge. 'Taxes are defined as: compulsory, unrequited payments to general government. Taxes are unrequited in the sense that benefits provided by government to taxpayers are not normally in proportion to their payments. Charges or fees are defined as compulsory requited payments to either general government or to bodies outside general government, such as for instance an environmental fund or a water management board' (ibid). This distinction is important for the analysis of these instruments in Central and Eastern Europe. While taxes may be earmarked for certain purposes – and are in some OECD countries as well as in CEECs – the term charge has been generally applied in Central and Eastern Europe when their explicit role is raising revenues for environmental funds.

As environmental concerns in industrialised countries received greater attention, environmental taxes were recognised by public policy makers for their potential to simultaneously address environmental concerns, finance public services, raise public revenues, and potentially replace other taxes. Today, a commonly used classification of taxes and charges distinguishes between three types, based on their function in public/environmental policy:

- Cost-covering user charges, whereby those making use of the environment contribute to, or cover the cost. The level of a cost-covering charge is determined by the service it is intended to deliver and revenues are primarily used to finance collective services, e.g. water supply and waste collection, or manage natural resources, e.g. resource extraction charges. These most closely resemble 'market prices'.[22]

- Revenue-raising taxes, which may influence behaviour but still yield substantial revenues over and above those required for related environmental service or regulation.

- Incentive taxes, which are levied with the objective of changing environmentally damaging behaviour without the intention to raise revenues. Indeed, the success of such a tax may be judged by the extent to which initial revenues from it fall, as behaviour changes.

These three types of environmental taxes are not mutually exclusive: a cost-covering charge may have incentive effects, for example to encourage the rational use of water, an incentive tax may raise revenues, and revenue-raising tax may be partially used for related environmental purposes. In particular, cost-recovery user charges most resemble pure market prices for a good or service, and play an important role both as financing tool for public services, i.e. covering the full-costs[23] of delivering the service, and incentive instruments that reduce environmental pressures.

In practice, the design of overall tax regimes and the environmental concern being addressed tend to influence which of these functions is primarily being served. Moreover, the type of instruments selected may also determine their impact on broader public policies. As more experience has been gained with various instruments and some have been evaluated, the discussion of environmental taxes has become closely linked to the discussion of some environmental, political and social sensitive issues:[24]

- Environmental effectiveness of economic instruments;

- Distributional and equity effects of economic instruments; and

- The potential loss of competitiveness for domestic industry.

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[22] The US EPA defines user charge as '…a fee paid in exchange for the use of natural resources or for the collection or disposal of pollutants (USEPA 2001, p.33)'.

[23] Full cost recovery, in principle, includes the cost of capital, maintenance costs and operating costs plus any computable external costs. For this reason full cost recovery is both difficult to implement and evaluate.

[24] A more detailed discussion of these issues can be found in REC 2001b.

3. Issues in Transition and European Integration

3.1. Environmental Policy and Financing: The Challenge of Transition

Countries with economies in transition to a market economy face particular challenges introducing environmental policies and implementing the polluter pays principle (PPP). In Central and Eastern Europe, key factors which have created specific policy challenges during the 1990s have been: inherited environmental liabilities for past damages and underdeveloped infrastructure, low per capita GDP and pressures on government spending, underdeveloped financial institutions, and poor enforcement of existing environmental regulations. In addition, opportunities for 'no-regret' or cost-effective investments yielding environmental improvements or reducing the need for future remedial investment are sometimes missed due to uncertainty, lack of information and poor access to international credit market.

Countries in transition face an environmental legacy from previous governing regimes. In most cases this is a liability in the form of environmental degradation and/or poor existing infrastructures for water supply and wastewater treatment, energy distribution and waste management. The very complex issue of liability causes financial as well as legal and commercial questions, which are also characterized as problematic in Western countries (EBRD 2000). These open questions are in particular important in the context of privatisation. At the national level, debt repayments often represent a large portion of public expenditures, and countries are faced with hard budget constraints in which to meet international payments and domestic development needs.

Macroeconomic conditions also influence the capacity of the economy as a whole to invest in the environment – or respond to government regulations. Recession and inflation, and extreme cases of hyperinflation in some of the countries analysed, undermine the real purchasing power of citizens over time. Financial uncertainty, poorly developed commercial capital markets, and lack of information and training in the financial services sector regarding environmental legislation create further obstacles to both the supply and demand of finance for environmental investments. High and volatile inflation rates and banks' experience with negative real interest rates on lending combine to undermine incentives for the supply of credit, particularly long term credit.

Finally, the legal and institutional context in which economic actors make decisions influences decisions taken by potential polluters. Complex issues regarding property rights (capital stocks, natural stocks) often emerge during the transition toward a market-based economy. Continued state-owned monopolies in the energy field and mixed incentives for tenants/owners in apartment buildings have also been identified as substantial barriers for rational resource consumption. Public institutions responsible to provide a clear and enforceable framework for

economic actors - including providing and enforcing regulations for behaviors that impact the environment – are themselves in transition. Environmental policymakers, environmental monitoring institutions, tax authorities, municipal authorities, public service providers are often underfunded, undertrained, and assigned new responsibilities during transition. In many cases, this has led to mixed and unclear responsibilities between agencies or levels of government and ultimately to the poor enforcement of environmental standards. [25]

Transition to the market economy, however, has also brought with it many environmental improvements. The reduced pressure on the environment in the 1990s was largely attributed to the slowdown of economic activity throughout the region. This conclusion is supported by the findings of a recent World Bank study which indicates that the economic recession associated with the first years of transition have led to improved environmental indicators such as key air pollutants (particulates, SO_x and NO_x) and water pollution levels.

Moreover, economic reforms have reduced the share of pollution-intensive industry in total economic activity, helped with the introduction of cleaner technologies, and provided incentives to reduce wasteful and inefficient production and consumption patterns (OECD 1999a, p.17). The process of restructuring the economies and also the introduction, and gradual increase of prices (i.e. cost-recovery charges) for services and resources such as energy, water and waste management had the effect of raising necessary investment revenues for these sectors and providing the first signals to use natural resources wisely. A good example of the effect of restructuring, recession and pricing can be seen in the 32% decrease in energy use in the manufacturing sector in CEE countries from 1990-1995. In countries more advanced in the transition to a market economy, these initial structural changes have been supported by reforms later in the decade. EBRD's Transition Report 2000 (p. 45) reports that '.. in countries such as Poland and the Slovak Republic energy use has started to decrease owing to efficiency-enhancing restructuring, the shift from an industrial to a service-based economy, increased energy tariffs and more rigorous collection.' Despite a renewed increase in economic output, the decoupling of economic recovery from increased pressure on the environment can already be recorded. Similar developments are found in some of the other CEECs, such as the Baltic states, Slovakia and Croatia.

Notwithstanding these positive trends, evidence indicates that several obstacles have delayed or prevented the full exploitation of the environmental benefits that these reforms offer, and that market reforms alone will not be sufficient to solve the environmental problems in the region. While absolute indicators have improved dramatically in the region, energy efficiency remains poor and emission levels high when compared to OECD countries.

[25] For general discussion of environmental policy during the transition process see OECD 1999a.

In response to specific obstacles to financing environmental policy objectives enumerated above, a number of public policy strategies taken over from OECD experience have been employed by decision-makers in economies in transition to address priority environmental pressures. It is clear from the discussion above that a broad range of reforms and policies can affect environmental financing needs: market-based reforms, improved environmental policy enforcement, institutional reform aimed at transparency and efficiency, clear public information programmes, and reforms in the financial sector. Keeping this broader transition context in mind, this section of the report focuses on how environmental policy-makers adapted economic instruments to the new market-based economic realities and used them to capitalize environmental funds, which are serving as financing instruments in transition countries.

3.2. Economic Instruments and Environmental Funds: The Issue of Earmarking

OECD countries have increasingly recognised the capacity of economic instruments to provide incentives for attaining environmental policy goals at least cost. In the US, experience with tradable pollution systems for SO_x and NO_x have been estimated to save millions of dollars in compliance costs for producers and consumers and achieve pollution reduction goals. Emission taxes in Sweden, Denmark, Finland, Norway, Netherlands and more recently Germany and Italy have reduced pollution and provided incentives for energy efficiency. While subsidy schemes have been employed in conjunction with some of these emission taxes, the trend in Western Europe has been towards introducing environmental taxes, which are no longer considered sources of finance for environmental investments, but, rather, clearly designed to provide incentives for reducing pollution. Examples are taxes imposed on CO_2 emissions and excise taxes on motor fuels.

In contrast to these developments, earmarked revenues providing subsidised finance for environmental investments have been considered necessary in economies of transition in CEE in order to deal with the legacies of environmental degradation and overcome the obstacles of the transition period. One of the main sources of subsidised finance has been environmental funds, which have existed in their current forms since as early as 1989 in Poland, and have been established in most countries of the region during the 1990s.

A review of recent activities of environmental funds in the candidate countries demonstrates that these institutions have responded to evolving challenges in different ways (REC 2001d). In practice, each of the funds work within a specific policy and domestic institutional context; manage varying amount of revenues from different sources; and provide subsidised financing for environmental investments through distinct disbursement mechanisms (primarily grants or loans). It is also noteworthy that funds have taken different approaches to achieving

similar broad goals and objectives under a common set of operation guidelines. Further differences among funds regarding institutional context are clearly reflected in the levels of transparency and efficiency in project and investment program management; and based on these experiences funds have developed unique strategies for future operations.[26]

Environmental funds in the candidate countries rely on a wide range of revenue sources. Most funds in the region are capitalised with revenues from environmental charges with smaller portions coming from privatisation and loans or grants. Other funds have been capitalised largely or exclusively by international donors and International Financial Institutions. Revenue sources for individual environmental funds have evolved over the course of fund operation. On the whole, revenues from economic instruments have been the most important revenue stream throughout the decade. But revenues from pollution charges and other environmental fines have peaked in the mid or late 90s with few exceptions. In most cases, revenues from privatisation have also been phased-out. Where loans are offered, however, revenues from loan repayments have increased consistently in recent years and offer predictable revenue stream into the future.

The revenues of environmental funds in the candidate countries, on an aggregate level, have continued to increase, in nominal terms, over recent years. Since 1995, environmental funds have managed a total of over EUR 4.2 billion (REC 2001d) for investments in the environmental sector throughout the region.

4. Economic Instruments on Energy Products

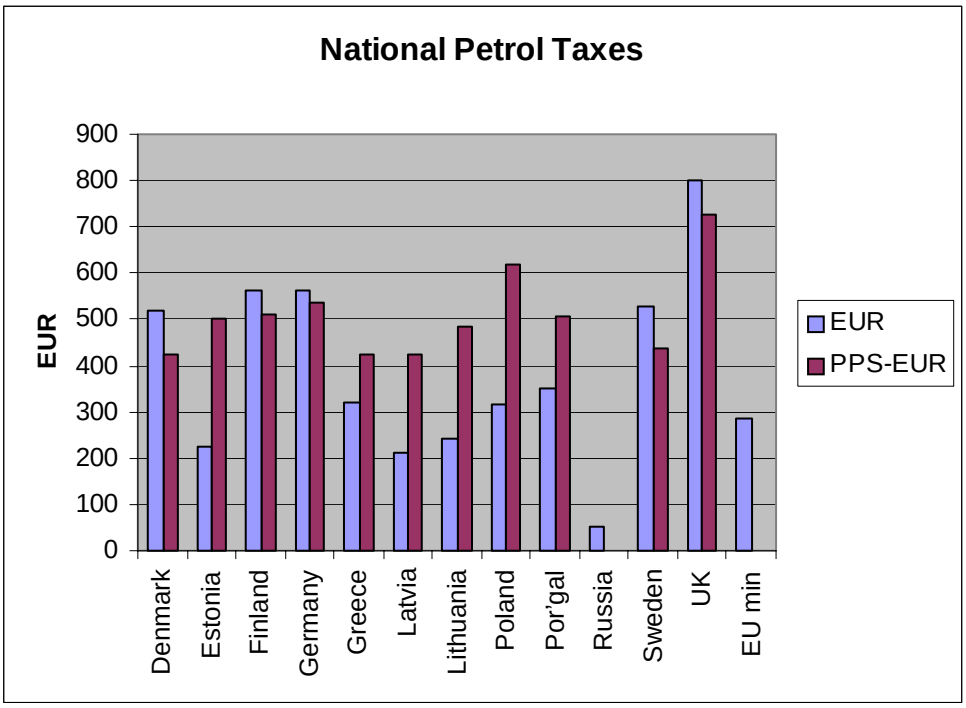
4.1. Motor Fuels[27]

An analysis of excise taxes for motor fuels (petrol leaded, petrol unleaded and diesel) shows variation between the countries covered in this survey. Figures 1 and 2 present excise tax rates for unleaded petrol and diesel in selected countries for the year 2000. As a benchmark, the EU minimum excise tax rates (Directive 92/82/EEC) have been used, and the comparison showed that the Baltic states have not reached these levels.

[26] However, the situation in Russia is different because the environmental fund on the federal level was recently abolished. The situation is more complicated at the regional level because some regions choose to retain environmental funds and other regions to abolish in accordance with federal policy.

[27] This chapter is an updated version of the paper written by Speck, McNicholas and Jackson (Speck et al. 2000).

Figure 1: Comparison of tax rates on unleaded petrol in selected European countries (unit: EUR per 1000 liters; situation: 2000)

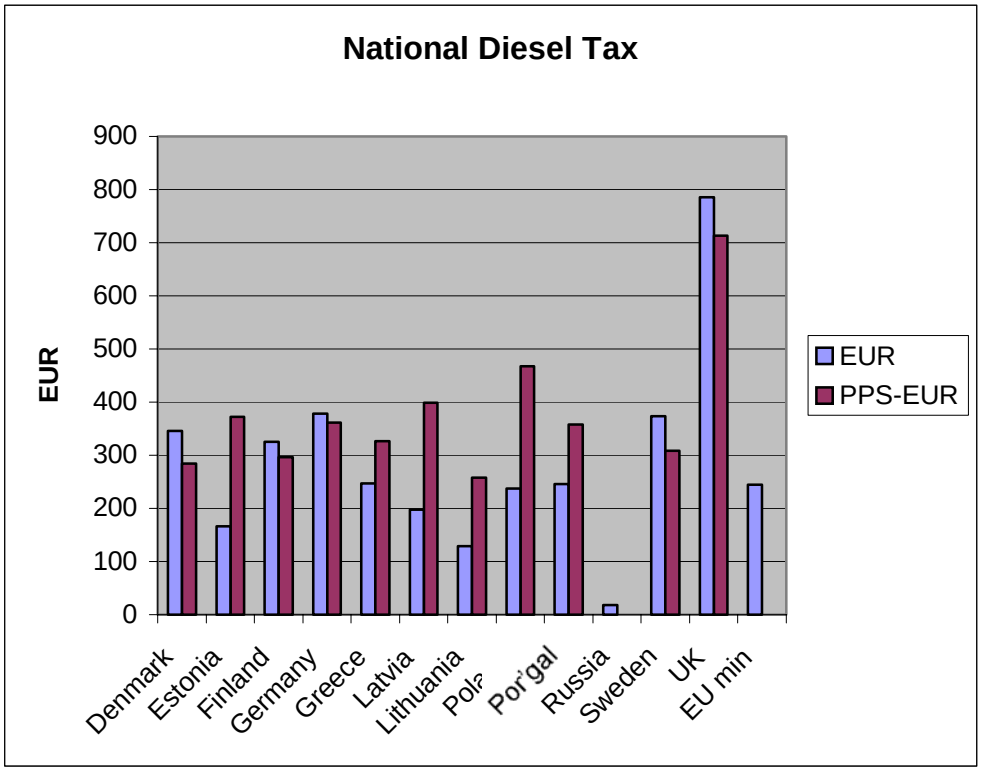


Generally, the comparison of tax rates levied on energy products is based on the conversion of tax rates expressed in national currencies into a standard currency such as the EUR. However, this form of conversion can give inconsistent results because exchange rates do not reflect the relative price levels in the different countries and they do not cover changes in relative prices over time. To overcome this lack of clarity the use of purchasing power standards (PPS) is proposed in standard economic literature because the use of PPS as the conversion rate shows how many goods can be purchased with the local money within the country compared to the use of the official conversion rate which shows how many EUR can be bought at the exchange market.[28]

It is not surprising to see that the tax rates are generally lower in CEECs than in western European countries by using the standard exchange rate EUR to national currency. However, this statement is no more valid when instead of the exchange rate the PPS EUR exchange rate is applied. It is noteworthy to record that countries generally characterised as advanced countries in terms of introducing taxes on energy products, such as Denmark and Sweden, have quite low taxes when the basis of the conversion are the PPS rates.

[28] The use of PPS is the standard approach when GDP figures of nations are compared on a per capita basis (see for example World Bank or Eurostat publications). But it should be noted that PPS is an artificial currency reflecting differences in the price levels between countries which are not reflected by the official exchange rates.

Figure 2: Comparison of tax rates on diesel in selected European countries (unit: EUR per 1000 liters; situation: 2000)



One of the interesting aspects when comparing the results for the ten accession countries is the fact that the tax rates in the three Baltic countries are generally lower than in the other countries of the region. These findings are valid when using exchange rates as well as the PPS conversion factors.

The excise tax rates have been significantly increased during the last couple of years in most of the CEE countries. However due to inflation, decrease of the excise tax rates can be observed in some candidate countries. Generally speaking, very few countries have introduced measures to link the level of environmental taxes/charges to inflation.

4.2. Other Energy Products

However, taxes on mineral oil products used for purposes other than transport is in general not so favorable if compared with EU requirements that also established minimum rates for these energy products (Directive 92/82/EEC). While most of the countries in the region have introduced excise taxes for light fuel oil, heavy fuel oil is subject to this tax only in Latvia, Lithuania, Poland and Slovenia.

Taxes on natural gas, electricity and coal are not commonly introduced in CEECs with some exceptions such as an *ad valorem* tax on electricity in Lithuania (the tax base is the sales price of electricity and the tax rate is 1% of the sales price), and natural gas tax in Romania. This group of energy products is often subject to reduced VAT rates thus reflecting social concerns. The same situation of reduced VAT rates can be found in EU member states, e.g. Ireland and the UK, where the use of heating fuels is levied with a reduced VAT rate (EC 2000b).

5. Air Pollution Charges/Taxes

Countries in Central and Eastern Europe have previous experience with emission charges, as pollution charges and non-compliance fees were introduced in many countries as early as the 1970s. While serving no economic function per se during this period, these charges were modified during transition to a market-based economy in many countries. As subsidies for operating costs were reduced and enterprises began to face real financial constraints, pollution charges emerged as real costs to producers and consumers. The value of environmental charges was also apparent to environmental policymakers who recognised the need for investment revenues in the environmental sector.

The development and implementation of air pollution charges, the primary pollutants being SO_x, NO_x, and solid particles, varies both in comprehensiveness and success throughout the region. On a regional basis, more attention has been given to the revenue raising function of economic instruments rather than their ability to provide incentives to polluters to reduce environmental pollution.

The scheme implemented in CEECs differs from many schemes in Western Europe in the sense that emission charges have been introduced in conjunction with a permit system: a base charge rate is applied to all pollution within the permitted level and a penalty rate is added for pollution exceeding that level (the so-called non-compliance fee). Large point source polluters (combustion plants, heavy industry) are the primary subjects of these instruments. The charges are intended to raise revenues and encourage cost-effective abatement below the permitted level. The fines (non-compliance fees) are intended to provide incentive to reduce pollution to permitted levels and therefore play a compliance as well as an incentive function. Such a system is in place in the Czech Republic, Estonia, Latvia, Lithuania, Poland, Slovakia and also in Russia.[29]

[29] See McNicholas and Speck 1999 for further discussion on pollution charge systems in CEE.

Table 1: Selected Emission Taxes/Charges in European Countries (situation 2000)

Country	**NO_x Emission tax - charge**	**NO_x Non-compliance fee**	**SO_x Emission tax - charge**	**SO_x Non-compliance fee**
	EUR per ton NO_x	EUR per ton NO_x	EUR per ton SO_x	EUR per ton SO_x
Estonia[a]	8.1 (EC)	80.5 (NC)	3.52 (EC)	35.2 (NC)
Latvia[b]	17.9 (EC)	53.7 (NC)	17.9 (EC)	53.7 (NCF)
Lithuania	105.5 (EC)	applies but varying	56.3 (EC)	applies but varying
Poland[a]	85 (EC)	850 (NC)	85 (EC)	850 (NC)
Russia[c](1999)	1 (within limits) 4.9 (within temporary limits)	24 (above limits non-compliance)	0.8 (within limits) 3.9 (within temporary limits)	19.5 (above limits non-compliance)
Denmark[d]			2,700 EUR per ton of S (PT) 1,340 (ET) per ton of SO_x	
France[d]	22.9 (ET)		27.4 (ET)	
Italy[d]	105 (ET)		53.2 (ET)	
Spain[d]	33 (ET)		33 (ET)	
Sweden[d]	4,630 (ET)		3,470 EUR per ton of S (PT)	

Source: REC 2001b

EC – emission charge; NC – non-compliance fee; ET – emission tax; PT – product tax;

A) Non-compliance fee is 10 times the emission charge for the given pollutant.

B) Rates for non-compliance fees are 3 times the emission charges for emissions above the permitted limit, and 12 times the emission charges for the emissions without permit.

C) Rates for emissions within temporary limits are 5 times higher and the non-compliance gee is 10 times higher than the base rate.

D) Western European countries: Denmark – SO_x tax levied either on energy products (product tax based on sulphur content of the fuel) or emission tax (ET) (levied on actual SO_x emissions); France: installations (power stations and waste incineration plants) exceeding 20 MW are subject to the taxes; Italy: large combustion plants with nominal power exceeding 50 MW are subject to the taxes; Spain (regional taxes implemented in autonomous region of Galicia): actual tax rate depends on total amount of polluting substances-rates are given for more than 50,001 tons of pollutant substances released per year; Sweden: sulphur tax: tax rate presented above is for coal and other solid fuels.

Furthermore, emission charges ranging from 0.5 EUR/t (Estonia) to 23.4 EUR/t (Slovakia) are levied on CO emissions in 5 countries of the CEE. Other key pollutants subject to air emission charges/non-compliance fees include solid particles and heavy metals. This situation attracts some attention when compared with the development in EU member states where emission taxes are only introduced in five countries including an autonomous region in Spain. However, the assessment of the effectiveness and efficiency of these economic instruments in the region is complex because the administration of them is less optimal in certain cases, due to, for example, the large numbers of chargeable pollutants, and exemptions schemes available for polluters. There are a few examples of attempts to increase environmental effectiveness of air emission charges throughout the region, primarily through the reduction of the number of chargeable pollutants and increasing charge rates.

While in general charge rates in CEECs are too low to produce an incentive effect, it should be noted that, with the exception of countries with advanced tax schemes, some tax/charge rates in CEE are in some cases comparable with rates in Western European countries (Table 1). The comparison of the rates applied in CEECs with the situation in the EU member states shows that, in particular, the Polish and the Lithuanian charge rates are higher than charge rates in France, Italy and Spain. In the context of transition economies, these charge rates are substantially high enough, that they may play an incentive role in reducing air pollution.

6. Economic Instruments in the Water Sector

6.1. Water Effluent Charges

Several economic instruments are implemented in the water sector in CEECs. The objective for the implementation of these instruments is manifold and the function of them can reach from cost-covering user charges to incentive taxes.

Wastewater charges, sometimes also referred to as trade effluent taxes or charges, and/or non-compliance fees have been introduced in all of the 10 Central and Eastern European countries aiming to join the EU. Basic charge is normally linked to key pollutants and their permitted levels in the effluent, while the usual base for non-compliance fees (NCF) is violation of the law i.e. discharge above the permitted level, or illegal discharge. The schemes implemented in CEECs has similarities to the taxation of air emission charge in the sense that a charge with a lower rate is levied for emissions under the permitted level and a higher penalty rate is levied on the emissions exceeding the permitted emission level. In recent years, the trend in water pollution charges in CEE has been reduction of the number of chargeable pollutants, and the gradual increase of charge

rates. As Table 2 shows revenues generated by this type of charges are generally earmarked for environmental investment measures in the three Baltic states and Poland and environmental funds are the authority for disbursing these revenues.

In the case of discharge through the sewage system, wastewater charges are normally determined through the individual contracts between the polluters and the wastewater companies. Exceptionally, Romanian environmental regulators determine wastewater charges for the discharge through the sewage system, even though local water companies collect the revenues.

Table 2: Wastewater Charges in CEE Countries (situation 2000)

Country	**Wastewater charge**	**Tax base**	**Use of revenue**
Estonia[a]	Charge and NCF	Pollutants: BOD, suspended solids, phosphorous, nitrogen etc.	Central budget - earmarked for environmental measures
Latvia[b]	Charge and NCF	Hazard category of the effluent	National and municipal environmental funds
Lithuania	Charge and NCF	Pollutants: BOD, suspended solids, etc, and environmental damage (for NCF)	Environmental funds (municipal and national) and central budget (10%)
Poland	Charge and NCF	Pollutants: BOD, COD, suspended solids, etc.	Environmental funds
Russia	Charge and NCF	Pollutants: Nitrate, phosphate, mercury, etc.	

Source: REC 2001b and EC 2001b.

A) Non-compliance fee (NCF) is ten times higher than the charge rate for discharge above the permitted level, and fifteen times higher for the discharge without permit.

B) Rate of the NCF is 3 times the rate of the wastewater charge for exceeding the permitted limit, and 12 times the rate for illegal discharges or non-reporting.

In a number of countries, wastewater charges and/or non-compliance fees are calculated based on formulas developed to link the level of charge to the pollution load, level of hazard of the given pollutant, sensitivity of the recipient water bodies, duration of the discharge/pollution etc. Although it is difficult to compare the level of charges in different countries (due to diverse charge schemes and lists of pollutants), a brief assessment shows that the highest rates for the key pollutants (BOD, P, N) can be found in Slovenia, Czech Republic, Poland and

the Baltic countries. Charges levied on the effluent water in Slovakia are based on formulas, and are not readily comparable with other countries of the region. However, when compared with the Western European countries, charges per ton of pollutant in the CEE are quite low.

Table 3: Water Effluent Charge Rates (EUR per ton) in selected CEE and EU member countries (situation 2000)

Pollutant	**Estonia**	**Lithuania**	**Poland**	**Latvia**	**Denmark**	**Germany**
Phosphorus	216.6	404.3		53.6	14,620	46,000
Nitrogen	130.3	118.9		53.6	2,660	1,900
Suspended Solids	72.7	23.5	82.4	17.9		
BOD_7	143.8	132.4				
BOD_5			960			

Source: REC 2001b and EC 2001b.

Another frequent measure to increase the environmental effectiveness of the charges (beside the rate increases) is the adjustment of basic rates in order to reflect the environmental damage. Water effluent charges in Poland are thus adjusted dependent on the source of effluent, through the correction factors that vary from 0.2 to 2.5 (the more environmentally damaging the source, the higher correction factor). Similarly, wastewater charges in Estonia are adjusted to reflect sensitivity of the recipient waters (range of correction factors is 1.2 to 2.5). The scheme also allows for the reduction of basic charges if compliance with effluent standards is achieved before the set deadlines, or when the wastewater has better indicators then the prescribed ones. The high environmental effectiveness of non-compliance fees (in bringing the pollution down to the permitted level) has also been observed in a number of countries, as collected revenues remain on a relatively low level.

6.2. Water and Sewage User Charges

All the CEE countries levy water user charges; user charges for the sewage treatment are also in place in all the countries of the region. Water user charges are either based on the metered consumption of water, or on the estimated consumption in cases when metering equipment is not available, and in some countries they include sewage treatment charges. The level of these charges varies widely not only across the region, but also across individual countries and type of users (households and industry), as they are often determined on the regional or

local level. There are no examples of progressive charging schemes aimed to provide incentive for reduced water consumption.

While privatisation of water sector is ongoing, the most frequent form of ownership of water and sewage infrastructure in the region is either municipal or mixed state-municipal ownership. Subsides still play an important role in the area of water pricing. Lithuanian State Pricing Commission has the competence of coordinating water charges proposed by service providers, and government regulates water prices for households in Slovakia (prices for commercial users are subject to agreement between the supplier and the user). Furthermore, practice of cross-subsidization between the different types of users is still present throughout the region.

Although water charging schemes in different countries are not readily comparable (due to regional variations, varying shares of metered water consumption etc), a comparison of the user charges (particularly ones in the accession countries) and the charges in EU member states outlines two likely developments. First, a substantial increase of water use related charges could be expected in the coming years, to bring them closer to the level of full cost-recovery and to raise revenues for further investment in the field. Secondly, elimination of subsidies and cross-subsidies, which act in contravention to polluter/user pays principle can be expected, once again increasing the costs born by the end users benefiting from the subsidies at the moment.

7. Conclusion

A move towards greater and more consistent use of economic instruments as a complement or a substitute to other policy instruments, such as regulation, can be found in environmental policies in Central and Eastern European countries. Taxes and charges are charged on a whole range of air pollutants, solid and hazardous waste streams, discharges of wastewater, surface and ground water extraction and, in addition, the consumption of energy products is subject to taxes. A major driving force for this development is the EU accession process and the situation in OECD countries, where similar trends are exhibited.

The economic instruments applied in CEECs can be characterised as fiscal rather than environmental measures, since their main objective is to generate revenues. The rates are generally still too low to have an incentive effect; i.e. to lead to changes in the behaviour of the citizen. The revenues generated by environmental levies are regularly earmarked for environmental funds in the majority of the countries in the region.

One of the main conclusions is that environmental policy makers are facing a real challenge in combining aspects of economic efficiency and political and social acceptability on one, and the environmental effectiveness of economic instruments on the other hand. The need for a balanced approach is particularly visible in the case of the excise taxes that are levied on mineral oil products, but also in the context of full cost recovery in the water and waste sector.

In the context of the EU accession process and the challenges of transposing the environmental acquis, changes in the system of economic instruments applied in CEE countries can be expected. The objective of these changes would be to foster environmental-friendly behaviour, and to stimulate investments into environmental-friendly production technologies. Economies in transition have the potential of achieving accession and environmental policy objectives efficiently because of the ongoing internal and institutional changes within their economies.

The advantages of environmental taxes compared to command-and-control measures are shown in theory as well as practice. The issue of finding the least-cost solution is an important aspect for the application of economic instruments, such as emission taxes, because these interventions should equalise the marginal abatement costs across all sectors of the economy.

Economic instruments are a powerful tool for protecting the environment and enhancing economic efficiency. Furthermore, the use of them can improve policy integration, for example, under the assumption that all sectors in an economy are subject to taxes resulting in the internalisation of environmental externalities and providing the same marginal incentives to all sectors. But politicians should keep in mind that the use of economic instruments for environmental policy are not a ‘panacea’. There is almost unanimous agreement that the correct place for using EIs is as a part of a whole policy package, i.e. in combination with other environmental policy instruments.

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Parallel Session II

“Trade, Transport and Financial Institutions”

Elzbieta Czarny

Polish Trade with the Northern EU-Countries after the Accession

Some remarks based on traditional theories of international trade

Abstract: In this paper I use traditional theories of international trade to project potential changes in the specialisation pattern between the Northern EU-countries and Poland after the Eastern EU-enlargement and resulting changes in factor prices. I compare Poland as a country with relatively obsolete technologies, ample labour and scarce capital, to the developed, raw material and capital rich Northern EU-members. Among the traditional trade theories based on the concept of comparative advantage I analyse the specific factors model for the short-run projections, and the Heckscher-Ohlin model for the long run. I supplement the both approaches by the neo-technological approach. I show consequences of changes in prices and factor endowment. In the short run, if there were no factor movements, Poland's comparative cost advantages could be explored in the production of land-, environment-, and – eventually – resource-intensive goods. Losers may be found especially in human-capital intensive industries. In the long run, labour-intensive industries also have potential to join the group of winners, while capital-intensive sectors are in a disadvantage because of the low domestic capital base. These results would change with the factor movements. By an inflow of capital and an outflow of labour, Poland's economic structure would converge to the EU-average. In such case the owners of the abundant specific factors would lose (at least partly) their privileged position.

Keywords: international trade, traditional trade theories, specific factors model, Heckscher-Ohlin approach

1. Introduction

In this paper I use traditional theories of international trade to project potential changes in the specialisation pattern between the Northern EU-countries and Poland after the Eastern EU-enlargement and resulting changes in factor prices. These changes are important for selecting an appropriate economic policy as well as a strategy of corporations.

I focus on the traditional theories, because in the initial situation both partners differ considerably. I compare Poland as a country with relatively obsolete tech-

nologies, ample labour and scarce capital, to the developed, raw material and capital rich Northern EU-members.

Among the traditional trade theories based on the concept of comparative advantage I analyse the specific factors model, and the Heckscher-Ohlin model, supplemented by the neo-technological approach. I leave aside the Ricardo theory, because of its limited ability to predict (see: *Czarny, Lang*, 2002).

The enlargement of the European Union will eliminate all economic borders between Poland and the current EU members and deepen their international specialization. It will induce a structural change and remove firms or even industries from the market. This raises questions about internationally „viable" („non-viable") industries, expected trade pattern and possible changes in income distribution. In the framework of the traditional trade theories, international specialisation is a natural result of comparative advantage of the trade partners. It results from the differences in e.g. technology, factor endowments and/or consumers preferences.

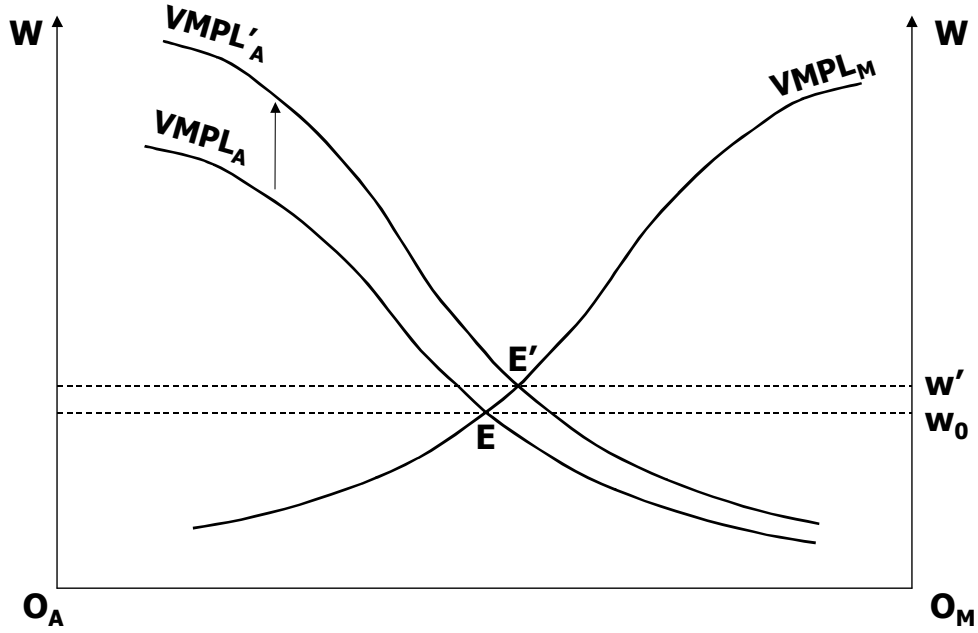
2. Specific Factors Model

Specific factors model[30] assumes a multi-input world with at least one mobile factor of production used in all industries (e.g. free capital[31] and labour). Additionally, there are specific inputs employed only in a part of the economy. For example, land is specific for agriculture. Other specific inputs are human capital, natural resources, and environment, interpreted as the ability to absorb pollution.

[30]The specific factors model is often viewed as a short-run approach, because many inputs may be flexible in the longer term: e.g. *Mussa (1974)* analyzes unskilled labor transforming into human capital with time.

[31]I consider here only capital prior to any investment decision, as it may be used for the purchase of a whole range of capital goods. After the investment decision is made, bulk of the capital stock is specific for the production of one or just a few outputs (I apply this last approach in Figure 2). Indeed, most inputs are specific in the short run, leaving only unskilled labor and free capital as mobile factors of production.

Figure 1: Results of increase in relative price of agricultural products



Source: General reasoning in: Caves at al., 2002, ch.6.

The outcome of the specific factors model is a specialisation pattern where all goods produced with relatively abundant (specific) inputs are exported. After opening borders an incomplete specialisation is expected to take place, with a broad range of outputs produced in both countries.

I assume for the time being that the national endowment with all the production factors is constant. It is not far from reality as the specific factors model is a short-run approach. The changes in factors returns result then only from the expected changes in the prices of goods. For simplicity I assume that in the economy there are only agricultural goods A (with mobile labour and sector – specific land used for production) and manufactures M (mobile labour and immobile capital) produced. I expect an increase in prices of agricultural products through artificially high prices set in the EU. The change in prices can be intensified by a simultaneous cheapening of manufactures after eliminating the trade restrictions in the customs union. Total result is shown in Figure 1 as a shift of the curve representing the value of the marginal product of labour in agriculture from $VMPL_A$ to $VMPL_A'$.

As Poland is relatively land-abundant (see: *Czarny, Lang*, 2002), it will specialise towards the production of agricultural goods. If Poland's endowment in production factors did not change, farmers would benefit not only from artificially

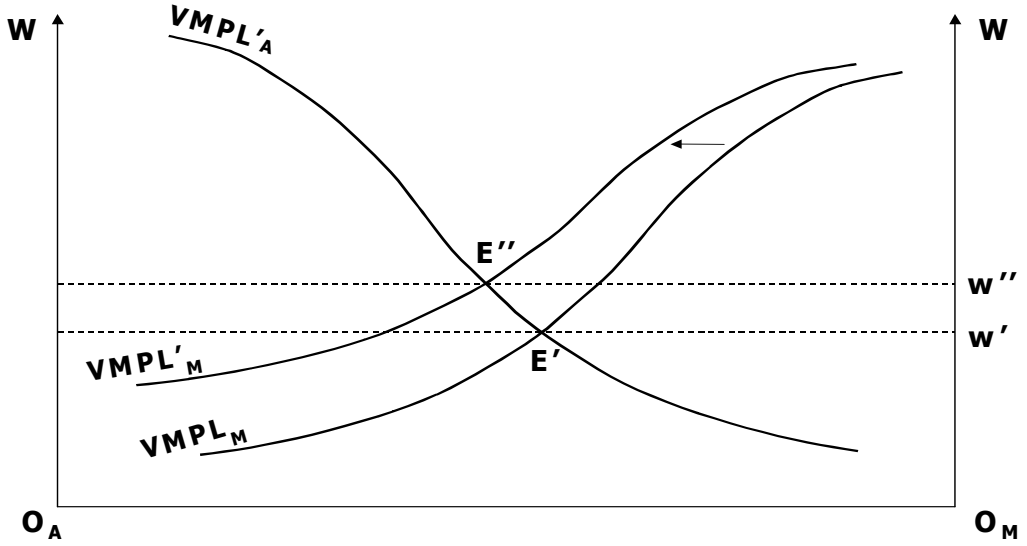
high prices within the EU market, but also from an ample endowment with land, and therefore from a comparative advantage against the Northern EU members.

This model clearly identifies the owners of the abundant specific inputs as the main winners of free trade. Apart from the farmers (land owners) mentioned, the winners can be also the owners of some natural resources and environment, being Poland's abundant factors of production. Owners of the relative scarce specific factors (capital, human capital[32]) face a deteriorating income position, whereas no such a clear result can be observed with respect to the mobile inputs (e.g. labour). However, the free trade situation is clearly positive for the country as a whole, because the winners get enough to compensate the losers for their loss and still keep profit.

The situation can be significantly different if factors movements are possible. Especially, the returns of the abundant specific factors could be driven down after an inflow of foreign capital to Poland (it is shown in Figure 2 as a shift of the value of marginal product of labour in manufactures curve $VMPL_M$ to the left, to $VMPL_M$'). In Figure 2 prices of goods are kept constant after the change analysed in Figure 1, but wages increase (from w' to w"). The incomes of the owners of abundant specific factors would shrink additionally if emigration of Polish people would become true, declining the available labour endowment (in Figure 2 it could be shown as shortening of the line $0_A\,0_M$ – not drawn). Both changes in factor endowments would result in increase of wages. The owners of specific factors (in Figure 2: land and capital) would have to shift on to workers some part of their initial returns.

[32]Exceptions may be found in sectors using immobile human capital to produce such non-tradable goods as education and local medical service.

Figure 2. The economic consequences of an inflow of foreign capital



Source: General reasoning in: Caves at al., 2002, ch.6.

3. Heckscher–Ohlin Approach

The Heckscher-Ohlin approach links a country's endowment with inputs to its trade with these factors as embodied in goods. Because of its multi-input set-up, it is quite similar to the specific factor model. However, by assuming free movement of inputs between the industries, it shows the long-term scenario. The main conclusions are similar to the specific factors world. Relative endowments with inputs matter. Specialisation and trade pattern can be evaluated by a comparison of relative input quantities with relative factor intensities in production. Not a complete specialisation, but a tendency towards specialisation can be expected. Owners of the ample inputs are expected to step up the relative income ladder. This will happen because export of goods using the owners' factors results in intense increase of prices for these goods, what in turn increases the demand and therefore the prices of the relatively ample inputs.

According to the Heckscher-Ohlin approach, inter-country wage differences may disappear (factor price equalisation theorem). However, this result holds only in a free-trade case, in which both countries produce a full spectrum of goods. Free trade is then a perfect substitute to factor movements. It occurs if trade partners do not differ too much in their factor endowment. If then a country integrates with a free-trade-union, the smaller partner just adopts the goods and factors prices of the larger one.

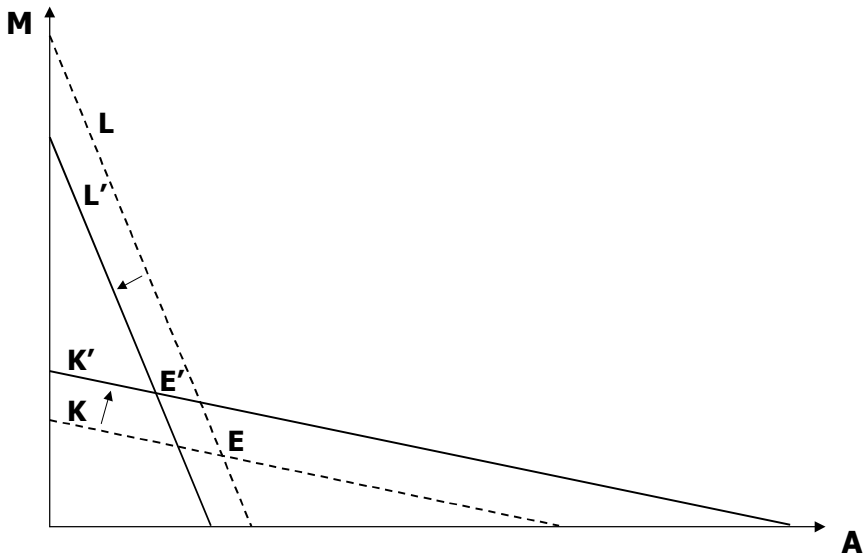
Applying the Heckscher-Ohlin approach to the Eastern enlargement of the EU, we have to note that in this context the abundant mobile inputs in Poland are: (unskilled) labour, land, some resources (among others – forest) and environment. To the contrary, the scarce factors are: human capital and capital.

After increase in prices of agricultural goods and some resource-intensive goods, the projected trade pattern will change in favour of the rising in prices land- and resource-intensive goods. Agriculture and some manufacturing sectors producing standard goods will expand. Some labour – intensive goods can also experience the expansion of production (as Poland is labour abundant, it has the comparative advantage in using labour). Food industry, wood and metal processing, leather and textiles may become the main winners of free trade with the Northern EU members [33]. It could be also true for the tradable labour – intensive services (e.g. tourism). High-tech industries and therefore human capital could come under pressure because of a comparative advantage of the developed EU-countries. Some other losers may be found among capital-intensive industries. Such development can even deepen the today's imbalance in the position of both partners, with Poland importing goods with big value-added and exporting relatively simple, low processed goods.

Additional results come from applying the Heckscher – Ohlin theory to the analysis of expected changes in factor endowments. In this context I use the simplest version of this approach with two mobile factors (capital K and labour L), two products (labour-intensive agriculture A and capital-intensive manufacturing M) and rigid technology with fixed input-output coefficients. Before the accession Poland is relatively labour – abundant. Capital is the scarce factor (see dotted lines L and K in Figure 3). Poland's production is then biased towards agriculture (point E). After the Eastern EU-enlargement, Poland is expected to experience an inflow of foreign capital (in Figure 3 an outward shift of the K-line to the position K') and an outflow of labour (an inward shift of L to L'). Such changes in factor endowments would make Poland more similar to the developed EU members (also to the Northern EU-countries). Polish economy would converge to the EU-average and change its production structure towards manufactures, away from agriculture (point E' in comparison to E).

33Such a structure of future trade between Poland and – generally – the European Union (also – its Northern members) is reflected in the current EU trade policy with liberalisation only partly including "sensitive" products, among which labour- and resource-intensive goods constituted 43% of Polish exports to the EU (*Rollo, Smith, 1993; Gabrisch, 2000, 214-215; Czarny, Lang*, 2002*)*. It can be interpreted as an expectation of Poland's ability to export these goods with a comparative advantage.

Figure 3. Consequences of changed factor endowments



The inflow of capital would also narrow the technological gap between Poland and the EU. It would make one-side adaptation of factor prices from the EU even more possible (the additional reason would be that Poland is a small partner in comparison to the EU and has to adjust to the EU prices of goods and factors of production). As a consequence, the disadvantage of high-skilled labour against unskilled labour would be the only relative one. If the factor price equalisation theorem holds (what is more probable after analysed changes in the Poland's factor endowment), the owners of high-skilled labour will reach the slightly higher income level of the EU. To the contrary, earnings of unskilled labour would jump towards the much higher level of EU countries.

4. Neo-technological approach

The neo-technological approach is often perceived as the dynamic version of the Heckscher-Ohlin theory. It assumes that comparative (dis)advantage changes in time (product life cycle of *Vernon, 1966*; see also *Posner, 1961*). According to this approach, countries trade because of the existence of three production stages: innovation, maturity, and standardisation. The developed countries specialise in advanced – and therefore human capital-intensive – products, whereas the less developed ones have a comparative advantage in producing standardised goods.

In this context Poland would be classified as the less developed partner, while the Northern EU represents the industrialised one. Poland is expected to import capital- and human capital-intensive products from the Northern EU and simultaneously export the standardised goods. Because of its comparative advantage in standardised goods, increasing export prices will drive up wages of (unskilled) labour and incomes of some resource owners. The owners of capital trapped in the Polish high-tech industry and human capital will become the potential losers. However, it can be expected that in the long run the comparative advantage of Poland will change similarly to the changes shown in part 1.2: after an inflow of capital and an outflow of labour, production will focus on more advanced manufactured goods.

Another stream of neo-technological theories is based on firm-level increasing returns to scale, explaining the expansion to foreign markets. According to this approach, firms operating in large domestic markets have a comparative advantage in producing goods on the basis of technologies with firm-level increasing returns to scale. Such firms incur lower average costs due to larger production volume for the domestic market.

As Poland is a relatively small partner in comparison to the Northern EU-countries because of e.g. their higher income level, it may be in that case in a disadvantageous position as far as production of returns-to-scale sensitive products is concerned. Its EU-rivals are backed up by a strong home market demand and are able to use their sheer size-advantage when exporting to Poland.

5. Conclusions

Traditional trade theories are important tools to predict trade patterns between countries with differences in factor endowments, technologies or consumer preferences. The specific factors model is attractive for the short-run projections, and the Heckscher-Ohlin approach offers interesting results for the long run. By the today's degree of discrepancy of GDP per capita in Poland of 40% versus the EU average (in PPP), they seem to be appropriate to analyse changes in the trade pattern between Poland and the Northern EU-countries. This conclusion is confirmed by the today's structure of trade between Poland and the EU, with Poland importing processed goods and exporting low processed ones. Poland is also the net importer of capital and technology from the EU and the net exporter of labour, some resources and environment.

In the short run, if there were no factor movements, Poland's comparative cost advantages could be explored in the production of land-, environment-, and – eventually – resource-intensive goods. Losers may be found especially in human-capital intensive industries. Changes in factor prices would result from the

changes in prices of goods exported to the EU. Thus highly skilled workforce, especially academicians, will be in Poland among the most severe losers of the EU - enlargement. In the long run, labour-intensive industries also have potential to join the group of winners, while capital-intensive sectors are in a disadvantage because of the low domestic capital base.

The results would change with the factor movements. By an inflow of capital and an outflow of labour, Poland's economic structure would converge to the EU-average. In such case the owners of the abundant specific factors would lose (at least partly) their privileged position.

Though the future development of the economic relations between Poland and the Northern EU-countries cannot be solely predicted by the simple versions of the traditional trade theories, these predictions are important to forecast who will be for and who against the Eastern EU-enlargement. Nevertheless, the above remarks should be supplemented by the analysis of the world with many goods, factors and countries. However, there are also other factors of high relevance. For example, one cannot forget the liberalisation and harmonisation measures, which have to be introduced by the Polish government affecting activities of many Polish firms. Some forms of international trade are also left aside by the traditional trade theorists. The most important item is the intra-industry trade, especially its vertical form consisting of trade in varieties differing in quality and exchange of final products and intermediaries.

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Jorma Heinonen

Estonia as a Transit Country

Abstract: All the three Baltic States have an apparent potential to act as a link between different parts of Europe. This paper discusses issues related to transport of transit goods through the Baltic States. The paper is focused to Estonia. Nevertheless, the relevant issues are being discussed in perspective to the two other countries in the Region; Latvia and Lithuania. The transit traffic contributes already a substantial share of the GDP in Estonia. The direct transit services amount to value added of some 6% of the GDP. This figure is based on quite clear and accurate calculation. It is more speculative and difficult to estimate the corresponding cumulative share of all those activities, which are somehow connected to transit services. The role and importance of different transport modes are being reviewed. The marine transport including the harbors is in major role among the three modes: Sea, railways and road transport. However the different modes, in particular, sea transport and railways are linked to each other. The problems with railways may limit the future possibilities. Other problem issues including the finance are essentially related to politics. The collaboration between the Baltic States should be improved and developed further. Also continuous efforts must be made to promote the connections to other neighboring countries including improving relations with Russia, which is vital. In this regard the Nordic Dimension might be helpful. Overall from the side of European Union understanding and tolerance regarding the specific problems of the Baltic States are needed. The linking role offered by the Baltic States is in the long term potentially very beneficial for the entire Europe.

Keywords: transit traffic, transit trade, transit serviceds, transit related employment, East-West links, Baltic Region, Northern Dimension, sea transport, railway transport, road transport, Via Baltica, Europe-wide transport policy

1. A Link between East and West, North and South

Thanks to geography, historical background, existing infrastructure, political situation and ongoing activities, the Baltic States have an opportunity with much potential to act as a link of important dimension between different parts of Europe and even beyond. This role has already turned out to be of great economic importance to all the three countries, viz., Lithuania, Latvia, and, in particular, to Estonia. The transit service industry, mainly for shipments from Russia

to Western Europe, already contributes a substantial share of the GDP in Estonia. Depending on the way of calculation, i.e. whether one includes only the direct transit services or also connected commercial activities. According to a recent study, introduced in the next section of this paper the value added created by direct transit services amounts to some 6% of GDP. Another source claims that all activities connected somehow to transit transport account for up to 25% of GDP (Bronstein, 1999). The volume of transit services can be measured quite easily. At the same time, to determine the share of value added created by transit services is a more complicated task. That task requires a detailed description of data used for the calculation of the GDP. Another problem is related to the determination of the volume of transit clusters, that is, activities connected to transit trade. Here it is possible to give some evaluation applying analogies from other countries and respective figures on Estonia. The problem is important also for political reason because different outcomes of foreign trade and border regime regulations influence flows of transit goods and services quite strongly. The following paper reviews the current situation including the GDP perspective, and discusses the future prospects with a view to some of the related political and policy issues, which are crucial in order to make advantage of the already existing opportunities.

For Estonia – and the other Baltic States – it is of vital importance to develop this sector further. The East West link is of major importance also to the EU including the Northern Dimension. That is why the EU should show understanding and be supportive to the Baltic States in their efforts to improve political relations and develop further their economic links with Russia. EU membership should not jeopardize the vital Russian trade relations but open new opportunities, which in the longer run would be widely beneficial. In a wider perspective, the East West link extends to the CIS countries e.g. Belarus, Ukraine, Kazakhstan etc, with the ultimate potential to utilize land based connections all the way to China. In this sense it is very troubling to see that the EU insists on a termination of the special border regime between Eastern Poland and Western Ukraine, which has in recent years been the motor of development in this otherwise underperforming region.

The North-South Dimension contains many elements, starting from the goods and passenger flows between Finland and Estonia. The Via Baltica road connection will not only facilitate trade from Germany via Poland to the Baltics but is aimed at providing an additional link for the Scandinavian countries as well. The great potential for the future relies in the areas, such as, increased and improved connections from south to north and networking the cities and economic units around the Baltic Sea and finally, as an extension, a connection between the Baltic Sea and the Mediterranean Regions.

The current situation, immediate and near future developments involve many challenging and problematic issues, which the Baltic States can not handle alone. Collaboration is needed with the EU and with those neighboring countries

which posses and have shown a clear economic and business interest in the Region. Sweden and Finland have already remarkable investments and business activities, in particular, in Estonia. These kind of economic ties ought to play a role in the development of the transport infrastructure. Besides funding provided under various EU programs, the Union can be supportive in the process of updating and implementing the country and region specific policy issues and the legal framework. Further support can be given to the formulation, review and renewal of the national transportation strategies and to their implementation.

In the case of Estonia, the importance of a sound national policy and strategy can hardly be overemphasized, since the most promising current export industries in the country include timber export, wooden products and services like tourism. Those all need transport.

One of the key issues is the integration of the Baltic transportation system to the Trans-European Networks (TENs),which is being promoted by the EU (CEC, 1997).

2. Share of transit trade in the Estonian GDP

The amount of transit flows of goods; services and tourists are measurable quite easily. On the other hand, to determine size of value added created by transit is a complicated task. The role of transit trade is even harder to define if the indirect impact of those activities is considered. The transport and storage services are accompanied with different finance, security and other type of services. In the framework of transit cluster, also re-export should be included. However, in the framework of current evaluation only direct transit services are considered.

Calculations on different transit flows are described in Table 1[34]. Only transit trade through ports is taken into account. According to estimations of other sources, the amount of goods and services passing Estonian territory without channeling through ports is very limited. The statistics based on trade and services flows through ports gives more than 90% of respective volumes. The share of Tallinn Port has been during 1990s 80-90% of trade flows through ports.

The GDP in basic prices is a value added from which the FISIM (indirect estimation of financial services) is deducted. To the GDP in basic prices, the net production taxes (added are production taxes and deducted are subsidies) are added and the GDP in market prices is derived.[35] The value added at company level is

[34] Calculations have been by the Estonina Statistical Office according to assumptions worked out jointly with the working group from Tallinn Technical University, Faculty of Economics and Business Administration.

[35] See also Table 2

calculated according to following formula: value added product = net turnover – purchased goods + changes in inventories – products for own use. In the case of transit trade, the similar formula has been used and companies which main activities have been related to activities described in Table 1 has been picked up. The GDP in basic prices have been basis for comparisons. In that way, the assumption that net production taxes have been distributed in the same proportion has the GDP in basic prices between different activities and the structures of the GDP in basic prices and market prices are the same has been assumed.

Another critical issue has been determination of the share of transit in those enterprises involved in transit trade. The proportion of transport turnover in ton kilometers has been the basis for calculation of the proportion of value added known only for enterprises total activities in the case of railway transportation.

Table 1

	Production	**Intermediate consumption**	**Value added**	**Share of main activity %**	**Share of main activity in value added**	**Share of transit %**	**Transit in value added**	**Share of transit in the GDP, %**	**Share of transit in transportation and storage, %**	**Employment**	**Employment related to transit**
	1	2	3=1-2	4	5= 4*3/100	6	7= 5*6/100	8	9	10	11
Transport of transit goods, total	9024,4	6493,1	2531,2	86,8	2196,3	39,9	1010,2	1,3	13,4	15113,5	5070,4
Railway	1562,6	891,3	671,3	98,9	663,8	89,6	594,8	0,8	7,9	4532,0	3258,5
Marine	2644,0	2232,6	411,4	77,3	318,0	77,2	245,4	0,3	3,3	1190,0	710,1
Road	4817,8	3369,3	1448,6	83,8	1214,5	14,0	170,0	0,2	2,3	9391,5	1101,8
Transit goods through ports	1302,3	411,9	890,4	71,9	640,4	75,3	482,0	0,6	6,4	1218,0	659,4
Operators in ports	5982,6	3722,9	2259,7	88,3	1995,3	100,0	1995,3	2,6	26,4	2654,0	2348,7
Agents in ports	2895,3	2004,3	891,1	99,7	888,4	100,0	888,4	1,2	11,8	700,0	697,9
TOTAL	19204,6	12632,2	6572,3	87,0	5720,4	76,5	4375,9	5,7	58,0	19685,5	8776,4
Transportation and storage	24611,0	17062,3	7548,7								
VALUE ADDED TOTAL		76290,3									

Source: Statistical Office

For marine transportation and port activities, the physical proportion of goods in tons has been basis for calculations to determine the share of transit in value added production of those enterprises. In the case of road transportation, the source for estimation has been statistics of ports on visiting transport vehicles. For the port operators and expeditors has been estimated that all of their activities have been related to serving transit trade.

The share of transit was 58% of value added in transport and storage sector in 2002. The value of GDP created in that sector was 7,54 billion kroons or 9,9% of the GDP. The value added created by transit goods and services was 4,38 billion kroons or 5,7% of the GDP.[36] From the different transportation services, the railway transportation with the share of 86.8% and marine transportation with the share of 77.2% for transit trade have been very much dependent on services related to flow of goods and services through Estonia.

[36] For comparison, The ETLA research report gives on the role of transit trade for Finland following figures for 1998: value added 650 million FIM or 0.13% of the GDP. See (Widgren, M. etc *Transitoliikkenne ja välityskauppa Venäjälle*, Helsinki, 2000 /2/). The same report puts the figure for indirect services related to transit trade on the level of 30% of direct transit trade. Employment created by direct transit trade was 1500 persons and additional 550 working places have been created by services indirectly related to transit trade.

Tabel 2

Gross domestic product in current prices, 2000

Activity	2000	Share, %
Agriculture	2784,1	3,6
Forestry	1842,9	2,4
Fishing	202,9	0,3
Mining	856,9	1,1
Manufacturing	13644,1	17,9
Electricity-, gas and water supply	2523,6	3,3
Construction	4461	5,8
Wholesale and retail sale	11090,3	14,5
Hotels and restaurants	999,8	1,3
Transportation and storage	7548,7	9,9
Inc. Transit	4375,9	5,7
Communication	4186	5,5
Real estate, renting and business services	8461,5	11,1
Financial intermediation	3202,4	4,2
Public administration and defense	3692,2	4,8
Education	4276,7	5,6
Health care and social services	2949	3,9
Other services	3568,2	4,8
VALUE ADDED TOTAL	76290,3	100
FISIM (-)	1249,9	
GDP in Basic Prices	75040,4	
Net production taxes	10395,9	
GDP in Market Prices	85436,3	

Source: Statistical Office

3. Current Transit Traffic and Prospects for the Future

3.1 Sea transport

Estonia can provide one of the most efficient transit corridors between East and West. Transport services are mainly based on the integration of the Estonian seaports and the East-West railway system, including the October Railway in Russia, as well as international and domestic forwarding firms (Reimer, 2001). The Port of Tallinn, consisting of four harbours, is the third largest port by volume on the Baltic Sea. Only Ventspils in Latvia and St. Petersburg in Russia have a higher turnover in volume of cargo, mostly due to Russian oil exports. The state

owned company Port of Tallinn AS is one of the most profitable companies in Estonia; its turnover in 2000 was 900 million EEK (equivalent to app. 60 million Euro). The 30 or so companies operating in the four harbours generated a combined turnover of 1.500 million EEK. The Port of Tallinn has also been one of the fastest growing harbours in the world and has ambitious further expansion plans. From a current 29.5 million tons of cargo per year it wants to expand to a handling capacity for up to 70 million tons. Thus, in five years time, Tallinn hopes to handle some 30% of all Russian exports that go via the Baltic Sea. However, harmonious development of the Russian economy, and in particular the political and trade relations between Estonia and Russia, is obviously crucial for the achievement of these ambitious plans.

On the other hand, the Port of Tallinn already earns some 50% of its income from passenger travel. With some six million tourists who come to or leave from the Port of Tallinn each year, it has become one of the biggest passenger ports in the world. The Tallinn - Helsinki route is the fifth liveliest passenger route in the world.(Kurm, March, 2002) This income is less dependent on trade relations with Russia.

Competition for the Port of Tallinn is equally not considered a severe threat. The Finnish harbours are not competitive in price, in spite of their more highly developed infrastructure. Unsurprisingly, Estonia handles about ten times higher trade volumes in the East-West trade, compared to Finland. Similarly, the oil harbours of Primosk and Ventspils are not seen as direct competitors, since Tallinn aims to focus more and more on processed oil products and other alternatives. At present, oil and oil products make up some 65% of the cargo for the Port of Tallinn, with fertilizers in second place at 10% and the remainder consisting mainly of container cargo, metals, timber, dry bulk and frozen food. The Port of Tallinn is currently the major terminal for the export of Russian petroleum products. Estonian transit companies such as Eurodek Tallinn and Pakterminal use trains to transport oil products from Russia to Estonian Sea ports. In 2000, Pakterminal handled a record amount of 8,5 million tons of oil products. The amount in 2001 was still larger. Thus Pakterminal, Estonia's largest oil transit company, is confident that Russia's Baltic pipeline system and the port at Primorsk will not substantially cut into its business (eia, 2002, p.2).

At Muuga, a steel terminal for cleaning and repackaging of Russian and Ukrainian steel isunder construction. A new container terminal and improved ro-ro facilities are being added in Paldiski. (eia, 2001, p.2) Further, it is claimed that the quality of harbour services in Tallinn is rather competitive - no lost cargo, no black payments.

The strengths of the Port of Tallinn, which in many ways are decisive for the entire Estonian transit trade, include good geographical locations, well equipped modern ports, fast low cost transport services, and in particular good railroad

connections. However, these strengths are currently at least partly offset by the poor state of the railroads as such, which would require substantial investment for urgently needed major renovation. (Rislakki, 2001)

ESCO Holding owner of the largest Estonian shipping company "Eesti Merelaevandus" was up for sale until February 6, 2002, for a minimum price of USD 1,5 million. (Kurm, January, 2002) No bids to meet the minimum price were received and the State who owns 20 percent of the company finally agreed for a credit arrangement (Gnezdilova, 2002)

The Baltic States occupy an undisputed strategic location as transit centers, for Russian exports, in particular oil and oil products. Belarus will be a major transit center for Russian gas exports to Western Europe. Latvia's Ventspils is the largest oil export terminal in the Baltic. It is Russia's primary crude oil export terminal, while Estonia and Lithuania have important ports for Russian petroleum products. Actual exports from Ventspils have been far below capacity due to a bottleneck in Belarus that has limited pipeline flows. There are undertakings going on to reduce the bottleneck. Latvian efforts to reach an agreement with Kazakhstan to export up to 100.000 bbl/d of oil via Latvian ports have been hindered by the need to reach an agreement with Russia on rail tariffs and the use of its pipelines (eia 2001, p.2). In order to broaden the narrowly focused economy of port City Ventspilts the officials try to develop tourism. Some results have been claimed to be achieved already. The number of visitors has been more than doubled from 1998 to 2001(Birzulis,2002).

Latvia's Shipping Company, LASCO, one of Europe's largest shippers is just in the stage of privatization (Coleman, 2002). One can only hope that some lessons have been learned from the unfortunate development of the privatized ESCO referred above. Up to this the management of LASCO can show a more successful record (Gnezdilova, 2002).

Lithuania's Klaipeda Port used to be one of the primary export outlets for refined oil products during the times of the Soviet Union. Its importance has declined during the recent decade. Consequently, Lithuania's current position is behind both Latvia and Estonia as a petroleum transshipment center. Kazakhstan would be willing to use Lithuania's port for the oil exports. Unfortunately an agreement with Russia as regards transit transport has so far not been reached (eia, 2001,p. 3)

The Klaipeda Logistics Center is a new joint venture company owned by Danish and Lithuanian partners. The objective is to create transport network to connect 10 trans-European corridors including the two crossing Lithuania. The mostly privately owned center would locate warehouses, transport terminals and a suitable transfer zone would be located at the center, so that cargo can be loaded, and transferred between road, rail and air (Uribe, 2002).

Railway transport

95% of transit freight in Estonia is currently carried by rail. However, the railway network is also the weak link in the infrastructure network and could limit future opportunities. The Estonian Ports with their current capacity would be capable of handling still more traffic. Therefore, the development of additional railway capacity is in the direct interest of the Ports. Integration of sea and railway transport is the key issue in transit transport policy. The underdeveloped link in this chain is the railway system, and to renovate it requires extended resources, especially investment capital. Therefore, the government's strategic decision has been privatization. AS Eesti Raudtee is the operator mainly responsible for transit transports. Its privatization process has been long and painful with several embarrassing failures (TBT staff, 2001).

Road transport

Road transport is currently of minor importance in transit freight. The roads in Estonia and in other Baltic States need substantial repairs. These repairs are under way in many areas but the speed of implementation depends on the financial resources available from public and private sources as well as loans from international institutions. The north-south Via Baltica undertaking, which is aimed at connecting Finland and the rest of Scandinavia via St. Petersburg and the Baltic Sates to Central and Western Europe, has received much publicity during the recent decade. Poland declared in 2000 that it will not finance its part of the Via Baltica road due to the small traffic (Vimberg, 2000, p. 50). In Lithuania, on the other hand, the Via Baltica and the other overland roads are already in rather good shape and in Latvia and Estonia many sections are currently under construction. EU co-funding plays an important role in this context. The total length of Via Baltica is 930 kilometers. To date about half of the length has been either newly built or renovated. In early nineties Via Baltica was a high priority issue, but now an east-west transit corridor seems to be more important. Nevertheless, the countries involved still agree that Via Baltica is needed. A fundamental problem is that there is no final completion date for the undertaking (Johansson, 2002).

4. The EU and The Northern Dimension

As early as 1958, the EC Treaty recognized the importance of a common transport policy and the EU continues the common transport policy. The transport industry, in particular intra-Community traffic, has been growing steadily for decades, with average growth over the last 20 years around 2,3% per year for goods and 3,1% for passengers. At present, the transport industry accounts for some 7% of the Community's GDP, 7 million persons or 7% of total employ-

ment, 40% of Member States' investments, and 30% of the Community's energy consumption (CEC, 2002, p. 1).

The main principles underlying the common transport policy can be summarized as follows: National markets are opened to Europe-wide competition, while at the same time the safety in road and other transport modes has to be improved continually, environmental concerns have to be taken into account, infrastructure should be developed in a coordinated manner and limited capacities have to be allocated efficiently and fairly. From the point of view of service providers, the internal market, that means the area without national frontiers, has to be established, while the living and working conditions of the employees need constant improvement. Finally, the principle of non-discrimination on grounds of nationality has to be secured for and against everybody.

In the early years of European integration, the common transport policy did not develop as much as other fields of European cooperation. While the Netherlands, which have a similar position in Western Europe as the Baltics in Central and Eastern Europe, always wanted to have open European markets for transport services, the larger Members States, such as France, Germany, and Italy, were quite happy to keep foreign competition out of their markets. Thus, transport services remained highly regulated on the national level until the 1980s, with minimum prices and the exclusion of so-called cabotage services. Two developments changed this traditional outlook. First of all, the European Parliament sued the European Council in 1983 for failure to truly develop a common transport policy and achieved a favorable judgment in the European Court of Justice in 1985, which put an obligation on the Council to become active in this area. Secondly, the advent of the single market promoted the development of the common transport policy as well.

However, the development of free competition and other principles of the internal market in the transport sector is not without difficulties. The following constrains in the context of liberalization of transport services have been recognized (CEC, 2002, p. 1):

1. Social constraints, which means that liberalization of transport services has to be accompanied by harmonization of social conditions, otherwise there could be a race to the bottom with respect to working conditions and wages in this sector.

2. Economic constraints, so that investment in infrastructure by one Member State is not exploited by transport undertakings from other Member States which play no part in their financing.

3. Regional policy constraints, i.e. the evolving competition should not jeopardize transport links between peripheral and central areas.

All three constraints present serious challenges to the Member States and to the Union itself, although no. 2 is not quite comparable to nos. 1 and 3. In addition to these three constraints, there are number of other challenging issues. For instance, the high share of 30% of the EU´s total energy consumption also causes a high share of atmospheric releases and pollution problems.

A central policy goal is the development of rail transport, as well as maritime and inland waterway transport. Rail transport has shown a declining market share during the last two decades. However a lot of investments, planning work, policy and regulatory development has been made for its promotion within the EU, including the integration of the various national systems and better harmonization of social aspects. However, there is still much work to be done before any significant relieve can be achieved on the overcrowded European highways.

The EU recognizes the significance of the CEECs as transit corridors. The Commission has published its evaluations “The applicant countries and the Community acquis”. Regarding Estonia as a candidate country the Community has expressed its view on adopting the Community transport acquis, in 1997. This view was amended by follow up reports in 1998, 1999 and 2000. The November 2000 report stresses that Estonia has made good progress in related legislation, although administrative capacity needs to be strengthened. The transport development plan for 1999 - 2006 was recognized (CEC, 2002, Acquis) This plan stems from the principles assumed in the national policy. Estonia’s transportation policy aims at developing the infrastructure inherited from Soviet times into a system that will be fully compatible with the Western system and fully integrated into the Trans-European Networks. Transport is one of the key issues in a competitive economy. This fact has been a guideline in the composition of the national transport development plan.

5. Problems to be solved and benefits to be gained

East-West transit traffic is of vital importance for Estonia and other Baltic countries. Therefore, efforts should be continued for the development of political and economic relations with Russia and other CIS-countries. Since there are very many competing needs for investment into the old-fashioned and partly obsolete transport infrastructure, sensible prioritization is necessary, in particular due to the limitation of available resources. The development of the railway systems should remain a clear priority issue.

The North-South dimension is not necessarily less important than the East-West dimension but in order to benefit from this potential, more collaboration is needed with partners outside the Baltic Region. For that purpose, the EU and the Nordic Dimension can be the decisive players. The EU should take the entire

transportation issue more seriously and should focus on applying a more pragmatic approach. The activities within the Nordic Dimension should be able to demonstrate that the whole idea and concept can significantly benefit the entire Union. In a wider perspective the Nordic Dimension with its Baltic Corridor can link the Baltic Sea and the Mediterranean – rather than separating them. Consequently, the EU should recognize the potential and benefits to be gained from membership of the Baltic States. The transit opportunities and all the intermediary potential offered by them is a substantial benefit. The Union and the Nordic Dimension should show a more supportive attitude and more tolerance to the devotion and hard work being done in these countries. Solutions to many of the practical problems, often related to finance politics, national or bureaucratic tradition or prejudices, necessitate new innovative ideas and attitudes as well as political will and motivation. This implies better collaboration by all the parties, including the Baltic States themselves. For example, the Baltic States must learn to collaborate with each other more closely and more efficiently than before.

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Tiiu Paas

Modelling Baltic Sea Regional Integration in the Field of International Trade

Abstract: International trade is one of the most expedient economic factors in pushing economies into transition and integration. Significant changes in international trade pattern have attracted economists to pay more attention to the development of theoretical considerations and empirical approaches that enable us to explore international trade flows and the role of regional integration in developing bilateral trade relations between the countries. The paper analyzes bilateral trade flows within the Baltic Sea region countries and between the EU and its candidate countries using a gravity approach. The advantages of using gravity models in examining international trade flows are twofold 1) Data needed for the model are easily accessible and reliable, 2) Theoretical considerations for using these models to explore international trade flows have been widely discussed and developed. Both advantages are important when analyzing the EU eastward enlargement and regional integration processes. Empirical results of using gravity approach for exploring changes in the international trade pattern allow us to summarize that the knowledge gained from the laws of nature is also applicable for exploring economic processes. The results of the gravity models based on empirical analysis support the premise that essential attraction force or pull factor for developing bilateral trade flows is the size of economy, and push factor is the distance between the countries. In many cases distance expresses also cultural proximity and historical relationship between the countries. The favorable location of the Baltic Sea region between East and West and the dynamic interdependence between transition and integration processes has an important role in the future development of the region. Due to development of bilateral trade relations between the current members of the EU and the accession countries, the industrialized countries of the Baltic Sea region have got the experience of penetrating new markets and developing economic cooperation with the transition economies; the accession countries have got experience for establishing the institutional base for the economic integration within the EU. The development of mutually beneficial economic integration between the capital-abundant industrialized countries and economies in transition of the region has created conditions that support economic restructuring and rise of competitiveness, which will play an important role in the future development of the region.

Keywords: trade flows, regional integration, the Baltic Sea region, gravity models

1. Introduction

The Baltic Sea region (Denmark, Germany, Sweden, Finland, Norway, Poland, Estonia, Latvia, Lithuania and Russia) has become one of the most competitive economic regions in Europe due to its favorable location between East and West and the dynamic interdependence between transition and integration. The development of the Baltic Sea region countries is positively influenced by the processes of regional integration in the field of international trade. International trade is one of the most expedient economic factors in pushing economies into transition and integration. Significant changes in international trade pattern have attracted economists to pay more attention to the development of theoretical considerations and empirical approaches that enable us to explore international trade flows and to analyze the role of regional integration in developing bilateral trade relations between the countries.

In recent years, gravity models have been widely used in empirical studies of integration processes in international trade in order to explore the main changes in the geographical trade pattern and reintegration of the economies in transition in international division of labor (Wang and Winters 1991 and 1994; Baldwin 1993, 1994 and 1997; Gros and Gonciarz 1996; Iversen 1998; Cornett and Iversen 1998, Fidrmuc 1998 and 1999; Laaser and Schrader 2002).

Using gravity equation for exploring international trade flows has more than forty years of history and this equation is still at the center of applied research on international trade. Gravity equation fits the data remarkably well. Theoretical considerations for using gravity models to explore international trade flows have been widely discussed and developed (Tinbergen 1962; Linnemann 1966; Anderson 1979; Bergstrand 1985, 1989 and 1990; Deadorff 1984, 1995 and 1998; Evenett and Keller 1998; Anderson and Wincoop 2001; Harrigan 2001). Despite of continuing discussions and uncertainty about the foundations of the gravity model, it is possible to say, that these theoretical considerations, which are mostly based on microeconomic foundations and trade theories, are also valid when exploring international trade flows of the Baltic Sea region countries and analyzing the changes in their international trade pattern during the EU eastward enlargement process.

The paper consists of two main parts. In the first part, the possibilities of using the gravity approach for modeling international trade flows are described and analyzed laying emphasis on the theoretical foundations of this approach in examining foreign trade flows. The second part of the paper presents the main empirical results of using gravity models for exploring bilateral trade flows between the Baltic Sea region countries and analyzing the role of the Baltic Sea region in the EU eastward enlargement process.

It is important to take into account, that gravity models have strong power in explaining trade pattern and testing hypotheses, but the modeling results are not very reliable if we want to estimate the level of trade flows in absolute terms. This statement is also expressed by Gros and Conciarz (1996). Hence, it is not reasonable to use gravity equations to forecast bilateral trade flows but it is recommendable to evaluate the main trends in the development of the Baltic Sea region countries integration within the EU eastward enlargement process.

2. Gravity approach for modelling international trade flows

From a methodological point of view, gravity theory can be considered as a relational theory, which describes the degree of spatial interaction between two or more points in a manner analogous to physical phenomena (Nijkamp and Reggiani, 1992). Classical gravity theory states that the attraction force a_{ij} between two entities i and j is proportional to their respective masses m_i and m_j and inversely proportional to the squared distance d_{ij}^2 between these entities ($a_{ij}=\gamma m_i m_j d_{ij}^2$; γ is a constant proportionality factor. Already in the middle of the nineteenth century H.C. Carey (Principles of Social Science, 1858-1859) observed the presence of gravitational force in social phenomena, stating that the force was in direct ratio to mass and inverse to distance (Isard 1960 pp.498-500). Gravity theory has primarily been centered on in the fields where a distance plays a significant role. Gravity theory has proven to be useful in describing social phenomena in space such as population migration, flow of goods, money and information, traffic movement and tourist travel. The basic gravity model for exploring social phenomena is as follows (Nijkamp 1975, p. 204):

$$t_{ij} = Ko_i^{b1} dj^{b2} f(s_{ij})$$

Where

t_{ij} – the volume of flows between two points,

K – a constant,

o_i – volume of flows from the points of origin,

d_j – volume of flows at the point of destination,

b_1, b_2 – weighted geometric averages of o_i and d_j respectively,

$f(s_{ij})$ – distance friction, a decreasing function of s_{ij}.

The utility specification of the gravity model has been analyzed by Niedercorn and Bechdolt (1969), Golob and Beckmann (1971), and Nijkamp (1975). The theory of consumer behavior assumes that, subject to budget constraint, the available income will be spent on several alternatives so as to maximize utility. An optimal allocation of the given budget can be obtained by postulating a utility function for the decision-maker that reflects relative preferences. Niedercorn and Bechdolt as well as Nijkamp (ibid) have shown that, assuming the budget constraint is linear, the volume of transactions between two points can be stated as a utility maximizing problem. They proved that a model using gravity theory could be derived from a utility maximizing function, either in a specified form as in equation (1) or in a logarithmic form.

The gravity model for examining international trade flows is also analogous to Newton's law, relating the gravity between two objects to their masses and the distance between them. The antecedents for using the gravity approach to model international trade flow date back to Tinbergen (1962), Poyhonen (1963) and Linnemann (1966). Linnemann added more variables and went further toward a theoretical justification in terms of Walrasian general equilibrium system. He pointed out that, when considering the theoretical aspects of a gravity model for trade, there are three main factors to be considered: 1) A country's total potential supply (or exports) to the world market; 2) A country's total potential demand (or imports) from the world market; 3) Those factors that create resistance to trade and thus affect the degree of trade intensity. These include ordinarily tariff barriers and transportation costs.

The basic form of the gravity model for the examination of international trade flowis as follows (ibid.):

$$X_{ij} = b_0 Y_i^{b1} Y_j^{b2} N_i^{b3} N_j^{b4} D_{ij}^{b5} P_{ij}^{b6}$$

Where,

X_{ij} - the trade flow between country *i* and *j*,

b_0 - a constant,

$b_1, b_2, b_3, b_4, b_5, b_6$ - coefficients, weighted geometric averages,

Y_i and Y_j – domestic expenditures per capita in country *i* and *j*, respectively,

N_i and N_j – population in country *i* and *j*, respectively,

D_{ij} – trade resistance due to geographic distance between countries *i* and *j*,

P_{ij} – dummy variable to take into account preferential trade factors between *i* and *j*.

Trade is assumed to occur when domestic production is not equivalent to domestic demand. Essentially, certain fields of production have an advantage in certain regions or countries, which results in specialization of production and division of labor. In trade theory this specialization of production explains why trade occurs in terms of comparative advantage in production.

There are several formal theoretical foundations for the gravity equation in international trade, which are summarized by Evenett and Keller (1998, p. 1) in three types of trade models that differ in the way product specialization is obtained in equilibrium: 1) Technology differences across countries in the Ricardian model, 2) Variations in terms of countries' differing factor endowments in the Heckscher-Ohlin (H-O) model, 3) Increasing returns at the firm level in the increasing returns to scale (IRS) models.

Trade theory, as a rule explains why countries may trade in different products but does not explain why some countries' trade links are stronger than others and why the level of trade between countries tends to increase over time. This emphasizes the limited applicability of trade theory in explaining the size of trade flows. Therefore, while trade theory can explain why trade occurs it can not explain the extent of trade, whereas the gravity model allows us to take into account more factors that explain the extent of trade as an aspect of international trade flows.

Eichengreen and Irwin aptly summarized the state of theoretical foundations for the gravity model (1998, pp.33-34): "Where there is no close correspondence between the leading theoretical models of trade and the variables appearing in the gravity equation, a number of authors have suggested that the gravity-model framework is compatible both with the Heckscher-Ohlin model and with theories of trade in the presence of imperfect competition. The attraction of the gravity model (no pun intended) is not simply lack of theoretical incompatibility, of course, but its ability to explain the variation in bilateral trade flows across a wide variety of countries and periods. Few aggregate economic relationships are as robust."

In summary, the development of using gravity equations for modeling international trade flows bases on various theoretical considerations, which could mainly be explained by

1. Microeconomic foundations.

2. Trade theories. Trade theories differ in the way product specialization is obtained in equilibrium: a) Technology differences (Ricardian model); b) Factor endowments differences (Heckscher-Ohlin model); c) Increasing returns to scale models (IRS).

The advantage of the gravity model is that it needs comparatively little data, and internationally comparable data for the construction of a gravity model are usually available. These advantages are particularly of interest when modeling trade flows between the counties with different economic and political background and exploring integration processes of transition and industrialized economies. The latter is a typical feature of the Baltic Sea region. Development of empirical studies using gravity models also help to understand and develop theoretical foundations of these models.

3. Empirical results

In the gravity model, as a rule, the basic assumption is that a particular country tends to have trade relations with a large and rich partner. Distance influences foreign trade. It is generally more convenient and cheaper to have trade relations with nearby countries. The greater is the distance between trade partners the less the expected trade flows there are. One category of trade flow restrictions is man-made impediments. These barriers or disincentives are created and maintained by governments or their agencies as well as by groups of private individuals or firms. Tariffs, quotas, subsidies, export taxes, exchange controls, and different marketing restrictions are the means by which governments or their agencies can create trade barriers. There are also economic and political unions like the EU, Commonwealth of Independent States (CIS), Organization of Economic Cooperation and Development (OECD), etc. that create trade preferences to selected countries. In order to analyze the effects of regionalism, investigators typically add dummy variables for participation in regional arrangements. According to the empirical analysis of Whalley (1998), the benefits from this form of market assurance may in fact be quite large, particularly in the case of a small country.

Based on the main assumptions of the gravity model, the following hypothesis could be tested in the paper:

1. The countries have developed more active bilateral trade relations with countries where the number of population is bigger (expresses the size of economy) and GDP per capita (expresses the level of economic development) is higher. The size of economy and level of economic development are pull factors for developing international trade flows;

2. Distance as a push factor influences foreign trade flows negatively: the larger the distance between countries, the smaller the expected level of bilateral trade flows;

3. Belonging to certain groups of countries (Baltic Sea region countries, Nordic countries, EU countries, transition countries) influences foreign trade flows.

In order to test the stated hypotheses and to explore trade flows between the countries the following basic gravity equation has been estimated:

$$\ln Y_{ij}=B_0+B_1\ln(POP)_i+B_2\ln(POP)_j+B_3\ln(GDPPC)_i+B_4(GDPPC)_j+B_5\ln(DISTANCE)_{ij}++DUMMIES+u_{ij}$$

where

Y_{ij} – export from country *i* to country *j* (or import from country *j* to country *i*);

$(POP)_i$ and $(POP)_j$ – population of exporting (*i*) and importing (*j*) countries respectively (or home (*i*) and host (*j*) countries);

$(GDPPC)_i$ and $(GDPPC)_j$ – gross domestic product per capita of exporting (*i*) and importing (*j*) countries respectively;

$(DISTANCE)_{ij}$ – the distance in kilometers between the countries *i* and *j* (the flight distance between the capitals of the countries);

u_{ij} – error term.

In estimated gravity equations various dummies are used:

DUMMY 1 – designating that both trade partners are the Baltic Sea region countries (excluding Norway and Russia)

DUMMY 2 – designating that both trade partners are the Baltic Sea region countries (Denmark, Finland, Germany, Sweden, Poland, Estonia, Latvia, Lithuania, Norway and Russia);

DUMMY 3 – designating that both trade partners are the Nordic countries (Denmark, Finland, Sweden, Norway);

DUMMY 4 – designating the East-West trade relations: trade flows between the EU (West partner) and the countries in transition (East partner);

DUMMY 5 – designating the East-West trade relations: trade flows between the EU+Norway (West partner) and the countries in transition (East partner);

DUMMY 6 – designating that both trade partners are the EU member states;

DUMMY 7 – designating that both trade partners are the EU member states + Norway;

DUMMY 8 – designating that both trade partners are the Baltic States (Estonia, Latvia, Lithuania);

DUMMY 9 – designating that both trade partners are the Baltic Sea region transition countries (Estonia, Latvia. Lithuania, Poland, Russia).

The estimation of the gravity equation (3) bases on:

1 Exports and imports data of IMF on (IMF, Direction of Trade Statistics Yearbook 2001 and earlier issues);

2 GDP data, (IMF, International Financial Statistics Yearbook 2001 and earlier issues); World Bank (www.worldbank.org/data/databytopic/GDP.html);

3 A matrix of distances between the countries (www.indo.com/distance*).*

Several authors have discussed how to use the GDP data for estimating gravity equations; whether to use GDP(PPP – purchasing power parity converted) or GDP(MER – market exchange rate, US $) (Gros and Consiarz 1996; Baldwin 1994 and 1997; Cornett and Iversen 1998; Iversen 1998). According to Gros and Consiarz, it is not recommendable to use PPP-converted GDP for estimating gravity equations. Estimations of trade potential should be made on the basis of the international value of goods and services a country produces, not how well off inhabitants are (Gros and Consiarz 1996, pp. 715). Iversen argues that the proper measure of the transition economies' incomes (GDP(MER) or (GDP)PPP) lies somewhere in between the two approaches, and it is impossible to settle this matter on a purely theoretical basis (Iversen 1998, p. 273).). When modeling bilateral trade flows between the Baltic Sea region countries using the data of the year 1998, we got the results that the statistical estimations are the best in the equations with GDP(PPP) but differences are slight (Paas 2001). Hence based on the results of previous research studies, the GDP (PPP) per capita as an independent variable that characterizes the level of economic development as a possible attraction force of developing bilateral trade relations between the countries has been used in the following analysis.

The estimations of the gravity equation (3) base on the data of the 2000. Based on the gravity equation (3) three models have been estimated:

Model 1. Gravity model for exploring trade flows between the Baltic Sea region countries (10 countries, including Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Norway, Poland, Russia and Sweden). The dummies 3, 6 or 7, 8 and 9 have been included in various versions of estimated gravity equations. *Version 1*: dummy 6 has been included in the estimated equation (designating bilateral trade flows between the EU countries of the Baltic Sea region: Germany, Finland, Denmark and Sweden). *Version 2*: dummy 7 has been included in the estimated equation (designating bilateral trade flows between the EU countries of the Baltic Sea region and also Norway).

Model 2. Gravity model for exploring trade flows between the EU and the candidate countries (15 EU Member States and 12 candidate countries (10 European transition countries + Malta and Cyprus). The dummies 1, 3 and 4 have been included in the estimated gravity equations.

Model 3. Gravity model for exploring trade flows between the EU, the candidate countries + Norway and Russia as the Baltic Sea region countries, that are neither current EU members nor accession countries (15 EU member states and 12 candidate countries, Norway and Russia). The dummies 2, 3 and 5 have been included in the estimated gravity equation.

Estimation results of the model 1, 2 and 3 have been presented in the table 1.

In summary, based on the estimation results of the model 1 (both versions) the following hypotheses were accepted for exploring the trade flows between the Baltic Sea region countries:

1 The Baltic Sea region countries tend to have bilateral trade relations with countries where the number of population is higher. Hence, the size of economy of exporting and importing countries influences bilateral trade flows positively.

2 The level of economic development that is expressed by GDP per capita does not have a statistically significant influence on bilateral trade flows; the sign of the corresponding regression coefficients is negative in all cases. The negative sign of the corresponding coefficients could be explained by the expanding trade relations between the countries with different level of economic development and growing export and import volumes of the countries in transition. Hence, the level of economic development of the countries is not an essential attraction force or pull factor for developing bilateral trade flows within the Baltic Sea region countries.

3 Distance influences international trade flows: the larger the distance between the trading countries, the smaller the trade flows.

4 Bilateral trade flows between the Nordic countries and the Baltic States are comparatively well developed. Hence, there are two regional clusters within the Baltic Sea region that support bilateral trade flows between the countries (the Baltic and the Nordic cluster).

5 The regression coefficient of dummy 6 (EU dummy) has a positive sign but it is statistically insignificant Hence, the EU countries of the region do not form a regional cluster that supports development of the bilateral trade flows between the countries.

6 The regression coefficient of dummy 9 (transition dummy) is statistically significant but negative. Consequently, the transitional economies of the region do not form a regional cluster that supports development of the bilateral trade flows between the countries.

Table 1. Estimations of the gravity equation (3)

Coefficients	Model 1 (Baltic Sea region)		Model 2 (EU + candidate countries)	Model 3 (EU + candidate countries + Norway and Russia)
	Version 1	Version 2		
Intercept	3.686 *(p=0.334)*	8.902 *(p = 0.003)*	1.286 *(p=0.238)*	5.236 *(p=0.006)*
$Ln(POP)_I$	0.897 *(p = 0.000)*	0.823 *(p = 0.000)*	1.119 *(p = 0.000)*	0.951 *(p = 0.000)*
$ln(POP)_j$	0.703 *(p = 0.000)*	0.637 *(p = 0.000)*	1.027 *(p=0.000)*	0.867 *(p = 0.000)*
$ln(GDPPC)_i$	–0.124 *(p = 0.299)*	–0.183 *(p = 0.040)*	–0.167 *(p=0.000)*	–0.113 *(p = 0.013)*
$ln(GDPPC)_j$	–0.555 *(p = 0.555)*	–0.031 *(p = 0.726)*	–0.114 *(p=0.000)*	–0.120 *(p = 0.008)*
ln(DISTANCE)	–1.252 *((p = 0.000)*	–1.220 *(p = 0.000)*	1.068 *(p=0.000)*	–1.384 *(p = 0.000)*
DUMMY 1 (the Baltic region countries without Norway and Russia)	–	–	0.395 *(p=0.053)*	
DUMMY 2 (the Baltic region countries with Norway and Russia)	–	–	–	0.222 *(p = 0.197)*
DUMMY 3 (the Nordic countries)	2.104 *(p = 0.000)*	0.628 *(p = 0.000)*	1.840 *(p=0.000)*	2.312 *(p = 0.000)*
DUMMY 4 (East-West trade relations; trade flows between EU and transition countries)	–	–	–0.775 *(p=0.000)*	–
DUMMY 5 (East-West trade relations; trade flows between EU + Norway and transition countries)	–	–	–	–0.752 *(p = 0.000)*
DUMMY 6 (the EU countries)	0.102 *(p = 0.260)*	–	–	–
DUMMY 7 (EU + Norway)	–	1.866 *(p = 0.000)*	–	–
DUMMY 8 (the Baltic states)	1.848 *(p = 0.000)*	1.472 *(p = 0.000)*	–	–
DUMMY 9 (the Baltic Sea region transition countries)	–1.788 *(p = 0.000)*	–1.530 *(p = 0.000)*	–	–
$R^2_{adjusted}$, *p*	0.765 *(p = 0.000)*	0. 869 *(p = 0.000)*	0.747 *(p = 0.000)*	0.708 *(p = 0.000)*

Source: author's estimations using statistical package Eviews. White's heteroskedasticity-consistent covariance matrix estimator

Explaining the estimation results based on the models 2 and 3 and analyzing the position of the Baltic Sea region within EU and candidate countries, the following hypotheses were accepted:

1 The size of the economy is an essential attraction force or pull factor and distance is a push factor that influence development of international trade flows within EU eastward enlargement process. The level of economic development does not play an important role in developing bilateral trade flows in this process.

2 There is a Nordic regional cluster that supports the development of bilateral trade relations within the EU eastward enlargement process. The regression coefficient that characterizes East-West trade relations is statistically significant but negative. Hence, trade relations between the industrialized countries and countries in transition still have good potential for development.

In summary, comparing the modeling results for exploring bilateral trade relations of the Baltic Sea region countries in 1998 (Paas, 2001) and 2000, it can be summarized that these results are comparatively stable. The process of regional integration between the transitional and industrialized countries has positively influenced the development of the Baltic Sea region international trade. The development of mutually beneficial economic co-operation with the capital-abundant industrialized countries of the region has positively influenced the economic environment of the Baltic economies in transition and has created conditions that support their economic restructuring and rise of competitiveness. The development of economic integration within the Baltic Sea region is also important for their admittance into the European Union and for establishing the institutional base for integration.

4. Concluding remarks

Empirical results of using gravity approach for exploring changes in the international trade pattern allow us to summarize that the knowledge gained from laws of nature is also applicable for exploring economic processes. The principles of gravitation could be used for estimating bilateral trade flows and analyzing regional integration in the field of international trade. Despite its simplicity, the gravity model explains the actual pattern of international trade flows empirically remarkably well. The advantages of using gravity models to examine the international trade pattern are 1) Data needed for the model are easily accessible and reliable, 2) Theoretical considerations of using these models to explore international trade flows have been widely discussed and developed. The empirical studies certainly support better understanding and development of theoretical foundations of using gravity models for exploring economic integration, particularly in the conditions of interdependence between transition and integration processes of countries with different economic and political background. The latter is a typical feature of the Baltic Sea region development.

The results of the gravity models based analysis of integration processes between the Baltic Sea region countries support the premise that essential attraction force or pull factor for developing bilateral trade flows is the size of economy, and push factor is the distance between the countries. In many cases distance expresses mainly cultural proximity and historical relationship between the countries. There are also some regional factors that influence development of

international trade flows, for instance strong trade relations between the Nordic and the Baltic states (the Nordic and Baltic clusters). The development of mutually beneficial economic integration between the capital-abundant industrialized countries and economies in transition of the region has created conditions that support economic restructuring and rise of competitiveness. In summary, economic integration in the field of foreign trade is playing an important role in the adjustment process of the Baltic Sea region countries with the EU eastward enlargement. Due to development of bilateral trade relations between the current members of EU and the accession countries, the industrialized countries of the region have got the experience of penetrating new markets and developing economic integration with countries in transition; the accession countries have got experience for establishing the institutional base for economic integration within the EU. Trade relations between the industrialized and transitional countries of the region have good potential for development.

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Legal aspects of the emission rights conversion within the framework of Joint Implementation mechanism

Abstract: In December 1997 during the third conference of the States – Parties of the UN Climate Convention held in Kyoto an executive protocol to this Convention was agreed. Protocol's general commitment is to achieve specified but differentiated levels of greenhouse gases reduction during a five years accounting period 2008-2012. Meeting reduction commitment will be assisted by measures such as Joint Implementation Mechanism, Clean Development Mechanism and Emission Trading which are expected to mitigate economic consequences of the Protocol commitment fulfilment. Joint Implementation is a form of cooperation between countries – the Convention signatories which is focused on development of projects aimed at both reducing anthropogenic emissions by sources and/or enhancing anthropogenic removals by sinks in whichever sector of economy. The projects contribution will be greenhouse gases emission reduction units which could be, totally or partly, awarded to the investor after beginning the commitment period, i.e. since 2008. General requirements for the Joint Implementation projects are prior acceptance, approval or endorsement by the governments of the parties involved in JI project. The main objective of this paper is to present some legal aspects of joint implementation cooperation and the conversion of emission rights between the cooperating parties with special focus to Poland.

Keywords: joint implementation, greenhouse gases, climate change, Kyoto Protocol, emission rights conversion

1. Introduction

The States – Parties of the UN Framework Convention on Climate Change (UN FCCC), during their third conference held on 1-11 December 1997 in Kyoto, Japan, agreed an executive protocol to the Convention widely recognized as the Kyoto Protocol (KP)[37]. It has been sign by Poland on 16 July, 1998, however it still requires ratification what is expected in 2002.

An obligation to the specified, subjectively differentiated greenhouse gases (GHG) emission reduction within the five years accounting period (2008 – 2012)

[37] Kyoto Protocol to the United Nations Framework Convention on Climate Change.

addressed to the Conference parties seems to be an essential commitment resulting from the Protocol. Poland would be allowed to 94% of the 1988 emission value assumed as a reference year[38]. Reduction commitment concerns anthropogenic emissions of GHG measured by carbon dioxide equivalent. Commitment can be met either individually or jointly with other countries. If latter, combined emissions would not be allowed to exceed the national limits calculated from their quantitative reduction commitments. Partners' involvement in meeting their combined commitments should be specified in negotiated agreement.

A number of provisions have been included in the Protocol to ensure the achievement of its reduction commitments. Developing a monitoring system for both anthropogenic emissions by sources and carbon sinks is required as well as relevant reporting obligation resulting from the Convention requirement concerning governmental reports on periodical anthropogenic GHG emission listings. Moreover, an appropriate information demonstrating that the Protocol's reduction commitments have been met should be included in the reports.

Meeting reduction commitments is to be accompanied by a system of measures aimed at the mitigating economic effects resulting from this process. Measures mentioned are Joint Implementation (JI), Clean Development Mechanism (CDM) and Emission Trading (ET).

Joint Implementation is a cooperation mechanism allowing Annex I parties[39] to jointly develop specific projects aimed at either GHG emission reduction or increasing carbon absorption capacity in whichever sector provided that:

- all parties involved approve project implementation,

- project ensures additional GHG emission reduction either through sources or by carbon sinks whereas the emission level without any action is assumed as a reference.

A feature of "additionality" in achieving emission reduction included in JI definition is remarkable. This means that JI projects could be those only resulting in emission reductions or sinks enhancements which are additional to any that would otherwise occur. Evaluation of those additional effects seems to be the most difficult issue within the JI projects. Fixing exact emission reference level is relatively difficult, thus additional effects demonstrated by parties involved could be considerably of a speculative nature. Therefore countries approaching cooperation should develop – to the best of their ability – exact rules for fixing refer-

[38] This reference level has been agreed for the reduction commitments concerning three main greenhouse gases – carbon dioxide, methane and nitrogen suboxide. As far as other greenhouse gases are concerned Poland is allowed to assume either 1990 or 1995 as a reference year.

[39] Countries which declared a note on acceding to the Convention are also included in this group.

ence emission level to be used for the assessment of environmental effects resulting from the project.

Investing party would acquire from the project partner – totally or partly – emission reduction units in return for the investments it made. However acquiring emission reduction units could come into effect provided the parties fulfil their commitments related to emission monitoring and reporting. Moreover acquiring emission reduction units does not exempt the investing party from meeting its commitments related to GHG emission reduction.

JI mechanism could be launched from 2008, when commitment period begins. From now on a transfer of emission reduction units to the investing party will be allowed.

The Protocol assumes that JI projects will be focused on either GHG emission reduction by sources or different activities aimed at enhancing carbon absorption capabilities. Projects can be acknowledged as the JI cooperation provided they are beforehand approved by the governments involved. This is *sine qua* condition for transferring the emission reduction units by receiving country, in the same time it fulfil its commitments resulting from the JI agreements. Signing and ratifying the Protocol by Poland does not impose a general approval on participating in JI projects and an acknowledgement of all consequences involved, including the emission reduction units transfer to the other country. Decision on participating in cooperation based on JI is of individual nature and concerns definite projects implemented on specific rules and by specific parties.

2. Legal consequences resulting from the Protocol ratification and its introduction into national regulations

The Kyoto Protocol has not been ratified by Poland yet as mentioned above, therefore it could not be recognized as a source of law in compliance with article 87, part 1 of the Constitution of Poland[40]. International agreements signed by authorised representatives are not binding for the countries – parties, nevertheless there is an opinion represented in a law doctrine stating that such agreements cause legal consequences resulting from the obligation to obey a good faith i.e. to keep from any activities which would be able to make the agreement after ratification either difficult or impossible (article 18 of Vienna Convention) [Bierzanek, Symonides 1997, p. 89]. Refusal to ratify the agreement makes it inefficacious.

[40] Ratification is recognized as a declaration of country will presented by a competent authority, where a willingness to final enter into the treaty is declared on behalf the country.

Commitment to ensure international law to be efficacious within the national internal law results from the essential international law principle *pacta sunt servanda*, which has been introduced into international law foundations by the Convention on Treaty Law[41], and also from the fundamental principle of international law priority over national regulations[42].

A President, after notifying the Parliament and the Senate (Upper House; in Poland: Sejm and Senat), is a competent authority (body) allowed to ratify and to renounce international agreements (the Constitution, article 133, part 1, point 1)[43]. Ratification of some international agreements depends however on adopting a ratification act by the Parliament. Such requirements refer to agreements on the following subjects:

- peace, alliances, political and military treaties,
- civic liberties, rights and duties expressed in the Constitution,
- Poland's membership in international organisations,
- significant financial commitments imposed on the country (there is an opinion represented in a law doctrine stating that such a criterion is met when the adopted state budget provisions are infringed),
- other issues regulated by legal acts or those where an act adoption is required by the Constitution.

Matters regulated by the Kyoto Protocol comply with two latter cases, where the complex procedure of ratification is required. This is because the Protocol would result in necessary changes or supplements to the existing regulations, moreover implementation of the Protocol commitments involves financial effects on the state budget [Masternak-Kubiak 1997, p. 60].

Parliament, granting the President a permission to ratify an agreement, undertakes an obligation not to introduce into internal law any provisions non-complying with international agreement. Ratification act allowing to ratify inter-

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[41] Vienna Convention on Treaty Law drawn up in Vienna on 23 May, 1969 (Journal of Laws the Republic of Poland 1990, No 74, item 439).

[42] Priority principle of international commitments over internal law has been confirmed in a number of verdicts, e.g. by International Curt of Justice in 1932 and finally a provision has been introduced into Vienna Convention (article 27) stating that party is not allowed to plead its internal regulations for justifying non-compliance with treaty provisions.

[43] Those agreements are signed by the Council of Ministers according to the article 146, passage 4, clause 10 of the Constitution, and then submitted to the President. Formal ratification act requires re-assignment from the Prime Minister. Then the President issues a regulation on publishing an agreement in the Government Journal. Nevertheless most of agreements have been ratified and renounced by the Council of Ministers – these are governmental and sectoral agreements.

national agreement is a part of the transformation procedure implementing this agreement into internal law, moreover it increases a dignity of agreements ratified this way since polish legislator admitted priority to such agreements over ordinary acts unless their provisions comply with those of agreements in question [Masternak-Kubiak 1997, p. 77].

Most of international agreements have been agreed through the simplified procedure. Ratification is not required for sectoral agreements as well as for administrative ones agreed by ministers or State central agencies provided their competence only is concerned. They are signed most frequently either by the government or by ministers without the involvement of the President. Governmental agreements are subject to ratification by the Council of Ministers, whereas sectoral ones either by the Council of Ministers or by the Prime Minister, which depends on prior decision of above bodies or on provision from the agreement requiring such ratification procedure or at least allowing this provided specific circumstances justify it [Bierzanek, Symonides 1997 p. 88].

Kyoto Protocol will be accepted through the ratification procedure, however considering its subject which is regulated by national law, ratification process will result in necessary changes to be implemented in Poland's environmental law with special focus on developing legal grounds for the mechanisms adopted as a measure for the Protocol goals achievement. Entering the Protocol and its ratification is not the only condition for setting up JI based cooperation. Bilateral letters of intent establishing accurate cooperation rules between states – parties of the Climate Convention are the next step. Such agreements can be adopted through a simplified procedure and ratified either by the Council of Ministers or by the Minister of Environment, where Poland's interests will be represented by authorised representatives of the Ministry of Environment.

Bilateral agreements will be recognized as a promise to enter cooperation in terms of JI as well as a support for implementation of specific projects. Consultation and reporting procedures agreed should be also included in those agreements, either by exact provisions or by referring to related regulations already adopted in internal law. Commitments resulting from the agreement concern technology and equipment transfers necessary for implementing the projects approved as well as obligation to transfer emission reduction units gained from the joint project. Agreements could be accompanied by supplementary contracts defining principles and conditions for services exchange between parties[44].

[44] Projects hitherto developed within the pilot programme framework have been co-financed by international financial institutions, e.g. World Bank and European Bank for Reconstruction and Development, thus their implementation have had to meet requirements developed by those institutions, concerning project development, reporting and monitoring environmental effects. Such requirements should be unified, therefore appropriate regulations are expected to be introduced into internal law.

3. Subject of the conversion and conditions for the emission reduction units transfer

A right to use environmental resources (including pollution emission) is recognised as a subjective law being vested to the state is an expression of its sovereign authority and a right to unconstrained control over natural resources within the state territory. This right has been confirmed by a resolution adopted by the United Nations General Assembly on 12 December, 1962, where execution of a permanent sovereignty over natural resources has been admitted as a fundamental component of the right to self-determination. Unfortunately such approach to the law without any restrictions have imposed some negative effects on the environment, including ozone layer depletion and climate change. Results of the unconstrained control over natural resources sadly prove a depreciation of the right to self-determination, at least concerning its justification for the country activities and attitude as far as environment is concerned.

International community has undertaken attempts to deal with those global problems through entering international agreements and accepting commitments which often impose restrictions on sovereign rights being vested to the countries as the subjects to international law [Kiss, Shelton 1991, p.4]. In other words achieving goals of the international environmental law, including climate protection, requires from the states as subjects to international law to abandon some of their interests together with rights related to them in favour of the common goal of protection of environment and its maintenance in the required condition.

Specific elements of the environment are not excluded from the state authority, moreover countries still extend their superior control over them (including management, administration, resource exploitation etc.). However a country's position as a participant of international relations is subject to change. State becomes an administrator entrusted with the natural resources rather than a sovereign owner and is committed to control, protection and to growth [Weiss 1989, p.27].

States – parties of the Kyoto Protocol, after its coming into force, will be obliged to restrict their emission rights concerning some specific pollutants according to agreed reduction schedule[45].

Pollution emission rights, including greenhouse gases, are admitted as one of production factors like capital or man power. It is difficult to overestimate their importance since its deficiency could lead to decreasing companies capabilities, then has an impact on economic growth ability. A country getting rid of emission rights in case when the emission of specific pollutants is commonly restricted,

[45] Kyoto Protocol, according to article 25, comes into force on ninetieth day since ratification documents have been tendered (or declared their will to enter the Protocol in other accepted way) by at least 55 Annex I parties to the Convention, which of emissions amount to at least 55% of total carbon dioxide emission as of 1990.

has to reduce its own emission either through investments in more effective protective equipment or by decreasing production volume. Therefore emission rights are acknowledged as a specific kind of non-material values, which – since the Koto Protocol comes into force – could be a subject either to trade on tradable emission rights markets or to conversion into technologies and equipment enhancing an achieving GHG emission reduction within the JI framework.

A specific form of tradable emission rights – emission reduction units – is subject to trade within the framework of JI mechanism. According to Kyoto Protocol provisions emission reduction units are result from JI projects and are measured as carbon dioxide equivalent. Reduction level declared by the parties involved should be a subject to both verification and certification procedure completed with awarding a formal certificate testifying the GHG emission reduction level gained from the project. Emission reduction units attested that way are recognized as certified reduction units. Thus emission reduction units as result of joint projects are subject to trade between countries.

Certified emission reduction units are transferred according to rules established in bilateral agreements concerning cooperation within the JI framework. Entering such agreement results in breaking legal bonds between vendor – country being a host – and a subject of law – right to emit specified volume of GHG, which after all go to the vendee – country being a donor.

An agreement on rights transfer is of obligating, requital and consensual nature. Commitment to transfer emission reduction units after completing the project and receiving certification will be an agreement's legal effect. This is a mutually obligating agreement, imposing on a donor country an obligation to provide material services in terms of transferring equipment and technologies to the host country or making investments aimed either at emission reduction or at carbon absorption capability enhancement, while an obligation to transfer emission reduction units is imposed on a host country. As a result a host country would not be granted recognizing achieved reduction as included among the Kyoto Protocol commitments.

Conversion of pollution emission rights into material goods and services will differ from existing emissions trade schemes in terms of payment form so that material service will be the payment for the conversion of non-material values (emission rights), but not a payment in terms of money. Due to mutual nature of the agreement all parties become both creditor and debtor at the same time. Considering rights as a subject of service from one party, an agreement will result – apart from binding effects – also in dispositive ones, i.e. transferring a conversion subject to the donor.

Subject of mutual agreements aimed at joint implementation includes exchange of technology, innovation, investments or expenditures on activities focused ei-

ther on emission reduction or on GHG absorption capability enhancement into emission reduction units. Donor country receives non-monetary service – emission reduction units – in exchange for another non-monetary service – investments in host country territory.

Conversion rules will be a subject to bilateral settlements, however it should be emphasized that investing country could be granted the right to make use of the part only of the reduction gained from the JI project and thereby to include this among its commitments. If so a right to the remaining part is kept by a host country and could be used either for increasing its own emission or selling on emission rights market. Fixing shares vested to a donor country will be a significant part of the subject of JI agreement.

As far as the interests of countries involved are concerned it is very important to ensure equivalency of mutual services, i.e. equipment and technology as well as emission reduction units. Emission reduction units will be priced on the ground of joint project costs reduced by host country input, i.e. expenditures made by national parties involved. A period should be established at the same time at which the emission reduction units gained from the project will be acknowledged as a donor country advantage. Environmental results achieved from JI projects will be effective for many years, thus it is necessary to answer the question how long an investing country will be allowed to include them among the Protocol commitments.

Another important issue to be resolved is an involvement level of a country hosting the project. Such involvement concerns potential material, financial and/or organisational support etc.

Extremely important issue as far as Kyoto Protocol goals achievement is concerned is specifying responsibility rules of countries involved in case of potential unfulfilling or unsuitable fulfilling their mutual commitments. Adopting responsibility rules applied in international law practice in case of unfulfilling or unsuitable fulfilling commitments resulting from intergovernmental agreements seems to be a proper way to develop a model solution concerning this issue. Considering specifics of legal relations developed by the terms of international agreements, such responsibility forms will not be secured by coercive measures.

Sustaining a damage by any country being the agreement party will be a condition to bring the other party to justice. Damage is recognized as suffering a loss by one party relating its property interests. Damage has to be in causal nexus to activities undertaken by any party and result from unfulfilling or unsuitable fulfilling agreement commitments. As far as JI are concerned a damage could result from non-making investment provided in the project or exceeding its deadlines, or from unfulfilling co-financing commitments by host country concerning joint activities. A damage could also result from an indolence of authori-

ties administering JI system within one country, e.g. delays in certifying the reduction achieved, delays in approving project implementation, or adopting regulation which either impose obstruction or disable JI mechanism by some means.

Redress of a damage will consist in restitution, e.g. repealing normative regulation which violate both Protocol provisions and bilateral agreements specifying cooperation conditions. If restitution is impossible then damage compensation will be executed through indemnity corresponding to real loss value and – in some circumstances – also to unachieved benefits.

Poland will be participating in JI projects as a host country because it still would have lower unit costs of GHG emission reduction compared to developed countries due to both technological under-development and widely perceptible scarcity of money for environmental protection activities.

Cooperation based on JI mechanism seems to be attractive to donor countries since they can access to advanced technologies, investments improving air quality, pollution reduction, energy efficiency improvement and have opportunity to restructure energy-consuming sectors.

4. Organisational conditions for JI projects implementation in Poland

Kyoto Protocol ratification will create ground for changes in Poland's environmental law. Necessary changes will be introduced mainly in consequence of Poland's entry into international emission trade system. A need for amendments to some regulations will occur in the sphere of implementing activities based on JI and CDM mechanisms, convergent to the Protocol goals.

JI mechanism will not introduce radical modifications into Poland's environmental law, however it will make additions to existing set of instruments used for achieving environmental policy goals. Nevertheless some new regulation will be necessary for the issues like transferring emission reduction units to other countries, its organisational framework and question of JI projects verification, reporting and accreditation.

Legal foundations development for mechanisms which will be adopted by Poland for meeting reduction commitments will be the most important legal challenge after the Protocol ratification. Legal framework for JI mechanism, defining its nature, organisation and competent authorities responsible for and controlling its performance could be obtained through appropriate amendments to Environmental Protection Act. Amendments should also create an authorisation for the Minister of Environment to regulate all detailed questions concerning procedures

for projects acceptance and verification, its monitoring and certifying its environmental effects.

JI projects appraisal has to be grounded on precisely specified criteria[46]. Set of criteria adopted for project appraisal must be convergent to those agreed by a Conference of Parties of the Climate Convention nevertheless it should be expected that individual countries, including Poland, will suggest project appraisal rules more detailed than can be accepted by international community. The following will be the main project appraisal criteria:

- utilisation effectiveness of public and private resources granted for financing joint projects,
- ability to assess of expected GHG emission reduction level before project implementation and ensuring its effects monitoring,
- ensuring compliance with other environmental standards, in particular sustaining or improving local environmental quality indicators,
- reasonable use of environmental resources with special focus on recycling,
- applying – to the highest possible extent – the newest technical/technological developments and advanced production processes,
- compliance with macroeconomic policy at the national and regional levels,
- long term solvency of partners involved in order to achieve and sustain expected reduction level[47].

Applications for individual projects implementation, describing necessary investments description, technologies and financing scheme including national partners participation should be made by subjects interested in cooperation (local authorities, local public services companies, private companies). Then applications will be evaluated by JI Secretariat.

There are several steps of the appraisal procedure. Project is subject to the Minister of Environment acceptance after its initial evaluation in terms of compliance with JI cooperation criteria. Potential acceptance is preceded by Min-

[46] Appraisal criteria for JI projects should be established by JI Secretariat. JI Secretariat was created in 1994 by a Minister of Environmental Protection, Natural Resources and Forestry as an organisational unit placed within the structure of International Cooperation Team in National Fund for Environmental Protection and Water Management (NFOSiGW) and since 2002 JI Secretariat stays within the structure of Ministry of Environment. JI Secretariat is responsible for ensuring preparation and implementation of agreements concerning JI and for JI projects coordination and reviewing.

[47] Assumptions for the JI Secretariat (internal paper).

istry internal consultative procedure. Issuing an opinion could be made basing either on the project specification presented by applicant or on extra expert appraisement made by consulting company accredited by the Minister of Environment. Minister – through project acceptance – expresses its approval of applicant's plan in terms of its usefulness and compliance with intention of parties to JI cooperation agreement.

Next step refers to establishing exact conditions for project implementation concerning responsibility scope of partners involved, terms of project environmental effects evaluation, in particular GHG emission reduction achieved. Settlements agreed at this stage should also cover verification and certification rules for expected environmental effects and requirements for reporting to the Climate Convention Secretariat. Since all details of planned cooperation are agreed a project implementation stage begins including its monitoring.

JI project implementation is finalised by completing a report concerning joint activities and its delivery to the Climate Convention Secretariat. Such report is subject to settlements made by parties involved and to approval both by investing country and by the Minister of Environment.

Projects aimed at GHG emission reduction yet implemented jointly with other countries have been of experimental nature. Project completed jointly with the Netherlands was based on an intergovernmental cooperation agreement. As its result Dutch Government granted Poland with financial support for thermal modernisation investments in Byczyna and Szamotuły. Another project resulted from the agreement between Government of Poland and the World Bank (GEF). Norway also joined this agreement contributing with USD 1,1 mln assigned for investments concerning carbon conversion into gas in power sources up to 1 MWt as well as for activities improving energy efficiency in new residential buildings. Norway contribution to this project was of symbolic nature however it should be noted that gaining experience from JI mechanism in practice was its main objective.

Above agreements have not included provisions aimed at ensuring proper organisation of JI mechanism. Transferring financial support for specific environmental goals achievement was their main purpose in substance. Projects implemented within the framework of those agreements have been acknowledged as JI projects due to exertions undertaken by the Netherlands and Norway. Endeavours made by investing countries after receiving JI status for the joint projects can be reasoned by still unclear status of JI mechanism as well as by inexact appointment a deadline for pilot phase widely recognized as Activities Implemented Jointly (AIJ)[48]. Nevertheless – according to the Protocol provisions – JI mechanism will

[48] AIJ is a pilot programme for joint implementation (JI) introduced by parties to the Climate Convention by the terms of agreement adopted at Berlin Conference in 1995. Parties intention was to finalize this programme by 2000.

come into force since the beginning of commitment period (2008) still it is difficult to define an explicit nature of emission reductions achieved during the "transition" period after 2000 – a year acknowledged by parties of the Berlin Conference as the end of a pilot phase. Thus exertions undertaken by some countries to receive JI status for specific projects could be recognised as efforts to gain an emission reduction before the commitment period begins. Concern in cooperation with Poland within the framework of JI mechanism is still high. Even though interested counties will not be allowed to include emission reduction units among the Protocol commitments participation in JI projects will result at least in obtaining experience which will be used during the commitment period.

Irrespective of this cooperation based on JI mechanism, now and in the future, is fruitful for Poland. Through this Poland benefits from access to technologies and experience exceeding those related to existing intergovernmental cooperation. Effects from the cooperation on a national economy are as much important. JI projects are focused mostly on improving energy efficiency, wider use of renewable energy sources, thus have a good influence on competitiveness of Poland's economy. Therefore, paradoxically, climate protection not necessarily has to be an obstruction to economic development. Due to instruments like JI mechanism and emission trade it could be the chance for economic modernisation and successful development.

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Jüri Sepp & Maris Leemets

International Experience in Electricity Market Organisation: Alternatives for Estonia

Abstract: After the failure of the privatisation of the major Estonian power plants, Narva Elektrijaamad AS (Narva Power Plants Ltd, NPP) in the end of 2001 intense discussions started in public about the right structure of Estonian electricity market. The questions arise mostly out of the oil shale production that is the main fossil fuel Estonia produces electricity of, and its importance for the social and economic situation in the northeast Estonia.

The main objective of the article is to explain and estimate the different alternative development strategies for Estonian electricity market and the political, economic and social consequences of these strategies. Considering the electricity market specifics, the national policy objectives and instruments are explained. The emphasis will be on two branches of the competition policy – competition policy directed at the market results and at the market structure. The latter is found to be a more strategic approach, so the main emphasis will be focused on this set of competition policy tools.

In the mid-term perspective the best solution for continuing to produce the oil shale electricity will be the vertical integration of crude-provider Eesti Põlevkivi and NPP. The consistent internal and external economic policy is needed to ensure gradual decline of oil shale electricity in Estonian energy balance. This policy should include the temporary protection of the oil shale sector and electricity generation after the accession to the EU.

Keywords: European Union, Estonia, electricity market structure, competition, policy instruments

1. Introduction

During last ten years the strengthened global competition has moved markets towards more liberalised trade. Deregulation of infrastructure has been one of the most important signs of the development, aimed at the removal of the direct and indirect barriers of competitive behaviour. Vertically integrated infrastructure monopolies face restructuring and new competitors. By introducing competition higher consumer satisfaction by lower (competitive) prices can be brought along.

Great Britain started the liberalisation already in the 1980's, in the end of the decade the Nordic countries followed suit. Germany liberalised its electricity market after the respective European Union directive came into being in 1996 but other member countries have shown much more gradual progress toward deregulation of their respective energy markets.

After the failure of the privatisation of the Estonian power plants, Narva Elektrijaamad AS (Narva Power Plants Ltd, NPP) in the end of 2001 intense discussions started in public about the right structure of Estonian electricity market. The questions arise mostly out of the oil shale production that is the main fossil fuel Estonia produces electricity of, and its importance for the social and economic situation in the northeast Estonia.

Before estimating the possible development strategies of the Estonian electricity market some conclusions will be drawn from international experiences in the field. The main emphasis will be on the developments in the European Union (EU) member states. For the accession countries as Estonia it is important to consider the requirements of the directive of internal market for electricity (hereinafter: Directive) that was agreed upon in 1996 (EUR-Lex, 96/92/EC) and follow the developments in the EU. Several suggestions had been made for specifying electricity market directive, mostly by organisations in the EU[49].

The main objective of the article is to explain and estimate the different alternative development strategies for Estonian electricity market and the political, economic and social consequences of these strategies. Considering the electricity market specifics, the national policy objectives and instruments are explained. The emphasis will be on two branches of the competition policy – competition policy directed at the market results and at the market structure. The latter is found to be a more strategic approach, so the main emphasis will be focused on this set of competition policy tools.

2. National (competition) policy challenges in the electricity market

The specific feature of the electricity market is the different subordination of its levels of production to the competition as a main co-ordination mechanism of the market economy. As in almost all other markets the main product (electricity) and its mediation service can be distinguished. In this specific case even the set of mediation services, which consists of logistical (transport) and trading (commercial) service can be constructed. If in almost all other markets both the prod-

[49] There were several comments made to the directive by organisations such as NORDEL, European Transmission System Operators, Electricity Association of UK; and by European Council (before Barcelona summit in April 2002).

uct and its mediation to the consumer are the subject of competition then the electricity market is with several other infrastructure sectors (telecommunications, railway etc) exemptions from the competition policy as such. The main difference from competitive markets is the logistical mediation service that is based on a network. Mediation network is the core of an infrastructure sector and this is usually natural monopoly. The competition on the level of production can be created in two distinct ways:

- Building an alternative network (generally unreasonable);
- To allow the use of an existing network by the third parties. There has to be a national regulation (obligation) that establishes this arrangement.

In the case of providing the goods that can be physical products (electricity, gas etc) or services (transport service on the railway) the horizontal competition is not hampered in principle. Regarding the above-mentioned, it is natural that these two levels of the electricity market need separate institutional arrangements[50].

The production of the electricity is a competitive area and generally does not need state regulation. Of course this does not mean its exception from the area of competition policy. It is important to distinguish the state intervention in market processes to *ex ante* and *ex post* intervention. The former means the state regulation of specific market results or elimination of the invisible hand of the market. It is defined to be a regulation in its narrower sense and as of today accepted by economic theory only in the cases of natural monopolies, including the use of existing networks. In other cases the supervision of market abuse belongs to the standard equipment of competition policy. The natural development processes of the economy (innovations) and political decisions (concessions) can practically arise in every sector of economy and in every market and cause temporary monopolies (incl. in electricity production). As rational economic subjects the temporary monopolies are interested in all possibilities for profit maximisation that includes the maximum utilisation of temporary market position. In some cases, for example when markets are not overly open for competition, these developments can lead to the politically or economically unacceptable market results and this is the case where it is internationally accepted that regulators intervene *ex post*[51].

Unfortunately the competition policy that is aimed to regulate the market results has problems in both cases. Both the normative and positive regulation theories

[50] In the mediation level of electricity usually the main transmission network (high voltage) and distribution network (low voltage) are brought out as separate levels. From competition policy view these are not that different as they are both natural monopolies. Only in the contact areas of different distribution networks a limited possibility for competition can occur.

[51] Estonian Energy Act does not differentiate between these two aspects of competition policy and it is required that the prices of electricity and mediation be approved by Energy Market Inspectorate (§ 19). It is partly understandable considering the market structure that excludes competition on production level.

are working on these questions and have brought out the difficulties in the competition policy that is directed at market results. Regulators are not able to define the "right" prices, collect the needed information and implement the policy independently[52].

The normative theory of price control has several methodical alternatives that all raise problems (Fritch/Wein, 1994, p. 341).

- Prices that cover expenditures: as marginal expenditure rule will not be materialised it will be a sub-optimal result for the economy. Prices will stay too high and quantities too low but there will be no problems related to losses.

- Prices that reflect marginal expenditures – in this case state subsidies are needed. It will be difficult to measure the marginal expenditures and any stimuli of cutting expenditures will be hoaxed if state takes any over-expenditure to cover by itself. Taxes needed to cover subsidies will lead to competition distortions.

- Pareto-optimal prices and price differentiation: if the monopoly is able to establish individual prices considering consumers' payment readiness the quantity produced will be equal to that of the perfect competition. The subsidy to the monopoly comes now directly from consumers but the national price control needs to be maintained.

The behaviour of the regulators has been studied also from the positive aspect. Bernstein presented the capture theory already in 1955 (Behrends, 2001, pp. 77-78). He claimed that regulators get closer and closer to the regulated and the independence of regulation is violated. The more intense the co-operation between regulators and regulated the more the regulator feels itself responsible for the state of affairs in the regulated industry.

Considering these, it can be said that the intervention to the market processes on the level of its results is only the cure for symptoms that does not eliminate the real reasons. That is why the authors turn now to the issue of the structure of the electricity market – however economic theory is not offering any clear-cut solutions for Estonia in this respect either. The approach to the Estonian electricity market will be differentiated between external and internal aspects.

[52] The regulation of qualitative market results is even more problematic and usually it is limited to establishing minimum qualitative standards.

3. International developments regarding the structure of the electricity market

Practices in different developed and developing countries refer to the strengthening belief into liberalised electricity markets. Empirics have proved the economical benefits from liberalisation: growth of efficiency in the named markets, better use of resources, consideration of consumers' desires, and innovation, naming but few. The enterprises are forced to cut their expenditures and lower prices considering the consumer opportunity to choose an electricity supplier. The creation of new democratic institutions as independent regulators strengthens the expediency of state intervention in the electricity markets. At the same time the liberalisation may bring along temporary economic problems (rise in unemployment, volatility in the balance of payment) that need to be addressed by other economic policies (regional, social etc policies).

The deregulation of electricity markets has been the main catalyst for changing the electricity market structure in both developed and developing countries. The structural changes mostly occur by mergers and acquisitions of existing enterprises. Following the statistics the European electricity companies were the most active pioneers forcing mergers and acquisitions in 2001 (Taylor 2002). The more passive behaviour of US enterprises can be explained by California electricity crisis and events connected to Enron failure in the end of 2001. In 2001 there were 85 per cent of mergers and acquisitions in the global electricity sector that were initiated by European enterprises, and only 4 per cent initiated by the US.

The restructuring of European electricity market enterprises is mostly lead by the requirement of unbundling of the Directive (articles 13-15). The Directive aims at gradually opening EU internal electricity markets for competition and creating the common internal market for electricity. Every consumer in the area should have the right to choose the electricity supplier. The progress is to be achieved by unbundling the transmission networks from the mostly vertically integrated monopolies.

The Directive requires the minimum from two form of unbundling – the unbundling of the accounting and separation of the management of different parts of the enterprise. At the same time more radical reforms are not prohibited. There are several countries inside the EU that have separated the transmission networks from other parts of the enterprise (legal unbundling), in some countries the unbundling has been done through privatisation. The regions where least reforms are done, namely only management level unbundling, are Luxembourg, North-Ireland and West-Austria. (Moody's Investor Service, 2001, p. 7).

The European Union internal market directive for electricity requires that member states gradually open up their markets. The opening up is defined as the right of a consumer to choose an electricity supplier. The article 19 of the Directive establishes the minimum requirements for openness that will be raised gradually. The base of the openness ratio is the average percentage of consumers that exceed the certain level of electricity consumption. In the time when the Directive entered into force the consumption level was defined to be 40 gigawatt-hours in a year and it was estimated that 22-25 per cent of all consumers was eligible to choose the supplier under that rule[53]. The Directive prescribed that the average level would decrease to the 20 GWh in three years (meaning by February 2000) and to 9 GWh in six years (meaning by February 2003). That means the growth in openness to the 27 per cent and 33 per cent, respectively (or 30 per cent and 35 per cent if considering other estimations). The complemented Directive that was under discussions in the Barcelona Summit in spring 2002 prescribes the opening up of the internal market for electricity for all industrial consumers in the EU by 2005. The industrial consumers have the right to choose the supplier from any countries in the internal market and in some cases from the third countries[54]. It means that the internal market opens 60 per cent and it will not be opened for households.

The differences of implementing the Directive inside the EU member states may raise competitive problems and distort the trade. The main question is in different pricing policy in use of transmission networks and domestic taxes. The role of transmission and distribution expenditures is very high in the final prices of electricity and is significantly different inside EU member states (table 1). Electricity is most expensive in Italy and Belgium and cheapest in Scandinavia and Great Britain. The table 1 seems to confirm that following the requirements of the Directive is important factor in the development of the electricity markets, bringing along lower prices for the industrial consumers.

For the development of European electricity market the low level of cross-border trading is the real obstacle (it accounts for 7-8 per cent of all electricity consumption in member states). The main problems are the technical limitations and in reality all trading possibilities are utilised. The transmission networks in countries have been created to cover the needs of a country, not the international trading. Although political decisions are made to speed up cross-border trading, the technical possibilities are just limited.

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[53] In different member states the achievement of needed degree of openness means the markets are opening up to the differently sized consumers. For example in Estonia the percentage of consumers exceeding 40 GWh was 10-15% from domestic consumption (Rank 2002) and that would have meant that the ratio of market opening of 20-30% needs the market opening also to the smaller-sized consumers. Also look Soosaar 1999 and the literature list of European Commission papers.

[54] Norway has the right to trade with electricity in the EU by the act of European Economic Area; Switzerland is about to establish a legal base similar to EU and EU is tied to Switzerland by GATT contract. And the accession countries will be part of the internal market but first they have to integrate their legislation with that of EU.

Table 1 Openness and electricity prices in EU (July 2001)

Member state	**Open market share (%)**	**Average prices for final consumption (EUR/MWh)**	
		Industrial	**Household**
Austria	32	na	98
Belgium	35	68	120
Denmark	90	56	68
Finland	100	36	55
France	30	51	87
Germany	100	61	122
Greece	30	54	76
Ireland	30	60	101
Italy	35	77	110
The Netherlands	33	62	94
Portugal	30	59	106
Spain	55	52	88
Sweden	100	34	52
Great Britain	100	58	91

Source: European Commission, data as of July 2001.

Internationally there have been other factors also that have influenced the change in the structure of the electricity markets. The development of the electricity sectors in Central Eastern Europe (EU accession countries) has been heavily influenced by the external anchor – objective for the accession to the EU (Albouy, 1999, p. 3). The accession countries give a lot of effort to close the gap between the deregulation of domestic and EU markets.

In Central and Eastern Europe the owner of the electricity sector has usually been central or municipal government. Several governments have now showed their willingness to privatise the sector enterprises, in order to improve the corporate governance in the sector and ensure investments. The need for investments seems to be the most important factor as government budgets are limited. Countries in Central and Eastern Europe are mostly following the Latin American model of changing the structure of the electricity sector by unbundling enterprises, creating an independent sector regulator and if possible, privatisation (Besant-Jones, 1999, p. 25).

4. The structure of Estonian internal market for electricity (vertical aspect)

The structure of Estonian electricity market does not differ much from that of other CEE countries. After the failure of the privatisation deal of minority share of Narva Elektrijaamad AS (NPP) one can say that there have been no changes during last ten years in the structure of Estonian electricity market. The market is owned by national vertically integrated monopoly Eesti Energia AS (100 per cent state ownership), 93 per cent of consumed electricity is produced from oil shale and most of it in the power plants belonging to Eesti Energia, in Narva Power Plants. NPP owns 51 per cent of the primary energy (oil shale) supplier Eesti Põlevkivi AS shares. There are some alternative producers of electricity (bio- and wind energy) but their share in consumed electricity does not exceed the obligatory buy limit of Eesti Energia of 5 per cent of consumption. Eesti Energia owns transmission network, very small part of the distribution system is privatised to foreign electricity companies.

Main questions regarding market for electricity are the future development of the structure of the Estonian internal

- Possibilities to create competition in all levels of electricity chain
- The expediency of vertical competition between different levels

For more complex approach to the problem the fourth level of primary market of energy should be included into the analysis. This is mostly related to the oil shale resources in Estonia. Complementary aspects are the ownership of enterprises and their inner organisational structure[55]. In this article these are left out from the analysis and the emphasis is put on the vertical structure of the electricity market that has brought up several different opinions in the public after the failure of privatisation of NPP[56]. For example the Estonian energy expert A. Hamburg (2002) promotes the total vertical disintegration of the electricity supply and the revitalisation of Baltic electricity market. The manager of Eesti Põlevkivi, M. Jostov (2002) prefers the current integration between production and mediation of electricity to the integration of production of oil shale and electricity. In support of the vertical integration the member of the Parliament K. Kukk (2002) sees

[55] One of organisational problems is definitely the location of the independent regulator in the electricity market structure. Internationally there are disagreements should there be different sector regulators or one central competition board (Koenig/Kühling 2001). There are several arguments for the latter, naming but few: the higher independence of competition boards from the executive power, economies of scale and synergy (as it is in the case of unified financial supervisory authorities) and in Estonia particularly the unified competition board will increase the priority of the competition policy as a whole.

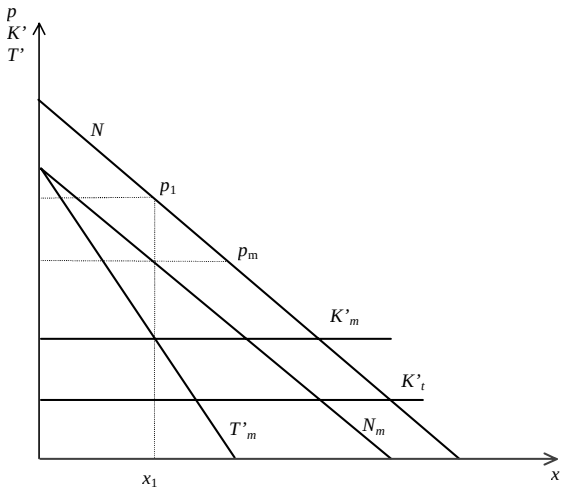
[56] Eesti Energia, hypothetically brought to the stock market, will be important from the financial management point of view but does not change the position of the company in its sector.

the danger of Eesti Energia losing interest for the relatively expensive oil shale production.

The need for vertical integration has been a serious discussion object in economic theory and competition policy for a long time. This question has been the apple of discord between Harvard and Chicago schools of economic theory (look at Sepp, 2002, pp. 20-24). Harvard school is pointing on the dangers of the vertical integration for the competition, Chicago school has doubted all their arguments (Roberto 1992) and brought up the economic advantages of vertical integration. The transaction cost theory by O. Williamson gives a weighty contribution to the discussion why enterprises vertically integrate and co-operate. His conclusions are in short as follows. If in a business partnership some partner-specific investments are needed then short-term contracts raise transaction costs. Long-term contracts increase opportunistic behaviour; the power of the counterpart and use of market may not be preferred. In these cases it is advisable to take the transaction off from market and arrange these inside the company, i.e to integrate vertically. The danger of leaving beneficial transactions undone (because of dependent partner is trying to protect itself by too high prices or just by discarding partner-specific investments) is decreased. Vertical integration is just an extreme method (compared to contracting) for lowering risks and creating trust between two counterparts.

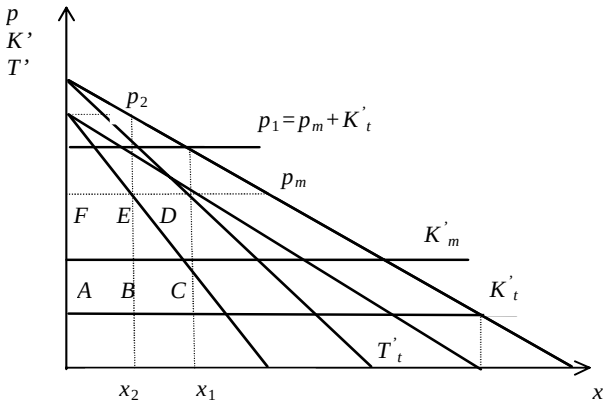
Chicago school is relying on the price theory. Lets adjust Roberto's analysis on the object of this article. Lets hypothetically assume that only the market for oil shale is monopolistic (figure 1). For finding a profit maximising price the producer would determine the demand curve *N* on the secondary market (for example in the market of different competitive power plants). To derive its own demand curve the producer detracts from the secondary market demand curve the marginal expenditures K_t' to produce electricity. From monopoly demand curve N_m the producer derives the curve for marginal revenues T_m', equals marginal revenues with marginal expenditures and finds the profit maximising oil shale selling price p_m. For competitive power plants this will become part of general marginal expenditures and the final price for the electricity becomes p_1. The selling and buying quantities are x_1.

Figure 1. One-sided monopoly



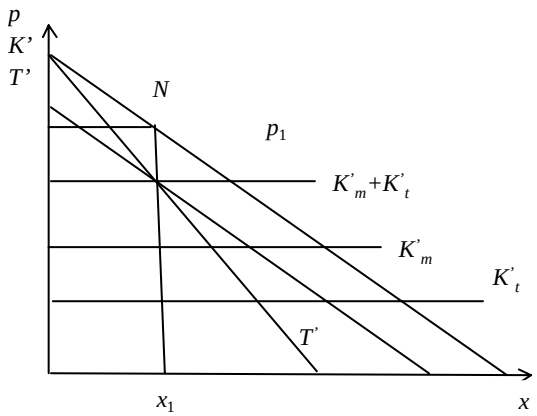
But if there is also a monopoly in the electricity market (figure 2), it is not satisfied with only covering its costs. It probably will try to realise its profit maximising price p_2 that will be disliked by oil shale producer and consumers of the electricity. The oil shale producer will sell less oil shale and profit will decrease by the area of rectangle BCDE. The consumers have to be satisfied with lower supply (on a basis of quantity x_2 of oil shale) and higher price of p_2. From this point of view it will be beneficial for the consumer if monopolistic oil shale producer and monopolistic electricity producer integrate. The same result could be obtained on a basis of monopolistic electricity producer and distributor. A conclusion could be drawn: if there are monopolistic levels in the electricity chain, the integration of these would be beneficial as it helps to decrease the possibility of double marginalisation.

Figure 2. Non-cooperative bilateral monopoly



The weak point of previous analysis is the fact that mutual relations between monopolists were ignored. If they harmonise their activities and jointly maximise profits then prices and quantities will be just like in the case of integrated enterprise (figure 3). Individual profits are dependent of oil shale prices that electricity producer pays to oil shale producer. How they actually share the profits, depends on both party strengths in the negotiations.

Figure 3. Co-operative bilateral monopoly



Chicago school concluded that competition policy should not deal with vertical integration. Of course their work was not left without critics that stated the world being much more complex than the models assumed. Chicago school originated in their analyses from two extreme market models: perfect competition and monopoly, and from static market structures. Adding oligopolies and dynamical structures the picture changes considerably.

In concentrated markets the vertical integration really does pose a threat to non-integrated enterprises (for example alternative electricity producers). They have the right to be scared that in case of falling demand they will be discriminated. So the main criterion for decision of the suitability of vertical integration is the existence of alternative suppliers. But as in the case of oil shale power plants the alternative primary energy is not possible, the integration of NPP and Eesti Põlevkivi can be considered justified. In this case the transmission network as a natural monopoly should be independent from electricity production and potential import. This will lower the supervisory burden of the regulator to protect the non-discriminating use of transmission network. At the same time it does not exclude other possibilities to decrease different risks arousing from oil shale energetics, meaning for example Estonian external trade balance or employment in Ida-Virumaa county (both NPP and Eesti Põlevkivi are situated in that county and provide jobs for a considerable share of inhabitants).

5. Opening the Estonian electricity market externally

External structural problems of the electricity market are mainly related to the opening up of the markets for foreign trade, meaning export and import of electricity. Although for Estonia there are several possible options for opening the markets and the direction for the future integration (in addition to existing integration with Russian electricity network in the east), the most important of all these are related to the EU integration. The policy in the EU markets gets more and more copulative for Estonia. In addition to the trade opening it means competition for electricity itself there have been raised the internationalisation perspective for transmission systems (Eesti Energia merger plans with Latvian monopoly Latvenergo). Considering the objective of the current analysis this theme has to be left aside as despite some economies of scale effects no change in the competition situation will be achieved[57].

Describing the small electricity markets in Estonia and the Baltic region as a whole it is important to note the security-related and economic importance of domestic production and consumption and also regional and socio-political relevance. However, the infrastructure companies in the developed countries, even when they are natural monopolies, are not considered to be in need of political protection. It is assumed that these companies manage in the conditions of competition. To fulfil the obligations taken in the accession negotiations with the EU and to strengthen the economic efficiency of the electricity enterprises the ensured competition is also one of the Estonia's long-term objectives in energy markets (National Long-Term Strategy of...).

Considering the planned deadline for accession negotiations of January 1, 2003 Estonia had to take very important decisions in the energy policy during a short period of time. Transition period has to be applied for because of the non-compliance of environmental standards and market openness. In the situation where one company (NPP) satisfies 93 per cent of the internal market electricity needs the real openness can be ensured only by electricity imports. The Estonian Energy Market Act says in § 9 that the licence for imports can be given only in the case of economic creditworthiness of the company and Estonian economic policy interests. But this is the case only with enterprises from the non-EU countries. After the accession to the EU Estonia cannot prohibit electricity suppliers from the EU member states from accessing to Estonian market if this is technically possible. If that will still be prohibited because of some economic and political interests Estonia needs to apply for the exemption.

[57] An interesting situation regarding transmission service contracts has emerged in Germany. The geographical opening up of the electricity market is not possible when direct relations between producers and consumers assume separate contracts with all independent network operators that are geographically situated between the producer and consumer. Schwintowski (Schwintowski 2001) has stated that despite of the formal status of unified networks every administrator owning part of the network should be seen as a licensed representative for the entire network.

To continue with the *status quo* (Estonian electricity market with Russia and in smaller amount with the Baltic countries) is not possible in a longer perspective considering the requirement of the Directive.

When touching upon external aspects of Estonian electricity markets one can note several opportunities for opening the markets to the EU member states. It can be carried out by building the maritime cable between Estonia and Finland and by building connections between Baltic countries and Poland. Both of these are parts of the idea of the Baltic Rim – having countries around the Baltic Sea connected. The connection between Estonia and Finland would close the northern gap, connection between Lithuania and Poland the southern gap. If Estonia is to benefit from the connected Lithuania and Poland it is important to further the co-operation between the Baltic countries, which is not developing at all at this stage. Geographically there can be three distinct directions for opening Estonian electricity market.

1) The connection between Estonia and NORDEL countries. Building a maritime cable between Estonia and Finland would give an opportunity for Estonia to open its market to the Scandinavian competition inside the NORDEL system. This approach for opening has found most support inside Estonia. For founding a maritime cable it is important to estimate its investment needs and the reality of rising the funding. The Estonian Ministry of Economic Affairs has estimated the expenditures up to EEK 12.2 billion (EUR 0.7 billion) in six years (Suggestions from the working group…). This exceeds the net turnover of Eesti Energia in 2000/01 three times and accounts for 73 per cent of the Group's assets (Annual Report 2001). That is why it is not conceivable that the financing comes from electricity tariffs. In addition, considering the government's political support to the renovation of two energy blocks in NPP (around EUR 0.25 billion) the investment needs of the electricity monopoly in a current financial year is already very high.

   However, it is not very clear what electricity price developments will be ahead for the Estonian consumers when the maritime cable will afford the opening of Estonian market. Electricity prices differ inside the Nordel countries depending on different factors like the price of primary energy (hydro, fossil, nuclear power), distribution prices inside the country (network service) and domestic taxes (i.e environmental and income taxes). After the increase of the electricity tariffs in Estonia up to 110 EEK cents per kilowatt-hour (from April 1, 2002) the tariff will still stay lower than the household electricity tariffs in the Scandinavian countries. In Sweden the tariff for the unit consuming up to 5000 KW/h is 169 cents, in Finland 150 cents (The comparison of…, 2002).

   For the country like Estonia the most reasonable way to establish a maritime cable will be by involving foreign investors and the EU structural funds into

the project. The private ownership of a cable may become very expensive for the producers, especially to the national monopoly. So it is understandable that the government of Estonia wants to participate in the project (at least as a mediator of the EU finances). Of course, for foreign investors the investment will be attractive only when it brings along a critical mass of new consumers. Estonian market of 1,3-1,4 million inhabitants does not offer very bright outlook in this respect. So, for attracting investments into the maritime cable project the progress in opening up the Baltic electricity markets is needed and close relationship with Russia has to be maintained.

2) Connecting Baltic electricity markets (trade relationship and improvement of transmission possibilities to ensure the stability of electricity supply). At current juncture the trading is possible between Estonia and Latvia only. At the same time there is a great need for connecting the small Baltic markets – Lithuania supplies nuclear energy, Latvia hydro energy and Estonia fossil energy and all three are complementing each other. Currently three national monopolies would solve the problem of the stability of electricity supply and trading arrangements will cut significantly the expenditures of regulating the electricity demand and supply. The first step for closer co-operation could be bilateral contracts between these three companies. The merger plans of Eesti Energia and Latvenergo were buried in 2000 when Latvian parliament prohibited any structural changes in the Latvenergo and Estonia started its active negotiations with a US energy company NRG Energy. After the failure of these privatisation plans Latvenergo has shown interest in co-operating in the building of the maritime cable between Estonia and Finland. But the benefits from the co-operation between the three Baltic countries hinges still mostly on Lithuanian-Polish plan to build a connection between these two countries.

3) The connection between the Baltic electricity networks and CENTREL network. Lithuania and Poland have signed a contract of co-operation for building the connection that would make it possible for Lithuania to export its remnant electricity also to the west (in addition to Russia and Belarus that are technically available choices today). In 1998 Lithuania exported almost 40 per cent of its electricity production (http://www.eurelectric.org/Public/content/) that gives a good potential for accession to Central European markets (Poland, Germany etc). Lithuania has to invest into the project some USD 360 million, Poland some 40 million. The contract was signed in May 1, 2001 and the project will mature in 2003 (Reuters 2001). The connection between Lithuania and Poland will, in the case of existing bilateral contracts, give Estonia the possibility to export its electricity to Central Europe through the southern connection of the Baltic Rim.

6. Summary

As the privatisation plan of Narva Power Plants Ltd (NPP) came to a halt in the end of 2001 and intense discussions started in public about the right structure of Estonian electricity market, the article was composed to explain and estimate the different alternative development strategies for Estonian electricity market and the political, economic and social consequences of these strategies.

The structure of the Estonian electricity markets may change in the following ways:

1) The existing electricity network that belongs to the nationally owned joint ven ture Eesti Energia AS should be connected to the West European energy system. At the same time the existing connection with Russia and Latvia and Lithuania should be maintained and enhanced.

2) The institutional organisation of the connection built between Estonia and Scandinavia will influence the internal electricity market behaviour and the financial situation of the electricity providers. The administration of the maritime cable should be independent from the local electricity monopoly Eesti Energia. The needed market opening as stated in the EU Electricity Directive of 1996 (35 per cent of consumers have a right to choose electricity provider in 2003) will not materialise during the coming years in Estonia. The authors believe that the effective timeframe for change is 5-10 years.

3) Allowing the competitive electricity providers to use the existing network of the network operator Eesti Energia will make it possible to provide the alternative (cheaper) electricity and imported electricity in the internal market if the market is opened. Without the sale/purchase contract that would have accompanied with the privatisation deal of NRG/NPP it is possible to gradually lower the production of oil-shale electricity. Imported electricity will set limits to the ability of Eesti Energia to provide relatively expensive oil shale electricity to the internal consumer and may cause the electricity producer' or the crude-provider' Eesti Põlevkivi AS bankruptcy. It is important that no overoptimistic investments will be made in oil shale energetics.

4) There is a hypothetical chance that in the case of market opening the NPP and Eesti Põlevkivi will be shut down. This will bring along a sharp jump in unemployment ratio in Ida-Virumaa County where both companies operate. Accompanied social problems will probably weigh up the advantages of imported electricity and solved environmental problems. And as the stability of supply is of utmost importance, relying only on the imported electricity does not fulfil this condition. Increasing the import by energy component would not be a good choice from the macroeconomic point of view as Estonia has already high current account deficit in place.

5) In the mid-term perspective the best solution for continuing to produce the oil shale electricity will be the vertical integration of crude-provider Eesti Põlevkivi and NPP. The consistent internal and external economic policy is needed to ensure gradual decline of oil shale electricity in Estonian energy balance. This policy should include the temporary protection of the oil shale sector and electricity generation after the accession to the EU.

Building new electricity generation units (incl. on the basis of Russian and/or Norwegian natural gas) should ensure the satisfactory balance between imported and self-produced electricity. On governmental level it will be possible to promote the production of alternative electricity. Both developments will diminish the role of NPP in the Estonian market and the transition to new technologies will alleviate the environmental pollution in Ida-Virumaa County, create alternative jobs and decrease the social tensions.

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Parallel Session IV

“Regulation and Non-Profit Organisations ”

Diana Eerma

Regulation in Economic Policy in Case of Activity Permits and Licenses in Estonia

Abstract: Regulation refers to the instruments by which governments place requirements on enterprises, citizens, and government itself, including laws, orders and other rules issued by levels of government and by bodies to which government have delegated regulatory powers. We can divide the regulation into three: economic, social and administrative. Government regulations have an impact on whole society. The perceptions of government are influenced by how the individuals view its regulatory activities. Usually businesses complain because they consider regulations impose excessive costs on them. Consumers, environmentalists and the general public on the other hand, tend to feel that they are inadequately protected through regulation.

There are different ways how countries regulate economies. The article approaches the problem of regulating the market entry through establishing the activity permits and licenses. Activity permits are considered as one possibility to regulate the market entry and make selection between the firms in order to provide high quality products and services. It means, that from one hand they work as state barriers to the market entry, but from the other hand are considered as opportunity to overcome the asymmetric information problem.

The article focuses on the problems of regulation with activity permits in Estonia. On the bases of analyzed 137 established different activity permits, there are classified and analyzed objectives of the activity permits, possible risks in case of cancellation and alternatives for activity permits and licenses.[58]

Analyzing the established activity permits has been done according to the principles for the good regulations and their enforcement, which are recommended on improving the quality of government regulations in the OECD. These five principles, which should be applied to state regulation, both in the national level and in European level are the following: transparency, targeting, proportionality, consistency and accountability. The main conclusions are, that there are shortcomings in targeting and transparency in some cases of establishing the activity permits in Estonia.

Keywords: Economic Policy, Regulation

[58] Author of the article contributed to the project implemented by Center for Policy Studies in Estonia.

1. Introduction

Rules pervade our lives and they are so pervasive that we tend not to think of them as instruments of government policy. Overall we can divide rules into two major categories: first, framework rules, encompassing both civil and criminal law; second, regulations, including restrictions on price, quantity, quality, and information, as well as more indirect controls relating to registration, certification and licensing of market participants.

Governments can effect their citizens in three ways: provide a range of services for them, raise taxes to pay for services and regulate them.

Government regulations have an impact on all society and perceptions of government are influenced by how individuals view its regulatory activities. Generally, businesses complain because they consider regulations impose excessive costs on them. Environmentalists, consumers and general public on the other hand, tend to feel that they are inadequately protected through regulation.

Current article gives an overview about regulation as the instrument of the economic policy, analyzes the activity permits and licenses role in the regulation process and the goal orientation of this regulatory mechanism in Estonia. Also focuses on the policy improvements in regulating with activity permits in light that most East-European young democracies are probably facing regulatory shortcomings and problems.

2. Regulation as Policy Instrument

Regulation refers to the instruments by which governments place requirements on enterprises, citizens, and government itself, including laws, orders and other rules issued by levels of government and by bodies to which government have delegated regulatory powers.

We can divide the regulation into three following subgroups:

- Economic regulation intervenes directly in enterprise and market decisions such as pricing, competition, market entry or exit.

- Social regulation protects values such as health, safety, environment and social cohesion.

- Administrative regulation concerns government formalities and paperwork, so-called “red tape”. (The OECD Report on Regulatory Reform).

Economic regulation includes the arrangements of structure in different branches and its goal is to increase the social welfare and reinforce the viability and competition of the firms.

In the theoretical works it is relevant to stress two main traditions. The normative tradition seeks to provide guidance to regulators as to the type of policies they should employ. In light of this tradition the term of regulation has become largely synonymous with regulation of natural monopolies. Regulators are assumed to care about both consumer and producer surplus, with relative weight on each being a key parameter. If the regulator can perfectly observe the characteristics of the firms, the social ideal is some kind of marginal cost or Ramsey pricing. The more realistic situation is one in which information about costs is imperfect and the focusing is done to design the schemes that circumvent information problems. The Chicago tradition, as developed by Stigler (1971) and Peltzman (1976), has tended to take a broader perspective on regulation to include a whole gamut of government activities beyond the concerns of natural monopolies. It has also placed political economy issues at the center stage – the main focus being to explain the type of regulations that the political process produces. Regulations are assumed to be chosen by politicians seeking to maximize political "support". (Coate *et al*., 2000).

In the conditions of the free-market economy the market forces determinate prices and quality requirements for goods and services and also profitability of the firm and entry and exit from the market. Under economic regulation, administrative processes rather than free-market forces of demand and supply determine particular indicators. Under economic regulation there are three aspects in place:

- Specific industry coverage. Economic regulation singles out certain industries, namely, those affected with a public interest.

- Economic variables controlled. Overall price level (or rate level) is a prime focus. Traditionally, this takes the form of maximum price level allowed. Accordingly, price structure is also regulated (price differentiation). Entry is often controlled by licenses, exclusive franchises, or certificates. Also exit from market is controlled. Product quality becomes a part of economic regulation frequently, because price regulation may be evaded by deliberate product deterioration. In such case regulators may judge whether service is unjust, unsafe, improper, inadequate or insufficient. The recent theoretical approaches find that regulating the investment profit rate of the firm is more effective compare to price regulation (Joskow, 2000).

- There should be the regulating institution. Theoretically it is politically and economically independent dominate institution, which members have power

to make decisions in regulated area and is subjected to judicial review. (Greer, 1993).

2.1. Regulation in Economy as the State Intervention into the Market Process

Countries differ in terms how they regulate the market entry of new businesses. In order to meet government requirements for starting to operate a business an entrepreneur in Austria must complete 12 procedures taking at least 154 business days and pay 11,612 US $ in government fees. In Bolivia its taking at least 82 business days and pay the fees to the government 2,696 US $ to acquire the necessary permits. In contrast an entrepreneur in Canada can complete the process in 2 business days paying 280 US $ fees for government and completing only 2 procedures. (Djankov *et al*., 2000).

Talking about theory of regulation in economics, we have to start first of all about standard theory presented by Pigou (1934). Recently it is called the helping hand view. It holds that unregulated markets exhibit frequent failures, ranging from monopoly to externalities. A government that pursues social efficiency counters these failures and protects the public through regulation. As applied to entry regulation, this view holds that the government screens new entrants in order to make sure that consumers buy high quality products from “desirable” sellers. Described regulation reduces market failures such as low quality products and negative externalities such as pollution. The regulation here is for purpose to ensure that new firm meets minimum standards to provide a good or service. By being registered, new firm acquires a type of official approval, which makes them reputable enough to engage in transactions with the general public and other businesses. The helping hand theory predicts that stricter regulation of entry, as measured by a higher number of producers in particular, should be associated with socially superior outcomes.

Another view – the grabbing hand view sees the government as less benign and regulation as socially inefficient. It comes in two flavors. First, presented by Stigler (Stigler, 1971) theory of regulatory capture, regulation is acquired by the industry and is designed and operated primarily for its benefit. In this case the industry incumbents are able to acquire regulations that create rents for themselves, since they typically face lower information and organizational costs than do the dispersed consumers. In this grabbing hand theory the regulation of entry keeps out the competitors and raises incumbents’ profits. Stricter regulation raises barriers to entry and it should lead to greater market power and profits rather than benefits to consumers. The second side of the grabbing hand view, which is called the tollbooth view, is associated with the work of De Soto (De Soto, 1990) and explains, that regulation is pursued for the benefit of politicians

and bureaucrats. Politicians use regulation to favor friendly firms and other political constituencies, and thereby obtain campaign and votes. Thus we may concise that on the helping hand view, stricter regulation is associated with higher quality of goods and fewer damaging externalities. On the capture theory, the regulation of entry is associated with higher profitability of the incumbents. On the tollbooth view the stricter regulation is most clearly associated with higher corruption.

On the analysis of entry regulation in 75 countries (Djankov *et al.,* 2000) there was found that heavier regulation of entry is generally associated with greater corruption and a larger unofficial economy, but not with measures of better quality of the private or public goods. There was also found that less democratic and more interventionist governments regulate entry more heavily, even controlling for the level of economic development.

2.2 Requirements for the Regulations

A central function of the democratic government is to promote the economic and social well being of its people. Governments seek to meet that objective in a wide variety of ways, including through policies aimed at macroeconomic stability, increased employment, improved education, promotion of innovation and entrepreneurship, and high standards of environmental quality, health, and safety. Regulation is an important tool that helps governments make gains in attaining these and other desirable public policy goals. But from other side, there are risks, particularly in a time of profound and rapid change in economic and social conditions, that regulations can become an obstacle to achieving the economic and social well being for which they are intended. Regulations, which impede innovation or create unnecessary barriers to trade, investment and economic efficiency, duplication between regulatory authorities and the influence of vested interests seeking protection from competition, are all part of the problem. Here the question arises about the requirements for good regulation. The OECD recommendations on improving the Quality of Government Regulation suggests that good regulation should:

- be needed to serve clearly identified policy goals, and effective in achieving those goals;
- have a sound legal basis;
- produce benefits that justify costs, considering the distribution of effects across society;
- minimize costs and market distortions;

- promote innovation through market incentives and goal based approaches;
- be clear, simple and practical for users;
- be consistent with other regulations and policies;
- be compatible as far as possible with competition, trade and investment facilitating principles at domestic and international levels.(The OECD Report on Regulatory Reform.).

2.3. Activity Permits and Licenses as State Barriers for the Market Entry

Direct information about the quality of services, as opposed to physical products, usually cannot be provided. Because typically, services quality is not fixed: it may change over time either with changes in the level of human capital or the amount of input effort. Because the quality of services may vary over time, providing reliable information about their quality directly may be impractical. The unfeasibility of providing such direct information has led policy makers to search for indirect ways of providing information. A common policy approach is to license or certify providers who meet standard of skills, training or experience.

We may consider that activity permits and licenses are from one side state barriers to the market entry and from another side policy instruments for overcoming the market failure – asymmetric information problem.

Regulations, which are established in order to solve the problem of asymmetric information have two main objectives:

- to guarantee the certain minimal standards for quality of goods and services;
- to avoid greater social and ecological risks.(Sepp, 1998).

Above mentioned two objectives we may consider as main goals for the establishment of the activity permits and licenses. Overcoming the information failures is thereby possible through the establishing the normative for minimum quality implementing it for purposes of consumer protection, health and safety and environmental policies. As consumer has insufficient information then action permit or license is like state guarantee, which is signaling about trustworthy of particular firm in the market.

3. Problems in Regulation with Activity permits in Estonia

There were analyzed 137 different activity permits in order to improve the regulation policy and find alternatives to the establishment of activity permits.

One of the main conclusions was, that it is very important to achieve the breakthrough in the attitude in terms of establishing activity permits. Instead often seen activity permits as the easy source for collecting the state tax in order to increase the tax revenue approach them as regulation instruments for economic environment. (Liiv, 2001).

In many cases concerning to regulation with activity permits the problems arise from vagueness of regulation in legal act (for example activity permits in case of construction works, energy transmission networks, in the field of medicine, realization of the explosive materials and in broadcast spectra). Also was mentioned unfoundedly high state tax in following cases: explosion works, production and realization of the explosive materials, organizing the fireworks. Particular problem is that in case of medical services the legal regulation is found to be morally and legally outdated. (*Ibid.*).

The main risks in case of the cancellation the activity permits are the following: losing the control and overview about the market participants, the increase in smuggling, risks that goods and services dangerous for the consumer entry the market without control. An important issue to consider is that in certain cases there are requirements set by European Union and WTO (for example activity permits in medical services, tobacco-products storekeeping and several construction works).

3.1. Analyze of the Objectives in Establishment the Activity Permits

Analyzing the activity permits and seeking the alternatives in regulation policy first of all we have to start with the analyzing the objectives.

The following is one possible general classification of objectives for establishment the activity permits and licenses introduced with possible risks in cancellation and alternatives for particular group of activity permits according the objective. The classification completed by author on the basis of analyzed 137 activity permits in Estonia.

Table 1

Objectives for the Establishment of the Activity Permits

Objectives	Risks in Cancellation the Activity Permit	Alternatives to Activity Permits
Social Goal		
consumer protection and guarantee the safety requirements	Increases the direct or indirect risk to the consumer health and welfare because of the information failures.	In some cases possible to substitute with voluntary or consent agreements.
reducing the risks	Increases the risks for insurance takers.	
environment protection	Increases the direct risks to environment.	Different insurance and information strategies.
to guarantee the general safety	Increases the direct risks for the individual and welfare.	Tradable property rights, the consent agreements. Single activity permit.
Economic Goal		
market regulation	Losing control over the market entry, performance and the distribution of the resources.	Establishing particular register.
to guarantee the workable and active competition	Risks towards the fair competition, disturbance in the market. Indirect risks for the consumer.	Establishing particular register. Consent agreements.
fix the contract responsibilities		
Administrative Goal		
protection of the state interests	Decreasing the administrative efficiency.	Establishing the register.
the fiscal objective – to guarantee the tax proceeds.	Disturbance in tax proceeds.	Establishing the register.

As seen above we can distinguish between social, economic and administrative goals in terms of establishing the activity permits depending on classification of the regulation. In more detail classification and observation the following conclusions may draw out from reality:

- There are existing activity permits, which target several different objectives at the same time. This fact arises the problem that regulation is not enough transparent and may cause overlapping.

- In some cases the objective is formulated as completing particular service, work or action.

- ‘Providing the service’ is insufficient as objective. Questionable objective is also in formulation ‘getting an overview’.

4. Alternatives to Traditional Regulation and Impact on Economic Environment

Usually governments are aware of the disadvantages of traditional regulation: effectiveness is often limited, inspection and enforcement costs can be high, and the negative effects on dynamic efficiency and structural adjustment can seriously erode competitiveness. As a result, an increasingly critical approach is being taken, asking what kind of government intervention best suits the policy problem being considered.

Differences in objectives and their targets determine and set the scope for the possible alternatives. For example, in case of the cancellation the medicine proceeding action permit there is direct risk for consumer, who has insufficient information about products. At the same time in the case of environmental protection, where the question concerns externalities from production process the transferable emission permits are alternatives.

Among the options for regulating there are three regulation approaches:

- Performance based regulation, which specifies the output to be achieved, rather than the specific means to be used. This can provide greater flexibility for firms to meet requirements at lower cost.

- Process regulation. Many risks are extremely difficult and costly to regulate via prescriptive controls. In that case requiring integrated processes to be put into place – which can be customized to suit individual firms' or industries' requirements – can lower costs and raise effectiveness.

- Enforcement innovations. The real effectiveness of regulation depends crucially on enforcement. New strategies are targeting inspection activity more effectively, while the contracting of this activity to third parties also holds the potential for efficiency gain. (Regulatory Quality and Public Sector Reform).

- Non-regulatory approaches include an extremely broad spectrum. Those currently being studied include:

- Taxes and subsidies can provide powerful financial incentives to modify behavior in ways, which are more socially desirable.

- Tradable property rights can be a mechanism for ensuring that necessary limitations on production or consumption are achieved at the lowest social cost. Examples of their use include pollution control, allocation of take-off and landing rights at airports and allocation of broadcast spectra.

- Voluntary or consent agreements are often a means of achieving improvements in behavior, which go beyond the regulated requirements. They can be a means of encouraging continuous improvement and can include positive and negative incentives in some cases. Uses include environment protection, energy conservation and product safety.

- Self-regulation. Governments can often act to encourage the members of an industry or profession to work together to regulate their own behavior and/or provide redress for consumer problems collectively. Examples include advertising, the legal profession and financial markets.

- Insurance strategies. It can sometimes be more effective to insure against certain risks than seek to reduce or eliminate them. Government action can seek to help efficient insurance markets to develop or to mandate that insurance has to be carried by producers in certain areas.

- Information strategies. The basis of a policy problem can often be a lack of information, particularly where there are asymmetries between producers and consumers in a market. In some cases it can be cost effective for governments to work directly to correct the information problem. (Regulatory quality and public sector reform).

Non-regulatory approaches have to be carefully matched with the other policy questions under consideration.

The important point to consider in terms of seeking alternatives and improving the regulatory policy is the distribution of costs and assessment of the benefits. There have been taking place substantial changes during the last decade in the regulatory issue not only in transition countries, but also in developed economies.

USA is a country, which has been paid a lot of attention to regulation and deregulation problems. Until the mid-1980s, social regulatory costs were more than offset by decreases in the costs of economic regulation. However, once significant deregulation progress ended, overall regulatory costs began to increase rapidly. Still the continuing growth in regulatory costs is largely a reflection of the significant increase in environmental regulation. (Key Regulatory Facts and Figures.).

Analyzing the regulatory impact one has to consider also four main aspects from point of view the business environment: scale of the direct administrative costs, alternative costs, quality of the regulatory instruments and competency of the regulators.

5. Summary

Activity permits and licenses are one possibility to regulate the market entry and make selection between the firms in order to guarantee the high quality of provided products and services. From one hand the activity permits work as state barriers to the market entry, but from the other side are considered as policy instruments for overcoming the asymmetric information problem.

On the bases of analyzed activity permits in Estonia the main conclusions are, that there are shortcomings in targeting the objectives and transparency in some cases of the establishment the activity permits. Thus, the policy has to be improved towards more transparency and targeting the main goals. In particular sectors the alternative for action permit may be found in establishing the applicable register, avoiding the overlapping by institutions in issue.

Also, in the policy improvement there has to be considered that the regulation generally imposes heavier burden on small and medium-sized businesses because it is more difficult for them to spread the costs of paperwork and fees.

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Ewa Grzegorzewska-Mischka

Legal and Economic Conditions of the Creating and Activity of Entrepreneurs in Poland

Abstract: Polish entrepreneurs are currently faced with the need to adapt themselves to the ever more widely changing environment they operate in. The changes take place in the economy itself and, consequently, translate into the corresponding legal regulations. As a result, patterns of market behaviour of the entrepreneurs have to change. The paper deals with legal aspects of the changes taking place in business life and attempts at showing the influence they have on entrepreneurial attitudes. This is necessary in order to better understand the problems faced by entrepreneurs in their everyday operation and the factors that either hinder their activity or motivate the entrepreneurs to further develop it.

Key words: Business, Company, Economy, Entrepreneurs, Law, Market, Partnership, Poland

The political and economic changes that took place in Poland at the turn of the 1980s and 1990s, and the return to free market system, have stressed the importance of the division of entrepreneurs into those operating under public (the State Treasury, communes, municipal enterprises) and private law system (physical persons and entities of similar status, i.e. legal entities and the like)[59]. It should be stressed that the following analysis of legal and economic conditions of the activities and development of entrepreneurs in Poland deals only with entrepreneurs operating under the system of private law.

The place and role of the entrepreneurs were determined as early as at the end of the 1980s. It was at that very time that a turn in the ways of thinking was accepted, promoting free enterprise as a necessary form of human activities, contributing to general development of the country. It was finally recognised that by means of enhancing and developing entrepreneurship, improvement in the well-being of the whole society can be achieved.

Developing entrepreneurship was rightly perceived not as mere human activity, but also as an element of behaviour that can be discussed in economic categories.

[59] For a more extensive discussion see: A. Bierć (1999), Przedsiębiorcy – zagadnienia ustrojowe (Entrepreneurs – Structural Issues) (in:) *Podstawy prawa przedsiębiorstw (Enterprise Law Foundations)*, ed. A. Kucharska, Warszawa: C.H.Beck, p. 44.

Meanwhile, creating legal foundations for conducting business activity to everybody, venturesome persons in the first place, was the action that triggered a number of initiatives. This has been so until now. The fact is confirmed by data showing a dramatic rise in the numbers of enterprises, those falling to the SME sector in particular, in 1990s, and their growing share in creation of GNP[60]. To make an example, it is enough to compare data from two selected consecutive years of the last decade, the years 1997 and 1998. The share of SMEs in creating gross national product rose from 45.3% in 1997 to as much as 48.1% in 1998[61]. Still, in the year that followed, a lower growth of SMEs was noted and also smaller activity of the enterprises in question, which fact resulted from deterioration of external conditions of conducting business activity. One of those was reduction of market demand for a majority of products and services.

It is well-worth adding that both small and medium-sized enterprises were abundantly created in the beginning of 1990s despite macroeconomic environment unfriendly to them[62]. Yet, as it is often stressed in literature, the power of entrepreneurship lies just in people undertaking hard and risky tasks. Sometimes they do it out of their own will, in other instances being actually forced to do so.

As it is well-known, the notion of "entrepreneur" is not equivalent to that of enterprise, much less entrepreneurship, even though close relationships exist among the three. Some economists outwardly declare that the owner of a small firm is not an entrepreneur, unless the firm is run by him/her in an entrepreneurial way[63]. Such an attitude towards the definition is not acceptable from the legal point of view, though. For as the law has it, "entrepreneurs are entities of professional trading that run business activities for profit-gaining purposes, on their own account."[64] According to the Act of 19th November, 1991 – Law of Business Activity[65], the entrepreneur is a physical person, a legal entity or a commercial-law partnership not being a legal entity, undertaking and conducting business activity, as referred to in the said Act, in his/her/its own name. Regarded as entrepreneurs – in view of the legal regulations in force - are also partners to a civil law partnership, to the extent in which they conduct business activity specified in the said Act.

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[60] www.parp. gov.pl

[61] In order to determine the share of small and medium-sized enterprises in the creation of GNP the relation between the added value created by the enterprises and the general value of GNP was adopted. See more broadely at www.msp.org.pl.

[62] See, for instance, P. Dominiak (2000), Przyszłość sektora MSP (Future of SME Sector) (in:) *Gospodarka Polski w okresie transformacji (Poland's Economy in the Period of Transition)*, ed. P.Dominiak, Gdańsk: Politechnika Gdańska. Wydział Zarządzania i Ekonomii, p. 25

[63] The doubts that are raised in that respect by many authors are discussed by J. Wasilczuk (2001) in her paper Uwagi metodyczne dotyczące działań MSP (Methodological Remarks Regarding SME Activities), *Zeszyty Naukowe Politechniki Gdańskiej „Ekonomia"*, (Nr 40), Gdańsk: p. 59 *et seq.*

[64] M. Waligórski (2001), *Nowe prawo działalności gospodarczej* (New Business Activity Law), Poznań: Ars boni et aequi, p. 103.

[65] Journal of Laws of 1999, (No. 101), item 1178.

The currently used notion of entrepreneur – in accordance with the Business Activity Law – is aimed to replace other notions, used before. Prior to this Act entering into force the terms of "business entity", "economic subject" or "trader" were used. The latter one had been formulated in the Commercial Code that was in force in Poland since pre-war time until 2001.

As it follows from the earlier presented definition of entrepreneur, as far as subjective scope is concerned, three categories of entrepreneurs have thus been distinguished in law: physical persons – group one, legal entities – group two, and the said commercial law partnerships not being legal entities – group three[66]. The first of the groups (physical persons) does not seem to need a more detailed definition. As far as the group of legal entities is concerned, it includes entities established by virtue of law thanks to which law rights and duties can be independently assumed by them. They can contract obligations and be ones that are obliged, they can sue and be sued. The third group includes 5 types of partnerships not being legal entities, that is: general partnership, partnership with limited liability of partners, limited partnership, limited partnership with stockholders and associations of capital in the process of formation (as of January 1, 2001, the date when the Code of Commercial Law Partnerships and Companies[67] came into force). It is well-worth adding that new partnerships among those named above, introduced into Poland's legal system by the said Code, are: partnership with limited liability of partners, limited partnership with stockholders and associations of capital in the process of formation. As data gained from the National Court Register in March this year reveal it, the first two types of those mentioned above do not enjoy particular interest so far. For instance, in the Pomeranian Province only 15 partnerships with limited liability of partners have been established since January 1st, 2001.

By law in force, the entrepreneur is allowed to conduct business activity autonomously, and to hire employees. People of entrepreneurial spirit can also operate jointly with other physical persons. Legal forms of joint ventures are various and can, in accordance with the legal regulations in force, take the shape of a civil law partnership or of various types of commercial law partnerships/companies, i.e. the partnership with limited liability of partners, limited partnership, limited partnership with stockholders, limited liability or joint-stock company. Except for the first of the said entities, covered by the Civil Code, all other ones are provided for in the Code of Commercial Law Partnerships and Companies. It is well-worth mentioning that the legal solutions adopted in the new Code have

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[66] For a broader discussion see: P. Banasik (2001), Wybrane zagadnienia dotyczące definicji przedsiębiorcy w ustawie „Prawo działalności gospodarczej" – uwagi de lege lata i de lege ferenda (Selected Problems Concerning Definition of Entrepreneur in the Business Activity Law – Remarks *de lege lata* and *de lege ferenda*) (in:) *Społeczne i prawne otoczenie biznesu a edukacja menedżerska* (Social and Legal Environment of Business and Training of Managers), (vol. 2), ed. B.Garbacik, Gdańsk: Politechnika Gdańska. Wydział Zarządzania i Ekonomii, p. 130.

[67] The act of 15th September, 2000 - Code of Commercial Law Partnerships and Companies (Journal of Laws No. 94, item 1037).

been aligned with EU requirements. All the partnerships and companies, save for the civil law partnership, are regarded as entrepreneurs by law. In the case of the civil law partnership it is its partners that are regarded as entrepreneurs, not the partnership itself, as it has already been mentioned.

In 1988, when the original law of business activity was adopted in Poland[68], at the very onset of transformation of the system, the physical person operating in business traffic in his/her own name and on his/her own account, referred in the said law as a business entity (not yet an "entrepreneur", though), was allowed to undertake such operations upon meeting a few requirements, provided that he/she had full capacity to legal transactions. Fulfilment of the requirements remains true as regards the entrepreneurs starting their activities now. Today, however, the conditions have partly changed, and the entrepreneurs operate under new laws.

Basic duties of those starting business activity on their own include, among others, the duty to register with the National Court Register[69]. For practical reasons that duty has been postponed as far as physical persons are concerned. They are still obliged to get themselves entered into so-called records of business activities, kept by municipalities, and be issued a relevant certificate confirming the fact [70]. As far as the Act on National Court Register is concerned, it is well-worth mentioning that the entrepreneur is obliged to disclose its marital property relations[71]. This holds true about physical persons and partners to general and limited partnerships. The duty includes making an entry not only on being in the bonds of marriage but also on concluding a marriage settlement and on abrogation of joint property of husband and wife. And the rule of free access to the register makes it possible to those interested to get themselves acquainted with any data regarding the establishment of an entrepreneur, his/her/its operation and winding-up of the business.

The entrepreneur is also expected to notify his/her/its activities to the fiscal office, so that the income gained on the activities could be taxed. It should be stressed that all entrepreneurs in Poland are subject to public law burdens on equal terms. It is also well-worth mentioning that until 1997 tax was not defined in the law in force as a legal/financial category in Poland[72]. Before that time it had been only been defined descriptively, by enumerating the features of the levy. Not until 1997 had the legal concept of tax been introduced into Polish law

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[68] Journal of Laws of 1988, No. 41, item 324 with further amendments.

[69] It is provided for in the Act on National Court Register of 20th August, 1997 (*Journal of Laws* No. 121, item 769).

[70] Entries in such records are of transitory nature, since as soon as the establishment of the National Court Register is completed, all the entrepreneurs will be recorded there.

[71] Article 38 item 5 of the Act.

[72] W. Wyrzykowski (2001), Obowiązki podatkowe w działalności gospodarczej (Tax Duties in Conducting Business Activity) (in:) *Prawo gospodarcze [Business Law]*, ed. E. Grzegorzewska-Mischka, Gdańsk: WSTiH, p. 230.

(as was done by the Tax Regulations Act[73] of 29th August, 1997). The tax, as referred to in the Act, is a public law performance to the State Treasury or local government. It is based on law, is not rendered against payment, but is mandatory and non-refundable.

Another duty of the entrepreneur starting his/her/its activity is the need to apply for REGON statistical number[74] to the relevant statistical office, and to notify ZUS [State Social Security Agency] on starting the operation.

Meeting the formal requirements at the start-up of the business is not, as it might seem, a problem that could hinder business activity or discourage one from undertaking it. Tax regulations or labour law provisions create much more troublesome barriers. It is, in particular, the latter regulations that are hardly friendly to entrepreneurs now, as hiring new employees entails very high costs to them. The costs in question are, first of all, the high costs of social insurance charged on top of the employee salaries/wages. As opposed to them, the amount of minimum wages is not a significant barrier to entrepreneurs, and it does not actually hinder their hiring new employees. However, as results of the research carried out by "Demoskop" polling agency in Poland in 1999 reveal it, a majority of business managers are of the opinion that increase of employment does not translate into higher productivity of the enterprise, a good effect being brought about by pay increase to those already employed[75].

Legal environment of business in Poland includes numerous laws covering many an issue. Examples include licenses and permits, organisation and operation of the National Court Register, the legal institution of commercial representation (procuration), regulations pertaining to business name of the entrepreneur, tax matters, hiring of employees, settlement of disputes resulting from civil law contracts, and many others[76]. It should be stressed, though, that when creating conditions for business reforms in Poland, the legislators adopted, as the underlying principle, the doctrine of economic liberty, as opposed to the previously fostered system of commands and prohibitions. A new philosophy accompanying the economic changes in Poland was formulated to read: "Whatever has not been prohibited by law, is allowed."[77]

It is well-worth mentioning that until legal regulations satisfactorily covered all the spheres of business traffic, many entrepreneurs had been taking advantage of that situation, making use of legal loopholes or counting on the consumers' lim-

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[73] Journal of Laws of 1997, No. 137, item. 926 with further amendments.

[74] Cf. Article 62 of the Act of 26th June, 1994 on Public Statistics (*Journal of Laws* No. 88, item 439, with further amendments).

[75] www.msp.org.pl

[76] The issues are broadly discussed in: *Prawo gospodarcze [Business Law]*, ed. E. Grzegorzewska-Mischka, Gdańsk: WSTiH.

[77] K. Kruczalak (2001), *Prawo handlowe (Commercial Law)*, Warszawa: PWN, p. 65.

ited legal knowledge. Such a situation was characteristic, in particular, of the early 1990s, when free market in Poland was only starting. The market was not highly demanding to the entrepreneurs. The mere fact that it got packed with goods and that one had the opportunity of being active, pursuing business objective of his/her own, was satisfactory to a majority – if not to all – market actors. In the beginning of 1990s activities of small and medium-sized enterprises were directed mostly at development and production of new products, attracting new customers and conquering new outlets. At the same time the entrepreneurs were aiming at reducing costs of the products they manufactured, so as to gain maximum profits. The actions actually led to neglecting the customer himself. However, as the market competition was growing, the aspect of quality in business operation started playing an ever greater role.

At further stages of the transition, started at the turn of the 1980s and 1990s, a new order (not only legal one) was born, forcing changes in the old patterns of behaviour of business entities. Rules that put order to structures of the system would also change[78]. Legal provisions were thus gradually made more rigorous, market competition kept growing[79] and foreign capital entered the domestic market. Entrepreneurs had to learn how to make not *any* products, but ones for ever more demanding customers, and currently they even have to align quality of the goods with EU requirements. Today it is a precondition for being present also in the foreign markets. It should be believed, as many declarations from the business circles confirm it, that Polish entrepreneurs should be able to cope with the pressure of competition and with EU market forces, provided that the pace at which Poland's economy is restructured will not fall down and the economy will be run in an open way[80].

It should be assumed that activity of Polish entrepreneurs in foreign markets can be greatly enhanced as a result of Poland's full integration with the EU. It can prove very favourable to many business entities, if only Poland's economy can have satisfying competitive capacity. The latter should rely both on the ability of businessmen to make use of good sides of intense international economic relationships, and the features of the economy itself. It should influence quality of the goods manufactured in Poland, so that supremacy of products of one enter-

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[78] Cf. Z. Hockuba, Gospodarka chaosu. Transformacja a regulacja ekonomiczna (Economy of Chaos. Transition and Economic Regulation), *„Ekonomista"*, (vol. 3) of 1993.

[79] The nature of competition and competition-related policy in the period of transition has been more extensively discussed by E. Małecka (2000), Ograniczenia konkurencyjności małych firm prywatnych na podstawie badań empirycznych w regionie łódzkim (Competitive Power Limitations of Small Firms. A Study Based on Empirical Research Done in Łodz Region) (in:) *Gospodarka Polski w okresie transformacji (Poland's Economy in the Period of Transition),* (vol. 2), Gdańsk: Politechnika Gdańska, Wydział Zarządzania i Ekonomii, p. 43 *et seq.*

[80] E. Grzegorzewska-Mischka (1999), Małe i średnie przedsiębiorstwa (MSP) w Polsce w procesie integracji z Unią Europejską. Uwarunkowania ekonomiczne, prawne i społeczne (Small and Medium-Sized Enterprises (SME) in Poland in the Process of Integration with the European Union. Economic, Legal and Social Conditions) (in:) *Edukacja menedżerska a społeczne i prawne otoczenie biznesu (Managerial Education and Socio-Legal Environment of Business)*, ed. B.Garbacik, Gdańsk: Politechnika Gdańska, Wydział Zarządzania i Ekonomii, p. 88.

prise over those of another could be achieved. Difficult though the task may be, it can be supported by appropriate economic policy of the state that would take into account conditions of business environment in the EU. Within the framework of that policy development barriers to entrepreneurs should be removed and special care of the state about areas requiring its intervention shown.

The barriers that keep hindering intense development of entrepreneurs include, among others, legal/administrative and financial/tax environment not quite friendly to them, always too limited access to information and new technologies, insufficient managerial skills of the businessmen and lack of innovative elements in their firms. Meanwhile, among factors favourable to innovative behaviour, the following ones are quoted in literature[81]: market environment (with active role of state, stimulating competitiveness), accumulation of not only material, capital and human assets by enterprises, but also experience and skills securing the ability to adopt innovation and gain competitive power, as well as entrepreneurial culture and system of education.

A variety of "assistance" programmes are created by the state nowadays, addressed mostly to the sector of small and medium-sized enterprises and aimed at lifting the barriers to their development. They are supposed to quicken the pace of that growth, create better opportunities for capital generating and accumulating.

Besides working out the programmes of assistance, many institutions supporting entrepreneurs and proving helpful to them have also been called into being in Poland so far[82]. These include, among others, Polish Agency for Development of Entrepreneurship, National Business Chamber, Business Center Club, Enterprise Supporting Institute, Co-operation Fund – a non-profit institution. Tasks of the institutions vary in details, but put in a nutshell they can be generally described as: subsiding all kinds of training, subsidising loan funds or guarantee funds for SME sector, financing a network of Consultation/Advisory Facilities, stimulating consumer and investment demand at home, supporting a tax system that would prefer investors creating new jobs, promoting acceptance of a new entrepreneurial philosophy – Total Quality Management. Numerous and various though the tasks might be, hardly do they cover all the needs of Polish entrepreneurs, the needs that are likely to get even more acute with Poland becoming a member of the EU.

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[81] The issue is discussed more broadly by E. Małecka (1999), Innowacyjność MSP w okresie transformacji (Innovativeness of SME in the Period of Transitio) (in:) *Gospodarka Polski w okresie transformacji (Poland's Economy in the Period of Transition)*, ed. P. Dominiak, (vol. 3), Politechnika Gdańska, Wydział Zarządzania i Ekonomii, Gdańsk: p. 42 *et. seq.*

[82] See: www.wirtualny.kraków.pl/msp/informacja.

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Vesa Kanniainen & Martti Virtanen

Conditions for Economic Growth: Infrastructure, Entrepreneurship and Competition

Abstract: The economic development of an economy or region relies on a cooperation between efficiency-including infrastructure and institutions and successfully vibrant enterprises, based on the location-specific advantage and on innovative accumulation of resources. The paper provides an overview of the fundamentals of economic growth and development. It emphasizes the importance of stable policies for successful entrepreneurship, participation in the globalization process, development of venture capital financing for new start-ups, competition for innovations in the spirit of the Shumpeterian view, the role of competition policies and the importance of search for competitive advatages.

Keywords: entrepreneurship, innovations, competitive advantage

1. Introduction

1.1 Infrastructure, Entrepreneurship, Competition and the Nordic Dimension

Generally speaking, the economic development and lasting prosperity of any national economy or sub- or supranational region always relies on a fruitful cooperation between reliable and efficiency-inducing infrastructure and institutions on the one hand, and successfully vibrant enterprises, based both on the location-specific advantage of the economic region and on innovative accumulation of distinguishing resources and assets, on the other. The utilization of all these factors paves the way to an overall insuperable competitive advantage for the region's enterprises vis-à-vis companies from other regions. The lasting prosperity of the region is buttressed by the competitive advantages of the region's companies, their ability to resist imitation and maintaining their innovative edge compared to other regions. However, sustainable extra-regional competitive advantages do not lead to sustainable intra-regional monopolies; to the contrary, effective competition is secured intra-regionally.[83]

The Nordic Dimension refers to a geographically large region with a number of widely different national economies. The transitional economies of the Nordic Region are creating both the infrastructure and the institutions required by an

[83] This is the wisdom of Michael E. Porter's famous analysis "The Competitive Advantage of Nations" (1990).

active market economy, and they are encouraging truly marketized business enterprises to enter their evolving markets. The policy agenda for these economies is ultimately as outlined above although a long process of adjustment will be required to lay a firm foundation for a market economy and prospective membership in the European Union. The EU/EEA member states of the region must also strive to safeguard their national competitive advantages in the above manner in view of the increased federalism and enlargement of the European Union.

Analysis of the location- and firm-specific advantages of the Nordic Region is clearly imperative for Nordic Dimension research, as is the study of infrastructures and institutions and their interplay with these advantages. What could distinguish the Nordic Dimension research is the hidden and untapped value added that the very perspective of this dimension could bring to the analysis. The following aspects could characterize the research, in particular:

- how cooperation between enterprises from the different parts (national economies) of the Nordic Region could enhance, through the synergy of different location-specific and firm-specific advantages, the competitive advantage of the region as a whole, benefiting all national economies of the region

- how infrastructures could be integrated, institutions harmonized, and economic policies coordinated so as to encourage businesses to tap this potential.

The economic integration of the Nordic Region and its harmonious relationship with the evolving European political union, attained through collective competitive advantage and a coordinated joint public policy strategy to create it, is the objective of the highest order for the Region's nations. The Nordic Dimension project is best designed as identifying "any of the stones" to be used to pave the way to this goal. It is in this spirit that the following survey of the basics of economic growth in view of recent economic research is presented.

1.2 Overview of the fundamentals of economic growth and development

Over the part decades, some countries have been more successful than others in achieving growth and economic welfare goals. This paper summarizes some of the views on those factors that are fundamental to economic growth and development. Our paper emphasizes the role of a well-functioning social infrastructure as an indispensable productive input. However, as most of the economic value-added is created by private enterprises, it is important that private incentives are properly structured. This calls for elimination of entry barriers for new enterprises. Enterprise formation is hampered by economic and social instability. Risks faced by enterprises must be managed and shared. The best economic poli-

cies involve public finance and taxation measured that lead to predictable outcomes and a stable business environment.

From the global perspective, some countries have been more successful than others in creating conditions for growth. Evidence shows that countries that have participated in the process of globalization have been highly successful, while countries that have abstained from globalization have had a much weaker performance. In addition to globalization, incentives for innovation and the impact of competition on innovation are important mechanisms for economic growth. Their interaction with competition is important to understand.

2. Social Infrastructure as a Factor of Production

The public sector produces both public goods (and some important private goods) and it helps to build the social infrastructure, including an effective legal system, credibility, trust, social capital, contract enforcement, enforcement of property rights, strong business culture etc. Trust capital accelerates economic growth (cf. Hjerppe (2002)). Trust means mutual understanding of the ability and commitment of the parties involved to act according to existing contracts and norms. Trust is part of morality. It is the opposite of opportunistic behavior. Trust capital has a positive economic impact. It reduces transactions costs, helps to develop sound business cultures, reduces the problems of moral hazard and strengthens social capital. In an opportunistic world, mutual interaction is viewed as a zero-sum game (cf. von Hertzen (2002)).

3. Stable Policies are Important for Successful Entrepreneurship

3.1 Entrepreneurship

Entrepreneurship is risk-taking. Someone has an idea but no money. Though risks are shared with financial institutions, the entrepreneur typically has a substantial stake in the project.

Enterprises end up creating most of the value-added in the economy. They may be privately or publicly owned. The trend over the past two decades has been that the role of public ownership has declined as a result of privatization.

Successful enterprise formation is a complex matter. Ilmakunnas and Kanniainen (2001) and Kanniainen and Vesala (2002) presented evidence both on cross-

country variation in the rate of entrepreneurship in 19 OECD countries and econometric results behind the cross-country variation. They find that the Anglo-American world typically has a higher rate of entrepreheurship or self-employment than the Central European economies. The Nordic welfare states are characterized by a relatively low rate of entrepreneurship. Kanniainen (1998) finds that in Finland and in Sweden, small enterprises employ relatively fewer people than enterprises of similar size in the central European economies. The most recent technology boom has changed these relations somewhat but the results hold in the traditional industries.

Ilmakunnas and Kanniainen (2001) also report econometric results on entrepreneurship. They develop a model where people are thought to choose between becoming entrepreneurs, i.e. working on their own, or entering the labor markets. The key difference between these occupations is in the risks involved. Though a welfare state provides social insurance for labor, the economic risks of an entrepreneur are not insurable. For moral hazard reasons they cannot be! However, governments can try to secure sufficient enterprise formation by implementing economic policies which stabilize the economy. The results are very strong on this point. High taxation is shown to reduce the rate of entrepreneurship. Moreover, labor market institutions play their role. Unionized economies have a lower rate of entrepreneurship than less unionized economies do.

3.2 Financing new start-ups: venture capital

New enterprises typically have neither history nor reputation. Informational asymmetries restrict project financing, especially in the absence of collateral. Over the past years, a new form of financing, venture capital, has emerged to finance risky start-ups. Both in the US and in Europe, the new finance has grown substantially in the 1990s. What is different about venture capital finance is its incentive structure. It combines the strong features of debt and equity, providing project selection, monitoring, and efficient consulting. The recent collapse in the IT sector has slowed down the development of the market, but it is clear that venture capital finance has advantages over the traditional financial instruments.[84]

[84] This is explored by Kanniainen (2002). Kanniainen and Keuschnigg (2000) address the question how many start-upts to finance under the double moral hazard problem. Kanniainen and Leppämäki (2002) explain the institutional equilibrium between banking and venture capital finance.

4. Participation in Globalization is Good for Growth

Participation in the globalization process has been found to be beneficial to economic progress. Strong evidence is provided by Dollar and Kraay (2001). Developing countries which have participated in globalization have had great success. Their growth rate has accelerated from the 2.9 % average in the 1970s to 3.5 % in the 1980s and to 5.0 % in the 1990s, exceeding that of the rich countries. On the other hand, countries which have not participated in globalization have performed poorly. Their average growth rate has declined from 3.5 % to 0.8 % in the 1980s and to 1.4 % in the 1990s. The gap between rich and globalized countries has been reduced. Foreign trade has had a substantial positive impact on growth. Accelerated growth has not generally had a negative impact on income distribution (except in some Eastern European countries). In some poor countries, poverty has declined. However, there are also some losers in the process of transmission. Thus, compensation schemes (unemployment compensation, transfers etc.) are needed when a country experiences a radical change.

5. Growth, Innovations, and Competition: The Traditional vs. the Shumpeterian View

Economists disagree on whether competition is good or bad for economic growth. Since Adam Smith, the common wisdom has been that market competition is good for economic growth. However, the formal growth theories, starting with the neoclassical theories developed by Robert Solow and some others fail to account for continuous growth. Nor do they address the role of market competition. It took some time before the economic framework was developed to cope with the need to understand the relevant mechanisms. The new growth theory, developed by P. Romer, R. Lucas, E. Helpman and G. Grossaman, had a new message: accumulation of human capital is the key. What human capital meant, however, included several ideas. One of them is the role of economic education, which is necessary to create skilled inputs. Second, utilization of skilled inputs results in access to economic and organizational innovations. R&D competition has (since Brander and Spencer) been viewed as an important mechanism for achieving economic rents.

Market competition, however, plays a double role in innovation incentives. It provides an instrument with which a firm can attempt to take a leading position in producing goods vintages which replace the old vintages produced by its competitors. It also means an instrument for an imitator to catch up with the leader. From time to time, competitors arrive at a “neck and neck” position relative to each other. The risk of losing the market leader status represents a source of destructive creation which a rational innovator discounts. Such a Schumpeterian

view suggest that competition may be detrimental to innovative incentives. The view has recently been formalized by Aghion, Bloom, Blundell, Griffith and Howitt (2002), who suggest that there an downward U-shaped relationship between the tightness of competition, measured by available rents, and expected economic growth.

This means that though there are arguments in favor for the "infant-industry" view, "the neck and neck" industries innovate most. This suggests that excessively harsh competition is harmful, as firms the innovate less. Absence of competition is, however, not good either.

6. Competition and Competition policies

In a market economy, the competitive process safeguards economic efficiency and a healthy increase of productivity and welfare over the long term. The functioning of competition is closely related to the competitive conditions of the commodity markets where producers (sellers) and consumers (customers) trade, reacting to proper market signals. Competition law and policy, particularly the antitrust side of policy, is designed to counteract restrictive practices by firms on the commodity markets. It is generally accepted that competition policy must strive for economic efficiency.[85] The particular workable competition norm of the Finnish competition policy is understood as the best mix of allocative efficiency, productive efficiency, and dynamic efficiency.[86] It is the competitive process that must be safeguarded, and not the interest of any particular competitor. On this basis, the evils to be combated under competition law are collusion, artificial exclusion, and excessive utilization of market power.[87] There is already a degree of harmonization of the competition statutes of the nations within the Nordic Dimension Region and even more can be expected in the future in view of the prospective enlargement of the EU.

The competition law regime, in view of the Nordic Dimension, has two major interrelated prospective challenges: the emergence of the New Economy and the increase of supra-national and intra-regional restrictive practices. A major driver of economic integration in the Nordic Dimension Region is investment and establishment of operations of the firms of one nation in other nations within the region.[88] This will, in the course of time, lead to restrictive arrangements among

[85] See e.g. Bork 1978, chapter 4, pp. 405-407, Posner 2001, p. 2.

[86] For the notion of workable competition and its potential see e.g. Purasjoki – Virtanen (1995)

[87] See Virtanen (993, pp. 44-46) and literature cited therein.

[88] As a case in point, Finland and Russia have been discussing an investment treaty, particularly in view of Finnish productive investments in Russia. Contrary to expectations, the treaty was not signed at the meeting of the presidents of the nations in Russia. Productive investments in the region by firms from other nations in the Nordic Dimension

firms from several nations that affect several nations within the Nordic Dimension Region at the same time. To the extent that EU competition rules are inapplicable, other coordination mechanisms among the several nations must be devised, fulfilling the requirements of positive and negative comity[89] within the region. Failure to safeguard coordination would seriously undermine the very goal of economic integration within the whole region.

In this context, the New Economy can be defined as a structure that has come about as a result of two forces of change that are present in the world economy. One of these forces is the globalization of business operations. The other is the IT revolution, which can be seen in the increasing computing capacity and reduced prices of computers, the convergence of information and communication technologies with advancing digitalization, and the networking of IT systems through the Internet.[90] At the core of the New Economy are the key industries that are developing and marketing the new technologies[91], but the new technologies are also introducing new and more flexible production methods (”the IT paradigm”) to the so-called Old Economy to replace earlier mass production systems.[92] In another context, I have described the new production method as follows:

> ”The key factor of production in the new production paradigm is information capital. The time dimension of the production process is much more compressed than in traditional mass production. Instead of the mass standardisation required by mass production, the new production technology allows the simultaneous utilisation of full economies of scale and customer-specific tailoring. When the typical commodity of the mass production era was a physical industrial product, the typical commodity of the new industrial era is a product combining both physical goods and related services. While the control of operations in traditional mass production may have been based on textbook-style strategic planning, the new production paradigm relies on the visionary abilities of individuals and organisations with supreme knowledge for discovering the major developments in the turbulent operating environment of the future, as well as the opportunities for controlling the future in a profitable manner. This cannot be formalised into a rigid organisational structure. The competitiveness of both production and R&D relies on largely informal,

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Region are an important vehicle for the development of particularly sustainable competitive advantages for the whole region.

[89] Positive and negative comity imply, respectively, measures taken by one nation(‘s authority) in the other nation’s interest, and failure to take measures otherwise called for owing to the interests of another nation.

[90] Pohjola 2001, p. 41

[91] Ahlborn, Evans and Padilla (2001, p. 156) list the following: “--computer software and hardware, the internet, mobile telephony, biotechnology and others that are based primarily on the creation of intellectual property and that are undergoing rapid technological change.”

[92] Virtanen 2001, pp. 228–229, and the sources cited.

> flexible and network-style co-operation, based on mutual trust and interactivity between several organisations."[93]

If successful, the Nordic Dimension must translate itself into networks of cooperation among firms from the various nations. The new production paradigm will create complex systems of co-operation for enhancing production, thereby creating new and better products, groups of products or production processes; or for creating knowledge that will be useful in achieving these goals.[94] Co-operation will exclude certain operational models, and, for example, the standards created as a result of co-operation may cause considerable obstacles for companies that produce certain individual components related to various systems.[95] The classic problems of competition law (cartels, artificial exclusion from competition and unreasonable use of market power) may persist,[96] but one must be able to quickly apply competition law and be far-sighted in the new circumstances, understanding the innovative characteristics of network co-operation, while avoiding violations of competition law.

This is an important challenge for all competition authorities throughout the region, and it will require a coordinated response.

Advocacy, the other side of competition policy, is designed to persuade political decision-makers to amend laws and regulations that impede competition in the commodity markets or, on a general level, stifle competition. Although advocacy is an essential part of competition policy in the EU economies, it is even more fundamental in the transition economies, for they are not only creating competition on the commodity markets but also building up proper institutions required for marketized business.

Estrin discusses the corporate governance issue, arguing that the privatizations carried out in the transition economies may have failed to create an effective pri-

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[93] Ibid., p. 229, original text in Finnish.

[94] According to a recent survey by the Confederation of Finnish Industry and Employers (2001, pp. 17-18)), 71 % of the industrial enterprises that had replied to the survey participated in networks. Even more recently (2002, pp. 53-56), Navaretti, Haaland and Venables found that industrial fragmentation, measured by the share of parts and components of total trade flows increased sharply in the course of the 1990s. For a sample of products they used, they found the share of parts and components of the total EU trade flows in 1997 was 35-37 %. It is remarkable that the share of parts and components in the trade flows of Eastern and Central European transition economies has increased rapidly from 1989 to 1997, rising from 5.8% to 12.3% for imports and from 4.5% to 15.3% for exports. For example, Estonia has gained a prominent position in the trade of parts and components within the electronics sector. Navaretti, Haaland and Venables also cite a study by Yeats (2001) according to which trade in parts and components now accounts for approximately 30% of total OECD trade. While the evidence presented is roundabout, it supports the argument of the probability of the emergence of supra-national and intra-regional networks of the New economy type, calling for substantive reconsideration and coordination of the competition policies of the various nations within the Nordic Dimension Region.

[95] See e.g. Stenbacka 2001, pp. 90–94, Virtanen 2001 (op. cit., pp. 239–249).

[96] See Määttä & Virtanen 2001, pp. 8–9.

vate ownership structure. [97] This threatens to create a governance gap because the central planning mechanisms no longer are operative. In addition, other institutions are also required to support effective private ownership of firms, including, among others, accounting rules, the emergence of a stock exchange, and takeover rules. Likewise, the general rules for establishing new enterprises are important in view of the concentrated market structures inherited from the central planning mechanisms. The openness of foreign trade is well known to have a considerable effect competition in the commodity markets. On all these accounts, there is still much progress to be made in the transition economies. Without effective institutions of this type, the efficiency of competition on the commodity markets is generally undermined, even in cases where the market structure does not suggest monopolization.

It is, finally, clear that infrastructure is yet another significant determinant of competition. An efficient and reliable infrastructure naturally enlarges the sphere of alternatives that potential parties to a transaction may consider.[98] Thus, infrastructure investments complement in an important way other policies designed to increase competition.

We conclude that there is a broader policy on competition that includes, in addition to antitrust policy, the creation and maintenance of other economic institutions and infrastructure requisite for competition. It is from this general perspective on competition that the Nordic Dimension should be viewed. Systematic harmonization of institutions is required for the Nordic Dimension to become fully competitive on the commodity markets. Coordination of competition policy is necessary, and credible mechanisms for coordination among the various competition authorities dealing with supra-national and intra-regional antitrust cases must be put in place, to the extent that these are not already directly determined by affiliation EU competition rules – via membership or some other type of association. [99] Efficient and effectively integrated infrastructure within the Nordic Dimension Region is *sine qua non* for fruitful industrial cooperation among firms all over the Region.

[97] Estrin 2002.

[98] Brown and Earle 2001, and literature cited therein.

[99] For example, in 1994, the Russian and Finnish competition authorities concluded a Co-operation Agreement that chiefly provides for a reciprocal training program. The Agreement does not currently provide for any mechanisms with respect to enforcement of competition law.

7. Concluding Remarks

Our paper has discussed the question: what is needed for economic success in the Nordic region and how comparative advantages can be created. We have interpreted the recent trends in the world and in research as suggestive in the following sense. First, a well-functioning social infrastructure and a sound economic culture are a productive input. Provided that social capital is available, private incentives become relevant. Public policies, however, shape such private incentives like enterprise formation and risk taking. The best that policies can do is to stabilize the economy and the economic environment. Venture capital finance ought to be encouraged, as it provides a solution to eliminate some inefficiencies existing in inherited financial institutions. Participation in globalization processes helps economies. The understanding of the links between competition and innovations is accumulating, and indications are that the mechanisms are more complex than previously thought.

In view of the competitive process, the road to success is paved with the simultaneous maintenance of beneficial competition within the region – in other words, competition that leads into the best mix of allocative, productive and dynamic efficiency throughout the region – and a systematic search for significant and sustainable competitive advantages by the region's firms vis-à-vis outside businesses. Competitive advantages are sustainable if they are based on a mix of industry- and firm-specific advantages that enable them resist imitation by outsider firms. This could be the case if the advantages of the firms from the various parts of the region can interact in such a way that a more complex and dynamic basis for competitive advantage can be created, benefiting all firms and all parts of the region. In other words, clustering and strategic alliances within the region may pave the way to success. To reach this goal of more complex and more sustainable competitive advantages, institutional and infrastructural preconditions for competition must be sufficient. Competition law must be harmonized and coordinated throughout the whole region so that incentives to build lasting competitive advantages are ensured.

From an economic point of view the agenda for the Nordic Dimension should include measures to

- stabilize of the economic environment
- harmonize of institutions with adequate economic incentives
- integrate reliable infrastructures
- develop workable competitive processes with steadily progressive competitive advantages for the region's firms, paving the way for ever-increasing productivity and lasting welfare.

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The objectives of the Northern Dimension Research Programme in the light of the new institutional economics

Abstract: This work deals with environmental crimes in the economic way. The main purpose is to create a basic economic model of environmental crimes and give an overview about environmental crimes in Finland. Environmental crimes have been part of Finnish criminal law since 1995. Before it environmental crimes were located in different parts of legislation. It is difficult to estimate the real amount of environmental crimes and the probability of being caught and convicted. The probability of being convicted has been very small, probably few percents, because all environmental crimes will not end to police awareness. There have been about 10 – 20 convicted cases in a year. Over 95 % of sentences have been fines. The amount of environmental crimes affects many things like the probability of being caught and severity of sanctions. Model of environmental crime fits crimes, which have committed within organisations. The model of environmental crime is based on assumption that organisation can act both legally and illegally. Company will choose an illegal action when the expected utility of illegal action is greater than the expected utility of legal action.

Keywords: Environmental crimes, probability of being caught, sanction, risk, rationality

1. The challenges of the ND project

A major challenge of the ND programme both as a concept and a research project is its multi-dimensionality. Every single branch and direction of the proposed study has further multiple dimensions. As conceived, the project proposes to employ expertise provided by specialists in a number of quite narrow and not always overlapping areas in such a way as to make the results of their research applicable to an enormous geographical region encompassing a variety of cultures, political systems and economies. This introduces a very important issue of the compatibility of contributions and research methods because it may be alleged by critics that distinctions between countries and regions involved are far too great to justify such an inclusive approach.

This concern has to be addressed at the earliest stage possible. It seems to me that the proposed research might suffer because of what appears to be an inevitable

fragmentation. Indeed, the project ventures into a number of very specialist domains; it includes theoretical research and a grassroots investigation and has the ambition to provide recommendations covering all of the following dimensions: national and international, local and global, political and economic. In this context I believe that the time we may spend during this workshop pondering carefully on the methodological principles of the studies and approaches that will be pursued by the participants of the project will be well time well used. However, I am not calling for uniformity. On the contrary, although this may sound somewhat controversial, I would suggest that achieving comparable results within various domains included in the programme requires that research methods applied to different elements of the project have to be different, reflecting the individual qualities of these elements.

In achieving this objective I think there is really no beaten path that we may tread. situation gives the programme participants an envious opportunity to be unconventional in their thinking. The issues that are likely to be particularly relevant are the new quality of the international co-operation and the new forms of the international division of labour, new trends in the way the economic life of societies and individuals is organised (social responsibility of corporations), further complications in agency relations, changes in the institutional set-up.

These general trends have to be weighted against the developments and features characteristic specific of the regions covered by the ND programme. These include particular physical assets, but more appropriately intangible assets such as local expertise, specialisation, national cultural heritage, etc. Of course, it cannot be forgotten that that there are not simply differences between countries that are built into the ND programme, but quite often we face considerable gaps in terms of performance, resources, welfare and so on.

Another thought I would like to share on having read the ND programme documents available on the Internet, relates to the results the programme seeks to achieve. Following the synthetic nature of the project it deals simultaneously with what may be called “objective” (or economic) and “subjective” (or political) dimensions in the development of the region. It is possible though that this duality in approaches may produce duality in results/recommendations. On the one hand, we may expect our findings to reflect the “objective” side of the equation - levels of economic development of participating countries, their industrial structure and specialisation in the world market, location factors, natural endowments, etc.- and the conclusions derived will reflect the economic rational. On the other hand, results may succumb to the pressure of the “subjective” side of the equation, reflecting the political agenda of EU enlargement, concerns with the threat of illegal immigration, special sensitive cases like Kaliningrad, etc. It must be admitted that certain countries are likely to be particularly exposed to political influences of intermittent nature because they are weak economically and Russia is, of course, a ready example. In other words, we may find ourselves in a situa-

tion in which results based on economic analysis may contradict expectations based on political correctness.

Recognising the “subjective” and “objective” sides of the proposed research, it is very important, I believe, not to lose sight of the fact that the long-term contribution of the project has to be, ideally, the elimination of political and economic insecurity that exists in the region following the coexistence of two unsynchronised socio-economic systems: the highly developed and socially advanced Scandinavian countries and former socialist countries going through different stages of post-communist transition. This introduces a further complication, which is the factor of time. Providing responses to current, often very acute, problems that face the economies and societies in some of the parts of the Northern Dimension territory is a valid objective for a programme like this. However, hastily contrived recommendation may lose out in terms of contributing to important long-term considerations including the sustainability of economic growth and its dynamics. Striking a right balance between long-term commitments and short-term priorities presents itself as yet another challenge and, probably, together with the issue of the speed of implementation another discussion agenda, for the participants of this programme.

2. On Russian studies in the ND

The ND project is unique in its attempt to provide a conceptual framework for an idea of regional integration based on geographical proximity. We know from history that geography is important, but any real progress in this area require a wide range of economic and social prerequisites. In the case of the ND programme Russia on the one side and Finland and Scandinavia on the other are very close in terms of location, but there is a great distance between them in almost any other respect. This cannot but create a problem of confidence and, potentially, a conflict of interests. Russians may expect their western neighbours to show interest in mineral and natural resources of the Russian north-west. They would like to have easier access to these resources. For Russia, however, this may mean the conservation of an industrial structure that does not allow a harmonious modern development of the region. This presents an unattractive scenario for Russia but also there are dangers for her neighbours in that preserving dated pattern of economic structure will not translate into narrowing the gap between east and west. As a long-term solution investments into knowledge and technology may prove to be a better choice. This may be justified at a conceptual level, but it is far more difficult to convince investors to take this option.

Rescue packages in any form by default do not aim to contribute to long-term efficiency. Therefore it is quite important, in particular when discussing the role of the international financial institutions for the Northern Dimension, to develop

a vision that goes beyond any short-termism. Over a longer period of time rescue packages become cost-ineffective both for recipients and providers and an impediment for recovery based on restructuring. Considering the situation in the Russian North-West, we talk about achieving long-term viability reflecting a flexible and modern mix of economic activities rooted in regional comparative advantages.

During the Soviet period the standard policy towards relatively remote from the centre was to develop local low-cost resources in the context of optimising the national economy as a whole. In the current period relations between regions and the centre have been redefined. Consequently, achieving optimisation on a grand scale is not enough any more. It has been recognised that this type of optimisation based on deprivation and mismanagement in regional terms is not admissible. Now interests of individual economic players can be no more sacrificed on the altar of national interests. This may have implications for the ND as the unit of analysis, and I think this is very important, presents itself as an individual company or an individual entrepreneur rather than the region as a whole. If we take one step further along these lines, it is tempting to suggest that regional economy may be examined more productively as a conglomeration of stakeholders, sharing commercial and non-commercial interests in the region. The stakeholder approach promises to be very fertile because it offers a new perspective on regional economy: the central government, the local government, regional and national companies, international firms, governments in neighbouring countries, other interested parties – all of them can be visualised as stakeholders in a region. This put the issue of regional development and regional co-operation in a new, so far barely investigated perspective. It appears to me that this approach may be particularly intriguing when applied to enclave territories like Kaliningrad.

This idea of stakeholder analysis prompted me to formulate a number of question that, hopefully, colleagues may find helpful to consider as discussion topics:

- Whether any plans outlining the regional strategy are in the pipe in or having been considered at all by state Russian decision-makers and if the answer is positive, how they relate to the Northen Dimension and the consequences of EU enlargement.

- Financial aspects of development (donors, risks etc.). Does the policy of the regional development intend to rely on the support form the centre? Local authorities? International co-operation?

- Likely priorities for the Russian partner: emphasis on the development of the social infrastructure; re-composition of the industrial structure; re-location of recourses.

- Which profile of regional development agrees best with Russian national interests? In what departments is it likely to deviate from the common interests of the western neighbours?

3. Institutional approach to ND

The new institutional economics interpret institutions as the rules of the game in the society or, more formally, the humanly devised constraints that shape human interactions.[100] When applied to the objectives of the ND, the postulates of institutional economics have one, at least, very important implication: institutions in countries in a similar stage of development will have many common features. However, there will be inevitably discrepancies in as much as national institutions are bound to reflect historical and cultural differences between countries.

To the extent that the NB project seeks to facilitate co-operation and understanding between countries of the European northwest, raising the issue of differences in institutional framework of particular countries and its consequences for co-operation acquires considerable importance.

The institutional aspect of ND, it appears, should include two clusters: national institutions in countries covered by the project and the institutions of the European Union as a new type of institutional arrangement. Such classification has some merit but also one very serious drawback. It disguises enormous differences between institutional set-ups in individual countries. Therefore I would like to suggest that research into national institutions should become an important element of our research project. To illustrate my point and provide some material for debate I will look at the peculiarities of institutions in Russia and their economic consequences.

3.1. Institutions and economic growth

Ten years into transition, the results of dramatic large-scale market reforms in Russia have been at best controversial. The expected rapid passage towards a functional market economy has largely failed to materialise. Dissatisfaction with microeconomic recipes prompted interest in institutional aspects of transition in the wake of the influential work by North (1990). There are symptoms indicating the significance of the institutional framework, or rather its absence, for the development of business and economy in Russia. These symptoms make them-

[100] This is one of the more expanded definitions of an institution by Aoki [1998]: an institution is a stable, substantive characteristic of socially-constructed states of a sub-economy which constrains agent's action choices through the convergent expectations it generates, while enabling them to economize on information processing, provided that there can be another such constraint for the same class of environments.

selves noticeable as soon as we start looking for the justification of some intriguing strategic and tactical choices by Russian managers that blatantly contradict expectations based on western experience and mainstream western theories. Most noticeable are the propensity to barter transactions, low level of investment activities, labour hoarding and the importance attributed to networks and unorthodox forms of corporate governance.

There have been attempts to explain the unorthodox business behaviour in Russia from a variety of perspectives. We believe that analysis will be incomplete unless an institutional dimension is included in the equation. However, this aspect remains largely unexplored (Hellman et al 2000).

The institutional nature of certain behavioural patterns and business arrangements observed in Russia can be deducted from the obvious fact that they bring rewards in Russia although they should be a ticket to failure in a market economy as contradicting its rules and institutions. It is reasonable to allege that the "irrational" behaviour of economic agents in Russia in an attempt to by-pass a "legal" market economy is in fact a rational reaction to the uncertainty and challenges caused by institutional distortions.

Underdeveloped institutions manifest themselves by allowing relations between economic players to remain erratic and subject to undue uncertainty and insecurity. In other words, poorly institutionalised economy misses the infrastructure that is necessary to promote, support and simplify market exchanges and to provide them with stability and continuity. Institutional constraints therefore, together with constraints identified by traditional economic theory, define the potential wealth maximising opportunities of economic agents (North 1997).

The quality of institutions may be expected to confirm with the grade of maturity of the economy that they serve. At the same time, institutional failings may be a stumbling block in the way of economic development as the example of Russia proves. Russia is not yet a fully-fledged market economy. Post-communist transition in its initial stage had necessarily created an operational environment that on many occasions was little more than an incomplete set of incomplete markets (Stiglitz 1998). Under these conditions, in business terms, institutional immaturity revealed itself in the form of loose ties and missing links between economic players and poor quality of economic information that often lacked sufficient transparency even in the most basic business matters.

This is a very serious drawback that threatens the inherent advantages of the market mechanism over planning. Informational asymmetry is damaging for the market (Akerlof 1970; Arrow 1973), leading to such negative consequences as adverse selection and monopoly. In turn, this results in the inefficient allocation of resources and redistribution of income within a society as opposite to productivity growth and increase of the national product. In this context one of the ma-

jor reward that the market system can provide in comparison to central planning is the wide diversity of information flows and open access to them.

This advantage, however, cannot realise its potential entirely on its own. To maximise the benefit of the wealth of information to business users, a degree of institutional co-ordination is required in order to maintain standards that make this information usable. Without market-based incentives it is difficult to expect a market-type response. The cradle for these incentives is the system of institutions, which are the rules of the game in the society or, more formally, are the humanly devised constraints that shape human interactions. If the institutional system is weak, inconsistent or incomplete, as is the case in Russia, businesses have to cope with the detrimental consequences of co-ordination vacuum that make it very difficult for market signals first to evolve and find their way to addressees, and then to incite adequate reaction. This creates a particular situation of the crisis of economic confidence when improvements in market efficiency have to rely heavily on non-market methods, pushing the issue of institution building to the forefront.

The weaknesses of the institutional set-up in modern Russia have objective as well as subjective roots. The former may be traced back to the fact that the economic system that made the starting point of transition, the Soviet centrally planned economy, was sufficiently advanced and therefore structurally and functionally complex. Because of this complexity the post-communist transitional economic system faces enormous difficulty in absorbing and integrating properties of a different type of a highly complex economic system that the modern market is.

Subjective factors have to do with the deliberate policy of weakening the position of the state in the aftermath of the collapse of the Soviet Union justified by the low standard of government in Russia and the necessity to dismantle the basics of state paternalism typical of the Soviet-type economy in order to make space for market forces. These arguments have some force but there is no doubt that an "early retirement" by the state in the precarious circumstances of transition has its downside. Thus, Russian firms soon found themselves deprived of basic public goods such as law and order.[101]

In the immediate period after the collapse of communism in Russia both objective and subjective factors had the same bearing, hampering the appearance of new institutions that would provide economic actors with universal and explicit rules that allocate responsibility and set up behavioural boundaries. These are the

[101] Not just the poor state of law enforcement is a problem but equally the poor quality of laws and regulations. Thus, the fact that more than 0.6 per cent of Russia's labor force are employed by the Federal Tax Police Service cannot be interpreted otherwise than an indictment to the country's system of taxation that obviously is so unrealistic in its objectives and clumsy in their implementation that taxes can only be collected through overwhelming policing (*Kommersant-Vlast'*, November 20, 2001).

key fundamentals of "social capital" (Coleman 1988) – the ability of people to work together for common purpose - and "social trust" (Fukuyama 1995) – the willingness of individuals to deal fairly with each other and expect similar behaviour from others to do likewise – without which the transaction costs of market exchange cannot be minimised.

With trust being a rare commodity, long-term commitments discouraged and good business practice pointers conflicting or missing altogether, the picture of the business climate in Russia cannot be further away from the social capital/social trust concept. To make matters worse, the still primitive capital market of transition economies cannot be relied on as the judge of economic performance of firms (Messengisser 1997), impeding the ability of the economy to self-regulation. Therefore, it is clear that institution building in Russia has to be revitalised. Of the two groups of obstructing factors described earlier changes on the subjective side appear to be an easier target as they may be achieved more readily if the required political will were present.

This brings in the delicate question of the scale and intensity of state involvement. Under normal conditions institutions are as much a matter of evolution as of a structured effort. According to Arrow (1995), the state has to supervise the operation of the existing elements of the economic system, while gradually letting them be replaced by new entrants. The Russian situation is hardly normal though: because in her development Russia cannot return to the point in which the evolution of capitalism was interrupted by the socialist revolution, her leap to "modern" capitalism can only be achieved through a consistent effort of a committed state.[102]

The "natural" evolution of institutions is not an option as this would mean ignoring available international experience and wasting time and resources rediscovering institutions that have already proven their worth in countries with greater market experience. It is, however, an established knowledge that an effective and effectively acting state makes a huge difference in the quality of development all over the world. The theoretical advantage of the state acting in a creative capacity is that it enjoys a crucial economy-wide and society-wide perspective that no other institution or entity can enjoy. It can address issues of great importance that are too general to become a major concern for individual economic actors but that are of great consequence for the society and the business community alike.

One such issue of particular relevance to transition economies is related to the implementation of the principle of corporate social responsibility that goes beyond the standard conception of shareholder wealth. It has been established that

[102] The working definition of the state used in this paper is the "network of government, quasi-government and non-government institutions that co-ordinate, regulate and monitor economic and social activities in society" (UNDP 1997).

if a society wants corporate decisions to reflect something more than just what is best for shareholders it has to rely on government to define a corporation's responsibilities to society through laws and regulations (Reich 1998), i.e., through institution building. This concept has taken a long time to develop in the West and, it would seem, has been hardly ever seriously contemplated in modern Russia. Yet, for Russia this is a particularly significant area, considering the socio-economic tradition of the previous seventy years that gave a lot of importance to social obligations of big enterprises. This heritage came into conflict with the objectives of mass privatisation in the 1990s and was one of the reasons of both mass impoverishment and poor enterprise performance.

No matter what approach the state seeks to pursue, the economy will suffer if the state does not succeed in rendering the economic environment transparent and "readable." The issue for the Russian state is to engage itself in playing the roles expected from the state in a market economy (see Dallago 1996, Stiglitz 1989, Abalkin 1997 for discussion), including the critical task of defining the socially acceptable boundaries for business rationality. However, it is not altogether clear how to achieve this. Among the complications involved are prejudices fuelled by the Soviet model of overwhelming interventionism, the absence of readily available or universally applicable schemes for guiding transitional process, the implications of the state being a prominent shareholder already betrothed into entrepreneurial activities (see for details Kuznetsova and Kuznetsov 1999).

3.2. Weak institutions and business

A link between sustainable economic growth and a stable flow of information connecting economic actors has been well established. Following these findings it is easy to accept that all economic agents would be affected, although in a various degree, if institutions that provide a framework for business negotiations as well as rules for exchanging and verifying information are absent. Without them market levers cannot be fully functional and yet commercial activities cannot be suspended until necessary institutions are in place. Consequently, business people find themselves forced to accept sub-optimal choices. These may take different forms of which we explore the impact on the learning ability of economic agents and networking.

Agent-based computer simulations (Moss and Kuznetsova 1996; Edmonds 1999) demonstrate that under conditions of institutional uncertainty even those economic agents who are willing to learn from their experience and develop new behavioural patterns may fail because learning agents are likely to get "locked" in inferior behavioural models for a considerable length of time and perform at a lower equilibrium level as a result. These inferior models may well be the most successful of previously tried behavioural models. Nonetheless, they are bound

to result in a failure when recycled in the next set of actions taken by economic players under transformed conditions.

An intelligent agent will be inclined to stick to previously winning tactics if he is unaware that they represent an inferior course of action in a new time period. This inferior choice is made because the agent does not enjoy the feedback that would allow him to timely re-evaluate and correct his behaviour. In other words, market participants depend in their judgement about relative efficiency of a particular business performance, action, transaction, etc., on signals generated and distributed with the assistance of institutional settings and institutional agencies.

If existing institutions are inadequate the necessity to compensate for such inadequacy inspires the emergence of makeshift substitutes that often present themselves as anomalies in comparison to what is believed to be appropriate for a modern market economy. Some of these anomalies are highly conspicuous in modern Russia and well illustrated in the literature. In total they shape the economy that is very much dominated by informal sectors and quasi-economic mechanisms that attempt to provide a structure for the exchange.

It is not accidental therefore that transition economies are susceptible to business related crimes, for example. In Russia they are a regular element of economic life as well as a striking example of interlacing official and "grey" economies related to institutional vacuum. The ethics of complying with business agreements in Russia largely depends on the balance of forces that stand behind entrepreneurs or shareholders. Both a court order and home-baked justice may result in enforcement methods that clearly stay outside legality. An explicit or implicit threat of applying private law enforcement is a common way to strengthen contractual relations[103] in particular during such sensitive stages in the life cycle of any firm as start-up and liquidation.

The proliferation of informal networks affects the character of market relations. On the one hand, they imply long-term relations with suppliers and customers that create zones of trust within the general environment of distrust that help to reduce transaction costs. Trust also forms a basis for committing resources and mutual development and co-ordination of activities. On the other hand, by their nature networks, in particular informal ones, seek to maintain exclusiveness. In the Russian context, networking does not mean getting better knowledge of business partners and their needs but rather pursues the goal of conspiring against outsiders and avoiding legal control over financial and other transactions. Radaev [1998] reports on the growth of "negative solidarity" that consolidates the entrepreneurs against "outsiders", including the authorities. Business networks strive

[103] According to OECD [1998] more then 80 per cent of managers representing small and medium enterprises in Russia reported the experience of being threatened or terrorized by criminal groups and 26 per cent were threatened repeatedly.

to resolve any “problems” internally, which provides more flexibility and more chances to reach a mutually satisfactory solution than available formal methods but often at a considerable social cost, for example poor collection of taxes and price fixing.

Emphasis on informal arrangement contradicts the idea of competition as a fundamental quality of an efficient market. It promotes exclusivity as a feature of business relations, which is of course counterproductive considering that the assumption of the equality of all economic agents is a major condition of an efficient market.

3.3. Institutions and business culture

The national pattern of entrepreneurial and managerial behaviour counts heavily upon past experience and stereotyping. Managerial decisions are essentially selective filtering of input against certain criteria. If some of them become vague the efficiency of decision-making may suffer. Cultural conventions occupy a prominent position among these criteria as they are related to both institutional and conscientious aspects of business. In their established form such conventions constitute a national business culture. They make it easier to decision-makers to choose routinely those responses to signals coming from the economic environment and the society that have a proven record of being adequate and successful.

A radical transformation of the economic set-up in post-communist Russia urges economic agents to produce responses that are entirely new to them. Importantly, these responses have to be based on the set of values and the type of rationality that are different in comparison to those that were significant before the reforms and, due to social inertia, still constitute a notable part of the national cultural tradition. At the same time information coming from the economic environment is likely to be distorted, confusing and incomplete because transitional institutions are not sufficiently befitted to transfer market signals.

Because in Russia cultural values are in the process of redefining, there is no consistent and comprehensive “system of cultural values,” but rather an often uneasy coexistence of conflicting values that adds uncertainty to information flows and decision-making (Kuznetsov and Kuznetsova 2000). Yet, we cannot expect that modern Russian managers would be able to liberate themselves entirely from any social experience gained under socialism. This is not only impossible but also impractical as long as common social experience provides the framework for a meaningful exchange of information without which no business activities are feasible. The institutional theory predicts that in the absence of a developed institutional infrastructure informal constraints, including those rooted in a common cultural background, become crucial in resolving basic exchange problems among economic agents.

In the context of a transitional economy this solution brings about particular complications following a contradiction between the origins of informal constraints applied (a centrally planned economy) and the circumstances in which they are put to use (a proto-market economy). This implies a fair possibility of a conflict between informal rules in use and formal rules introduced in the course of reforms to facilitate transition to the market. Economic agents are likely to be forced to comply with informal constraints until a functional institutional framework is in place but by doing so they make the installation of such a framework more difficult and prolonged. Another aspect of this problem is that reliance on a transient set of rules brings to life a specific type of short-term oriented rationality that precludes businesses in Russia from strategic commitments, which has a negative effect on economic growth in the country.

Understandably, the selection of norms of behaviour and experiences carried over from the past by managers and entrepreneurs in modern Russia reflects the realities of the present set-up. What makes this choice to bear important social and cultural consequences is that almost everything that was praised under the old system appears to be irrelevant or even counterproductive under current circumstances while behavioural patterns that were seen as improper acquire importance. The shift in perspective puts the first generation of Russian entrepreneurs, in terms of culture, in a rather uneasy position of being at odds with historically endorsed cultural values. They are forced to challenge and contradict some of the values, which for millions of Russians are still synonymous to a socially responsible model of behaviour, for the sake of practices that were stigmatised during the lifetime of several generations. The paradox here is that new entrepreneurs act objectively as propagators of new cultural norms and values that, however, in the minds of many of their compatriots bear a strong resemblance to something old and well known, something they grew accustomed to regard as vicious on moral grounds.

The antagonism of the new set of business values and the previous social experience provides only a partial explanation of a negative attitude towards business people in the society. The realities of post-communist transition are at least as much responsible for the misrepresentation of these values. The Russian variant of capitalism is widely perceived as brutal and unfair.[104] Consequently, free market values get a perverse interpretation within the Russian context. Public attitude is influenced not by the idealised concepts of new values but by the way they reveal themselves in the activities of the people who are popularly seen as the standard bearers of a new society. These latter, however, cannot inspire sympathy towards the values they allegedly represent (or rather misrepresent) because, as

[104] The magnitude of the problem is clear from the results of the poll of 2000 Russians by the All-Russian Center for Public Opinion (*Journal of Commerce* [November 21, 1997]): 88% of respondents named "connections" and 76% "dishonesty" as the essential requisites for becoming a successful businessman in their country.

demonstrated by Nellis (1999), in the absence of institutional safeguards they are not encouraged to behave fairly.

Under these circumstances the ability of entrepreneurs and managers to take decisions and develop long-term strategies is hampered. Academic literature suggests that economic agents should react by attempting to obtain greater knowledge or redefine their decision problem so that uncertainty is no longer critical. They need a lead that should be provided by an institutional structure. Instead, the government's own behaviour did little to reinforced respect for rules of fair business: it made itself particularly noticeable for not paying its own bills to companies that provided it with goods and services (Black et al 1999).

Poor institutional structure emasculated the state and the weak state lacked legitimacy to advance institutional reforms. Consequently, the introduction of economic liberties has proved insufficient to substitute the provision of the most important public good that business community requires from the state: the institutionalisation of economic conflict. In the literature it is often accepted by implication that the government and the market are opposites. In fact, the experience of post-communist transition highlights the complementary nature of the two. By restraining from reinforcing formal institutions the state will tip the balance in favour of informal institutions that may play some positive role but equally, granting the immature, transitional character of the market, they may endorse inferior business practices and culture. This will obstruct economic growth and translate into to the reproduction of aberrations in business behaviour that have made the transition to the market in Russia so slow and painful so far.

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Krzysztof Leja

Strategy, Effectiveness and Quality of Non-Profit Organisations as Exemplified by Polish Higher Education Institutions

Abstract: Author's fundamental assumption was that management of non-profit organisations should be based on modern knowledge on the issue. HE institutions are exceptionally important non-profit organisation while the European Society of Knowledge and European Research Space is created. Although university is not traditionally considered to be as enterprise, it exists in the global market environment. The basic assumption was the conviction that the university mission statement and its strategy determined the future of HE institution. With the help of strategic sector benchmarking an analysis of the effectiveness and quality of the performance of the Gdansk University of Technology has been made. To assess university performance balanced scorecard method (BSC) created on fundamental TQM principles has been implemented. To implement proposed method for any HE institution key performance indicators have been developed with the help of SWOT analysis. Method of university evaluation proposed, in the author's opinion, enable to do complex evaluation of the university. The conclusion of the paper is that under the pressures of global competition higher education institutions could not ignore trends of supply and demand of professionals in a word where the nature of work and the organisation of production have radically changed.

Key words: non-profit organization, university strategy, balanced scorecard

1. Introduction

What is the meaning of the place and role of non-profit institutions in the world apparently dominated by money and omnipresent business? The answer is simple – it stems from human nature. Besides his commercial activities, aimed at gaining profits, man undertakes activities where meeting of civic goals is essential. Different though the nature of operation and legal environment of management of commercial-type and non-profit organisations might be, the efficiency of both and the quality of their operations depends on strategic thinking and the ability to be customer-oriented.

The first signals confirming a change of orientation of non-profit organisations occurred as early as at the end of the 1960s, when the question: should non-profit

organisations make use of the achievements of marketing? was replaced by the issue: in what way should the achievements be applied in everyday operations, so that the goals pursued could be attained (Kotler, Levy,. 1969, pp. 10-15, Kotler, Zaltman, 1971, pp.3-12). Initially, transfer of marketing knowledge between private sector and non-profit organisations was a one-way process. In 1989 a perverse (for its time) question was asked by Peter Drucker, "What business can learn from non-profits?" (Drucker P, 1989),. Drucker put a thesis that businesses start planning of their development from the calculation of the period of return on investments, whereas non-profit organisations concentrate on defining the organisation's mission. A well-defined mission reminds the organisation that its objective lies in satisfying the needs of its prospective customers, which allows the organisation to „measure" its success (the degree to which the assumed objectives have been achieved). The said means that management of a non-profit organisation has to concentrate on how to achieve the objectives specified in the strategy.

2. Modern methods of managing non-profit organisations

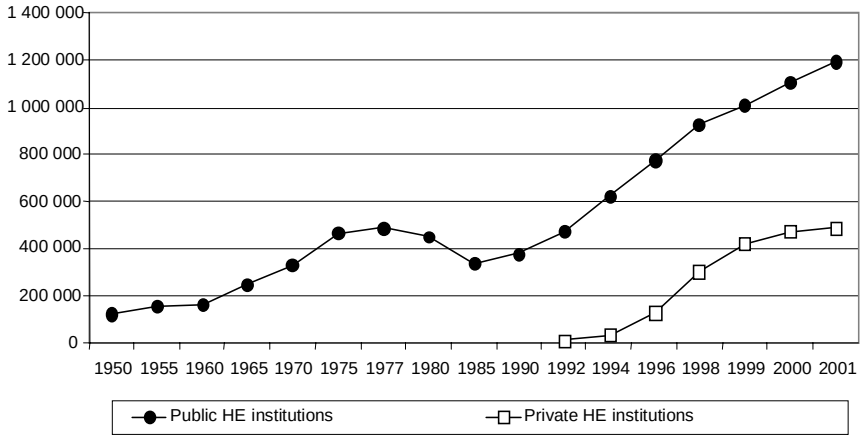
Management of non-profit organisations should be based on modern knowledge on the issue. The funds coming from the state budget (subsidies) or from private donors could be best used and additional sources of financing be effectively looked for, since non-profit organisations are participants to a game where both finance and customers are at stake. At the beginning of the 21st century neither marketing nor even financial orientation does actually secure a success. It is strategic and competitive orientation that has to be implemented, as the issue is no more just market share, but participation in creating new opportunities and securing long-term competitive power in the market. The ability (of commercial-type enterprises and public organisations) to compete, understood as a result of market game, does not suffice. Organisations also attempt to create the very ability to participate in the game, referred to as competing for the future (Hamel, Prahalad, 1994), success meaning improvement of the capacity. In such a situation it is necessary to try to implement management methods used in business.

3. Polish higher education after 1990

The paper presents a proposal for application of such methods to institutions of higher education system, as Polish higher schools are an example of non-profit organisations. At present there are 118 public institutions of that kind (as compared to more than 200 private institutions!). Every third Pole between 19 and 24

years of age is a higher school student (whereas only every tenth was one in 1990) – fig.1. These are very important facts, all the more that we are witnesses to (and, I believe, also active participants in) the creation of European Society of Knowledge and European Research Space. In addition, ever more often Knowledge-Based Economy is mentioned as a challenge to Poland in the 21st century and the role of higher education is greater than ever. They are likely to come true only if objectives of the institutions, limited though their financial resources might be, concurrent with, or at least close to expectations of the society.

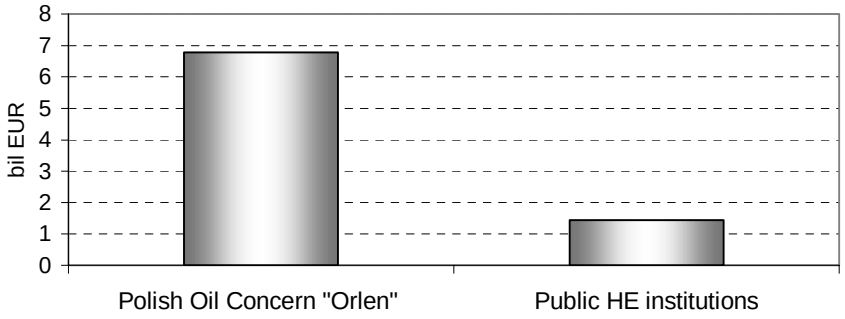
Figure 1. Number of students in public and private HE institutions in Poland



Sources: (Statistical yearbooks 1970/71 – 19980/81; Białecki I. (ed.), 1996; Szkoły wyższe, 1997, 1998, 1999, 2000*);* http://www.men.waw.pl/aktual/szk-wyz/konfer2.htm.

Limited budget resources serve as a sort of a „catalyst" of competitive power. The finance allocated to higher school system and science is insufficient, it is true, but it is, nonetheless, significant in terms of the country's capacities (0,8% and 0,4% GNI, respectively). It seems interesting to draw a comparison between total income of Poland's greatest firm and the subsidy to academic institutions - fig.2. As it turns out, should the educational sector be taken into account, many a Polish higher school would fall into the list of the country's 500 largest enterprises.

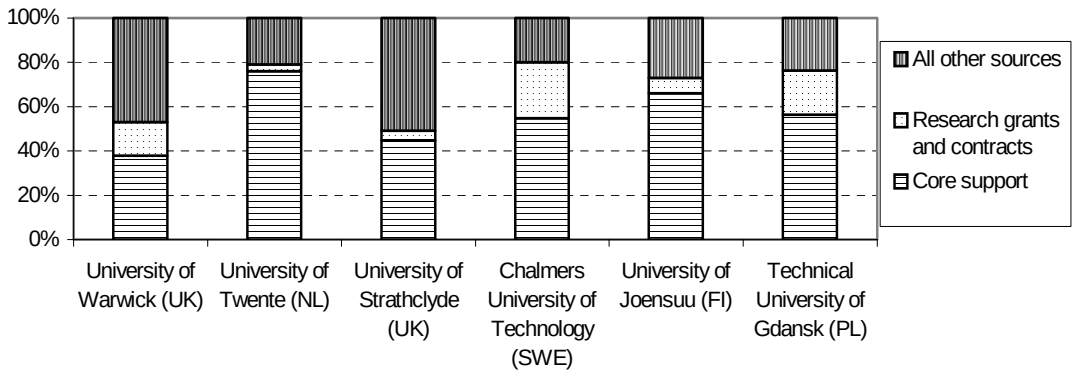
Figure 2. Income of „Orlen" Polish Oil Concern and budget subsidy to public HE in Poland



Sources: Polityka (Politics weekly), 2001; (Szkoły wyższe 2000, p.444)

Interesting results follow from comparison of the structure of financing of selected European universities (figure 3).

Figure 3. Sources of finances support in some European universities in 1995



Source: Clark B.,1998, pp. 26,46, 79, 96, 119; GUT Annual Report, p.6

Presented in the diagram are data concerning a number of higher schools, characterised by a common feature. Each of those, in the year 1980-1995 deep transformation took place, a significant increase of non-budgetary financing being achieved as a result. Data concerning the author's university has been presented for the purposes of comparison.

Economic transformation, started both in Poland and other East-Central European countries in the early ninetieth, influenced the education system as a whole but the University system in particular. Number of students has been increased

rapidly (fig.1), but the unit budget funds (per student) decreased some 40% (between 1990 and 2001).

Terminology designed in the main for business (e.g. mission, strategic planning, customer orientation, total quality management, marketing, provision of services, benchmarking, outcomes management, accreditation, quality assessment) has been applied to and implemented in higher education institutions. The higher education system, understandable this way, creates a completely new context of effectiveness and quality which has been unknown so far. University success depends first of all on relations with its stakeholders both customers and rivals.

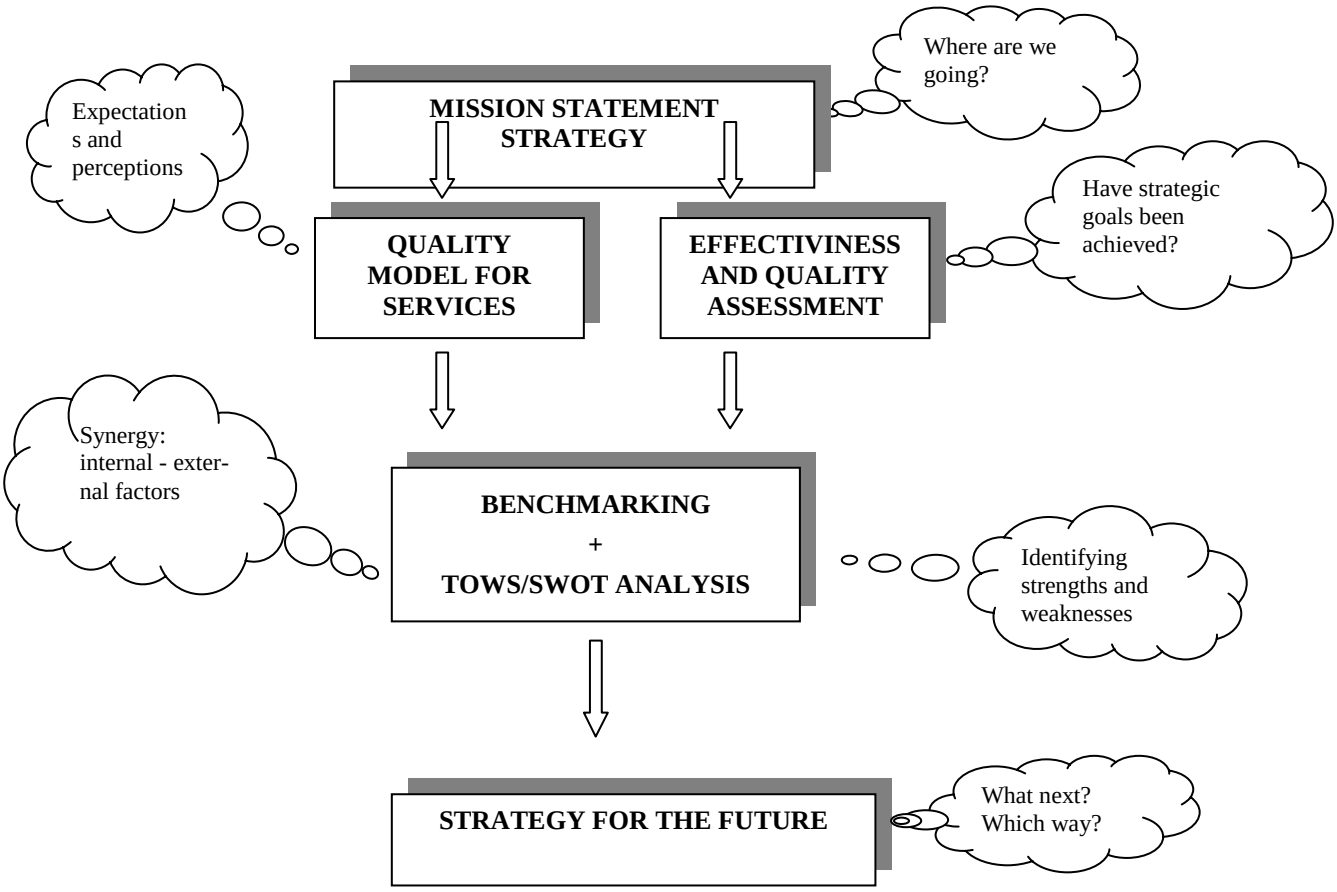
An implementation of methods derived from TQM roots to develop university management seems to be essential. The question is how to success? The subject is important because a country's competitiveness in an international market depends on the quality of the human capital; and interesting because it is an attempt at implementation the method used in business to evaluate non-profit organisation.

4. From mission to strategy of HE institution

Although university is not traditionally considered to be as enterprise, it exists in the global market environment. Universities should do their best to understand their customers' needs, and recognise competitors to offer 'services' better aligned to their customers' expectations. HE institutions should exist for their customers not because of them, to create their environment. Delivering value (the highest level of satisfaction) to the customers should be to top priority in any elaboration of university's mission statement.

The fundamental assumption was the conviction that the university mission statement and its strategy determined the future of HE institution (figure 4).

Figure 4. Method of proceed



To assess HE effectiveness and quality the balanced scorecard method has been implemented. This method of performance measurement has been created on fundamental TQM principles as: emphases on customers, anticipated changes, continuous improvement and looking for outside university information.

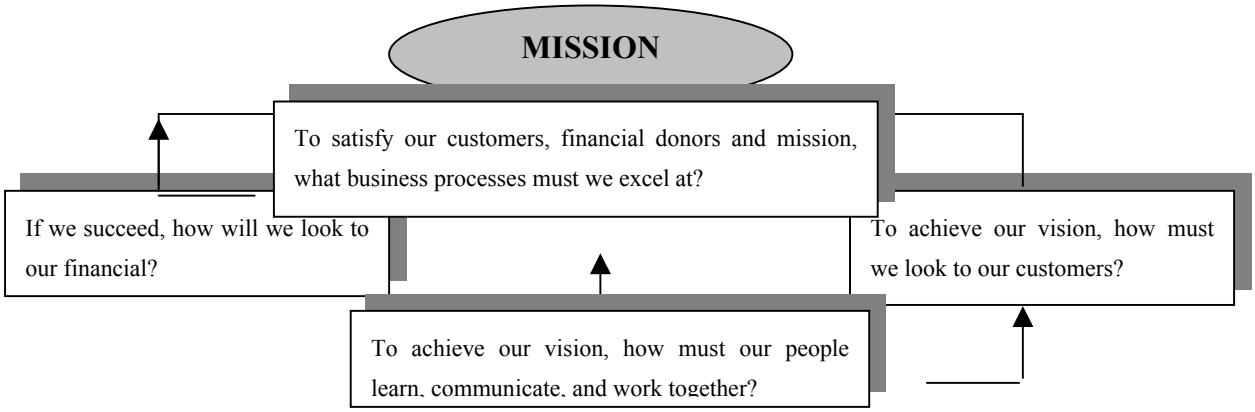
With the help of strategic **sector benchmarking** (four leading technical universities were the frame of reference) an analysis of the effectiveness and quality of the performance of the Gdansk University of Technology has been made. Benchmarking has been implemented because it helps to overcome resistance to change (who is doing it the best why could not we adapt what they do to our institution?). It also provides a structure for external evaluation and creates new links of communication between universities. Benchmarking can also identify the areas that could benefit most from TQM. Benchmarks have been served to identify gaps existed between GUT and other technical universities. It helped to measure the quality of university services according to the **quality service model** based on *Servqual* model (Parasuraman, Zeithhal, Berry, 1985, pp.41-50).

Strengths, weaknesses, opportunities and threats could be identified. Based on TOWS/ SWOT analysis strategy for the future could be elaborated.

5. Balanced scorecard for HE institution

Fundamental to the choice of the best method to measure HE institution performance was the conviction that the 21st century' university will have to become a much more entrepreneurial institution (Clark, 1998). The significant criterion for the choice of the methods was to provide university authorities with the instrument to achieve competitive success. The balanced scorecard (BSC), created to measure the performance of a private sector enterprise, could be applied to HE institution as non-profit organisation, as well. (figure 5).

Figure 5. Balanced scorecard framework adapted to non-profit and government organisation



Source: Kaplan, 2000, pp.7-I

The opportunity to improve them (non-profit) is even greater, as Kaplan and Norton said (Kaplan, Norton, 2001,.p.166-167). BSC translates university mission and strategy into a comprehensive set of performance indicators.The scorecard measures organisational performance across four balance perspectives: customers, internal business process, continuous improvement and financial which both complement and integrate with each other (fig. 6).

In the first sphere of analysis – customer perspective –the university identifies the consumers, clients or users to clear strategy for their needs and help assess stakeholder and customer expectations and level of satisfaction.

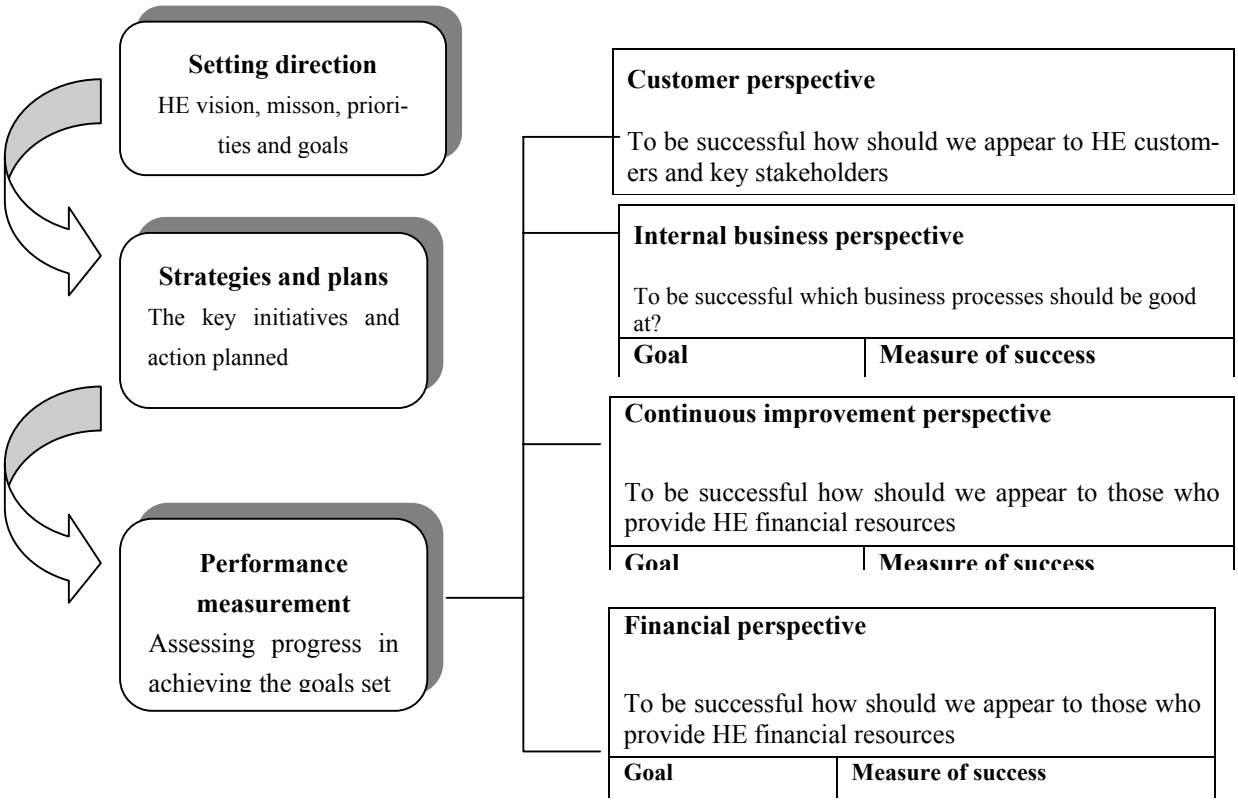
The internal business process perspective – the question is what is the best way of improving university' internal organisation. What targets should be established?

The continuous improvement perspective relates to the ability of the university as an organisation to learn, to break resistance to changes and to improve it structures, its systems and consequently the performance of its staff.

The last, financial perspective relates to the links between financial performance and overall goal of university. Unfortunately, the financial aspect of HE has become central to all arguments. This is an extremely important argument to look for the method of improving HE institution effectiveness and quality.

Measuring of HE institutions' performance has always been a difficult and contentious area. One can put fundamental question: is it possible to measure non-measurable achievements. Kaplan and Norton claimed that "what gets measured is what gets done". The other problem is to legitimacy of comparing higher education institutions. Answering no – means a simplification.

Figure 6. Balanced scorecard for HE institutions



Source: KL based on Wisniewski, 1998

Success for HE institutions should be measured by how effectively and efficiently they meet the needs of their customers, generally said taxpayers. HE is being held more accountable for public opinion. This is the reason that HE should develop and use measurable objectives and reporting results. It emphasises more customer-focused approach for them. Balanced scorecard implementation to measure HE effectiveness will succeed if the objectives are: 1) related directly to strategic goals; 2) clear and unambiguous; 3) simple.

6. Mission driven university

Management guru Peter Drucker said, "nonprofit organisations need management even more that business does, precisely because they lack the discipline of the bottom line" (Drucker, 1989). So do universities. They have to start with the performance of their mission. They should focus the organisation on action and create specific strategic needs to attain crucial goals and looking for measures of success. The balanced scorecard makes it possible. As with HE, the financial perspective serves more as a constraint than as primary objective.

The balanced scorecard helps organisations move from being financially driven to mission driven. These mean that with reference to the university, the scorecard provides the rationale for their existence. It also communicates to external customers and internal employees the outcomes and performance drivers by which the organisation will achieve its mission and strategic objectives (Kaplan, Norton, 1996).

7. Strategic development directions proposal

Wide-ranging analysis of the Gdansk University of Technology on the background of some leading Polish technical universities with the help of balance scorecard method has been used. On the basis on the analysis the attempt of expression strategic development directions has been undertaken to do.

As a result of analysis with the help of sector benchmarking GUT's strengths & weaknesses and opportunities & threats from the environment have been identified. Identifying S,W,O,T author based also on his more than 20 years experience in Gdansk University of Technology. It was the basis to make university SWOT analysis "from inside to outside" and TOWS analysis "from outside to inside".

Analysis allows to evaluate of synergy effect between internal and external factors and to formulate an attempt of strategic development directions. The aim

was to solve the problem what next? what way? Analysis has been done for education, R&D and university management separately.

Assuming S, W, O, T set the following results have been obtained:

1. With reference to **education and R&D activities –** optimised for university development seems to be **aggressive strategy.** It means that having the advantage over other HE institutions should be created on the synergy of strengths and opportunities.

2. With the reference to **university management activities** – advisable direction seems to be **combination of aggressive and conservative strategy**. It is understandable if one take into consideration two points of view existed in most HE institution. First one assumes expansionist, diversified development leaning on decentralisation of management and professional management. Second one confirms necessity of making use of strengths but prefer minimisation of threats instead of using opportunities. Combination of these elements is legitimated. Professional management is necessary condition of success.

8. Impact and perspectives

The overall goal was adaptation of the process of evaluation at home university to achieve effective quality improvement. Method of proceed proposed (fig.4) and balance scorecard method could be implemented to effectiveness and quality assessment of each HE institution (or other non-profit organisation). Answering question whether benchmarking is applicable to higher education is positive on condition that types of study are very familiar.

The fundamental assumption was that there was no alternative to entrepreneurial university nowadays. The problem is what that would mean in practice? Universities will have to be forced to transform themselves. Some elements of transformation are irreducible minimum: a strengthened steering core; an expanded developmental periphery; a diversified funding base; a stimulated academic heartland; and an integrated entrepreneurial culture (Clark, 1998).

Method of university evaluation proposed, in the author's opinion, meets them half way. Balanced scorecard implementation enabled to do complex evaluation of the university. Proposed method has been the first attempt to use this method to measure university performance in Poland and as far as I know in Europe[105]. Balanced scorecard like TQM used to focus on processes leading to satisfied cus-

[105] see: http://www-vcba.ucsd.edu/Perf.Meas ; http://vcadmin.ucdavies,edu/adminnotes/v2n1/scorecard.htm , 1997; Backman, Rekila, 2002, http://uwasa.fi/info/porto.html

tomers needs. TQM focused on five areas: mission and customer orientation; systematic approach to operations (initiatives); vigorous of human resources and commitment. Balanced scorecard offers a way measurement organisation's ability to achieve continuous improvement in its service delivery to its customers. Customer needs are in the central point of BSC, as well. TQM "philosophy", in author's opinion, played an important role to create balanced scorecard method and Servqual model (fig.7).

To implement proposed method for any HE institution key performance indicators (strategic goal) should be developed. Strengths, weaknesses, opportunities and threats should be performed. This is an extremely important task to be done by prominent university leaders or strategic planning committee. Internal and external analysis is the next step of procedure.

Figure 7. From balanced scorecard & Servqual to effectiveness & quality

It could be supported by cross-impact analysis i.e. measuring impact that each SWOT elements has on each key indicator. Since HE institution must understand its own current both abilities, limitations and expectations of present and future customers, comprehensive analysis is very essential. Based on its result university strategy for the future could be elaborated. It will have to be built on reliable and wide-ranging information.

Under the pressures of global competition higher education institutions could not ignore trends of supply and demand of professionals in a word where the nature of work and the organisation of production have radically changed. It seems to be interesting to implement balanced scorecard method based on total quality management ideas to evaluate such a complex institution as university is.

Why do not run business like a good university? (Kotler, Fox, p.3), what business can learn from non-profits? These are current questions. Trying to answer them it is worth to think where we are in the triangular model of state, market and university oligarchy (Clark 1983, p.143).

Implementing new system of evaluation HE (or any non-profit institutions), striving for university perfection, we have to take into account human resistance to changes and remember Hipocrates ethics canon *primum non nocere.*

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Parallel Session V

“Northern Dimension and Regional Development”

Kaisa Häkkinen

Environmental crimes in Finland

Abstract: This work deals with environmental crimes in the economic way. The main purpose is to create a basic economic model of environmental crimes and give an overview about environmental crimes in Finland. Environmental crimes have been part of Finnish criminal law since 1995. Before it environmental crimes were located in different parts of legislation. It is difficult to estimate the real amount of environmental crimes and the probability of being caught and convicted. The probability of being convicted has been very small, probably few percents, because all environmental crimes will not end to police awareness. There have been about 10 – 20 convicted cases in a year. Over 95 % of sentences have been fines. The amount of environmental crimes affects many things like the probability of being caught and severity of sanctions. Model of environmental crime fits crimes, which have committed within organisations. The model of environmental crime is based on assumption that organisation can act both legally and illegally. Company will choose an illegal action when the expected utility of illegal action is greater than the expected utility of legal action.

Keywords: Environmental crimes, probability of being caught, sanction, risk, rationality

1. Introduction

This work deals with environmental crimes in the economic way. The main purpose is to create a basic economic model of environmental crimes and give an overview about environmental crimes in Finland. Environmental crimes have been part of Finnish criminal law since 1995. Before it environmental crimes were located in different parts of legislation.

Environmental crimes are damaging of environment (RL 48:1), aggravated damaging of environment (RL 48:2), environmental misdemeanor (RL 48:3), negligent damaging of environment (RL 48:4), crime against nature conservation (RL 48:5) and crime against conservation of building (RL 48:6) according to Finnish environmental criminal law.

Damaging of environment is the basic crime, which accounts for large amount of different offences, which are dangerous for environment or the common health. Offence is classified as damaging of environment when someone acts on knowingly or in gross negligence and against the regulations, without a license or

against the term of the license. The offence has to be tailor-made and inflict on contamination, littering of nature or danger to the common health. It can be sentenced to pay fine or at most two years of imprisonment for damaging of environment.

Offence is aggravated damaging of environment when it has caused especially large damage to nature or was in danger of damaging. Damaging of environment is aggravated also when offense have been done in spite off authority's order or prohibition. It can be sentenced to imprisonment, at the minimum of 4 months and at the most of 6 years for aggravated damaging of environment.

Damaging of environment is negligent when offence has not been done in gross negligence but offence causes damage for nature or danger for this damage is high. Negligence damaging of environment can be sentenced to pay a fine or to not more than one-year imprisonment.

Misdemeanour of environment can be sentenced when damaging of nature is in aggregate small. Offence is misdemeanour of environment also when offender knowingly or in gross negligence violates regulation of conservation law. Offender can be convicted to pay fine or to at the maximum six months of imprisonment. The punishment of crime against nature conservation is fine or at most two years of imprisonment.

Arguments of justness excuse environmental criminal legislation. If we disapprove person who damages someone's health by abusing, why do not we disapprove a corporation who damage our ground water by dangerous chemicals and like so cause danger to our health. Environmental crimes often lead up to worsening of environment's state, which might bring on economical, cultural and ethical losses. Environmental crime may cause serious emasculation of our living condition in the worst case. It is justified to regulate welfare of environment by criminal law against this background.[106]

Marginal deterrence effect has been taken into account under environmental criminal law. Essential elements of environmental damaging are classified by seriousness of offence. The slightest environmental crime is misdemeanour of environment and the most severity punished environmental crime is aggravated damaging of environment.

[106] Pirjatanniemi 2000, 19-20.

2. Model of environmental crime

Model of environmental crime fits crimes, which have committed within organisations.[107] Model of environmental crime is based on assumption that organisation can act both legally and illegally. Expected utility of the legal business or so called environmentally friendly business is company's profit (π_0). Illegal business can either be successful or unsuccessful. Company get caught illegal activities on probability P and company will not get caught an illegal activity on probability (1-P). Company, which have been caught, get a conviction on probability P_t and on probability ($1-P_t$) company, which have been caught, will not get a conviction. If company acts in an illegal way, it will get extra monetary benefits G. These extra incomes can be either saved environmental cost or increased production income. Company will get cost saving for example if it will not invest on the needed environmentally friendly technology. If company, which has illegal business, is caught and convicted a crime it get extra cost L. The extra cost L includes company's sanction and other costs, such as stigma cost. I assume that the cost of illegal business is only a sanction, which is L.[108] The model of environmental crime is based on assumption that company, which commit an environmental crime, is risk neutral.

The model of environmental crime is based on Brown and Reynolds's (1973) model, which individual have early assets W_o, which gives utility $U(W_o)$, if action is legal. If individual's action is illegal, he will get extra income G and illegal action will cause extra cost L if individual gets caught and convicted. Criminal will get caught on probability P. The expected utility of crime is:

$$E(U) = P \cdot U(W_0 - L) + (1 - P) \cdot U(W_0 + G)$$

Let assume that individual maximizes his expected utility. Individual will choose illegal action, when $E(U) > W_o$. Choice of individual affects W_o, P, G, L and his attitude towards risk. Model of environmental crime is a bit different than previous model. Model of environmental crime examines corporation's action when as Brown and Reynolds's model is modeling individual's behavior. The expected utility for the model of environmental crime is:

[107] It can be used the model of environmental crime to crimes, which have committed by individuals, if you put wealth w in the place of profit. Then the model is almost exact copy of model of Brown and Reynolds.

[108] In reality there cause to company other costs in addition sanction such as lawyer's fee.

$$E(\pi) = P\left[P_t(\pi_0 + G - L) + (1 - P_t)(\pi_0 + G)\right] + (1 - P)\cdot(\pi_0 + G)$$
$$E(\pi) = P\left[P_t\pi_0 + P_tG - P_tL + \pi_0 + G - P_t\pi_0 - P_tG\right] + \pi_0 + G - P\pi_0 - PG$$
$$E(\pi) = P\left[\pi_0 + G - P_tL\right] + \pi_0 + G - P\pi_0 - PG$$
$$E(\pi) = P\pi_0 + PG - PP_tL + \pi_0 + G - P\pi_0 - PG$$
$$E(\pi) = \pi_0 + G - PP_tL$$
$$E(\pi) = \pi_0 + E(U_i)$$

,[109]

Where $E(U_i)$ = G – PP_tL = expected utility of environmental crime, P = probability of being caught, P_t = probability that company which have been caught environmental crime will be convicted, 1-P = probability that criminal will not be caught and 1-P_t = probability that company which have been caught will not be convicted. For example, if the probability of being caught is 60 per cent, so P = 0.6, and criminals, which have got caught, every other will be convicted, P_t is then 0.5. So the probability of conviction would be then $P_c = PP_t = 0.6\times0.5 = 0.3$.

Company will choose an illegal action when the expected utility of illegal action is greater than the expected utility of legal action,

$$\mathrm{E}(\pi) > \pi_0 \Leftrightarrow$$
$$\pi_0 + E(U_i) > \pi_0 \Leftrightarrow$$
$$G - P_cL > 0 \Leftrightarrow$$
$$G > P_cL$$

For company illegal action is a rational choice, when monetary benefits of illegal action are more than monetary cost of illegal action. Cost of illegal action is the expected sanction that is probability multiplied by sanction.

A production of the corporation, amount of the environmental technology and environmental legislation[110] affect the amount of illegal action's extra income (G). Expected sanction will be affected by severity of sanction, government's criminal prevention and probability of conviction.

Size of the expected sanction can be affect by either increasing the probability of conviction or increasing the severity of sanction. The probability of conviction

[109] It will be caused cost (for example reputation cost) to company also when it will be caught but will not be convicted of crime. According to some researchers the reputation cost may cause a good prevention effect against the environmental criminality of corporations, because corporations set a high value on good repute.

[110] Environmental legislation affects on amount of illegal extra income. That effect might be important. Government choose desired discharge level by environmental legislation. There is government's subjective assumption of the amount and the cost of harm in the background of decision. Government makes the decision with imperfect information. Obligation of reduction, which have solved by political decision, differ from optimal level. If emissions are higher than level of obligatory reduction allows action is punishable. Provided obeying of these norms cause large losses of output, risk of committing environmental crimes will increase. If both environmental norms are strict and expected punishment of environmental crimes is low it might be profitable to commit an environmental crime.

increases for example when probability of being caught raises. The probability of being caught can increase among the other things such as increasing amount of police or controlling authority, which are specialized in environmental crimes, and increasing effectiveness of their prevention measurements. The severity of sanction can be increase by increasing sanction's amount. But amount of sanction cannot increase endlessly because firstly criminals do not have enough assets to pay very big sanctions. Secondly if sanctions are too severe risk averse individual/company will then use too many resources to protect oneself against risk. Too severity sanctions might also increase court of justice probability to leave environmental criminal not to be convicted, if court of justice is risk averse.

Which of increasing severity of sanction or probability of conviction prevent more environmental criminality? It depends on environmental criminals attitude toward the risk. Environmental criminal can be risk neutral, risk averse or risk taker. If environmental criminal is risk averse his criminal action prevents the best increasing severity of sanctions. Risk takers behavior affects the best increasing the probability of conviction. For risk neutral individual both increasing the probability and severity of conviction have similar effects.[111]

3. Probability of Being Caught and Convicted and Punishments

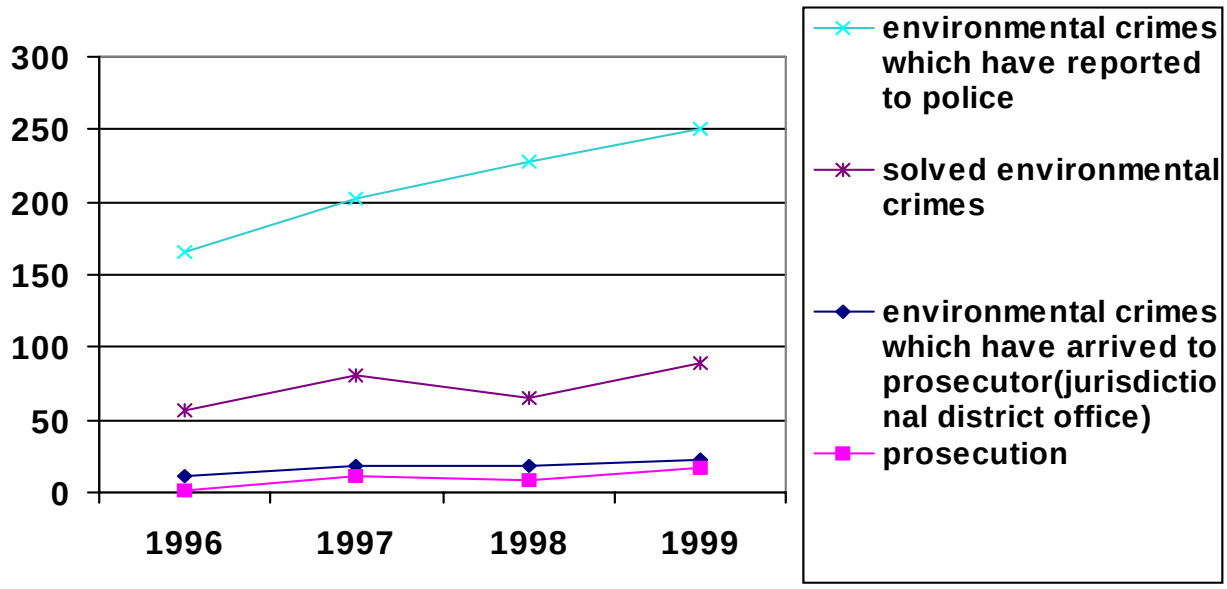
Environmental crimes have been part of Finnish criminal law since 1995. There have been about 10 – 20 convicted cases in a year. It has been said that environmental crimes end up to non-prosecution over two times more often than other criminal cases. One part of environmental crimes is so called hidden criminalities so judicial authorities will not ever be aware of these crimes. Hidden criminality is one serious problem of environmental crimes. One reason for this is that environmental crimes are often masked as legal actions so authorities and public do not perceive the crimes as easily as ordinary crimes. Some environmental crimes are offences that have been done against authorities prohibition, which makes it difficult for public to distinguish illegal and legal environmentally hazardous actions.

It is difficult to estimate the real amount of environmental crimes and the probability of being caught and convicted. Only part of the crimes, which have reported to police, will go to prosecutor. That is because some reported environmental crimes have been so small criminal offences that there is no need to report these to the prosecutor. The probability that crime, which has been reported to police, will go to prosecutor is less than 10 percent. The probabilities

[111] It is a common supposition that corporations are risk neutral.

can be seen in figure 1. The probability of being convicted has been very small, probably few percents, because all environmental crimes will not end to police awareness (if 60 percent of environmental crimes will end to police awareness and 7 % of these crimes will go to the court, then the probability of conviction is about 4,2).

Figure 1. The trend of environmental crimes[112]



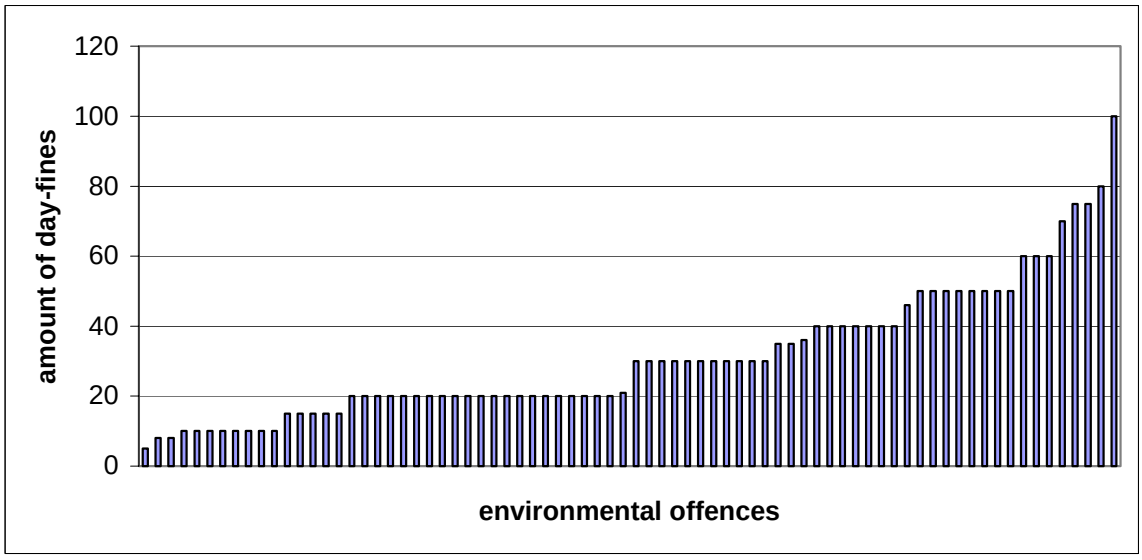
On the other hand, according to some researches prevention effect of regulation is based on negative publicity, which will be achieved by investigation and prosecution. So if this is true and the probability of being caught is sufficiently high it will be achieved necessary prevention effect without increasing either the probability of being convicted or the amount of judgments.

The most common sentence has been fine. Over 95 % of sentences have been fines. It has been sentenced to imprisonment only three times between year 1996 and year 2001. Punishments have been given mainly for damaging of the environment (42.4 % of all cases) or environmental misdemeanour (32.9 % of all cases). Average fine has been 31 day-fines. About 26 percent of cases, have been given 20 day-fines. The second most (14.3 %) have been given fines, which amount has been 30 day-fines. The biggest fine has been 100 day-fines, which were convicted of damaging of environment. The smallest fine was 5 day-fines, which have been convicted of environmental misdemeanour. These details have been shown in figure 2. There have been given two fines imposed on a corpora-

[112] Central Statistical Office of Finland 1997, 1998, 1999a, 1999b, 1999c, 2000a, 2000b and 2000c.

tion. These both fines were convicted of damaging of environment. The fines were 5 000 marks and 10 000 marks.

Figure 2. Amount of day-fines



The case, where corporation was sentenced to 5 000 marks fine imposed on a corporation, was pollution of the water system against permit of Water Rights Court. In addition to fine the corporation had to pay confiscation (monetary utility of illegal action) 100 000 marks to the government and two workers of the corporation were sentenced to pay 75 day-fines (a 65 and a 80 marks). If you compare confiscation to fine imposed on a corporation, you can see that fine imposed on corporation is only fifth of confiscation. According to model of environmental crime expected utility of illegal action is:

$E(U_i) = G - P_c \cdot L$ [113].

In this case, the monetary benefit of illegal action G is 100 000 marks and the sanction is 115 875 marks (= confiscation added to fines of workers). The expression is

$E(U_i) = G - P_c \cdot L = 100000 - P_c \cdot 115875$ [114]

Expression $E(U_i)$ should be smaller than zero so that it is not worth of committing an environmental crime.

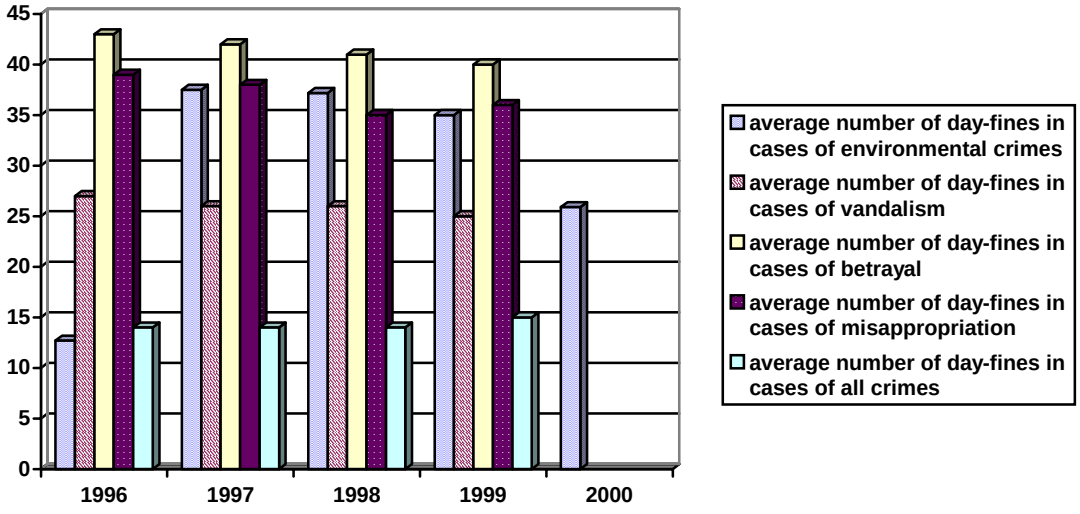
[113] Is the expected utility of illegal action when criminal is risk neutral.
[114] The model assumes that decision maker is risk neutral which is not necessarily true in reality.

$$E(Ui) = 100000 - Pc \cdot 115875 \leq 0 \Leftrightarrow$$
$$100000 \leq Pc \cdot 115875 \Leftrightarrow$$
$$Pc \geq 0.86$$

The probability of conviction should be more than or equal to 86 % in this case that corporation would not be incentive to commit an environmental crime. The probability of conviction is far less than 86 % in reality. So in this case sanction was so small that it was worth of committing a crime. If the probability of a conviction is seven percent, punishment should be 1 428 571 marks that expected utility of crime would be zero.[115]

If you compare the average amount of day-fines in the cases of environmental crimes to average amount of day-fines in the cases of all crimes, the average environmental crime's day-fines have been much more higher than the average amount of all crime's day-fines. The average day-fines in the cases of misappropriation are the nearest of average day-fines in the environmental crimes.

Figure 3. Average day-fines of environmental crimes, vandalism, betrayal, misappropriation and all crimes yearly. [116]



$$G - Pc \cdot L = 0$$
[115] $$100\,000 - 0.07 \cdot L = 0$$
$$0.07 \cdot L = 100\,000$$
$$L = 1\,428\,571$$

[116] Other crimes than environmental crimes are the source Central Statistical Office of Finland 2000c, 24-27.

Risk aversion of courts affects leniency of a punishment and non-prosecution of the environmental crimes. The risk aversive courts do not want to prosecute cases, where they cannot be sure of guilty. Courts usually give unclear situations more lenient punishments than they could give. It is difficult to show substantiation in cases of environmental crime (and sometimes it could be impossible). Especially long-term hidden environmental effects are the most difficult because clarification of events and cause of crime cannot succeed enough certain.[117] There are also problems because the norms of the Environmental legislation are elastic and open to various interpretations.

4. Conclusions

Environmental crimes have been part of criminal law since 1995. Before it environmental crimes were located in different parts of legislation. Environmental crimes were chosen to be part of the criminal law because to show the blameworthiness of the offences against environmental values and to emphasize the environmental values as an object of legal protection. Only few judgments have been given in environmental crimes after this reform of the legislation. These judgments have been lenient. Partly it is so because most of the judgments have been given for small offences. Large corporations' crimes have often been hidden criminality that has not been reported to the police. The controlling authorities try to solve exceeding of the terms of licence cases through negotiation.[118] They favour negotiation because they do not believe that reporting cases to the police will lead to charges. Therefore controlling authorities assume that through negotiations well-being of nature will attain sooner than through a criminal way.

It has been suggested that the environmental criminal law has only a symbolic value. According to six years' experience of the environmental criminal law it can be considered that the suggestion is reasonable. The environmental criminal law has not achieved good prevention effect. Great deal of the judgments has been given from slight crimes, which individuals have committed. Corporation's environmental crimes have been rarely judged. Perhaps every tenth judgment has been given to corporation. The use of fine imposed on a corporation has been small.

The amount of environmental crimes affects many things like the probability of being caught and severity of sanctions. According to some researchers the probability of being caught have the best prevention effect on the corporations' envi-

[117] Hollo 1998, 332.

[118] According to Aakkula's research controlling authorities do not report crimes to judicial authorities unless crimes are very serious.

ronmental crimes. Corporations do not want that they will be stigmatized as criminals because it will give negative publicity to them.

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Leila Mustanoja

Global Trends in Corporate Ethics and Human Rights

Abstract: Ethical business practices and human rights have become the mega-trend of the 21st century. After the second World War several United Nations and ILO conventions have paved way for new international understanding and acceptance of the integration of human rights and business. Globalisation of trade has increased the need for internationally binding, common guidelines. They would facilitate the aim of equal distribution of wealth among the nations and work towards harmonization of the world markets.

Ethical business practices support the fight against corruption and bribery that are detrimental to every society. In the recent years several global initiatives have been established to guide companies towards ethical standards. These initiatives are not legally, but only morally binding. However, they assist corporations in their commitment to ethical and sound business practices, which help companies to maintain, in long term, a healthy bottom line.

Enlightened and empowered consumers have become a major actor in promoting ethical business and environmental practices. They can mobilize worldwide boycotts to emphasize their message. Many companies have changed their strategies due to significant negative feedback from the consumer movements.

Keywords: ethical business practices, human rights, global trade and markets, UN and ILO conventions for human rights and ethical business practices, international guidelines for corporate ethics, monitoring standards, corruption, empowered consumers

1. Global Trends in Corporate Ethics and Human Rights

Human rights standards have been established by international agreements. They are based on universal norms, applicable to every society. As the New York Times noted in a December 8, 1999 editorial, "the ideal of universal human rights…is one of the most important political legacies of the century."

In the words of Mary Robinson, the UN High Commissioner for Human Rights: “In the first four decades after adoption of the Universal Declaration of Human Rights, the Cold War was the central political framework for viewing the world.

Human rights was considered to be an issue that involved state action, not the actions of the private sector. At the dawn of the 21st century, one of the most significant changes in the human rights debate is the increased recognition of the link between business and human rights." [119]

No country that wants to be a respected member of the international community wants to be seen as a violator of human rights. Louis Henkin – professor emeritus from Columbia University in New York and one of the world's leading specialists on international human rights law says: "Almost all nations respect almost all international treaties almost all the time". Yet this is not sufficient to protect the rights of people. International law consists of treaties that are somewhat vague and enforcing them is complicated. What are, then, the mechanisms that allow making decisions about human rights? Different cultural and societal concepts concerning human rights make it quite problematic and complicated. It is not always possible to make decisions concerning human rights without prejudice. I quote professor Henkin again: "The international consensus on importance of respecting human rights, is unfortunately often cynical, even hypocritical. However, even if it be hypocrisy, it is significant - since hypocrisy is the homage that vice pays to virtue and that human rights is today the single, paramount virtue to which vice pays homage to, that the governments of today do not feel free to preach what they may persist in practicing." [120]

Active implementation of ethical conduct in business is a relatively new phenomenon, though its roots can be traced in history; business ethics is as old as business itself. The concept of human rights became universally accepted after the Second World War. This development has been instrumental in introducing ethical business conduct as an integral part of international human rights movement. Among others, the seven conventions of the International Labour Organization ILO;[121] the United Nations Universal Declaration of Human Rights UDHR from 1948; the ensuing International Covenant for Civil and Political Rights ICCPR, and the International Covenant for Economic and Social Rights ICESR, which both gone in force in 1976, have given structural legislative support to the development of guidelines for ethical business conduct, especially for multinational corporations.

UNCTAD, the United Nations Conference on Trade and Development, established already in 1988 the Center for Transnational Business, but its proposal for international guidelines on global trade never progressed far enough to become an international covenant.

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[119] Robinson (2000).

[120] Henkin (1990).

[121] ILO Conventions: C.138: Minimum Age Convention, 1973; C.105: Abolition of Forced Labor Convention, 1975; C. 29: Forced Labor Convention, 1930; C.111: Discrimination (Employment and Occupation) Convention, 1958; C.100: Equal Remuneration Convention, 1951; C.98: Right to Organize and Collective Bargaining Convention, 1949; C.87: Freedom of Association and Protection of the Right to Organize Convention, 1948.

Business ethics have also become more sophisticated and are shedding the reputation of being anti-business. The growth of academic interest in business ethics is paving the way for a constructive dialogue between corporations and business ethics advocates. Although interest in business ethics has clearly increased in the recent years, the commitment of the multinational corporations to social responsibility still leaves to be desired, although the term good corporate citizen is becoming an integral part of the global trade rhetoric.

2. Why Ethical Business Practices?

Globalisation has filled the void created by the end of the cold war era. It is here to stay, we cannot turn back the clock. The fundamental challenge for the current century is how to maximize the benefits from the free market economy that globalisation is promoting and how to minimize its negative effects. International guidelines are necessary to make global trade benefit every nation and not only the western industrialized nations. One of the ground rules must be fair trade including ethical issues. The burning question is: How will the wealth generated by the global trade be distributed? Will the trade, as it is today truly benefit the economies of the developing countries and emerging markets? Are the gruelling sweatshops really the essential first step toward modern prosperity in developing countries, like economists Paul Krugman from Massachusetts Institute of Technology and Jeffrey Sachs of Harvard University claim? Is it really necessary to tolerate the lesser evil of violating workers' human rights to gain a bigger reward at a later stage?[122]

Business ethics is here to stay; it will be the megatrend for the new millenium. In the long term, a company that is committed to ethical values is the winner. It will be in control of its business activities and not be at the mercy of outside activist groups, nor even of ruthless competitors trying to spread misinformation about the company's conduct. With ethical conduct and commitment in place, the corporation can concentrate on what it is best at, its business operations, making a profit and maintaining a healthy bottom line. The consumer movement and human rights activists have become increasingly empowered, and they actively publicize news of unethical conduct of companies, using for that very effectively various strategies among which the Internet. Operations of many multinational corporations in developing countries have been put under international scrutiny by these groups. They demand the companies to have appropriate codes of conduct; to end the use of child or slave labour; or to establish fair wage policies for the local employees. It is a positive sign that, despite the absence of pressure from international human rights activist or consumer groups, many leading

[122] Myerson (1997).

global companies have been proactive and realized the value of ethical codes of conduct.

3. Pressure for Promotion of Ethical Business Practices

The pressure for ethical business can be divided into three categories:

1. Industry's codes of conduct
2. Selective purchasing/boycotts
3. Regulatory mechanisms

3.1 Industry's Codes of Conduct

These measures are mainly voluntary codes of conduct, established by the company or by aconglomeration of companies in the same field or industry. Companies have different strategies and motives for their codes. For some corporations, ethical codes of conduct are just window-dressing to be posted on the wall of the office to show customers and to be used as a marketing asset. But to an increasing number of executives, ethical codes provide an opportunity to implement human values in business and they consider them beneficial for the company and to its bottom line.

Ethical codes of conduct are the company's written guidelines for all employees; specifically the company policy on how it expects the employees to conduct their duties and tasks and what the company's stand is both to domestic issues and issues that will have to be dealt with in the company's international business operations in a foreign cultural setting. The managers who are sent abroad need proper training on how to run a company in another culture. The ethical codes of the parent company provide the manager the necessary administrative support for his day-to-day decision making. Integrity and solid moral values are an integral part of good business management, just as they are in all other walks of life.

An increasing number of companies claim that they are committed to ethical business practices. Ninety percent of the Fortune 500 companies have ethical codes of business conduct.[123] In 1961 Raymond Baumhart conducted a survey among 2,000 American business managers. It showed that two thirds of those

[123]Donaldson and Dunfee (1996).

interviewed showed interest in developing codes of ethics. They also thought the codes would improve the ethical level of business practice.[124]

The so called Sullivan Principles are considered the first set of codes and they laid the ground and structure for future ethical codes of conduct. They were drawn by the American Reverend Leon Sullivan, and they addressed the problems of conducting business in the apartheid-era South Africa. The original Sullivan Principles are from 1977 and they established guidelines for how companies could operate appropriately even as the country's racial policies enforced systemic human rights violations. Reverend Sullivan revised the Principles in 1999. The new principles differ from other similar initiatives, since the company that wants to join has to agree to give a progress report to Reverend Sullivan of the practical improvements that the company has implemented.[125]

Typical codes of conduct comprise basic human rights and fair practices that can be traced to the Universal Declaration of Human Rights; the ensuing UN Conventions and ILO Conventions or social clauses. The environmental movement and the international conventions on sustainable development have also contributed to the substance of codes.

3.2. Selective Purchasing

Consumer movements have been very effective in making companies face and to act upon the importance and efficiency of the enlightened and empowered consumer of today. The Internet has made it possible to organize a global boycott of a multinational company. The world's biggest oil-company, the Royal Dutch Shell is a good example of a global mega-company that had to turn around and completely change its strategy in Nigeria due to a worldwide consumer and human rights activist pressure and boycott.[126] NIKE, the world's largest sportswear manufacturer is continuously fighting the strong negative image that is has accumulated in the last ten years. [127]

Another consumer boycott was organized a few years ago against the suppressive government of Myanmar that openly violated the human rights of its citizens. A great number of global companies decided to withdraw from Myanmar, when the consumer boycott caused them to lose significant business deals in the United States.

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[124] Baumhart (1961)

[125] www.ifresh.com.

[126] McIntosh, Leipziger, Jones and Coleman (1998).

[127] Karliner and Bruno (2000).

3.3. International Regulatory Pressure

There have been serious international attempts to regulate global trade, in order to achieve some fairness between the different economies in the world. Here I will list and discuss some of the recent initiatives that seem to carry most weight in today's global business community. Yet we have to keep in mind that there are no legally binding instruments within the international law that enable any legal action against companies that act in an unethical fashion. The regulatory measures are, for the most part, "gentlemen's agreements" and voluntary in nature. Most of them can only be enforced on a moral level, through "the mobilization of shame", since no nation today wants to be labelled as a human rights violator.

The attempts for international guidelines have also been mainly orchestrated by the western industrialized nations and may have, therefore, only limited use.

The twenty nine western OECD (Organization for Economic Cooperation and Development) countries published a Declaration on International Investment and Multinational Enterprises dating in 1960, which was last revised in 1991.[128] OECD has also published Principles for Corporate Governance and developed a Convention on Bribery and Corruption of Public Officials.[129]

WTO, the World Trade Organization, is the regulatory organ for the world trade and has a larger international constituency than OECD. WTO has several instruments that regulate international trade. Although WTO has been the target of international consumer and NGO demonstrations, there are also business-ethically positive developments within the current WTO international trade agreement framework. Perhaps the most interesting at this point is the TRIPS (Trade Related Aspects on Intellectual Property). Clauses of the TRIPS agreement made it possible in the WTO Council meeting in Doha in November 2001 to enforce multinational pharmaceutical companies to issue license for some developing countries to manufacture and to give out AIDS –medicine at a remarkable discount. [130]

The international trade agreement that WTO inherited from the late GATT (General Agreement on Tariffs and Trade) includes social clauses that are, in fact the ILO conventions mentioned earlier in this text. The controversy is that everyone in the developing countries does not see the clauses only as being beneficial. There are some who say that these social clauses are there to protect the Western countries. The social clauses, by forbidding child labour and demanding better working conditions and higher wages, will increase labour costs in developing countries and may keep multinational corporations out of developing countries.

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[128] www.oecd.org.
[129] ibid.
[130] www.wto.org

Thus they will keep jobs in the western countries. The ethical issues are seen as western ideology imposed on developing countries.

I would like to mention here the US legislature. As early as 1977 the Foreign Corrupt Practices Act was passed in the US Congress. The law forbids any American citizen or company to bribe foreign officials or civil servants. The fines are significantly high and companies are very careful not to break this law.

The interest for the work against corruption has grown strongly in the recent years. Transparency International, TI, an international organization was founded in 1993. TI works against corruption in the public and private sector. Although it is a private organization, its annual publication, the Global Corruption Report has established itself as one of the leading collection of reports and studies on corruption and its impacts. Transparency International publishes, among others, the annual Corruption Perception Index CPI that ranks the level of corruption in 102 countries worldwide. The index reflects the perceptions of business people and country analysts. The 2002 CPI draws surveys from nine independent institutions. The score 10 means "highly clean" and 0 "highly corrupt". [131]

Figure 1. Corruption Perceptions Index CPI 2002

Country	Score 2002	Score 2001	Ranking in CPI 2001
1. Finland	9.7	9.9	1.
2. Denmark	9.5	9.5	2.
3. New Zealand	9.5	9.4	3.
4. Iceland	9.4	9.2	4.
5. Singapore	9.3	9.2	4.
6. Sweden	9.3	9.0	6.
7. Canada	9.0	8.9	7.
8. Luxembourg	9.0	8.7	9.
9. Netherlands	9.0	8.8	8.
10. United Kingdom	8.7	8.3	13.

[131] Hodess, with Banfield and Wolfe, editors (2001), Global Corruption Report 2001, Berlin, Germany; Transparency International, pp. 232-236. and Corruption Perceptions Index 2002 (2002) Transparency International

Transparency International also publishes an index, which indicates the sectors of industries that are most subject to corruption. The lower the score, the more subject the industry is to corruptive measures. [132]

Figure 2. Business Sectors most Prone to Bribery

Sector	Score
Public works contracts and construction	1.5
Arms and defence industry	2.0
Power (incl. petroleum and energy)	3.5
Industry (incl. mining)	4.2
Health care/social work	4.6
Telecommunications/post	4.6
Civilian aerospace	5.0
Banking & finance	5.3
Agriculture	6.0

The United Nations Global Compact Initiative was introduced by Secretary-General Kofi Annan in the Davos World Economic Forum in January 1999.[133] He envisioned it as a framework for enhanced cooperation between the international business community and the United Nations It urges the corporate sector to become directly involved in helping the United Nations implement universally agreed standards found in key UN documents: the Universal Declaration of Human Rights, the International Labour Organization's Declaration on fundamental principles and rights at work and the Rio Declaration adopted at the 1992 UN Earth Summit.

A number of other new initiatives for ethical business practices within different industries have been established in the recent years. The following two act as sample initiatives:

1. Global Reporting Initiative GRI

GRI was established in 2001, but it was formally inaugurated in April 2002. It is, as it states on its web-pages " an international, multi-stakeholder effort to create a

[132] Global Corruption Report 2001, 1999 Bribe Payers Index (2001); Corruption Per Transparency International, 2001) Transparency International.
[133] www.unglobalcompact.org

common framework for voluntary reporting of the economic, environmental, and social impact of organization-level activity." Currently approximately 170 companies worldwide have joined the initiative. Four of the companies are Finnish: Kesko, Metso, Nokia and Wartsila. [134]

2. Ethical Trading Initiative ETI

ETI is an "alliance of companies, non-governmental organizations and trade unions committed to working together to identify and promote good practice in the implementation of codes of labour practice". [135]

However, like the UN Global Compact, these two organizations are recommendations for good business practices and are not legally, only morally binding. They require no reporting of actual improvements in the practices of member organizations..

4. Monitoring or Verification

Companies have ethical codes of conduct, but the real Lithmus test for the degree of their ethical commitment is, whether or not they allow an independent, outside specialist or non-governmental organization to monitor their compliance in their production plants and their vendors' plants for the existing labour conditions.

Several mechanisms have been developed in the recent years. The best known and most widely spread of them is SA (Social Accountability) 8000, established in 1997. [136] SA 8000 was not developed primarily to assist global companies only, but to empower the supplier organizations to gain attention and credibility for their attempts for monitoring the ethical conduct of companies. The SA 8000 monitoring mechanism seems to be most widely spread and e.g. the international company Bureau Veritas uses SA8000 when it monitors the factories and other trade operations of subcontractors for global corporations.

Another interesting standard for verifying ethical practices is the ECS2000 (Ethical Compliance Standard) that has been developed by the Business Ethics and Compliance Research Centre at Reitaku University in Japan.[137] ECS2000 is pub-

[134] www.globalreporting.org.
[135] www.ethicaltrade.org.
[136] www.cepaa.org.
[136] www.oecd.org.
[136] ibid.
[136] www.wto.org.
[137] http://ecs2000.reitaku-u.ac.jp

lished in the Internet and can be applied for no charge by any company or organization that is interested in monitoring its activities.

In closing, I quote Seiichi Kondo, Deputy Secretary General of the OECD: "…we have seen an unprecedented proliferation of the market economy and private capital, a power shift from states to markets, and a rise in the power of civil society." Professor John Gray from the London School of Economics argues that: "There is nothing in today's global market that buffers it against the social strains arising from highly uneven economic development within and between the world's diverse societies. The swift waxing and waning of industries and livelihoods, the sudden shifts of production and capital, the casino of currency speculation – these conditions trigger political counter-movements that challenge the very ground rules of the global free market."

Therefore, the commitment of both national governments and the global business community to ethical business practices and human rights becomes more and more crucial in promoting and maintaining democracy and peaceful societal development in all countries of the world. It is not easy to change old habits, but as a remedy I want to remind you of these words of Charles Darwin: "It is not the strongest of the species that survives, nor the most intelligent, but the one most responsive to change".

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Asta Paskeviciene & Algirdis Miskinis

Defining results of EU support to the Baltic Countries

Abstract: This paper focuses on EU technical assistance to Lithuania and other Baltic countries and measures it against the success of economic reforms and improved infrastructure. During 1990-1998 the EU committed for Lithuania 272.03 MEUR, for Latvia – 206.57 MEUR and for Estonia – 162.83 MEUR, while in 2000 the EU allocation for Phare and new pre-accession instruments exceeded average annual allocations more than twice and amounted to 113.4 MEUR, 88.2 MEUR and 56.9 MEUR respectively. Since its beginning in 1989 Phare has transformed from a demand-driven into a an accession-driven instrument, assisting the candidate countries to develop the capacity to implement the acquis and providing investment support to strengthen social and economic cohesion through large-scale infrastructure projects. The later programmes were fully decentralised and, in 2000, new instruments were introduced (ISPA, SAPARD, ESC). In total, more than twenty sectors have been supported by Phare. In addition to support for economic reform and infrastructure investments, priority sectors in Lithuania have been agriculture and energy, while in Latvia and Estonia most efforts have focused on education and integration issues. In all the three countries, public administration reform and other horisontal sectors have received limited support from Phare in terms of financing. The lack of strategic approach is to be noted as well as insufficient attention to developing countries' planning capabilities and creating sectoral analysis. There have been persisting problems relating to project preparation which has often translated into universal design weaknesses. Despite that, implementation of the assistance programmes has been generally good. Most positive impact of EU assistance has been observed where efforts have concentrated on supporting economic reform, strengthening macroeconomic stability, restructuring the enterprise and financial sector, and implementing reforms in the utilities and energy sectors. This has contributed to creating pre-conditions for functioning of market economy in the three Baltic countries. However, financial sector is still overall at a low level and makes limited contribution to the financing of investment in a private sector. Other areas lagging behind in all three countries is labour and land markets. To cope with competitive pressures within the European Union a number of initiatives will be undertaken in all three Baltic States addressing the existing outstanding issues, first of all, through Pre-accession Fiscal Surveillance Procedure including annual Pre-accession Economic Programmes to be prepared by each of the countries.

Keywords: Technical Assistance, Phare Programme, SAPARD, ISPA, Decentralised Implementation System, Monitoring System

1. Introduction

The country in transition faces a lot of issues, which are difficult to solve on the basis of knowledge inherited from the previous system. Radical changes require patience and long-term commitments, new system is being implemented by people having mainly only theoretical knowledge about new system, economic transformations are combined with the transformation of political system that often hamper sound and reasonable economic solutions, which altogether makes the transition process complicated.

In such circumstances very valuable support to economic reforms is provided by external sources: bilateral assistance, advice and financial support by international organisations, etc. Our attention in this paper will be focused on EU technical assistance (TA) to Lithuania[138], as, although the EU support has been supplemented by a considerable amount of assistance from Scandinavian countries, but there have been difficulties in getting the data on the volumes of support on a bilateral basis. In addition, very similar conclusions will be drawn up also from the assistance provided by the EU to other countries. The most appropriate outcome, against which the external support can be measured, is the success of economic reforms and improved infrastructure.

2. Transformation of EU support

2.1 Volume and types of support

Lithuania has been a beneficiary of the Phare programme since 1991[139]. Since then Lithuania received a substantial TA through Phare National and Multi-Country programmes. According to Phare 1998 Annual Report during 1990-1998 the EU committed for Lithuania 272.03 MEUR, for Latvia – 206.57 MEUR and for Estonia – 162.83 MEUR. In 2000 the EU allocation for Phare and new pre-accession instruments the Special Action for Pre-Accession for Agriculture and Rural Development (SAPARD) and the Instrument for Structural Policies for Pre-Accession (ISPA) amounted to minimum 113.4 MEUR for Lithuania, 88.2

[138] Both authors have an extensive experience in implementing and assessing EU technical and financial assistance.

[139] Here is a short history of bilateral relations between the EU and Lithuania: diplomatic relations were established in August 1991, a Trade and Co-operation Agreement was concluded in May 1992, the Europe Agreement was signed in June 1995. In March 1998, the EC and the Government of Lithuania agreed an Accession Partnership (AP) which prioritised the areas for further work identified in the Commission's Opinion. The National Programme for the Adoption of the Acquis (NPAA) was prepared and is being reviewed annually. The Commission's Regular Reports on Lithuania's Progress Towards Accession annually review implementation of the AP and the NPAA. In March 1998, the accession process was formally launched with ten Central and Eastern European countries (CEEC), including Lithuania, and an analytical examination of the acquis ('screening') started in April 1998. In 2000 Lithuania started accession negotiations.

MEUR for Latvia and 56.9 for Estonia[140]. This exceeds more than twice average annual allocations from Phare during the previous period 1995-1999 (when they were correspondingly 42.0, 30.0 and 24.0 MEUR). In relation to the budget expenditure for Lithuania Phare allocations in 2000 comprised more than 6 %.

Table 1. Annual allocations of Phare national programme in Baltic Countries

Country	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**total**
Estonia	9	12	23.09	24	31	33.9	27.9	23.3	185.42
Latvia	15	17.7	9.3	29	30.2	42.45	40.8	46.1	230.55
Lithuania	22,34	24,57	36,35	37,8	53,82	47,78	30,01	35,23	287,9

Source: annual Financing Memoranda between the European Commission and respective countries

Table 1 demonstrates the dynamics of Phare support to the Baltic Countries. The decline from 1996-1997 in the allocations to Estonia and Lithuania does not indicate the decrease of the EU support but just the shift from TA to investments, which were financed through other EU programmes (Multi-Country and Multi-Beneficiary programmes, Cross Border Cooperation, Large Scale Infrastructure Facility, Pre-Ins Facility, Special Funds).

2.2 Objectives of support

Being a demand-driven, the Phare programme adapted to and supported country-specific processes. In the early stages of the reform process, the Phare programme emphasised critical aid, but rapidly moved towards support for institutional reform. Later, as transition progressed, Phare focused on legal and regulatory measures for the creation of a market economy and measures promoting development and investment. In 1994, with the prospect of EU membership for the CEECs, Phare was designated as the main financial instrument to support pre-accession strategies. This was first reflected in the 1995 programme when new types of assistance, including TA for legal approximation and conformity with EU standards, and direct financial assistance for investment in preparation for EU membership were introduced. In 1997, the EC further refocused Phare on accession-driven support to institution building and acquis related investment. Since 1997 only approximately 30% of the Phare allocation is used for 'institution building', assisting the candidate countries to develop the capacity to implement the acquis. The remaining 70% is used for investments to strengthen social and economic cohesion through large-scale infrastructure projects, support to

[140] In the most recent Financing Memoranda with Lithuania signed for 2001 the EU support amounts to around 200 MEUR in the areas of TA, investment, ISPA, SAPARD, nuclear safety, Baltic Sea Region co-operation.

SME through the new SME Facility, and promoting regional development through enterprise restructuring activities to attract strategic investors to underdeveloped regions. Since 1998 EU TA has been supplemented by institutional Twinning projects with EU member states' administrations. Twinning involves the secondment of one or more EU civil servants to a counterpart organisation in candidate country to assist in the adoption of the acquis in agriculture, environment, justice and home affairs, preparation for implementing the Structural Funds.

A fundamental reorientation of the Phare Programme took place when, in 1999, it was confirmed as the main instrument to support Lithuania's pre-accession strategy. In effect this has meant linking the Phare with the requirements of EU membership as outlined in the key documents (AP, NPAA etc.). During 2000-2006, in addition to Phare programmes, pre-accession aid is available to Lithuania to support adoption of policies and procedures for the Structural and Cohesion Funds. For agricultural and rural development, SAPARD and transport and environment, ISPA the EU will provide up to 29.8 MEUR and 31 MEUR respectively annually in this period.

2.3 Sector breakdown of EU support

Sector Phare allocations reveal some important observations about country development priorities.

Table 2 Sectoral breakdown of Phare national programme in Baltic Countries in 1991-1999

Country	Env	Tra	Energy	Agri	Edu	EI	Priv., restr., inv., SME	Social and health	Banking and pub.fin.	Other	Total
Estonia	39,0	25,9	6,0	12,7	22,2	13,4	21,3	7,6	14,7	22,6	185.4
Latvia	36,4	25,6	10,3	11,9	25,0	19,8	32,7	9,8	21,4	46,7	230.6
Lithuania	43,8	37,7	33,6	30,0	18,2	17,3	39.1	18,5	23,7	26,0	287.9

Source: annual Financing Memoranda between the European Commission and respective countries

During 1991-1999 the first priority for the EU support in the Baltic States was to finance restructuring of such infrastructure sectors as environment and transport. Lithuania also used a large share of EU support for increasing security at its nu-

clear power and other acute issues in energy sector. The other important priority in all Baltic States was economic reforms (privatisation, restructuring, investment, SME development). The figures also indicate some differences among Baltic States in supporting other sectors, e.g. Lithuania sets a high priority for agriculture while other Baltic States for education.

3. Some critical management issues

3.1 From centralised control to full decentralisation

Phare support to the Baltic States was initially managed under the Centralised Implementation System, operated by the EC from Brussels. This system was progressively reformed in 1998 and 1999 to improve the efficiency and transparency of Phare activities. The Decentralised Implementation System (DIS), transferring responsibility of ex-ante approval of implementation decisions from the EC headquarters to the EC delegation, was introduced in Lithuania in 1998 and management was fully decentralised in 1999. In December 1998, a National Fund, within the Ministry of Finance, was established as the central body through which Phare and other EU funds are channelled. The further decentralisation of EU support management was carried out in 2001 under SAPARD programme, where were introduced similar rules to those applied in the EU member states. The full decentralisation of other Phare programmes is scheduled for 2002.

3.2 Monitoring and assessment system

With the decentralisation of the management of EU support the control of the spending of the EC funds will be ensured by comprehensive monitoring system. The first system of monitoring and assessment (M&A) of Phare programmes was introduced in 1996. It was designed to provide all concerned parties with regular and reliable information on activities and outputs of programmes and to use this information for improving the management of current programmes and the design of future programmes. An integrated approach linking the M&A system at all levels to the other components of the Phare programme management cycle, notably programme preparation, contracting and implementation, has been developed. The compilation of the M&A reports is carried out by the external assessment service, which assesses the extent to which the programmes have achieved, or will achieve their objectives, and make recommendations for further action. Following the re-orientation of Phare towards pre-accession strategies and the decentralisation of implementation responsibilities, new monitoring structures were established in all three Baltic States – a Joint Monitoring Committee and Sector Monitoring Sub-Committees. Draft monitoring reports are prepared by beneficiary twice a year on all programmes in each sector, reviewed and, if

appropriate, amended by monitoring committees, and then assessed by external evaluation service.

3.3 Some observations from monitoring reports

M&A reports provide with very good insight about the effectiveness of the implementation of EU support programmes. The reports present useful information about the Phare support management capacity in the public institutions, state of play in the sector, and effectiveness of the implementation. Since the beginning of the monitoring procedure in Lithuania in 1996 to 2001 about 35 assessments have been concluded. In statistical terms, 54% of the programmes reported were rated highly satisfactory or satisfactory, 46% unsatisfactory or highly unsatisfactory. Satisfactory or highly satisfactory implementation was in statistics, civil society development, telecommunications, social sector and tourism. The worst performance in terms of achievement of programme objectives was observed in the public administration reform and European integration[141]. Similar results were obtained in Estonia and Latvia, where rates of positive and negative assessments were 55% and 45% in Estonia and 50% and 50% in Latvia respectively Here are the main conclusions of the M&A reports of that period:

1. The earlier programmes were instrumental in improving and enhancing legislative and regulatory reforms and produced generally positive results in all three Baltic countries, however, only a few addressed economic and sector analysis to provide a framework for an appropriate development strategy for the economy as a whole and for its major sectors. Similarly, the earlier programmes did not provide contribution to the strengthening of the country's planning capabilities and did not relate Phare assistance to long-term planning documents. With the adoption of the AP and the NPAA in 1998, a new strategic framework was created and Phare developed a more specific focus in terms of funding priorities, namely support to the introduction of the policies, systems, institutions and infrastructure required by the acquis. TA has been used as a key instrument for improving policies, enhancing skills, and strengthening implementation capacity, and for institutional development in general. However, there have been a lot of cases of substitutional TA, where external consultants fill gaps in local capacities, replacing TA for institutional development, which is considered to be one of most important factors for ensuring sustainability.

[141] The ratings cannot be regarded as a final judgement on the success or failure of individual sector programmes, for several reasons. First, ratings in the M&A reports reflect the status of achievement of programme objectives prevailing at the cut-off date for each assessment, which, on occasion, is relatively early in the life of a programme. Second, the economic and institutional consequences of projects sometimes extend well beyond the end of disbursement periods, only after which may programme objectives be achieved. It is important to note that a programme with an unsatisfactory rating may still produce significant benefits even though it failed to meet its major objectives.

2. In all three countries there have been almost universal shortcoming relating to project preparation. While formal responsibility for programming and project preparation rests with the beneficiaries, the EC actively participated in project preparation through funding TA for preparatory works on behalf of the beneficiaries. This may have hindered their acquisition of capacity to programme and did not always ensure the firm commitment of both parties. However, the capabilities of preparing the National Development Plan as a main instrument to receive the support from the EU Structural Funds are substantially improved in all three Baltic States.

3. Weaknesses in project preparation have translated into frequent shortcomings in programme design. The objectives, where formulated, were often over-ambitious and very general and did not fully take account of the human and financial resources available. Frequently, preparation did not cover the full range of technical, institutional, economic and financial conditions necessary to achieve project objectives. There have been instances when investment projects proceeded without a pre-feasibility assessment, and economic viability and multiplier effects were not established at the preparation stage. Similarly, there has been a general absence of proper risk analysis and, consequently, no contingency planning has been included to deal with those risks. Despite the central focus of Phare programmes on strengthening project management capacity, the M&A reports contain only a few descriptions of formal training carried out in this field.

4. Limited impact of the monitoring and evaluation process itself has to be noted. M&A analysis, focusing as it does on three criteria; the relationship between the effective results of Phare assistance and AP priorities, the performance of the parties involved and sustainability, provides only part of the basis against which Phare's contribution to the countries' general economic development can be judged. For example, despite a large number of design recommendations contained in the M&A reports, there has been little visible impact on programme design in recent years.

5. Sustainability, which is regarded as the probability that the support provided will maintain its benefits in the long-term, mostly depends on technical and financial viability of projects. As a general observation, it became clear that in Lithuania investment projects were better implemented and were considered to have a long-term sustainable impact. For general TA, there were no doubts over the sustainability of support in the telecommunications, education, European Integration, privatisation, public finance, social, statistics and transport sectors. However, in some areas, notably health, agriculture and energy and enterprise restructuring, sustainability was in question.

6. In Estonia, where efforts have concentrated on supporting economic reform, visible progress has been made in strengthening macroeconomic stability, re-

structuring the enterprise and financial sector, and implementing reforms in the utilities and energy sectors The private sector accounts for 70% of GDP and the SME sector (which is seen as a tool for regional development) has continued to grow. The emphasis put on upgrading the education system and introducing a system of vocational education and training has improved the enterprises' potential ability to adapt to the market economy. However, due to limited financing to the public administration reform, social reform and European Integration, there remain deficiencies in the public sector structures and shortage of human and financial resources.

7. In Latvia, where efforts have been focused on education, European integration and infrastructure development, Phare assistance has produced a notable impact in these sectors and sustainability of results is considered as good.

8. In all three countries, public administration reform and related integration issues judging on the basis of the reports for 1991-1999 Phare programmes have received very limited attention in terms of financing from the EU Phare programme and, thus, there has been almost no impact observed in this sector.

9. Development of the three Baltic states is taking place within the broader context of the development of the Baltic Sea Region. In this respect, EU has also supported projects with a cross-border dimension through the Multi-Country and Cross Border Co-operation Programmes, mainly in the environment and transport sectors. However, a closer co-ordination between the National Programme and activities financed under other instruments as well as assistance provided on a bilateral basis has to be maintained.

As a general observation it is instructive to observe that, the generally rather positive outcome of the implementation of Programme activities, taken with the relatively large number of negative ratings of achievement of Programme objectives suggest that inappropriate Programme design has been a significant factor influencing the general rating of Programmes assessed. All three Baltic countries are regarded as functioning market economies, which means that the economic transformation process has been successfully completed. However, there is a great room to address the existing weaknesses in project/programme design through provision of training, clarify respective roles of the parties in the Programme cycle, establish new priorities for future assistance paying considerable attention to innovations, new technologies, know how transfer.

The positive outcome of economic and administrative reforms implemented with the EU support is confirmed by the Commission's Annual Regular Reports. The Regular Report issued in November 2001 concludes that all three Baltic States are functioning market economies and provided that further substantial efforts in maintaining structural reforms are made they should be able to cope with the

competitive pressure and market forces within the Union in the near term[142]. All three were successful in strengthening macroeconomic performance and preserving stability, restructuring enterprise sector, privatisation. However, Estonia was more ambitious in establishing and enforcing institutional and regulatory framework for market economy, in pension reform while other countries are not far behind. Nevertheless, in some areas reforms did not bring expected results in all three countries. Financial sector is still overall at a low level and makes limited contribution to the financing of investment in a private sector. Intermediation is particularly low and inefficient in Lithuania. Other areas lagging behind in all three countries is labour market. Unemployment is high and labour market flexibility should be enhanced. Land market also is not properly developed.

4. Areas for future EU support

To cope with competitive pressures within the European Union a number of initiatives should be undertaken in all three Baltic States. In order to streamline necessary activities recently a so-called Pre-accession Fiscal Surveillance Procedure including annual Pre-accession Economic Programmes (PEP) to be prepared by candidate countries was introduced. The PEP will be used by the Commission as a basis for programming of technical assistance and financing of investment to the countries concerned. Most of exercises included in the PEP are driven by the approximation of domestic legislation and practice to the EU acquis. PEPs of the Baltic States indicate the following main areas for future support[143].

1. In enterprise sector a short assistance might be provided for the privatisation of some large companies, for the regulation of telecommunications and utilities, for new competition rules in Estonia and Latvia, for implementation of new bankruptcy legislation in Latvia and Lithuania.

2. The objectives of the financial sector reform are to secure stability, improve competitiveness, and promote high-quality services and risk management. The assistance might be required to introduce measures enhancing liquidity and strengthening the role of stock markets in the financial sector, to achieve a balanced budget, to gradually increase the maximal deposit guarantee and reduce the reserve rate. The achievement of current account balance also is an issue. To date a sound level of current account balance was achieved to large extent by large inflows of FDI through privatization. With privatisation coming to an end this may imply that Baltic States will face the foreign debt grow

[142] Progress Towards Meeting Economic Criteria for Accession: the Assessment from the 2001 Regular Report. Enlargement Papers, Number 6, November 2001.

[143] Evaluation of the 2001 Pre-Accession Economic Programmes of Candidates Countries. Enlargement Papers, Number 7, January 2002.

in the coming years. The initiatives should be undertaken to boost green field investments and develop policies to balance current accounts.

3. In agriculture the most important objectives are the development of a competitive agriculture and the implementation of the EU Common Agricultural Policy. Major reforms are required for modernization of farms, for the improvement of veterinary and phytosanitary border posts, for liberalization of land market.

4. In transport there is a long-term goal to integrate the national transport network into the trans-European network. This first of all concerns Via Baltica motorway project. All countries also need to upgrade their railway systems and sea ports. Lithuania has plans to build a new European gauge railway line in the north-south direction. Most of these projects will be partly financed by EU grants (ISPA, PHARE etc).

5. In area of institutional capacity the major objectives are to eliminate conditions for corruption, to clarify administrative procedures and regulations, and to improve the co-ordination between central and local governments. The regional development is an acute issue in all three Baltic States, where the appropriate programmes dealing with disbalances of economic and social development in different territories should be developed.

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