Helmut-Schmidt-Universität
Universität der Bundeswehr Hamburg
University of the Federal Armed Forces Hamburg

Fächergruppe Volkswirtschaftslehre
Department of Economics

Discussion Paper No.
January 2006
45

Developments of the Estonian Competition Policy in the Framework of Accession to the European Union

Jüri Sepp

and

Diana Eerma

Developments of the Estonian Competition Policy in the Framework of Accession to the European Union

Prof. Jüri Sepp and Diana Eerma
University of Tartu, Estonia

Introduction

Competition protection in the first place means the protection of individuals' economic freedom. This is guaranteed by the Constitution of Republic of Estonia from 1992. Hence in economic theory and practice is well-known understanding, that it is not enough to have just decision about having competition and economic freedom in order to get effectively functioning national economy and also to achieve distributional justice.

Therefore all the transition countries have been following the developed market economies as example and have been built up the competition law with implementation mechanism (Fisher, 2000). Estonia has not been in the top of this list and not as active differently from other transition areas (Dutz/Vagliasindi 2000). In the literature we may find the doubt about rationality of competition policy in transition countries. Some authors do not consider it important in small economies, which are open to foreign competition (Godek 1998). Others again have doubts about administrative capacity in implementation of competition protection in transition countries and find the particular investments to be sub-optimal project (Singelton 1997). At the same time, there has not been done enough research about the real impact and effectiveness of competition policy in transition countries. Mostly the range of countries is limited to Central-European countries (for example Fingelton/Fox/Neven/Seabright 1996) and does not include Estonia. One exception here is OECD analysis from year 1999. From the other side the analysis of Estonian transition process does not treat competition policy problems radically enough (Hoag/Kasoff 1999, Wrobel 2000).

For the abovementioned reasons, it is obvious that a deeper analysis of Estonian competition policy would help to disclose its role in transition among other economic policy instruments. At the first sight Estonia seems to confirm the supposition about the priority of liberalism in foreign economy in designing the competitive economic environment. From the other side is interesting to compare the Estonian competition policy with European Union (EU) competition policy and its Member States competition rules, find out differences and their objective and subjective reasons. Hopefully there is still space for institutional system competition regardless of the high level centralization and harmonization in EU competition policy. Only in that case we may expect, that besides of mechanical imitation will appear also the creative learning and innovation process.

The current analysis is going to continue the previous ones done by authors in the same sphere (most recently, Sepp 2000) and it is taking into account the developments mainly until Estonia's joining to the European Union.

The main changes in Estonian competition policy have taken place just during the last years.[1] It means that the main developments in the Estonian Competition Policy have taken place before year 2004, when Estonia joined to the EU. Also the Community competition rules were modernized on May 2004, based on Council Regulation 1/2003. The main change compared to the old regulation is that member states now have the obligation, when proceeding cases that may affect trade between them, to apply the EU competition rules in parallel to national legislation. Besides the changes in relation to accession to the European Union one has to consider the changing relations between regulation and competition in general. As we may find in the literature, the regulatory toolbox has expanded and, most importantly, contains new techniques of 'regulation-for-competition' (Jordana/Levi-Faur 2004).

In the article the abovementioned objectives are observed in four parts. The first part of the article gives a short overview about the competition creation through the market entry regulation in general. In the second part, the enterprise activity is treated proceeding from blocking the private restrictions in Estonia, showing the formation of the policy and problems. The following, third part, analyzes competition creation in exceptional spheres from viewpoints of regulation and deregulation. The fourth part of the article deals with publicly originated competition restrictions, especially connected with state aid, which influences the competition.[2]

The Regulation of Market Entry — Way of Competition Creation

Regulation refers to the instruments of the economic policy by which governments place requirements on enterprises, citizens, and government itself, including laws, orders, and rules issued by levels of government and by bodies to which government have delegated regulatory powers. Regulation is often thought of as activity that restricts behavior and prevents the occurrence of certain undesirable activities, but the influence of regulation may also be enabling or facilitative. The examples here may shown as in cases, where the airways are regulated so as to allow broadcasting operations to be conducted in an ordered fashion rather than left to the potential chaos of an uncontrolled markets (Baldwin *et al*. 1999).

In general, many of the rationales for regulating can be described as instances of market failure. Regulation in such cases is argued to be justified because the uncontrolled market place will fail to produce behavior or results in accordance with the public interest. The justification for regulation here may conclude by the approach of public interest theories of regulation. According to public interest theory, government regulation is the instrument for overcoming the disadvantages of imperfect competition, unbalanced market operation, missing markets and undesirable market results (*Ibid*.).

[1] After the third Competition Act came in force in 2001 it has been done already nine improvements in it by now.

[2] Here is need to stress that also in the blocking of private restrictions there is the possibility to over regulation, which itself is seen as public competition restriction.

In case of market entry regulation the purpose of regulatory action is justified because the government screens new entrants in order to make sure that consumers get the high quality products from sellers. The regulation reduces the market failures such as low quality of products and services and negative externalities such as pollution as well at the first place. Also the problems connected with asymmetric information as the type of market failure has to be considered. It means that overall we can see here as economic or/and as well social goals for regulation.

By the OCED definition the differentiation is made between economic, social and administrative regulation. The two first mentioned are more concerned in market entry regulation process. It is because the economic regulation intervenes directly in enterprise and market decisions such as pricing, competition, market entry or exit; and social regulation protects values as health, safety, environment and social cohesion (The OECD …).

Economic regulation consists of two types of regulations: structural regulation and conduct regulation. Structural regulation is used for regulating market structure. Examples are restrictions on entry and exit, and rules against individuals supplying professional services in the absence of recognized qualifications. Conduct regulation is used for regulating behavior in the market. Examples are price control, rules against advertising and minimum quality standards. (Hertog 1999).

Economic regulation itself 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. This aspect concerns the firms acting already in the market, but through the economic regulation on the market entry the creation of competition takes place as well. Government policy in screening the new entrants creates the competition in market entry. Here, in the first place one has to consider the procedures required for starting a business. Also, the entry is often controlled by licenses or certificates and a common policy approach is to license or certify providers, who meet standard of skills, training or experience.

Recently, quite a lot of attention has been paid to the issue, how the different countries regulate the market entry and, what type of regulations lead to improve economic and social outcomes (Doing Business in 2004, 2005, 2006). Researches include the data of 155 countries and have been created the indicators for ranking ease of doing business in those countries. For analyzing the market entry the set of indicators include number of procedures, time, cost and minimum capital to open a new business. Mentioned procedures and of course the requirement of different licenses are the main mechanisms in market entry regulation.

For Estonia the following data about the ease of market entry are available: for starting a business the number of required procedures is 6, and it takes 35 days to meet them and will cost 6.2 % of income per capita. (Doing Business in 2006). Those indicators (amongst the other) place Estonia to the 16th position among the 155 countries, from which we may conclude, that it is relatively easy to start a business in Estonia. Of course, it is obvious that it needs additional research to find out, how the situation varies by different sectors, but we still may say, that the market entry is not much publicly regulated in Estonia.

More concrete is data about licenses (construction industry as an example). In Estonia the number of procedures required is 12, it takes 116 days and will cost 41.4 % of income per capita. (*Ibid*.).

We may consider that regulating the market entry through the action permits and licenses will create the competition in entry to the certain market and is justified by existence of market failures, but on the other hand, those instruments are acting as state barriers for enterprises.

Blocking Private Restrictions

Competition protection international experience is expressed in the most concentrated way in the Treaty of Establishing the European Economic Community (Articles 81-89), which are in force essentially unchanged form from 1958. At the same time a lot has been guided by German law of against the competition restrictions, which itself resounds experience of USA competition policy, starting from Sherman anti-monopoly law. The latter, from 1890 has been base for modern competition policy. Nowadays, there is essentially dominant international consensus in rules of market behavior for enterprise, which expresses in cartel prohibition and control over the cases of abuse of dominant position by entrepreneurs. In treating the market structure (concentration) the main generally known instrument is merger control. Only states with the most strong competition policy (for example USA) can allow the distribution of already acting enterprises.

International experience has been an important factor in designing the Estonian competition law. The first draft law of Estonian Competition Act was in debate in Parliament (this time it was Supreme Council) in 1991. There were taken place also some essential discussion, but the draft was rejected because of near government crisis. By opponents the premature argument of competition law was put forward. It was argued that there is no need for competition protection law before the creation of competition. Authors of the draft (including one here-writer) stressed, that there is a mutual connection and competition law is necessary also to support the competition creation. At that time, the small privatization has been already started and during the time-period, new and in general small private enterprises (private shops) had to exist together with state monopolies. In those conditions the competition law ought to help in fighting against the abuse of dominant economic position and making easier to strike through in the market. The retained industrial and whole sale state monopolies had large opportunities for exploitative and exclusionary behavior when the state price control was abolished in 1991–1992. The competition law including the exploitation and exclusion prohibition could have been here in the right place.

The foreign experts were working on with the Competition law and the first Competition Act came into force in 1993 adopted by *Riigikogu*. In general the law followed international example, nevertheless there were observable also some other important peculiarities:

- Ethics of competition was regulated in the same law with competition freedom, while the same administrative law proceedings were used;
- The mergers control regulation was completely lacking;
- Government formed the state supervision competition agency in its own composition.

Differentiation between **competition ethics** and **freedom** as protection objectives is European tradition. Nevertheless, competition law here before the Second World War was limited to unfair competition regulation only. For example in Germany the respective act (UWG) was adopted in 1896. The same orientation of the unfair

competition act was also in force in Estonia before the Second World War. In many countries (for example in France) the special laws of unfair competition do not exist and the regulation is processed by general norms of civil law. In transition countries (Hungary, Latvia, Lithuania) the unfair competition, similar to Estonia, is regulated with competition restrictions within the framework of one law. The USA law does not distinguish in that clear way, but uses the term *unfair* as for competition as an institution as both for unfair harmful action caused to individual competitors. In Estonia the term *unfair competition* has acquired in mass media synonymous meaning of any kind of competition harm, which is not correct. The problems are connected, but still different in their essence, and using the same term makes analyses and policy turbid. Fortunately, makes the competition act here differentiation – dishonest business activity, which has contradiction with good customs and practices is treated as unfair competition.

In principle, the most important is the legal base for restricting the unfair competition. At the beginning in Estonia, differently from most of other countries, was in use the administrative law approach to the debates which were in their contents civil. Complaints connected to unfair competition formed the major work of Estonian Competition Board. This is for sure one reason why there was less attention paid to competition as an institution problems.

The establishment of the optimal **merger control** is the most complicated both as theoretically as politically. For its main objective it has to avoid the concentration of excess economic power to the hands of few groups, without blocking at the same time the objective using economies of scale as for cost savings as for innovations. The necessity of mergers control has been recognized step-by-step also in developed countries (in EU as known not until year 1989, it means that more than 30 years later the establishment of other competition rules). The mergers control has been caused particular many disputes in small countries. Here under the rise of international competitiveness the policy has been very liberal. Nevertheless even here the development is recognizably moving towards the harmonization with the EU policy. The EU policy itself is objective to continuing criticism.

Of course we cannot forget the peculiarities of small countries and connections with other branches of economic policy, in the first place with the foreign economic policy. It is clear that in open global markets is impossible to apply the same policy as in closed regional markets. There is necessity for differentiated approach to the mergers control. The control is required only there, where the Estonian internal market or some parts of it make up the independent relevant market. Some examples are following.

Already the language barrier may be the natural market obstacle. True, that in case of many goods this obstacle is relatively easy and cheaply to overcome (for example translating the consumer information), but not always. In journalism market it stays permanently very important. Big part of services markets is in its essence the local (retail trade, daily living services etc.), therefore geographically relevant market meaning has even every small town. In this case the market obstacle is essential specialty of the object of utility — it is impossible to produce services for stock neither to transport.

The argument of substitution the movement of goods by the movement of capital is not sufficient to completely abandon the mergers control. Movement of capital (establishment of new newspapers or services enterprise) does not happen instantly, and is related with additional costs of market entry and local monopolies may slow

down the process. In case of small countries also have to be considered that political power is relatively easy to manipulate by economical power. Therefore is better here the additional attention paid to conglomerate mergers.

The own experience and attempt to harmonize with the EU rules has been led to the renewals of the complete competition act even twice — in 1998 and in 2001. The last version is in force from October 1, 2001. There has been renewed several treatments of the problems since 1998:

- The proceeding order of unfair competition has been changed;
- The exemptions for agreements and other coordinated action is regulated in more detail;
- There is added the treatment of special and private rights, natural monopolies (essential facility) and state aid regulation;
- Developed the merger control.

From the former act the treatment problem of the unfair competition has been formally solved, it is processed now in civil law order (§ 53). There we would expect, that Estonian courts will form the substantial case law soon and are enough eager to learn the usage of international experience. Here is still part of open law area in Continental Europe, which is grounded on undefined (soft) notions (for example good practices and customs). Probably there is need for special training program for judges in this area.

The regulation of agreements and coordinated action[1] (new Competition Act Chapter II) meets the European model now. The Act prohibits agreements, concerted practices or decisions of alliances of undertakings, the purpose or result of which is restriction of free competition. Only in case of *de minimis* clause (§ 5 section 2) differentiation between vertical and horizontal cartels exist.[2] The only difference of Estonian Competition Act compare to the EU competition rules[3] in this point is that the enterprises information exchange is directly equalized with coordinated action (§ 4 section 1 point 4). In agriculture non-price cartels are allowed, which are not making harm to the competition essentially (§ 4 section 2).

Exemptions' regulation (Chapter III) is also harmonized. For exemptions from cartel prohibition is not necessary only expected positive economic results from agreement, but also the consumer participation in them and justification of the competition restrictions for achieving those results. The block exemptions are possible, which may introduce by government in proposal of Minister of Economic Affairs and Communications.[4] There is specially pointed out that exemptions do not widen to the enterprises of dominant position and non-competitive markets. (§ 7 section 3). Whole third chapter is dedicated to enacting the procedure of single exemptions in detail.

To define the **dominant position** there are used as quantitative as well qualitative criteria. The important complementing was made to the Competition Act with last

[1] With them are equalized also the decisions of entrepreneur associations.
[2] The less important are the horizontal cartels with market share up to 5% and vertical ones up to 10%.
[3] The Article 81 in Treaty establishing the European Economic Community (EEC).
[4] Four first group exemptions were established with Government act in March 23, 1999. Those were for agreements in franchising, sole selling and sole buying, and selective merchandising systems in automobile market. In 2000 two more group exemptions were established for specializing and UA-agreements.

change[1], which draws the quantitative criterion to the role of landmark. If before, that for fixing the dominant position was sufficient the fact of having 40% of market share, then now it gives only the base for this assumption. Decisive is the possibility of the autonomous activity. The dominant position is not treated as abuse in general, but the abuse of dominant position is what has restrictive effect on the competition. Differently from the first Competition Act, the seven given references do not mark separately the exploitative abuse (for example too high prices). Those need to include under the unfair prices with too low and therefore exclusionary prices. Additionally to the cases of the EU competition rules[2] the concentration compulsion and unfounded refuse of delivery and purchase the goods is called directly the abuse (§ 16 point 5 and 6).

Differently from the second Competition Act (from 1998), where special- and private rights and natural monopolies were treated in separate chapters, the new Competition Act has been collected this topic under the general chapter about enterprise of dominant position. Essentially there is proceeded from the general acknowledge of essential facility doctrine. The new Act contains new provisions that establish limitations and obligations to the activities of an undertaking controlling essential facility.[3]

The **merger control** did not have any direct regulative contents in the Competition Act adopted in 1998.[4] Of course the information obligation is better than nothing, because the collected information was useful for abuse supervision in case of enterprises in dominant position. Still this policy was too narrow. Already, mentioned prohibition of the insisted mergers is not sufficient in the abuse supervision framework. Therefore is logical that mergers control part in Competition Act was renewed essentially (Chapter V).

The terminology was changed. Instead of using notion ‘mergers’ is used the notion ‘concentration’. In the context of business law the merger is only one form of the concentration. Here to be added acquiring dominant influence over the other enterprise or its part. Under the last mentioned there at the first place is understood the independent economic unit or enterprise, which has its own market turnover and therefore the market share. In the Estonian Competition Act a lot of attention has been paid to measuring the turnover, which still is not the most difficult problem of the mergers control. Of course it has to be stated clearly in one sense who should give the information about mergers. The present rule presumes partially the total turnover 500 million EEK in the world, among this at least two partial having the turnover over 100 million and at least one partial or part of its action in Estonia. Much more complicated is giving the appraisal of merger. Merger is prohibited, if it firstly, causes or strengthens a dominant position and secondly, harms the competition significantly.

The objective is to maintain and develop competition. There has to be considered as real as well potential competition, among this market structure and market barriers.

---

[1] This change in law talks first about collective dominant position in the market.
[2] The Article 82 in Treaty establishing the EEC.
[3] The application of doctrine is specified in exclusive laws about the special areas of the competition policy like in the Telecommunication Act, in the Electricity Market Act and the Railway Act. For example the new Railway Act foresees that the total carrier capacity has to be put to the public proceedings by the owner of railway.
[4] The only act enacting opportunity to block the mergers before the new Competition Act was the Act of Credit Organizations, which established the possibility to block banks merger or achieving the essential share. This was under the control of Banking Inspection.

The main criterion is choice options for buyers, suppliers and final consumers. Remarkable is that differently from European Council Act[1] Estonian law does not involve industrial policy reference to consider technological and economical effect, which is usually the main argument or covering shade for mergers. From other problems we may assert contradictions in notion system, which certainly have been decreased compare to the former versions. For example § 1 is connected only to **law regulation area** in protecting of competition and preventing its harming, and removing the damage. This does not cover the regulation of exemption areas. In case of last, there is more to do with substitution of competition, where free entrepreneurship is not possible or reasonable. Invisible hand of market is substituted by visible hand of state (official).[2] Of course there is attempt to minimize the substitution and keep the competition in place as much as possible. Nevertheless it does not change the essence of issue — competition does not solve all economic problems. Also the other institutional mechanisms are necessary.

Also the **goods' (commodity) market** notion (§ 3) is not successfully enough defined. All alone the specification in definition "the area of circulating goods" is causing the problem for economists, because it is more connected with geographical boundaries. Internationally is in use the better (more abstract) notion – relevant market. Relevant market is appropriate from the point of some commodity market problem, geographically and commercially determined part, which covers all real competitors influencing one another. For determination could be the substitution consistency of goods from the point of view opposite side of the market. There the Estonian Competition Act places the buyers in front as opposite side of the market. At the same time, for example an activity of some milk manufacturer may harm the competition in buying up milk, but here the relevant market has to be defined from sellers (farmers) side considering first of all the geographical substitution of dairies as buyers. Potential competition is important as from commodity as well geographical aspects. In some cases it has to be possible to look at international market as relevant market, it means that structure of international market loses its essential meaning. Otherwise we ignore the statements of modern competition theory and imperil the development potential of a small state. Right step has been done here by the last change in the Act, allowing first time to see territory of Estonia (geographical) as a part of goods' market. In those cases the concentration of Estonian international market could not be the competition policy argument.

There is large variety in terms of **competition policy organization** in the international practice. At the same time, in theory has been stressed the partial similarity to monetary policy institution — necessity to protect the long-term economic interests from the daily political problems. Therefore has been often recommended that competition policy body should be relatively independent from executive power.

Looking at the experience of small countries we see the endeavor to separate the investigation of competition law violations from corresponding decision making. At that the decision making body (Competition Council in Finland and Denmark, Cartel Court in Austria) is staffed by participation of parliament, king or president of the country. In Switzerland the social cartel commission formed by parliament has important role. The competition policy bodies have an important role also in some transition countries. In Hungary the President of Competition Board, who is appointed

[1] Here the new Act (139/2004) is in force from May 1, 2004.

[2] The § 17 defines for example *ex ante* price regulation opportunities for the enterprise with essential facility.

by the President of country for six years, is participating in sessions of parliament and government. In Latvia by the law from 1997, the Competition Council from legal person is the supervisory body. The members of the Council are appointed by government for five years, but one government cannot recall the council member appointed by itself. This should help consolidate the independence of decision council. The status of council member is not connected with the parliament membership. Therefore the different methods are used in order to achieve one goal – to protect the independence of competition policy from government daily policy.

In Estonia the **Competition Board** (Figure 1) has unusually weak position in the state structure. It is as usual state board subordinated to the Ministry of Economic Affairs and Communications.[1]

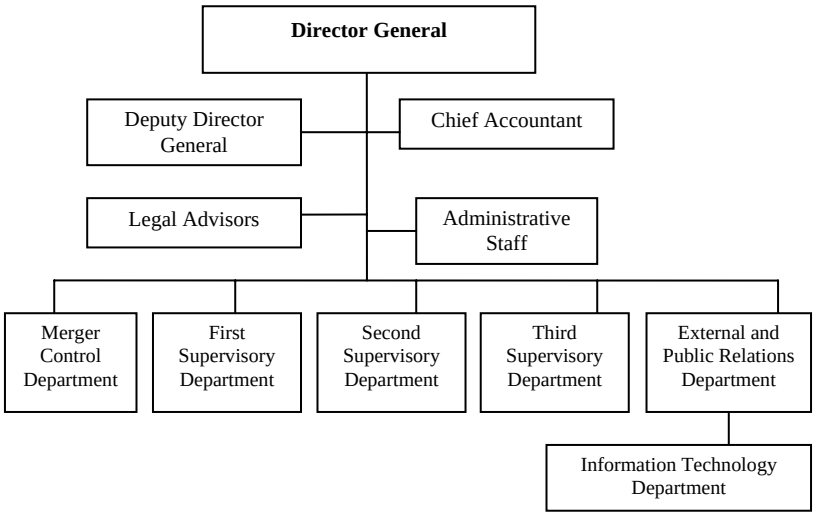

Figure 1. *The Organizational Structure of Estonian Competition Board.*

Probably is that fact reflecting most clearly the understanding that competition policy has second-rate role in small open economy. In authors' opinion the stressing of foreign economic policy cannot lead to underestimation of processes in internal market. Separate problem is also the relation of the Competition Board with state regulators of independent branches of economy. In the international literature there is discussion about the expediency to combine them. Here we can find the arguments from both side as in favor as against. Nevertheless, in small country (especially in transition period) the combining should strengthen the general status of competition policy and administrative capacity. Because all the regulators have at least one common task – control over the dominant enterprise, no matter *ex ante* or *ex post*. The Supervisory Inspection at Bank of Estonia (*Eesti Pank*) could be set an example.

The effectiveness of competition policy also depends on cooperation of executive body and court power. The new Estonian Competition Act foresees new solutions in work allocation between competition board and courts. The Competition Board is responsible for discovery the violation of law.[2] In case of impediment the proceeding

[1] The last change in the Act enacts also the cooperation with European Commission according to the Act of EU Council 1/2003.

[2] In 2003 the Competition Board had enforcement activities concerning enterprises in total number of decisions 71. From which 21 cases were in abuse of dominant position/monopolistic power in the market, 2 cases of cartel agreements, 9 cases on other prohibited (horizontal and vertical) agreements, 39 cases of control of mergers, concentrations and acquisitions.

the Competition Board may make precepts to natural or legal persons. In the failure to comply with a precept the Competition Board may impose a penalty payment (§ 62).[1] The violations of law in contents are looked by last changed law firstly as misdemeanor for which shall be sanctions: for physical person fine or arrest; for legal person fine up to 500 000 EEK. This last one is essentially modest compare to relatively usual rate, which was also in the former versions of Estonian law – up to 10% from previous year turnover. At the same time, there is complemented also criminal procedure, which gives first time the possibility to take criminal liability natural person, who are in fault in impairing the competition if there has been applied the punishment for the same misdemeanor before. The sanctions are in form of the fines or up to 3 years imprisonment. Though it is Estonian peculiarity at the first place and there is no hurry to cancel it as the competition board pursues, because the discussion continues at European level.

Competition Creation in Exceptional Spheres — Regulation and Deregulation

The competition replacement with public regulation is economically reasonable only in exceptional areas and even here, only in essence of natural monopolies, for example different supplying and distribution networks. Still, there is need to point out, that it concerns only managing the essence of monopoly – the networks, but it does not apply to their operating. Also the technological progress is capable to undermine the essence of natural monopolies as the mobile communication progress shows.

In Estonia the corresponding law is in developing phase. The general framework here is designed by Competition Act Chapter IV. The §14 and 15 from the Chapter IV define the owner's essential facility accordingly the exclusive and sole rights, including the owner of the natural monopoly. There are also adopted the several exclusive rights as following: Energy Act regulating the fuel and energy sector (1997, reformed as Electricity Market Act in 2003), Railway Act (1999, renewed version from 2003 is in force from 31.03.2004), Cable Communication (1999) and also the general Telecommunication Act (2000).

In the Competition Act the natural monopoly is observed as the base for dominant position. The natural monopoly is connected with property rights concerning the particular network or infrastructure, which is impossible or unreasonable to duplicate, but without to the access to it there is no opportunity to operate in particular market. In such situation government and local governments have right to price control, it is "because the consumers of particular companies product or sellers to those companies cannot fall the essentially worse situation compare to the situation, when the free competition is in place in the particular sector" (§ 17). In theory the described approach is known 'just-as-conception'. Therefore the invisible hand of market is replaced by visible hand of state. The Act formulates also the main obligations of the monopolists (§ 18):

- Guaranteeing the access to the networks and infrastructure in reasonable and non-discriminative conditions in order to supply or sell the products;
- Guaranteeing the transparency in accounting.

Already the first Estonian Energy Act (RT I 1998, 71, 1201) met the principles of the European Union Internal Electricity Market first Directive (currently is in force the

[1] For natural person up to 50 000 and for legal person 100 000 EEK.

second Directive 2003/54/EU) and envisaged the obligations for network enterprises in terms of technical opportunities:

- Enable the direct connections between the producers and consumers;
- Offer the distribution services;
- Allow the accession with network.

Furthermore, the network enterprises we treated as been in dominant position in terms of the Competition Act, and there was envisaged the opportunity for price control and for that the necessary transparency in accounting. Practically the same principles are stated also by the new Electricity Market Act (RT I 2003, 25,153), but it is done by the regulation which is essentially detailed. Therefore, the Act is less transparent and carries more the sign of lobby work done by Estonian electricity monopoly - '*Eesti Energia*'.

For Estonia has given the exception in opening up the electricity market in the EU accession treaty until year 2012, because of the protection oil-shale energy interests. Nevertheless, the technical preparedness for the opening up the electricity market is lacking in the previous EU member states as well. At the same time, it will be clear, does it serve the electricity import or export interests, because the adjustment of oil-shale energy prices concerning the strict EU environmental rules is still in process. The current act in force gives the right to choose the electricity deliverer in so-called free-consumers (consumption overcomes 40 GWh per year) until year 2009. From 2009, the free-consumer rights for major consumers will be guaranteed in a way, that their total consumption will make up at least 35% of the total amount of the market. Taking account the EU efforts for the opening up the electricity market in general, we may anticipate the pressure to Estonia for the acceleration of its electricity market opening process. The similar parallel has been shown through the hints to possible fines in case of delaying with regulation concerning the Estonian gas market.

In implementing the network charges Estonia follows the requirements of corresponding EU Directive (concerning the reconciliation and disclosure of prices *ex ante*). At the same time, the price regulation in general is stricter. New Estonian Energy Act (§ 75) requires besides the network charges to reconcile also the prices of electricity and its raw material and oil-shale prices with the Energy Market Inspection. It is probably inevitable until the real opening of the electricity market. In special literature, there has been opined, that state *ex ante* regulation of electricity prices will turn inessential even in case of small-scale consumers. This change assumes also progress in measurement technology in addition to opening the markets. Then analogically to telecommunication market, there is not any more in the first place the task of regulating the electricity prices by state, so far as the task of regulating charges of deliverer change.

The main problem still stays in network charges regulation or supervision in the future as well. Currently the EU Energy Act § 70 envisage not only three types of charges (accession charges, charges of using the network connection and charges of forwarding), but also the opportunities for their differentiation (essentially price discrimination). Taking into account information asymmetry in favor of network enterprise, it stands as an extremely difficult task for Energy Market Inspection.

Herewith the preconditions for privatization of fuel- and energy sector are created – there is regulation mechanism replacing the competition. Unfortunately, the privatization process failed at the beginning of year 2000, because of poor (non-

competitive) management of the process and political opposition. Those, who were against the privatization process, ignore opinions of political economy (especially capture theory). According to theory, the state agencies, which control monopolies tend to represent more the interests of enterprises compare to consumers interests. This hazard is major particularly concerning the state monopolies by nowadays' concept. It is because here the enterprise leaders have more connections with politicians than in case of private enterprises. Of course, the additional saving motives and advantages for effective action from that are used better in private enterprises.

Differently from Energy Act, tries the Competition Act to stress another neutralizing mechanism of natural monopolies: replace the 'competition in market' with the 'competition for market'. For that purpose the monopoly has to give in open offering according to the public procurement law (RT I 1995, 54, 883: 1996, 49, 953). In principle the idea is correct, but can not be the remedy in overall. The investments may give the advantage to those participants, who already are in the market longer time and who do not have to worry about cost-effectiveness of their investments and also get the better price offers in general.

When in energy sector the regulation has been functioning relatively steady (discontent is connected with the privatization), then much more criticized sector is telecommunication. The first object of criticism has been the cable communication law (RT I 1999, 25, 364). Here the local governments were allowed to divide their territories as the market shares for which the Communication Agency gave one or several permissions of cable TV. The one permission was issued in case, if the applicant engaged to offer the telephony service as well. Such opportunity for local monopoly provoked arguments against. There was the situation, where competition in one particular market (cable TV) was contributed because of another competition in telephony service market (even more important market).

The followed Telecommunication Act (RT I 2000, 18, 116) points out rather the supervision over the enterprises which have essential market power in telecommunication market. The attribute of the essential market power is 25% of market share. If the market share is more that 40%, then the corresponding articles of the Competition Act are applied. It is not obvious, why mobile communication market needs such special regulation, especially taking into account the highly concurrent oligopolistic market structure. In authors' opinion, there is enough implementing the regulation of enterprise in dominant position.

Also in the railway sector, the deregulation has been bringing up conflicts between the market participants. Especially, concerned is the former monopoly '*Eesti Raudtee*' who is the owner of the infrastructure, because it lost the control over the railway transport service market. The new Railway Act is more radical compare to the first one, which required that '*Eesti Raudtee*' has to give to other enterprises 25% of infrastructure capacity. Because of the vertical integration of '*Eesti Raudtee*' the transport service market is managed by Railway Inspection at current time, whereby the total amount of transportation is given to the open competition. There the '*Eesti Raudtee*' has to compete with others in the equal conditions.

State Aid

State support to enterprises is very common economic policy instrument. The issue is crucial topic also in Lisbon process started in 2000. At the same time, thereby it is

easy to evoke competition distortions. This contradiction is reflected also in State aid regulation in the EEC Treaty (Article 87). From one side, the State aid is declared to be in contrary with common market in general, from other side, there has been established a large number of exemptions. This regulation has been established as well in Estonian law though the EEC Treaty, the more after Estonia became the Member State of the EU.

European rules about State aid are included in new Estonian Competition Act (Ch VI). From 2004, Estonian law often indicates to the EEC Treaty. State aid is allowed only on the base of written permit from European Commission, excluding area covered by block exemption. In this case there has to be submitted required information to European Commission, which improves appropriateness of State aid with group exemption. Under the State aid is recognized also the aid given by local municipalities and also by public and legal persons in private rights if they are public enterprises (§ 31) and have the following attributes:

- using the public resources or
- are under the public control.

In the EU practice, from 1990ties, is the ongoing process from sectoral subsidies of structural policy to horizontal State aid, which is supporting economic growth and competition. Also the Supreme Councils of Lisbon and Stockholm established the general task to reduce the State aid.[1]

On the base of this development we may evaluate the entrepreneurship support in Estonia. Most of the sectoral endowments were eliminated (for example for articles of food) already in the first years of transition. In some areas (housing economy) there has been shift from producer subsidies to consumer support. The subsidies have retained for public transport and agriculture. The statistics about State aid usually do not cover the agriculture (Table 1). Recent fluctuations in years before joining the EU are mainly refer with compensation of natural disasters, subsidies of investment and tax allowance.

Table 1. *Agricultural Subsidies in Estonia in 2001–2003, million EEK (Source: Ministry of Agriculture Republic of Estonia)*

Subsidy	2001	2002	2003
Income subsidies, including	227.0	329.5	263.4
- dairy herd subsidy	110.9	109.9	110.0
- grain subsidy	110.3	109.9	109.9
- other income subsidies	5.8	8.7	43.5
- compensation of natural damage	-	101.0	-
Subsidies for development	70.6	233.5	83.6
- subsidy for investment	6.1	162.6	-

[1] The areas which are consider as perspective are :

- Support for SMEs;
- Regional aid for better use in development preconditions,
- Support for research and development activities.

Exemptions exist in agriculture and transport and temporarily in ship construction and mining industry (first of all in social reasons). Here the special conditions in use are also valid for Estonia. Accordingly to European Commission data the State aid in the EU has been reduced from 67 billion euro in 1997 to 49 billion in 2002. In 2002 73% of the aid was directed to horizontal objectives, in some states even 100%.

General subsidies	33.6	31.3	38.0
Other subsidies	68.0	68.0	-
Total	331.2	594.3	385.0

At the same time, in Estonia was established the support system for entrepreneurship orientated to economic growth and competition. This system consists of several state and private institutions.[1] In 1999 the government started the reorganization of support system for entrepreneurship in order to increase its effectiveness. For nowadays most of former institutions are combined in two foundations in the jurisdiction of the Ministry of Economic Affairs and Communications:[2]

- Enterprise Estonia (*Ettevõtluse Arendamise Sihtasutus*) and
- Estonian Credit and Export Guarantee Fund, KredEx (*Krediidi ja Ekspordi Garanteerimise Sihtasutus*).

There has been given up from loans on favorable terms because the commercial banking is developed enough and the activities are more focused on guarantees, which is the main problem for small entrepreneurship. Unfortunately, there still exist administrative barriers and because of that we cannot talk about integral and complete support system for entrepreneurship. Also there is not still in place any state institution offering necessary venture capital.[3]

In the EU State aid regulation there is stated that the Member State has to inform the Commission about State aid given in every year. In Estonia the Ministry of Finance is responsible for regularity of Sate aid. In the report the differentiation is made between horizontal, sectoral and regional aid and the following forms of aid are present: subsidies, tax allowances, loans on favorable terms, increasing of capital stock, tax shifting and guarantees (table 2). There is not observed the aid for the agriculture and fishery.

In 1999 the main given forms of aid were regional aid and aid for trade. The first of them was connected first of all with income tax allowance for investments outside of Tallinn (the capital region) and Harju County (the neighbouring area to the capital city), the second of them was connected with income tax allowance for enterprises with foreign ownership. Both were in force in 1999 as last year, because of that the statistical figure of the State aid is essentially lower from year 2000.

[1] The first support institution by state was the Estonian Innovation Fund, which was established already in 1991. The private institutions were established with foreign capital, for offering the venture capital, for example Baltic American Entrepreneurship Fund established in 1995 or Baltic Small Capital Fund established in 1997.

[2] In the counties the partners for the two institutions there are Entrepreneurship Centers, combination like this forms the support system for entrepreneurship. Separately is acting the Foundation for Rural Development.

[3] The European Commission indicates the Member States measures supporting the offer of the venture capital looking through the corresponding State aid rules ("The Action Plan: European Agenda of the Entrepreneurship Initiative", February 11, 2003).

Table 2. *State Aid in Estonia, in 1999–2002*
(Source: Ministry of Finance Republic of Estonia)

FORM	1999		2002	
	Million EEK	**%**	**Million EEK**	**%**
Subsidies	393.4	35.4	584.3	95.7
Tax allowances	714.6	64.3		
Tax shifting	3.7	0.3		
Loan on favorable terms			0.5	0.07
Guarantee			26.1	4.3
Total	1111.8	100.0	610.8	100.0

Though the total amount of the State aid increased in year 2002 11 per cent compare to the year 2001, but it was still two times less compare the level of the year 1999. The share of the State aid in GDP is in Estonia stable 0.5 – 0.6 %, in the EU respectively approximately 1%. The difference *per capita* is even larger: in Estonia 29 € in 2002 and in the EU 240 € in years 1997 to 1999. At the same time, the share of the State aid in the final consumption costs of governance sector is higher in Estonia. The main focus of the State aid has been the transport sector (table 3). The rest of the sectoral State aid from its direction may considered as out of danger from point of view the competition policy, for horizontal and regional aid respectively 7.5 % and 12 % and for the problematic vertical aid 6 %. Still we can find the EU Member States where the whole State aid has horizontal direction (Denmark, Greece).

Table 3. *State Aid by Sectors of Economy in Estonia in 2000-2002, %*
(Source: Ministry of Finance Republic of Estonia)

Sector	**2000**	**2001**	**2002**
Industry	9.75	18.55	19.53
Services	6.46	4.47	6.01
Transport	83.79	76.98	74.46
Total	100	100	100

Conclusion

Estonian competition policy has evolved within the process of the country's integration into the EU. Therefore consideration of Estonia's actual needs is closely intertwined in it with formal imitation and harmonization. The latter phenomena, however, are not peculiar to Estonia alone. On the contrary, they are characteristic of all Europe, and to some extent of the whole world. Concurrently with the globalization of economy, competition policies are being harmonized.

However, in the course of time, Estonian competition policy has undergone a process of independent learning. The present article points out the peculiarities deriving from it. One of the most reasonable results among them seems to be the institutional division of labor between the executive and judicial powers, which is rational in the conditions of a small country. At the same time, together with the growth of its competence and administrative capacity, the status of the Competition Board (*Konkurentsiamet*) in society must also improve. We believe that after accession it will be greatly boosted by collaboration with the European Commission, for in the EU, competition policy is one of the main areas of economic policy.

Furthermore, EU competition policy will provide a coherent framework for Estonian government's more active interference in economy, including interference in industrial policy. Monitoring the State aid will safeguard control over possible political games in favor of certain economic groupings. Estonia should also take advantage of all the legal and monetary opportunities that are made available by the EU for the development of entrepreneurship. Among the issues awaiting attention are, for instance, those related to venture capital.

References

Baldwin, R.; Cave, M. (1999). Understanding Regulation. Theory, Strategy, and Practice. Oxford, Oxford University Press.

Doing Business in 2004. Understanding Regulation. (2004). A co-publication of the World Bank, the International Finance Corporation, and Oxford University Press.

Doing Business in 2005. Removing Obstacles to Growth. (2005). A co-publication of the World Bank, the International Finance Corporation, and Oxford University Press.

Doing Business in 2006. Creating Jobs. (2005). A co-publication of the World Bank, the International Finance Corporation, and Oxford University Press.

Dutz, M.; Vagliasindi, M. (2000). Competition Policy Implementation in Transition Economies. *European Economic Review*. Vol. 44, pp. 762-772.

Estrin, S.; Cave, M. (1993). *Competition and Competition Policy: A Comparative Analysis of Central and Eastern Europe.* London, New York. Pinter.

Jordana, J.; Levi-Faur, D. The Politics of Regulation. Institutions and Regulatory Reforms for the Age of Governance. *The politics of regulation in the age of governance*. Cheltenham, Northampton. Edward Elgar.

Hertog, d. J. (1999). General Theories of Regulation. Encyclopedia of Law and Economics, no. 5000, Edward Elgar, Cheltenham, 2000, pp. 223-271.

Fingelton, J.; Fox, E.; Neven, D.; Seabright, P. (1996). *Competition Policy and the Transformation of Central Europe*. London, Centre for Economic Policy Research.

Fisher, D. (2000). *Aufbau einer Wettbewerbsordnung im Transformation.* Baden-Baden.

Godek, P. (1998). A Chicago-school approach to antitrust for developing economies. *Antitrust Bulletin.* Pp. 261-274.

Hoag, J; Kasoff, M. (1999). Estonia in Transition. – *Journal of Economic Issues.* Vol. 33, pp. 919-931.

OECD. (1999). *Competition Law and Policy in the Baltic Countries.*

Schaffer, M. E. (1993). Regulation, Competition Policy and Economic Growth in Transition Economies. In: Estrin, S.; Cave, M. *Competition and Competition Policy: A Comparative Analysis of Central and Eastern Europe*. London, New York, Pinter.

Sepp, J. (2000). Wettbewerb und Wettbewerbspolitik in Estland als Voraussetzung des EU-Beitritts. In: *Erweiterung und Vertiefung der Europäischen Union*. Baden-Baden, Nomos Verlagsgesellschaft, pp. 169-179.

Stockmann, K. (1993). Competition Policy in Transition: The Issues. In: Estrin, S.; Cave, M. *Competition and Competition Policy: A Comparative Analysis of Central and Eastern Europe.* London, New York, Pinter.

Stotyka, Y. The role of the Antimonopoly Committee in the development of competition in Ukraine. [http://www.joensuu.fi/taloustieteet/ott/scandale/tarto/papers/]

Sturm, R.; Dieringer, J; Muller, M.M. (2001). *Rediscovering Competition: Competition Policy in East Central Europe in Comparative Perspective*. Budapest, HVGORAC.

The OECD Report on Regulatory Reform.
http://www.oecd.org/subject/regreform/products/report.htm

Wrobel, R. (2000). Estland und Europa. Die Bedeutung des Systemwettbewerbs für die Evolution und Transformation von Wirtschaftssystemen. Tartu, Tartu University Press.

Bisher erschienen:

Diskussionspapiere der Fächergruppe Volkswirtschaftslehre

- Sepp, Juri & Diana Eerma, Developments of the Estonian Competition Policy in the Framework of Accession to the European Union, No 45 (January 2006).
- Kruse, Jörn, Zugang zu Premium Content, Nr. 44 (Dezember 2005).
- Dewenter, Ralf & Jörn Kruse, Calling Party Pays or Receiving Party Pays? The Diffusion of Mobile Telephony with Endogenous Regulation, No 43 (November 2005).
- Schulze, Sven, An Index of Generosity for the German UI-System. No.42 (October 2005).
- Bühler, Stefan, Ralf Dewenter & Justus Haucap, Mobile Number Portability in Europe, No. 41 (August 2005).
- Meyer, Dirk, Manuskriptstaus behindern den Wissenschaftsbetrieb: Zur Möglichkeit von Einreichungsgebühren, Autorenhonoraren und Gutachterentgelten, Nr. 40 (Juni 2005).
- Carlberg, Michael, International Monetary Policy Coordination, No. 39 (March 2005).
- Zimmermann, Klaus W. & Reto Schemm-Gregory, Eine Welt voller Clubs, Nr. 38 (März 2005), erscheint in: *Zeitschrift für Wirtschaftspolitik.*
- Hackmann, Johannes, Die Bestimmung der optimalen Bevölkerungsgröße als (wirtschafts-) ethisches Problem, Nr. 37 (März 2005).
- Josten, Stefan Dietrich, Middle-Class Consensus, Social Capital and the Mechanics of Economic Development, No. 36 (January 2005).
- Dewenter, Ralf & Ulrich Kaiser, Anmerkungen zur ökonomischen Bewertung von Fusionen auf dem Printmedienmarkt, Nr. 35 (Januar 2005).
- Göbel, Markus & Tobias Thomas, Informal Institutions and the "Weaknesses" of Human Behavior, No. 34 (January 2005).
- Dewenter, Ralf & Justus Haucap, Estimating Demand Elasticities for Mobile Telecommunications in Austria, No. 33 (Dezember 2004).
- Meyer, Dirk, Die Entmachtung der Politik: Zur Frage der Überlebensfähigkeit demokratischer Nationalstaaten in einer globalisierten Weltwirtschaft, Nr. 32 (Dezember 2004).
- Josten, Stefan Dietrich & Klaus W. Zimmermann, Unanimous Constitutional Consent and the Immigration Problem, No. 31 (Dezember 2004), erscheint in: *Public Choice*.
- Bleich, Torsten, Importzoll, Beschäftigung und Leistungsbilanz: ein mikrofundierter Ansatz, Nr. 30 (September 2004).
- Dewenter, Ralf, Justus Haucap, Ricardo Luther & Peter Rötzel, Hedonic Prices in the German Market for Mobile Phones, No. 29 (August 2004).
- Carlberg, Michael, Monetary and Fiscal Policy Interactions in the Euro Area, No. 28 (März 2004).
- Dewenter, Ralf & Justus Haucap, Die Liberalisierung der Telekommunikationsbranche in Deutschland, Nr. 27 (März 2004), erschienen in: *Zeitschrift für Wirtschaftspolitik* 53, 2004, 374-393.

- Kruse, Jörn, Ökonomische Konsequenzen des Spitzensports im öffentlich-rechtlichen und im privaten Fernsehen, Nr. 26 (Januar 2004).
- Haucap, Justus & Jörn Kruse, Ex-Ante-Regulierung oder Ex-Post-Aufsicht für netzgebundene Industrien?, Nr. 25 (November 2003), erschienen in *Wirtschaft und Wettbewerb* 54, 2004, 266-275.
- Haucap, Justus & Tobias Just, Der Preis ist heiß. Aber warum? Zum Einfluss des Ökonomie-studiums auf die Einschätzung der Fairness des Preissystems, Nr. 24 (November 2003), erschienen in *Wirtschaftswissenschaftliches Studium* (*WiSt*) 33 (9), 2004, 520-524.
- Dewenter, Ralf & Justus Haucap, Mobile Termination with Asymmetric Networks, No. 23 (October 2003), erscheint in: *European Journal of Law and Economics* 20, 2005.
- Dewenter, Ralf, Raising the Scores? Empirical Evidence on the Introduction of the Three-Point Rule in Portugese Football, No. 22 (September 2003).
- Haucap, Justus & Christian Wey, Unionisation Structures and Innovation Incentives, No. 21 (September 2003), erschienen in: *The Economic Journal* 114, 2004, C145-C165.
- Quitzau, Jörn, Erfolgsfaktor Zufall im Profifußball: Quantifizierung mit Hilfe informations-effizienter Wettmärkte, Nr. 20 (September 2003).
- Reither, Franco, Grundzüge der Neuen Keynesianischen Makroökonomik, Nr. 19 (August 2003), erschienen in: *Jahrbuch für Wirtschaftswissenschaften* 54, 2003, 131-143.
- Kruse, Jörn & Jörn Quitzau, Fußball-Fernsehrechte: Aspekte der Zentralvermarktung, Nr. 18 (August 2003).
- Bühler, Stefan & Justus Haucap, Mobile Number Portability, No. 17 (August 2003), erschienen in: *Journal of Industry, Competition and Trade* 4, 2004, 223-238.
- Zimmermann, Klaus W. & Tobias Just, On the Relative Efficiency of Democratic Institutions, No. 16 (July 2003).
- Bühler, Stefan & Justus Haucap, Strategic Outsourcing Revisited, No. 15 (July 2003), erscheint in *Journal of Economic Behavior and Organization*, 2005.
- Meyer, Dirk, Die Energieeinsparverordnung (EnEV) - eine ordnungspolitische Analyse, Nr. 14 (Juli 2003).
- Zimmermann, Klaus W. & Tobias Thomas, Patek Philippe, or the Art to Tax Luxuries, No. 13 (June 2003).
- Dewenter, Ralf, Estimating the Valuation of Advertising, No. 12 (June 2003).
- Otto, Alkis, Foreign Direct Investment, Production, and Welfare, No. 11 (June 2003).
- Dewenter, Ralf, The Economics of Media Markets, No. 10 (June 2003).
- Josten, Stefan Dietrich, Dynamic Fiscal Policies, Unemployment, and Economic Growth, No. 9 (June 2003).
- Haucap, Justus & Tobias Just, Not Guilty? Another Look at the Nature and Nurture of Economics Students, No. 8 (June 2003).
- Dewenter, Ralf, Quality Provision in Interrelated Markets, No. 7 (June 2003).

- Bräuninger, Michael, A Note on Health Insurance and Growth, No. 6 (June 2003).
- Dewenter, Ralf, Media Markets with Habit Formation, No. 5 (June 2003).
- Haucap, Justus, The Economics of Mobile Telephone Regulation, No. 4 (June 2003).
- Josten, Stefan Dietrich & Achim Truger, Inequality, Politics, and Economic Growth. Three Critical Questions on Politico-Economic Models of Growth and Distribution, No. 3 (June 2003).
- Dewenter, Ralf, Rational Addiction to News?, No. 2 (June 2003).
- Kruse, Jörn, Regulierung der Terminierungsentgelte der deutschen Mobilfunknetze?, Nr. 1 (Juni 2003).

Frühere Diskussionsbeiträge zur Wirtschaftspolitik

- Bräuninger, Michael & Justus Haucap, Das Preis-Leistungs-Verhältnis ökonomischer Fachzeitschriften, Nr. 120 (2002), erschienen in: *Schmollers Jahrbuch* 123, 2003, S. 285-305.
- Kruse, Jörn, Competition in Mobile Communications and the Allocation of Scarce Resources: The Case of UMTS, Nr. 119 (2002), erschienen in: Pierrre Buigues & Patrick Rey (Hg.), *The Economics of Antitrust and Regulation in Telecommunications*, Edward Elgar: Cheltenham 2004.
- Haucap, Justus & Jörn Kruse, Predatory Pricing in Liberalised Telecommunications Markets, Nr. 118 (2002), erschienen in: Christian von Hirschhausen, Thorsten Beckers & Kay Mitusch (Hrsg.), *Trends in Infrastructure Regulation and Financing*, Edward Elgar: Cheltenham 2004, S. 43-68.
- Kruse, Jörn, Pay-TV versus Free-TV: Ein Regulierungsproblem?, Nr. 117 (2002), erscheint in: Mike Friedrichsen (Hg.), *Kommerz - Kommunikation - Konsum. Zur Zukunft des Fernsehens in konvergierenden Märkten*, 2003.
- Kruse, Jörn, Regulierung der Verbindungsnetzbetreiberauswahl im Mobilfunk, Nr. 116 (2002), als Kurzform erschienen in: *Multimedia und Recht*, Januar 2003, S. 29-35.
- Haucap, Justus & Jörn Kruse, Verdrängungspreise auf liberalisierten Telekommunikationsmärkten, Nr. 115 (2002), erschienen in: *Perspektiven der Wirtschaftspolitik* 5, 2004, 337-361.
- Haucap, Justus & Helmmar Schmidt, Kennzeichnungspflicht für genetisch veränderte Lebensmittel: Eine ökonomische Analyse, Nr. 114 (2002), erschienen in: *Zeitschrift für Wirtschaftspolitik* 53, 2002, S. 287-316.
- Kruse, Jörn & Jörn Quitzau, Zentralvermarktung der Fernsehrechte an der Fußball-Bundesliga, Nr. 113 (2002), erschienen in: *Zeitschrift für Betriebswirtschaft, Ergänzungsheft zur Sportökonomie*, 2002, S. 63-82.
- Kruse, Jörn & Justus Haucap, Zuviel Wettbewerb in der Telekommunikation? Anmerkungen zum zweiten Sondergutachten der Monopolkommission, Nr. 112 (2002), erschienen in: *Wirtschaftsdienst* 82, 2002, S. 92-98.

- Bräuninger, Michael & Justus Haucap, What Economists Think of Their Journals and How They Use Them: Reputation and Relevance of Economics Journals, Nr. 111 (2002), erschienen in *Kyklos* 56, 2003, S. 175-197.
- Haucap, Justus, Telephone Number Allocation: A Property Rights Approach, Nr 110 (2001), erschienen in: *European Journal of Law and Economics* 15, 2003, S. 91-109.
- Haucap, Justus & Roland Kirstein, Government Incentives when Pollution Permits are Durable Goods, Nr. 109 (2001), erschienen in: *Public Choice* 115, 2003, S. 163-183.
- Haucap, Justus, Konsum und soziale Beziehungen, Nr. 108 (2001), erschienen in: *Jahrbuch für Wirtschaftswissenschaften* 52, 2001, S. 243-263.
- Bräuninger, Michael & Justus Haucap, Was Ökonomen lesen und schätzen: Ergebnisse einer Umfrage, Nr. 107 (2000), erschienen in: *Perspektiven der Wirtschaftspolitik* 2, 2001, S.185-210.
- Haucap, Justus, Uwe Pauly & Christian Wey, Collective Wage Setting When Wages Are Generally Binding: An Antitrust Perspective, Nr. 106 (2000), erschienen in: *International Review of Law and Economics* 21, 2001, S. 287-307.
- Haucap, Justus, Selective Price Cuts and Uniform Pricing Rules in Network Industries, Nr. 105 (2000), erschienen in: *Journal of Industry, Competition and Trade* 3, 2003, 269-291.
- Bräuninger, Michael, Unemployment Insurance, Wage Differentials and Unemployment, Nr. 104 (2000) erschienen in: *Finanzarchiv* 75, 2000, S. 485-501.
- Kruse, Jörn, Universaldienstlast etablierter Postunternehmen, Nr. 103 (2000) erschienen in: *Zeitschrift für Betriebswirtschaft*, Ergänzungsheft 3, 2002, S. 99-117.
- Kruse, Jörn, Sportveranstaltungen als Fernsehware, Nr. 102 (2000) erschienen in: Schellhaaß, Horst-Manfred (Hg.), *Sportveranstaltungen zwischen Liga- und Medien-Interessen*, Hofmann: Schorndorf 2000, S. 15-39.

Frühere Diskussionsbeiträge aus dem Institut für Theoretische Volkswirtschaftslehre

- Bräuninger, Michael, Social Capital and Regional Mobility, Nr. 4/2002.
- Schäfer, Wolf, EU-Erweiterung: Anmerkungen zum Balassa-Samuelson-Effekt, Nr. 3/2002, erschienen in: Stefan Reitz (Hg.): *Theoretische und wirtschaftspolitische Aspekte der internationalen Integration*, Duncker & Humblot: Berlin 2003, S. 89-98.
- Bräuninger, Michael, The Budget Deficit, Public Debt and Endogenous Growth, Nr. 2/2002.
- Rösl, Gerhard, Die Umverteilung der Geldschöpfungsgewinne im Eurosystem: Das Earmarking-Verfahren seit dem 1.1.2002, Nr. 1/2002, als Kurzform erschienen in: *Wirtschaftsdienst* 82, 2002, S.352-356.
- Schniewindt, Sarah, Two-Way Competition in Local Telecommunication Networks, Nr. 2/2001.
- Reither, Franco, Optimal Monetary Policy when Output Persists: On the Equivalence of Optimal Control and Dynamic Programming, Nr. 1/2001.

- Schäfer, Wolf, MOEL-Wechselkursarrangements, Nr. 1/2000, erschienen in: Günther Engel & Peter Rühmann (Hg.): *Geldpolitik und Europäische Währungsunion*, Göttingen 2000, S. 217-228.
- Heppke, Kirsten, On the Existence of the Credit Channel in Poland, Nr. 8/1999.
- Bräuninger, Michael, Unemployment and International Lending and Borrowing in an Overlapping Generations Model, Nr. 8/1999.
- Henning, Andreas & Wolfgang Greiner, Organknappheit im Transplantationswesen - Lösungsansätze aus ökonomischer Sicht, Nr. 7/1999.
- Chung, Un-Chan, East Asian Economic Crisis - What is and What Ought to be Done: The Case of Korea, Nr. 6/1999, erschienen in: *Research in Asian Economic Studies* 10, 2002, S. 93-121.
- Carlberg, Michael, Europäische Währungsunion: Der neue Policy Mix, Nr. 5/1999, erschienen in *Wirtschaftswissenschaftliches Studium (WiSt)* 29(1), 2000, S. 8-13.
- Carlberg, Michael, European Monetary Union: The New Macroeconomics, Nr. 4/1999, erschienen in: Gerhard Rübel (Hg.), *Real and Monetary Issues of International Economic Integration*, Duncker & Humblot: Berlin 2000, S. 155-175.
- Bräuninger, Michael & J.-P. Vidal, Private versus Financing of Education and Endogenous Growth, Nr. 3/1999, erschienen in: *Journal of Population Economics* 13, 2000, S. 387-401.
- Reither, Franco, A Monetary Policy Strategy for the European Central Bank, Nr. 2/1999 erschienen in: Rolf Caesar & Hans-Eckart Scharrer (Hg.), *European Economic and Monetary Union: Regional and Global Challenges*, Nomos Verlag: Baden-Baden 2001, S. 213-226.
- Bräuninger, Michael, Wage Bargaining, Unemployment and Growth, Nr. 1/1999 erschienen in: *Journal of Institutional and Theoretical Economics* 156, 2000, S. 646-660.

Frühere Diskussionsbeiträge zur Finanzwissenschaft

- Josten, Stefan, Crime, Inequality, and Economic Growth. A Classical Argument for Distributional Equality, 2002, erschienen in: *International Tax and Public Finance* 10, 2003, S. 435-452.
- Zimmermann, Klaus W. & Tobias Thomas, Öffentliche Güter, natürliche Monopole und die Grenze marktlicher Versorgung, 2002, erschienen in: *Wirtschaftswissenschaftliches Studium (WiSt)* 32, 2003, S. 340-344.
- Holm-Müller, Karin & Klaus W. Zimmermann**,** Einige Anmerkungen zur Internalisierungsstrategie mit dem produktorientierten Konzept der Pigousteuer, 2002, erschienen in: *Zeitschrift für Umweltpolitik und Umweltrecht* 25, 2002, S. 415-420.
- Josten, Stefan, Nationale Schuldenpolitik in der EWU, 2002, erschienen in: *Wirtschaftsdienst* 82, 2002, S. 219-225.
- Hackmann, Johannes, Der Sonderabgabenbezug nach dem Lebenspartnerschaftsergänzungsgesetz, 2002, erschienen in: *Wirtschaftsdienst*, 82, 2002, S. 241-248.
- Josten, Stefan, Das Theorem der Staatsschuldneutralität. Eine kritisch-systematische Rekonstruktion, 2001, erschienen in: *Jahrbuch für Wirtschaftswissenschaften* 53, 2002, S. 180-209.

- Zimmermann, Klaus W.**,** Komplikationen und Fallstricke in der Pigou-Analyse von Externalitäten, 2001, erschienen in: *Jahrbuch für Wirtschaftswissenschaften* 53, 2002, S. 245-267
- Josten, Stefan, National Debt in an Endogenous Growth Model, 2001, erschienen in: *Jahrbuch für Wirtschaftswissenschaften* 53, 2002, S. 107-123.
- Hackmann, Johannes, Vom Ehegattensplitting zum Partnerschaftssplitting?, 2001, erschienen in: Volker Arnold (Hg.), *Wirtschaftsethische Perspektiven VI*, Schriften des Vereins für Sozialpolitik 228/VI, Ducker & Humblot: Berlin 2002, S. 189-222.
- Zimmermann, Klaus W. & Tobias Just, Politische Glaubwürdigkeit und der Euro: Eine verfassungsökonomische Perspektive, 2000, erschienen in: Fritz Söllner & Arno Wilfert (Hg.), *Die Zukunft des Steuer- und Sozialstaates*, Physica Verlag 2001, S. 373-397.
- Josten, Stefan, National Debt, Borrowing Constraints, and Human Capital Accumulation in an Endogenous Growth Model, 2000, erschienen in: *FinanzArchiv* 58, 2001, S. 317-338.
- Zimmermann, Klaus W. & Tobias Just, The Euro and Political Credibility in Germany, 2000, erschienen in: *Challenge* 44, 2001, S. 102-120
- Josten, Stefan, Public Debt Policy in an Endogenous Growth Model of Perpetual Youth, 1999, erschienen in *FinanzArchiv* 57, 2000, S. 197-215.
- Zimmermann, Klaus W., Internalisierung als Nirwana-Kriterium der Umweltpolitik, 1999, erschienen in: Kilian Bizer, Bodo Linscheidt & Achim Truger (Hg.), *Staatshandeln im Umweltschutz. Perspektiven einer institutionellen Umweltökonomik*, Duncker & Humblot: Berlin 2000.
- Hackmann, Johannes, Die unterlassene Besteuerung der Nutzungswerte selbstgenutzten Wohnungseigentums: Vergebene Reformpotentiale, 1999, erschienen in: R. Lüdeke, W. Scherf & W. Steden (Hg.), *Wirtschaftswissenschaft im Dienste der Verteilungs-, Geld- und Finanzpolitik*, Festschrift für A. Oberhauser, Berlin 2000, S. 387-412.
- Zimmermann, Klaus W. & Tobias Just**,** Interest Groups, Referenda, and the Political Process: On the Efficiency of Direct Democracy, 1999, erschienen in: *Constitutional Political Economy* 11, 2000, S. 147-163.
- Josten, Stefan, Staatsverschuldung und Wirtschaftswachstum in einem Diamond-OLG-Modell mit AK-Technologie, 1999, erschienen in: *Jahrbuch für Wirtschaftswissenschaften* 51, 2000, S. 237-254.