

EESTI MAJANDUSPOLIITILISED VÄITLUSED

Majanduspoliitika aktuaalsed küsimused
Artiklid (CD-ROM) * Kokkuvõtted * Kroonika

ESTNISCHE GESPRÄCHE ÜBER WIRTSCHAFTSPOLITIK

Aktuelle Fragen der Wirtschaftspolitik
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DISCUSSIONS ON ESTONIAN ECONOMIC POLICY

Topical issues of economic policy
Articles (CD-ROM) * Summaries * Chronicle

19. aastakäik * 19. Jahrgang * 19th year of issue

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VÕLAKRIIS EUROALAS: KAS EUROT ON ÜLDSE VÕIMALIK VEEL PÄÄSTA?¹ **(sissejuhatuse asemel)**

1962. aastal esitles tolleaegne Euroopa Majandusühenduse (EMÜ) komisjon saksa poliitiku Walter Hallsteini juhtimisel esmakordelt ettepanekuid Euroopa Valuutaliidi loomiseks. Nende alusel ja Prantsusmaa presidendi Valery Giscard d'Estaing'i ja Saksamaa LV kantsleri Helmut Schmidti initsiativil otsustas Euroopa Ülemkogu 1979. aastal luua Euroopa valuutasüsteem. See plaan võttis konkreetsekuju 1992. aastal Maastrichti lepingu näol. Nüüd, 12 aastat pärast süsteemi rakendumist 1. jaanuaril 1999, seisab Euroopa valuutasüsteem oma liikmesriikide völgade töttu kuristiku serval. Ainuüksi Kreekal on üheksakümnes pangas, mis Euroopa stressitestist osa võtsid, kuhjunud völg 98,2 miljardi euro ulatuses. Iirimaa ja Portugal völgnevad samadele pankadele 52,7 und 43,2 miljardit.² Sellele lisanduvat tunduvalt suuremate euroala riikide nagu Itaalia ja Hispaania pangavõlad. Kui körvuni völgades siplevate maade riigilaenud oleks võetud bilanssi tegeliku päevakursiga, siis pankade omakapitali tase oleks osutunud tunduvalt madalamaks ja ilmselt oleks nende pankade stressitest lõppenud läbikukkumisega.

Siinkohal tekib küsimus, millist tähendust riigilaenud pankade jaoks üldse omavad. Riigilaenud tagavad pankadele hädavaljaklikku likviidsust, kuna normaalsetel aegadel on riigi võlakirju võimalik kergesti müüa, seda enam kuna Euroopa Keskkeskus on riigilaenude refinantseerimise puhul tagatisena aktsepteerib. Teisest küljest toovad võlapaberid intressikasumit, mis on erilise tähtsusega niisugustele finantsettevõtetele, kus klientide hoiuste osakaal on suurem kui krediidiinöndlus, nagu see on sagedasti Saksamaal hoiukassade ja muude kooperatiivsete finantsettevõtete puhul. Tulevikus suureneb riigilaenude tähtsus veelgi, kui nn Basel III reeglistiku (ued maksujõulisse nõuded pankadele) kohaselt peab pankadel olema obligatoorne minimaalne likviidsusvaru niisuguste riiklike võlakirjade näol.

Kui enne võlakriisi algust peeti riigilaene suhteliselt kindlaks kapitalimahutuseks, siis praegu kehtib see üha väheneva arvu riikide emissioonide suhtes. Riigivölgade kasv läheneb ohtliku piirini ja järest enam ähvardab riike maksujõetusse sattumine, mis toimub niipea, kui finantsturgudel nende krediidiriske üha kõrgemateks hinnatakse. Kõike seda silmas pidades tuleb veelgi rõhutada, kui tähtis on praegustest võlaprobleemidest võimalikult kiire jagusaamine.

Kreeka oma 350-miljardi euro suuruse võlakoormaga juhib niisuguste Euroopa valuutasüsteemi kuuluvate riikide pingerida, keda ähvardab riiklik pankrott.

¹ eesti keelse artikli (mis oli aluseks ka inglise keelse artikli tõlkele) terminoloogiat konsulteeris Eesti Panga Nõukogu esimees (1998-2008), Tartu Ülikooli emeriitprofessor Mart Sõrg

² (saksakeelne) Handelsblatt 20.07.2011, lk 6

Kui kõrvale jäätta euroala 17 valitsusliidri kriisikohtumisel 21. juulil 2011 vastuvõetud otsuste kirju kogum, tuleb võlakoormale pikaajalise vastupidamise tagamiseks köne alla kolm põhimudelit.

► Laiemas avalikkuses arutatakse tihti Kreeka väljaastumist Euroopa valuutasüsteemist. Esmapilgul näib see olevat kõige lihtsam ja ka paljude jaoks kõige õigem lahendus. Seejuures tuleb aga silmas pidada, et Kreeka endise väärингu drahmi taaskasutuselevõtt tooks endaga otsekohes kaasa drastilise devalveerimise. See tõstaks küll Kreeka majanduse konkurentsivõimet, aga mis kasu oleks sellest riigi ekspondile, nii kaua kui pole piisavalt tööstusharud, mille toodang vastaks maailmaturu nõuetele, olgu selleks siis näiteks oma farmaatsia- või tarmetööstus. Teisest küljest kallineksid tohutult Kreekasse imporditavad tooted. Eriti laostaval mõjuks devalveerimise puhul asjaolu, et kõik Kreeka kohustused on faktureeritud eurodes, mis tõstaks võlkoorma ühe hoobiga mitmekordseks. Ja siis oleks riiklik pankrott möödapääsmatu.

Ka riigisiseselt oleksid tagajärjed sama katastrofilised. Drahmi drastiline maksejõetuse hävitaks tavakodanike hoiused ja tooks kaasa ka arvukate ettevõtete maksejõetuse. Esijoones satuksid lõogi alla pangad, kelle mahutused riigi võlakirjadesse ületavad omakapitali umbes kahekordsest. Juba drahmi taaskasutuselevõtmise väljakuulutamine põhjustaks hoiustajate tormijooksu pankadele, et saaks oma hoiuseid veel õigeaegselt eurodes välja võtta, mis omakorda muudaks Kreeka pangad paugupealt maksevõimetuteks (ilmata selletagi on hoiuste väljavool pankadest intensiivistunud).

Ka Euroopa valuutasüsteemi jaoks tervikuna poleks Kreeka väljaastumine mingisugunegi võlaprobleemi lahendus. Vastupidi – Kreeka lahkumine tähendaks euroalale tohutut šokki, millega kaasaskäiv nakatav toime või doominoeffekt tekitaks laiaulatusliku tulekahjuga vörreldavaid tagajärgi. See kujutaks endast valuutaliidu ühe põhiprintsiibi rikkumist, mille mõju kestaks veel pikka aega. Antud hetkest peale arvestatakse võimalusega, et eurolast lahkujaid tekib jurde, tagajärjed oleksid niisugused, nagu juba kirjeldatud, ja sarnased spekulatsioonid põhjustaksid finantsturgudel riskitõusust tingitud laenuraha kallinemise ka teistele võlkoorma all ägavatele riikidele. Kõiki neid põhjusi silmas pidades on hädavajalik lahendada võlakriis euroala siseselt.

► Rahvamajandusteadlased eelistavad nn völgade kärpimist või restrukturreerimist (*hair cut*) meetodit.³ Kreekale oleks selline '*hair-cut*' ülimalt riskantne, kuna finantsturud on nii-öelda pika vihaga ja niisama lihtsalt midagi andeks ei anna. Aastaid 1970-2010 ja kuuekümme kaheksat riiki hõlmava Saksa ja Argentiina

³ inglise keeles erialakeeles kasutatakse niisuguses seoses piltlikku terminit *hair-cut*, sest pärast lõikust on ka juuksed kärbitud ja lühemad. Kust selline nimetus pärib, on ebaselge. Kasutusse on see tulnud alles ka viimase aastakümendi jooksul, pärast seda kui termin esmakordsest aastal 1989 finantsturge käsitlevates kirjutistes 'American Economic Review' lehekülgdedel esines. *Hair-cut*'iga on tegemist, kui näiteks võlausaldaja oma esialgsest 100-eurosest nõudest saab tagasi kõigest 30 eurot; *hair-cut*'i ulatus on sel juhul 70 protsentti.

ühisuuringu tulemused näitavad, et „*Riigid, kes oma võlgu täpselt tagasi ei maksa, ...teenivad pikaajalise ja karmi karistuse.*“⁴ Uuring näitab, et isegi viis aastat pärast *hair cut*'i meetodi kasutamist on nn karistav jurdehindlus (riski lisaintressid) ainult poole võrra vähenenud, st et on ette näha, et ka lühema perioodi jooksul on nn 'võlgade kärpimise' negatiivne mõju üsnagi tuntav.

Kirjeldatud võlgadest vabanemise mudeli puhul võib positiivsena ära märkida, et pärast niisugust operatsiooni langeb põhikoorem riiklike võlakirjade eraomanike – esmajooones pankade, kindlustusseltside ja fondide õlule. Seejuures tuleb silmas pidada aga seda, et pärast võlgade kärpimist tuleb nende nõuetekohased väärtust ettevõtete bilanssides varem või hiljem alandada ja seega maha kanda, mille tõttu kannatab bilansiline kasum ja see omakorda vähendab maksude laekumist riigikassasse. Niisiis ei lähe lõppude lõpuks see karikas ka maksumaksjatest mööda.⁵ Kuivõrd Kreeka pankade omanduses on selliseid võlakirju, sedavõrd suurt kahju nad ka kannatavad ja neid tuleb eeldatavasti päästa kui süsteemile olulisi institutsioone värskse kapitali süstimitisega, mis omakorda koormab kogu Euroopa riikide ühendust.

► Kolmas põhimodel kujutab endast võlgade ümberkujundamist. Antud juhul pakutakse riigi võlapaberite omanikele võimalust vahetada oma nõuded suurtes võlgades oleva riigi suhtes kõrgemalseisva instantsi võlapaberite vastu. Kreeka kui Euroopa valuutasüsteemi liikme puhul oleks selleks Euroopa päästefond (EFSF)⁶. Kui jäätta kõrvale kombinatsioon võlgade kärpimisega, siis euroala päästefond EFSF võtaks Kreeka võlakirjad üle 100-protsentilise nimiväärtusega. Erakreeditorid saaksid selle eest euroala riikide garantidega EFSF-võlakirju, *de facto* niisiis eurobonde. Kreeka võlakirjad, mis nüüd oleksid siis Euroopa päästefondi omanduses, kujundatakse ümber uuteks Kreeka riigi võlakirjadeks, mille tingimusel on vaja kohandada Kreeka ebakindla majandusliku olukorraga. Võlgade edasieksisteerimine sunniks aga Kreekat kokkuholiurežiimist ja eelarvedistsipliinist kinni pidama.

Eesmärgil, et selline võlgade ümberkujundamine vähemalt osaliselt võlgadest vabanemisele kaasa aitaks, ja et sellesse protsessi kaasataks eramajandus, tuleb võlgade ümberkujundamine kombineerida võlgade kärpimisega vahemikus 20%⁷

⁴ Siinkohal võrdle: Cruces, Juan/Trebesch, Christoph >Sovereign Defaults: The Price of Haircuts<, Juli 2011, handelsblatt.com/link. – Autorid võtsid vaatluse alla 68 riiki ja ühtekokku 182 juhti, kui nimetatud riigid ei tätnud oma maksekohustusi. Jõuti tödemuseni, et kui järgneval perioodil vaatluse all olnud riikide valitsused tegid finantsturgudel uusi laene, siis neid nii-öelda karistati lisaintressidega, mille suurus tõhusasti koguvõla suurusele ja võlgade kärpimise ulatusele.

⁵ Eriti kehitib see pankade kohta, mis täielikult või osaliselt on riigi omanduses.

⁶ European Financial Stability Facility, lühidalt: EFSF (see on kavas 2013. aastaks püsivalt asendada Euroopa stabiliseerimismehhanismiga – lühidalt: ESM). Selleks et EFSF tohiks riigi võlakirju osta, tuleb eelnevalt muuta vastavat õiguslikke eeskirju.

⁷ Umbes sellise protsendimäära raames on oma ettepaneku teinud Rahvusvaheline Finantsinstituut (IIF, Institut of International Finance)

kuni 50%⁸. Kuivõrd see puudutab Kreeka panku, tuleb neid toetada täiendavate päätsemeetmetega. Võlgade kärpimine kergendab Euroopa päästefondi seisundit ja seetõttu on fondil omakorda võimalik hõlbustada Kreeka olukorda, mille tulemusel tema võlad ja intressi maksimise kohustused vähenevad. Kreeka riigi veel kustutamata võlajäägid Euroopa päästefondi EFSD ees saab siis – nagu eespool kirjeldatud juhtumi puhul – ümber kujundada uuteks soodsamate krediiditingimustega⁹ võlakirjadeks.

Reitinguagentuurid on andnud mõista, et nad käsitlevad võlgade kärpimist kui kohustuste mittetäitmist (*default*) ja reageerivad sellele finantsolukorra hinnangu alandamisega (*default-rating*). Selle tagajärjeks oleks aga, et Kreeka kulutused kapitaliturgudelt raha saamiseks püsiksid endiselt kõrgel tasemel ning võiksid ilmselt veelgi kallineda.¹⁰ Selle takistamiseks tuleks kaaluda, et eramajanduse kaasamine toimuks '*hair-cut*'i meetodi asemel pangamaksude või muude sarnaste maksude nälol.¹¹

Kui pangamaksude kehtestamine puudutaks ainult hästi funktsioneerivaid panku ja need jäksid jõukohastesse raamidesse, siis oleks küsitav, kas selles piisab Kreeka võlakoorma olulisel määral vähendamiseks. Seepärast tuleks pangamaksuds kombineerida nn '*pehme võlgade ümberkujundamisega*'. Kaalumisel on kaks varianti. Esimene moodus aitaks Kreeka olukorda ajutiselt hõlbustada, olgu siis vähemalt jooskvaid maksekohustusi silmas pidades. Kõne alla tuleks ümberkujundatavate võlgade kestvusaja oluline pikendamine, madalamate intresside kehtestamine ja intresside tasumise tähitaegade edasilükkamine. Teine variant annaks Kreekale Euroopa päästefondi EFSD krediitiide abil võimaluse tagasi osta omaenese võlakirju, mida järelturgudel pakutakse praegusel ajal tunduvalt alla nimiväärtust. Kui omanikud nendele kuuluvad võlakirjad ära müüvad, siis *summa summarum* kergendaks see Kreeka võlakoormat ja vabastaks ta edasistest intresside ja võla tagasimaksetest.¹²

⁸ Saksamaa Liitvabariigi valitsuse ekspertnõukogu on nõudnud võlgade kärpimist ligikaudu poole võrra.

⁹ Siinkohal on arutatud võlgade 15 kuni 30-aastaseid kestvusaegu. Selle aasta juulis euroala seitsmeteistkümnne riigi- ja valitsusuhi kriisikohtumise otsustesse kohaselt nähakse ette kehtivusaja pikendamist 7,5 aastalt vähemalt 15 aastani ja intresside langetamist 4,5%-lt 3,5%-ni.

¹⁰ Murdmaks reitinguagentuuride tohutut – tegelikult vastutustundetut – mõjuvõimu, mis avaldub eriti kriisiaegadel, kui agentuuride pahtihiti mõistetamatud hinnangud võivad põhjustada olukorra dramaatilist teravnemist, nõudis ELi õigusküsimuste volinik Viviane Reding sarnaste asutuste likvideerimist. Saksamaa president Christian Wulff nii kaugele oma nõudmistega ei lähe. Tema ettepanek on teha reitinguagentuurid vastutavaks juhul, kui nende hinnangud põhjustavad olulist finantskahju. – Küsitavaks jäab, kuidas kahju hüvitusnõudeid veenvalt kvantifitseerida, et oleks alust nende sissenõudmisseks.

¹¹ Kuna see looks võimaluse, et reitinguagentuurid hoiduksid krediidiriski kõrgemaks hindamast.

¹² Siinjuures jäab muidugi küsitavaks, kas reitinguagentuurid ei tölgenda siiski sellist toimimisviisi kui pealesunnitud loobumist võlgade sissenõudmisest, mille tagajärjeks oleks finantsolukorra hinnangu langetamine (*default*).

Kokkuvõtvalt tuleb tödeda, et võlakriisist jagusaamiseks pole kindlaid retsepte. Järelkult on praegusel hetkel veel võimatu anda hinnangut, kui tulemusrikkaks osutuvad käesoleva aasta juuli lõpul toimumud võlakonverentsil vastuvõetud otsused. Ilmselt vajavad need veel paljudes punktides konkretiseerimist ja ka laiendamist, enne kui neid ellu rakendama hakata.

Kirjeldatud riske arvesse võttes on meie arvates kõige suuremad eduväljavaated nn 'pehme võlgade ümberkujundamise' meetodil kombineerituna samaaegse pangamaksude sisseseadmisega. Põhjuseks on tungiv vajadus peatada Kreeka võlaprobleemide jätkuv teravnemine viimasel ajal, et sel viisil võita aega täiendavateks, jätkusuutlikuks majanduskasvuks vajalike meetmete rakendamiseks. Tulevikus peab Kreeka olema mitte ainult võimeline ise oma võlgu kandma, vaid pikemas perspektiivis neid ise ka tasuma. Siinkohal pole asi niivõrd karmide säästuprogrammide elluviimises, kuivõrd uute, konkurentsivõimeliste tööstusharude väljaarendamises, samaaegselt fundamentaalselt eraettevõtluskeskkonda parendades. Esmajoones tuleks mõelda suuremale öiguskindluslele¹³ ja üldisele bürokraatia kärpimisele – eriti mis puudutab välismaiseid investeeringuid¹⁴ –, korruptsiooni ja onupojapoliitika vastu võitlemisele, praeuse ajani reglementeeritud turgude avamisele, riigijettevõtete erastamisele, läbipaistva ja konkurentsivõimelise maksusüsteemi¹⁵ loomisele, samuti ka selgetele palgastruktuuridele. Lisaks nendele põhitõdedele on hä davajalik avardada keskmise pikkusega ja pikaajalis kasvuperspektiive, laiendades olemasolevaid ja luues uusi koostöövõimalusi teiste ELi liikmesriikidega. Edutõotavaid investeeringimisvõimalusi võib leida niisugustes valdkondades nagu infrastruktuur, taastuvenergia (eriti solaartehnoloogia fotovoltseadme kujul), jõujaamade ehitus, piiriülestevõrkude väljaarendamine, infotehnoloogia, transport, telekommunikatsioon, jäätmemajandus ja turism. Arenguprogrammide finantseerimiseks on ette nähtud EL tõukefondide vahendite suurendamine ja Kreekale ettenähtud vahendite suunamine eelkõige riigi majanduskasvu ja konkurentsivõime toetamiseks. Seejuures on Euroopa Investeeringispangal (EIB)¹⁶ võimalik leevendada nõutava kaasfiantseerimisega tekkivaid probleeme, juhul kui Kreeka pole võimeline vajalikku omaosalust tasuma.

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¹³ Muuhulgas ka kinnisturaamatute abil.

¹⁴ Nii on tegevuslubade väljastamine Kreekas liiga keeruline ja aeganõudev, lepingutest ja kokkulepetest kinnipidamine aga pahatihti ebakindel.

¹⁵ See peab käima käsikäes karmikäelise võtlusega maksupettuste vastu.

¹⁶ Euroopa Investeeringispank EIB on Euroopa Liidu institutsioon, mis toetab pikaajalisi investeeringuid.

SCHULDENKRISE IN EUROLAND: IST DER EURO NOCH ZU RETTEN? (statt Einführung)

1962 präsentierte die Kommission der damaligen Europäischen Wirtschaftsgemeinschaft (EWG) unter dem deutschen Politiker Walter Hallstein erste Vorschläge für eine Europäische Währungsunion (EWU). Diese führten 1979 auf Initiativen von Frankreichs Präsident Valéry Giscard d'Estaing und dem deutschen Bundeskanzler Helmut Schmidt zum Beschluss des Europäischen Rates, ein Europäisches Währungssystem (EWS) zu entwickeln. Dieses Projekt wurde dann 1992 durch den Maastrichter Vertrag konkretisiert. Heute, zwölf Jahre nach seiner Einführung am 1. Januar 1999, steht das EWS durch die Schulden seiner Mitgliederstaaten dicht vor dem Abgrund. Allein Griechenland hat bei den 90 Banken, die am europäischen Stresstest teilgenommen haben, Schulden in Höhe von 98,2 Milliarden Euro angehäuft. Irland und Portugal stehen bei diesen Banken mit 52,7 und 43,2 im Débet.¹ Hinzu kommen die Bankschulden der wesentlich größeren Eurostaaten Italien und Spanien. Hätten diese Banken ihre Staatsanleihen der hoch verschuldeten Länder zu aktuellen Kursen bilanziert, wären deren Eigenkapitalquoten deutlich niederer ausgefallen, und sie hätten möglicherweise die Stresstests gar nicht bestanden.

Hier stellt sich zunächst die Frage, welche Bedeutung Staatsanleihen für Kreditinstitute überhaupt haben. Staatsanleihen sind für Banken ein unverzichtbarer Bestandteil ihrer Liquiditätsreserven, weil sie in normalen Zeiten leicht zu verkaufen sind, zumal die Europäische Zentralbank (EZB) diese Papiere als Sicherheiten bei der Refinanzierung akzeptiert. Andererseits erbringen sie Zinserträge, was von besonderer Bedeutung für Kreditinstitute ist, bei denen die Kundeneinlagen die Kreditnachfrage übersteigen, wie das bei Sparkassen und genossenschaftlichen Kreditinstituten häufig der Fall ist. Die Bedeutung der Staatsanleihen wird zukünftig sogar noch steigen, wenn nach den Regeln von Basel III ein bestimmter Mindestsatz der Liquiditätsreserven aus solchen öffentlichen Schuldverschreibungen bestehen muss.

Während bis vor der Schuldenkrise Staatsanleihen als relativ sichere Anlagen angesehen wurden, gilt das gegenwärtig nur noch für Emissionen von immer weniger Staaten. Länder geraten zunehmend in die Gefahrenzone der Verschuldungs- und damit auch Zahlungsunfähigkeit, sobald ihre Bonität von den Märkten negativ eingeschätzt wird. Um so wichtiger ist es, dass die gegenwärtigen Schuldenprobleme so schnell wie möglich überwunden werden.

An der Spitze der von einem Staatsbankrott bedrohten EWS-Länder steht Griechenland mit einem Schuldenberg von gegenwärtig circa 350 Milliarden Euro. Um die Tragfähigkeit dieser Schuldenlast langfristig zu sichern, kommen – unabhängig von dem Sammelsurium von Beschlüssen der 17 Staats- und Regierungschefs der Euro-Länder auf dem EU-Krisengipfel am 21. Juli 2011 – drei Grundmodelle in Betracht.

¹ (deutsches) Handelsblatt vom 20.07.2011, Seite 6

► In der breiten Öffentlichkeit wird oft der Ausstieg Griechenlands aus dem EWS vertreten. Auf den ersten Blick scheint das die einfachste und für viele auch die plausibelste Lösung zu sein.² Dabei muss bedacht werden, dass die Wiedereinführung der Drachme sofort mit einer drastischen Abwertung verbunden wäre. Zwar würde das die Konkurrenzfähigkeit der griechischen Wirtschaft erhöhen; aber was brächte das schon für deren Exporte, solange das Land nicht über genügend Industriezweige mit weltmarktfähigen Produktangeboten verfügt, beispielsweise aus landeseigenen Pharma- oder Zulieferindustrien. Andererseits würden sich Griechenlands Importe drastisch verteuern. Besonders verheerend wirkte sich aber bei einer Abwertung die Tatsache aus, dass alle Verbindlichkeiten Griechenlands in Euro fakturiert sind, wodurch sich seine Schuldenlast mit einem Schlag um ein Vielfaches erhöhte. Damit wäre der Staatsbankrott unabwendbar.

Im Landesinnern wären die Folgen nicht minder katastrophal. Die drastische Abwertung der Drachme würde viele Ersparnisse privater Haushaltungen vernichten und auch zur Insolvenz zahlreicher Unternehmungen führen. Vor allem die Banken wären davon betroffen, die etwa die doppelte Höhe ihres Eigenkapitals in Staatspapieren angelegt haben. Bereits im Vorfeld der Wiedereinführung würden die Sparer die Banken stürmen, um ihre Ersparnisse rechtzeitig in Euro abzuheben. Damit würden die griechischen Banken schlagartig zahlungsunfähig.

Auch für das EWS wäre mit einem Austritt Griechenlands das Schuldenproblem keinesfalls gelöst. Im Gegenteil: Der Ausstieg Griechenlands bedeutete für die Euro-Zone einen enormen Schock, der sich über Domino- und Ansteckungseffekte zu einem Flächenbrand entwickeln könnte. Ein Grundprinzip der Währungsunion wäre nachhaltig verletzt. Denn von nun an würden weitere Austritte mit den zuvor skizzierten Folgen als möglich angesehen, und die Spekulationen hierüber erhöhten die Risikozuschläge an den Finanzmärkten für weitere schuldenbelastete Länder. Aus all diesen Gründen ist es notwendig, die Schuldenkrise in Euroland intern zu lösen.

► Volkswirte favorisieren die Möglichkeit eines Schuldenschnitts.³ Für Griechenland wäre ein solcher 'Hair-Cut' höchst riskant, weil die Finanzmärkte '*'Elefantengedächtnisse'*' haben. Nach einer deutsch-argentinischen Untersuchung von 68 Staaten im Zeitraum von 1970 bis 2010 werden '*Länder, die ihre Schulden nicht pünktlich bezahlen, ... lange und hart bestraft*'.⁴ Selbst fünf Jahre nach dem

² Sogar für einen bekannten Vertreter eines namhaften deutschen Wirtschaftsforschungsinstituts, was nicht gerade diese Möglichkeit *sinnvoll* erscheinen lässt.

³ Im Fachjargon spricht man in diesem Zusammenhang von *Hair-Cut*. Woher diese Bezeichnung stammt, ist unklar; sie hat sich erst in den vergangenen zwei Jahrzehnten eingebürgert, nachdem sie erstmals 1989 im Zusammenhang mit Finanzmärkten im 'American Economic Review' aufgetreten ist. Ein *Hair-Cut* liegt vor, wenn ein Gläubiger von seiner ursprünglichen Forderung in Höhe von beispielsweise 100 € nur 30 € realisieren kann; der *Hair-Cut* beträgt in diesem Fall 70 Prozent.

⁴ Vgl. hierzu: Cruces, Juan/Trebesch, Christoph >Sovereign Defaults: The Price of Haircuts<, Juli 2011, handelsblatt.com/link. – Die Autoren hatten insgesamt 182 Fälle dieser 68 Staaten untersucht, die ihren Zahlungsverpflichtungen nicht nachgekommen waren. Sie sind zu dem

Schuldenschnitt hatten sich – nach dieser Studie – die Strafaufschläge für diese Länder nur halbiert, sodass zu erwarten ist, dass auch mittelfristig die negativen Folgen solcher Schuldenschnitte beträchtlich sein werden.

Bei diesem Grundmodell einer Entschuldung könnte zustimmend eingewendet werden, dass durch einen solchen Einschnitt private Inhaber von öffentlichen Schuldverschreibungen die Lasten zu tragen haben, in erster Linie Banken, Versicherungen und auch Fonds. Dabei muss aber bedacht werden, dass nach dem Schuldenschnitt diese Forderungen in den Bilanzen von Unternehmungen früher oder später wertberichtigt und insoweit abgeschrieben werden, was zu entsprechenden bilanziellen Gewinneinbußen und damit Steuerausfällen für die Fisken führt. Also auch die Steuerzahler sind davon letztendlich betroffen.⁵ Soweit griechische Banken die Schuldverschreibungen besitzen, erleiden sie hohe Verluste und müssen als systemrelevante Institutionen voraussichtlich mit frischem Kapital gerettet werden, was dann die Staatsgemeinschaft belastet.

→ Beim dritten Grundmodell handelt es sich um Umschuldungen. Dabei wird den Inhabern der Staatspapiere angeboten, ihre Forderungen gegen das hoch verschuldete Land in Schuldverschreibungen einer übergeordneten Instanz umzutauschen, im Falle Griechenlands als Mitglied des EWS könnte das beispielsweise der sogenannte Euro-Rettungsschirm (Rettungsfonds der EU, EFSF)⁶ sein. Ohne Kombination mit einem Schuldenschnitt würde der EFSF griechische Staatsanleihen zu 100 Prozent ihres Nennwertes übernehmen. Die privaten Gläubiger erhielten dafür EFSF-Anleihen mit Garantieerklärungen der Euro-Staaten, de facto also Euro-Bonds. Die griechischen Staatsanleihen, nunmehr im Besitz des EFSF, würden in neue Schuldverschreibungen des griechischen Staates umgewandelt, deren Konditionen der prekären wirtschaftlichen Situation Griechenlands anzupassen wären. Der Fortbestand der Schulden hielte Griechenland weiterhin unter Spardruck und Zwang zur Haushaltsdisziplin.

Um mit einer solchen Umschuldung eine zumindest teilweise Entschuldung Griechenlands zu erreichen und daran auch die Privatwirtschaft zu beteiligen, muss die Umschuldung mit einem Schuldenschnitt, etwa zwischen 20 Prozent⁷ bis 50 Prozent⁸, kombiniert werden. Soweit griechische Banken davon betroffen sind, müssten diese ergänzend durch Rettungsmaßnahmen unterstützt werden. Die durch

Ergebnis gekommen, dass die betreffenden Regierungen in der Folgezeit an den Finanzmärkten für neue Kreditaufnahmen mit Zinsaufschlägen bestraft wurden, die um so höheren ausfielen, je höher die Schulden und je größer die Schuldenschnitte waren.

⁵ Das gilt in besonderer Weise im Hinblick auf Banken, die sich voll oder teilweise im Staatseigentum befinden.

⁶ European Financial Stability Facility, kurz: EFSF (dieser soll 2013 dauerhaft vom Europäischen Stabilitätsmechanismus – kurz: ESM – abgelöst werden). Damit der EFSF Staatsanleihen ankaufen darf, müssen zuvor die entsprechenden Rechtsvorschriften geändert werden.

⁷ in etwa Vorschlag des IIF (Institut of International Finance, internationaler Bankenverband)

⁸ Der Sachverständigenrat der Bundesregierung Deutschlands hatte einen Schuldenschnitt um rund die Hälfte gefordert.

den Schuldenschnitt erreichte Entlastung für den EFSF gibt dieser dann an Griechenland weiter, wodurch sich dessen Schulden und Zinszahlungsverpflichtungen reduzieren. Die verbleibenden Restschulden des griechischen Staates gegenüber dem EFSF können dann – wie im zuvor erwähnten Fall – in neue Schuldverschreibungen mit günstigen Kreditkonditionen⁹ umgewandelt werden.

Die Ratingagenturen haben zu erkennen gegeben, dass sie Schuldenschnitte grundsätzlich als Zahlungsausfälle (Default) betrachten und mit Bonitätsabschlägen (Default-Rating) bewerten werden. Das hätte zur Folge, dass sich für Griechenland bis auf Weiteres die Kosten für Finanzierungen über die Kapitalmärkte auf hohem Niveau hielten und möglicherweise noch erhöhten.¹⁰ Um das zu verhindern, könnte daran gedacht werden, die private Beteiligung anstatt durch 'Hair-Cuts' über Bankenabgaben oder ähnliche Steuer zu realisieren.¹¹ Wenn die Bankenabgaben allerdings nur auf leistungsfähige Banken beschränkt und in tragbarem Rahmen blieben, wäre es fraglich, ob sie ausreichten, die Schuldenlast Griechenlands deutlich zu reduzieren. Deshalb müssten die Bankenabgaben mit sogenannten 'weichen Umschuldungen' kombiniert werden. Dafür gibt es zwei Varianten: Damit Griechenland zumindest im Hinblick auf die laufenden Zahlungsverpflichtungen vorübergehend entlastet wird, könnten die umgewandelten Schuldtitel mit deutlich längeren Laufzeiten, niedrigeren Zinsen und auch längerfristigen Stundungen der Zinszahlungsverpflichtungen versehen werden. Die andere Möglichkeit wäre, Griechenland durch EFSF-Kredite in die Lage zu versetzen, eigene Anleihen zurückzukaufen, die gegenwärtig auf den Sekundärmarkten weit unter ihrem Nennwert gehandelt werden. Soweit die Inhaber ihre Anleihen verkaufen, führt das dann für Griechenland summa summarum zu einer Schuldenreduzierung und Entlastung von zukünftigen Zins- und Tilgungszahlungen.¹²

Abschließend ist festzustellen, dass es keine sichere Lösung für die Schuldenkrise gibt. Insofern kann gegenwärtig auch nicht beurteilt werden, ob die auf der Schuldenkonferenz Ende Juli dieses Jahres gefassten Beschlüsse zum Erfolg führen

⁹ diskutiert werden in diesem Zusammenhang Laufzeiten von 15 bis 30 Jahre. Nach den Beschlüssen der 17 Staats- und Regierungschefs der Euro-Länder auf dem EU-Krisengipfel Ende Juli dieses Jahres sind Laufzeitenverlängerungen von 7,5 auf mindestens 15 Jahre und Zinssenkungen von 4,5 auf 3,5 Prozent vorgesehen.

¹⁰ Um einen solchen mächtigen – im Grunde unverantwortlichen – Einfluss der Ratingagenturen zu brechen, der besonders in Krisenzeiten durch die oft nicht nachvollziehbaren Bewertungen die Situation dramatisch verschärfen kann, hat die EU-Justizkommissarin Viviane Reding die Zerschlagung dieser Institutionen gefordert. Der deutsche Bundespräsident, Christian Wulff, geht nicht ganz so weit; er will die Ratingagenturen lediglich haftbar machen, wenn sie mit ihren Urteilen finanzielle Schäden anrichten. – Fraglich ist nur, wie Schadenersatzforderungen überzeugend quantifiziert und letztendlich durchgesetzt werden sollen.

¹¹ weil das möglicherweise die Ratingagenturen von Bonitätsabschlägen abhalten könnte.

¹² fraglich bleibt hierbei allerdings, ob die Ratingagenturen diesen Vorgang nicht doch als erzwungenen Schuldenerlass deuten und mit Default bewerten werden.

werden, zumal diese erst noch in zahlreichen Punkten konkretisiert, möglicherweise erweitert und dann umgesetzt werden müssen.

In Anbetracht der aufgezeigten Risiken haben nach unserer Ansicht die sogenannten 'weichen Umschuldungen' in Verbindung mit Bankenabgaben die größten Erfolgchancen. Denn zunächst kommt es darauf an, die in letzter Zeit zu beobachtende Zuspitzung der griechischen Schuldenprobleme zu stoppen, um für komplementäre, ein nachhaltiges Wirtschaftswachstum bewirkende Maßnahmen Zeit zu gewinnen. Griechenland muss seine Schulden zukünftig nicht nur tragen können, sondern auch imstande sein, sie langfristig zu tilgen. Dabei geht es weniger um die Durchsetzung erdrückender Sparprogramme, sondern vielmehr um die Verwirklichung eines Aufbauprogramms zur Entwicklung neuer, wettbewerbsfähiger Industrien durch fundamentale Verbesserungen der Rahmenbedingungen für privates Unternehmertum. Zu denken ist dabei in erster Linie an mehr Rechtssicherheit¹³ und generellen Abbau von Bürokratie – insbesondere im Hinblick auf Investitionen ausländischer Unternehmungen¹⁴ –, Bekämpfung der Korruption und 'Vetternwirtschaft', Öffnung bisher regulierter Märkte, Privatisierung von Staatsunternehmungen, Schaffung eines durchschaubaren und wettbewerbsfähigen Steuersystems¹⁵ sowie klare Lohnstrukturen. Über diese Grundsätze hinaus gilt es, die mittleren und langfristigen Wachstumsperspektiven durch Erweiterung bestehender und Schaffung neuer Kooperationsmöglichkeiten mit anderen EU-Mitgliederstaaten zu verbessern. Es bieten sich Erfolg versprechende Investitionsmöglichkeiten in den Bereichen Infrastruktur, erneuerbare Energien (vor allem Solartechnik durch Photovoltaikanlagen), Kraftwerkbau, grenzüberschreitender Netzausbau, Informationstechnologie, Transportwesen, Telekommunikation, Abfallwirtschaft und Tourismus. Zur Finanzierung der Aufbauprogramme sind Aufstockungen des EU-Strukturfonds vorgesehen und die für Griechenland vorgesehenen Mittel vorrangig auf Wirtschaftswachstum durch Stärkung seiner Wettbewerbsfähigkeit auszurichten. Dabei kann die Europäische Investitionsbank (EIB)¹⁶ auftretende Probleme bei der geforderten Kofinanzierung lindern, wenn Griechenland den geforderten Eigenanteil nicht aufbringen kann.

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¹³ unter anderem auch durch Grundbücher.

¹⁴ so sind die Genehmigungsverfahren in Griechenland viel zu umständlich, Verträge und Zusagen oft unsicher.

¹⁵ Verbunden mit einer rigorosen Bekämpfung der Steuerhinterziehung.

¹⁶ Die EIB ist eine Institution der EU für langfristige Finanzierungen.

THE EURO ZONE DEBT CRISIS: WILL IT BE POSSIBLE TO RESCUE EURO AT ALL? (instead of introduction)

In 1962 the then Commission of the European Economic Community (EEC) presided over by the German politician Walter Hallstein presented the first proposals for the creation of the European Monetary Union. On the basis of these and on the initiative of the President of France Valery Giscard d'Estaing and the Chancellor of the Federal Republic of Germany Helmut Schmidt, the European Council decided in 1979 to create the European monetary system. This plan acquired a definite shape in 1992 in the form of the Maastricht Treaty. Now, 12 years after the implementation of the system on 1 January 1999, the European Monetary System is on the verge of a precipice due to the debts of its member states. Greece alone has accumulated debts in the total amount of 98.2 billion euros in 90 banks which participated in the European stress test. Ireland and Portugal owe 52.7 and 43.2 billion to the same banks.¹ Besides, there are the debts to banks of the considerably larger euro zone countries, such as Italy and Spain. If the government loans of the countries which are struggling up to their ears in debt had been recorded in the balance sheets at the actual day rates, the equity level of the banks had been considerably lower and the banks would probably have failed the stress test.

We can raise the question here about the actual importance of government loans for banks. Government loans ensure the required liquidity for banks as government bonds can be easily sold at normal times, the more so as the European Central Bank accepts such bonds for security in the case of refinancing. On the other hand, interest revenue can be earned from bonds and this is of particular importance to such financial institutions where the proportion of deposits from customers is higher than the demand for credit as it often is in German savings banks and other cooperative financial institutions. The importance of government loans will increase even more in the future when banks will have to keep a mandatory minimum liquidity reserve in the form of such government debt according to the Basel III rules (new solvency requirements for banks).

While before the beginning of the debt crisis government loans were regarded as a relatively solid investment, it currently applies only to the emissions of a decreasing number of countries. Increase in government debts is approaching a risky limit and countries are increasingly threatened by insolvency, which will happen as soon as their credit risks are evaluated as increasingly higher in financial markets. Considering all this we have to emphasize even more the importance of overcoming the current debt problems as soon as possible.

Greece with its debt burden of 350 billion euros is at the head of the ranking of such member states of the European Monetary System which are threatened by national bankruptcy.

¹ (in German:) Handelsblatt 20.07.2011, p. 6

Apart from the different measures adopted at the crisis summit of 17 euro zone countries on 21 July 2011, three main models can be considered to ensure sustained endurance of the debt burden.

► The general public has often discussed withdrawal of Greece from the European Monetary System. At first sight this seems to be the easiest and also the most appropriate solution for many. But we have to take into account the drastic devaluation that reintroduction of the former Greek currency drachma would immediately cause. While it would increase the competitiveness of Greek economy, it would be of no use for the national exports as long as there are no sufficient industries which could produce according to the requirements of the world market, e.g. its own pharmaceutical or supply industry. On the other hand, products imported to Greece would become drastically more expensive. Devaluation would be particularly devastating since all liabilities of Greece have been denominated in euro which would increase the debt burden for many times in a moment. And then the national bankruptcy would be unavoidable.

The domestic consequences would also be as catastrophic. Drastic devaluation of drachma would destroy the bank deposits of the population and bring along the insolvency of numerous companies. Banks would be the first to suffer as their investments in government debt are approximately a double of their equity. Already an announcement of the reintroduction of the drachma would cause a bank run as people would want to withdraw their deposits in euros in time, which in its turn would cause instant insolvency of Greek banks (outflow of deposits from banks has increased already now).

Withdrawal of Greece would be no solution for the debt problem for the European Monetary System as a whole either. On the contrary – withdrawal of Greece would mean a huge shock for the euro zone and the related replicating or domino effect would have consequences that are comparable to an extensive fire. It would violate one of the basic principles of the Monetary Union and would have a long-lasting effect. It would make it possible to consider also the withdrawal of other countries from the euro zone, with consequences similar to those described above, and due to higher risks such speculations would increase the cost of borrowing in financial markets also for other countries struggling under the loan burden. Considering all these reasons it is absolutely necessary to settle the debt crisis within the euro zone.

► Experts of national economy prefer the method of cutting debts, i.e. debt restructuring (“haircut”).² Such a “haircut” would be extremely risky for Greece as financial markets “hold long grudges” so-to-say and do not forgive anything easily. According to the results of an German-Argentine joint survey which covers the

² A figurative term “haircut” is used in English literature in that context as the hair will be also shorter after such a cut. The origin of such a term is unclear. It has only been used in the last two decades after occurring first in papers on financial markets published in *American Economic Review* in 1989. In the case of a “haircut”, the creditor gets, for instance, only 30 euros of its initial claim of 100 euros; the extent of the haircut is 70 per cent in such a case.

period 1970–2010 and 68 countries, “*Countries which do not repay their debts in due time, ...get a long-term and harsh punishment.*”³ The survey shows that even five years after using the “haircut” method the “punishing mark-up” (higher interest rate for risk) has only decreased by a half, i.e. the negative effect of debt cutting is expected to be rather considerable also in the shorter term.

The positive effect of the debt reduction model described is that after such an operation the main burden will remain on the shoulders of private owners of the government debt – above all banks, insurance companies and funds. We have to note, however, that after cutting the debts it will be necessary to decrease and therefore write off the value of such receivables in balance sheets of businesses sooner or later and this will reduce the profits and therefore the payment of taxes to the state budget. Thus this chalice will not pass from the taxpayers eventually.⁴ As Greek banks are holding such bonds, they will bear such losses and they will presumably have to be rescued as institutions important for the system by injecting fresh capital, which in turn will burden the whole European Community.

► The third main model consists in the restructuring of debts. Holders of government bonds will have the opportunity to exchange their claims against a country which is deep in debt for bonds of a supranational institution. In the case of Greece as a member of the European Monetary System, the European Financial Stability Facility (EFSF) would be such a rescue fund⁵. If we exclude a combination with cutting debts, the euro zone rescue fund EFSF would take Greek government bonds over at 100 per cent of their nominal value. Private creditors would receive EFSF bonds guaranteed by euro zone countries, i.e. *de facto* eurobonds for these. Greek bonds which would now be held by the European rescue fund would be restructured into new Greek government bonds, adjusting their terms and conditions to the insecure economic situation of Greece. Continuing of these bonds would, however, force Greece to follow a policy of strict economy and budgetary discipline.

In order to contribute to at least partial relief from debt by such a restructuring of debts and in order to involve also private economy in the process, the debt restructuring should be combined with cutting debts by 20%⁶ to 50%⁷. As this

³ Cf here: Cruces, Juan/Trebesch, Christoph >Sovereign Defaults: The Price of Haircuts<, Juli 2011, handelsblatt.com/link. – The authors studied 182 cases in total, involving 68 countries, where such countries defaulted on their payment obligations. They reached the conclusion that when the governments of the countries concerned borrowed from the financial markets again in the following period, they were so-to-say punished with higher interest rates which depended on the amount of the total debt and the extent of debt cutting.

⁴ This particularly applies to banks which are fully or partly state-owned.

⁵ European Financial Stability Facility (EFSF) which is planned to be replaced permanently by the European stabilisation mechanism (ESM) by 2013. The respective legal provisions should be amended first to allow EFSF to purchase government bonds.

⁶ IIF (Institute of International Finance) has made its proposal for approximately such a percentage.

⁷ The Technical Advisory Committee of the Government of the Federal Republic of Germany has requested the cutting of debts by approximately a half.

concerns Greek banks, they have to be supported with additional rescue measures. Cutting of debts will alleviate the situation of the European rescue fund and therefore the fund itself will be able to alleviate the situation of Greece which can decrease its debts and lower interest payment liabilities. The remaining debt of Greece to the European rescue fund EFSF can then be restructured – similar to the case described above – into new bonds with more favourable credit terms⁸.

Rating agencies have let it be understood that they would treat debt cutting as a default and respond to it by reducing the evaluation of the financial situation (default-rating). As a consequence, the expenditures of Greek for obtaining funds from capital markets would still remain high and might even increase.⁹ In order to avoid that, involvement of the private economy through bank taxes or other similar taxes could be considered instead of following the haircut method.¹⁰

If imposing bank taxes would concern only well-functioning banks and they would remain within affordable limits, it would be questionable whether it would be enough for considerable alleviation of the debt burden of Greece. Therefore bank taxes should be combined with so-to say “soft restructuring of debts”. Two possibilities are considered. The first method would help to temporarily alleviate the situation of Greece, even if with respect to current payment obligations only. The terms of the restructured debts could be considerably extended, lower interest rates established and deadlines for the payment of interests deferred. The second method would consist in allowing Greece with credits from the European rescue fund EFSF to buy back its own bonds which are currently offered well below their nominal value on the after-markets. If holders of these bonds sold them, it would *summa summarum* alleviate the debt burden of Greece and relieve it from further interest payments and debt repayments.¹¹

In conclusion we have to admit that there are no definite recipes for overcoming the debt crisis. Therefore it is not possible yet at the moment to assess the effectiveness

⁸ Here the terms of 15 to 30 years have been discussed for the loans. According to the decisions of the crisis summit of the leaders of 17 heads of state of the euro zone in July this year, the term will be extended from 7.5 years to at least 15 years and the interest rates will be lowered from 4.5% to 3.5%.

⁹ In order to break the huge – actually irresponsible – influence of rating agencies which is particularly evident at times of crisis when the often unfathomable evaluations of agencies may lead to dramatic aggravation of the situation, the EU Commissioner for Justice Viviane Reding demanded the liquidation of such agencies. The German President Christian Wulff does not present such radical demands, however. He suggested that rating agencies should be made responsible if their evaluations cause significant financial damage. – It is questionable, though, how the claims for damages could be convincingly quantified to have grounds for their execution.

¹⁰ As that would create the possibility to prevent rating agencies from increasing their evaluations of the credit risk.

¹¹ The question remains here surely about whether or not rating agencies would interpret such an action after all as forcing them to give up claiming the debts and would lower the evaluation of the financial situation as a consequence (default).

of the decisions adopted at the debt conference held at the end of July this year. Quite a few points will probably need to be specified and also expanded before starting their implementation.

Considering the risks described, the method of soft restructuring of debts has the best prospects to succeed in our opinion when combined with the simultaneous imposition of the bank tax. The reason lies in the urgent need to stop further aggravation of the debt problems of Greece in order to win some time that way for taking additional measures required for the achievement of sustainable economic growth. In the future, Greece will have to be able to bear its own debt burden and also to repay the debts in the long term. Here the issue is not so much about implementation of strict austerity measures as about the development of new competitive industries, with simultaneous fundamental enhancement of the private business environment. Above all, more legal certainty¹² and general cutting of bureaucracy should be considered – particularly with respect to foreign investments¹³ –, also fighting against corruption and favouritism, opening of the currently regulated markets, privatisation of state enterprises, creation of a transparent and competitive taxation system¹⁴ and also clear salary structures. In addition to these basic truths it is urgently necessary to expand mid- and long-term growth perspectives by expanding the existing and creating new cooperation opportunities with other EU Member States. Promising investment opportunities can be found in such areas as infrastructure, renewable energy (particularly solar technology in the form of photovoltaic cells), construction of power stations, development of cross-border networks, information technology, transport, telecommunications, waste management and tourism. For the financing of development programmes it is intended to increase the resources of EU Structural Funds and to direct the funds planned for Greece above all for the support of economic growth and competitiveness of the state. It is also possible for the European Investment Bank (EIB)¹⁵ to alleviate problems related to the required co-financing if Greece is not able to pay its own contribution required.

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¹² Among other things, with land registers.

¹³ For instance, issuing of activity licences is too complicated and time-consuming in Greece and fulfilment of contracts and agreements often uncertain.

¹⁴ This has to be accompanied by strict fight against tax fraud.

¹⁵ The European Investment Bank (EIB) is a EU institution which supports long-term investments.

RELATIVE PRICE LEVEL DEVELOPMENTS IN THE BALTIC ECONOMIES AND LESSONS TO LEARN FROM THE CRISES

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Abstract

Estonia and other Baltic countries experienced speculative boom in years 2004-2008. The boom resulted in rapidly rising relative price level or real exchange rate. Euro wages are used as proxies for bilateral real exchange rates. Rapid reversal of capital inflow created instantly short-term real exchange rate overvaluation. The data shows that some other developing countries, like Poland and Russia let their price level to adjust through depreciation of nominal exchange rate. Estonia and other Baltic countries decided to go through adjustment with deflation of prices and wages. This contributed to higher unemployment rate and GDP loss. The most positive way out appears to be restoration of foreign investors interest in local economy and raising equilibrium real exchange rate reducing likely real exchange rate overvaluation. The other important implication was that local businessmen and other individuals were too much risk-takers for volatile emerging market economy.

Keywords: Baltic economies, prices, business fluctuations and cycles, expectations, speculations, information and market efficiency

JEL Classification: D84, E3, G14

Introduction

The three Baltic countries, including Estonia, experienced economic boom in years of 2004-2008. The boom was initiated by accession to the EU and expectation for the euro adaptation. Foreign investors and domestic individuals increased demand for local assets and resources like labour. This resulted general overheating in Baltic economies and rapidly rising relative price level or real exchange rate. Global economic crisis, which started from U.S. mortgage backed securities, spread and international investors reversed their earlier incoming financial flows. This created abrupt need for adjustment of real exchange rate. Devaluations were avoided but misalignments probably remained.

The goal of the article is to provide economic experts better understanding of close relationship between emotional aspects of global financial markets and macroeconomic developments in the Baltic countries. In the first section of the article the emergence of economic boom and its spread into the real economy will be presented. The second section explains the Blow off Phase of financial markets and different adjustment paths of Eastern European economies. The relative euro wages will be used a tool for analysis. The third section provides short-term outlook and the fourth section analyses lessons to policymakers and individuals from the perspective of material implications of behavioural finance.

The article pursues to state that the Baltic countries experienced speculative boom which was not the optimal outcome of conducive economic environment and policy. Abrupt and sizable adjustments are probably accompanied with high restructuring costs in society and high unemployment.

1. Early phase: the boom

The Baltic countries experienced speculative boom during 2004-2008. The bubble was based on belief that accession to the EU and adoption of the euro will raise all prices in a rapid pace to the level of the EU. Foreign and domestic individuals increased their demand for risky assets of developing countries in all three Baltic countries. Part of the buying was justified by fundamental news. Fundamentally justified trends on open free markets tend to develop into speculative trends gaining strength from positive feedback of trend-following market participants. For example in the Baltic countries properties were perceived as assets with everlasting price appreciation.

Capital markets started to provide cheap financing which caused appreciation of asset prices. But this demand driving asset prices was not demand on sustainable level. Many participants probably just pursued to jump on the moving wagon and earn extra speculative profit on emerging markets. Such rapid inflow of foreign capital sent short-term equilibrium real exchange rates sharply higher. Wages and cost level of public sector rose in hefty annual steps. Later, when the inflow stopped, the government and individuals pursued to maintain achieved euro wages and level of welfare as real achievement. This resulted in downward stickiness of nominal wages and increasing unemployment rate.

The director of global strategy in Dresdner Kleinwort Wasserstein James Montier provided overview of stock bubble types based on academic literature in his book "*Behavioural Finance: Insights into Irrational Minds and Markets*" published in 2002. Four types of stock bubbles according to him were:

- **Near Rational bubbles.** Market participants rely on the Greater Fool Theory. Investors are ready to pay higher prices until they believe that someone will purchase asset in future for even higher price. Individuals understand and recognize that prices include bubble but are convinced that they are able to exit the market before the bubble crumbles.
- **Intrinsic bubbles.** Investors concentrate on fundamental variables but they extrapolate mistakenly fast developments in short period of time too far in the future. They believe naively that positive developments will continue for a long time.
- **Fads.** Different actions undertaken by investors are driven by social and psychological factors. Individuals feel strong pressure from majority to accept general beliefs. It was important during internet stocks bubble. Conservative stock analysts were ignored like outdated thinkers because they did not adopt way of thinking of 'new era'.
- **Informational bubbles.** Prices differ from fundamentally justified prices because investors assume incorrectly that prices already include influence from

some hidden fundamentals. Investors believe that rapid price appreciation was caused by some important information that is not known to individual investors. Individuals hope to benefit from this hidden information, they buy and drive market higher. Momentum aspects of bubbles make these very fragile. Small change in trigger could result in large movement in investor behaviour and market price.

In the boom of the Baltic countries probably all four types of emotional fallacies were present. Many participants were aware that asset prices were too high but they still tried to extract some profits before the markets collapse. Extrapolation of current rapid growth rates too far into the future was common. Property markets were described by fad because public opinion was positive and admiring creation of real estate empires and real estate development. The typical boom and bust cycle is presented on the following Figure 1.

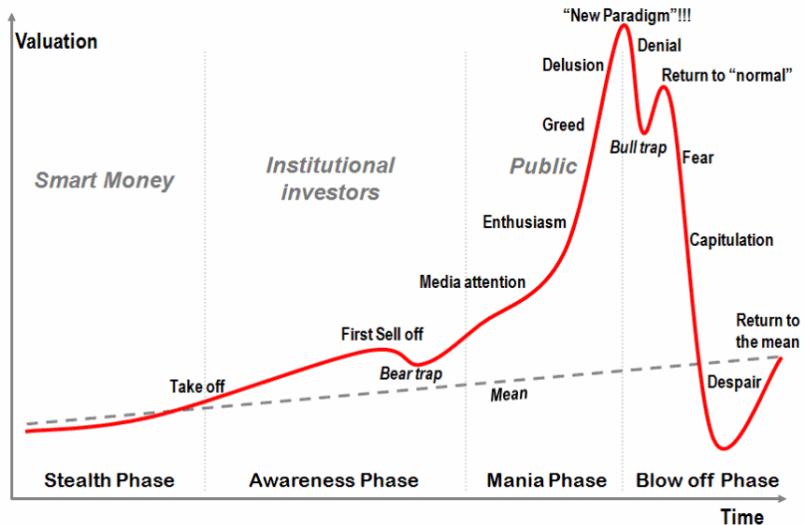


Figure 1. Phases of speculative bubbles. Source: Rodrigue, J.-P. 2008.

In the Baltic countries the Mania phase probably began in 2005. The “New Paradigm” perception and market top was achieved in 2007. The first to achieve its top in early 2007 was the stock market. The property market achieved its top in early 2008.

Emerging markets are speculative by nature and nominal prices of assets or resources may overshoot in short-term. The extent of market price movement depends on how elastic are supply and demand. Likely on markets where the number of suppliers is smaller, elasticities are lower. Therefore overshooting on smaller and less developed markets are more likely. Capital markets and labour

markets are good examples. Therefore the levels of capital supply and wages of 2007-2008 should not be taken as equilibrium levels. Prices of resources and assets exceeded equilibrium level in order to attract more resources and assets to the markets. The largest price appreciations were observable in nontradables sectors such as property market and labour market. Overshooting wage level and asset prices caused consumer prices to rise also very rapidly. This resulted in sharply higher tax revenues for the government. Real exchange rate or relative price level appreciated rapidly. Politicians welcomed the news of more tax revenues and sharply raised wages to public sector to increase popularity. Fixed costs of public sector increased. After the end of the boom the government lacked resources and faced cost-cutting. This time several tax rebates were cancelled instead of cutting back public sector pay level. Overheating of the economy was visible in the form of extraordinarily high current account deficit ratio to GDP.

Montiel (*Montiel et al.* 1999, p. 1) wrote that the highest goal of exchange rate policy is to avoid large and persisting misalignments from equilibrium. The goal should be to avoid such misalignments. Overextension in the economy may result in inconvenient corrections for investors and other economic agents. John Williamson in his basic work on international exchange rates 'The Exchange Rate System' in 1985 stressed that the real exchange rate misalignment causes misallocation of resources and macroeconomic problems (Williamson 1985). Increasing financial integration throughout the world elevates the costs related to real exchange rate misalignment (*Montiel et al.* 1999, p. 2). It means that on financially integrated markets adjustments will be more powerful.

2. The main act: the crisis

The trigger

Global economic crises started on US housing market which slowed down due to increasing central bank interest rates and record high commodity prices. US house prices topped in summer 2006. In 2007 started doubts and problems regarding leveraged mortgage backed securities (Figure 2).

Economist Robert Shiller from University of Yale wrote a book 'Irrational Exuberance' about ensuing overwhelming correction on housing market in coming decade (Shiller 2005). Another authority pointing to US housing bubble was Federal reserve Bank's former head Alan Greenspan. Despite that, large losses in house prices came as a surprise to most of market participants. Problems accelerated rapidly in 2008 when leveraged trader of such securities Lehman Brothers went bankrupt. The reality hit and momentum-driven traders started selling all kinds of securities. This broad wave of fear and inconfidence sent US stock market implied volatility index VIX to 89 percent, which was the highest level of all history (Figure 3).

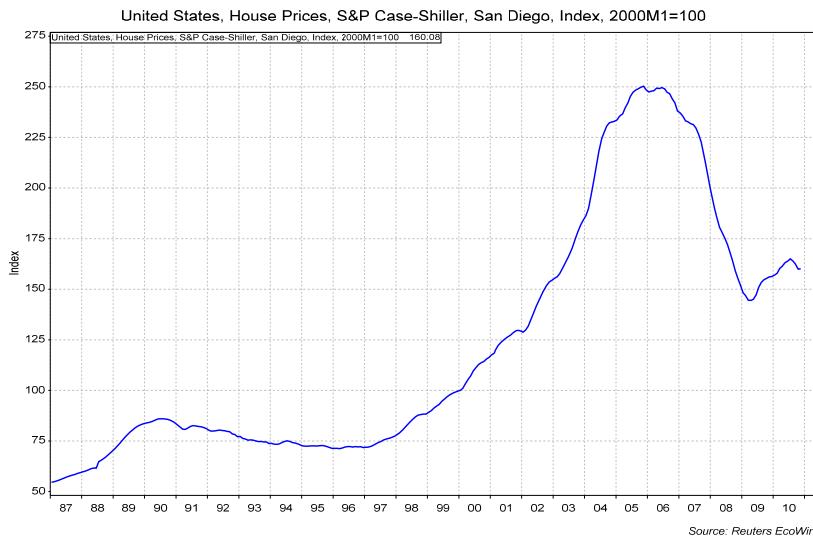


Figure 2. House price in San Diego, Case-Shiller Index 1987-2010. Source: Standard & Poor's, S&P/Case-Shiller Home Price Indices.

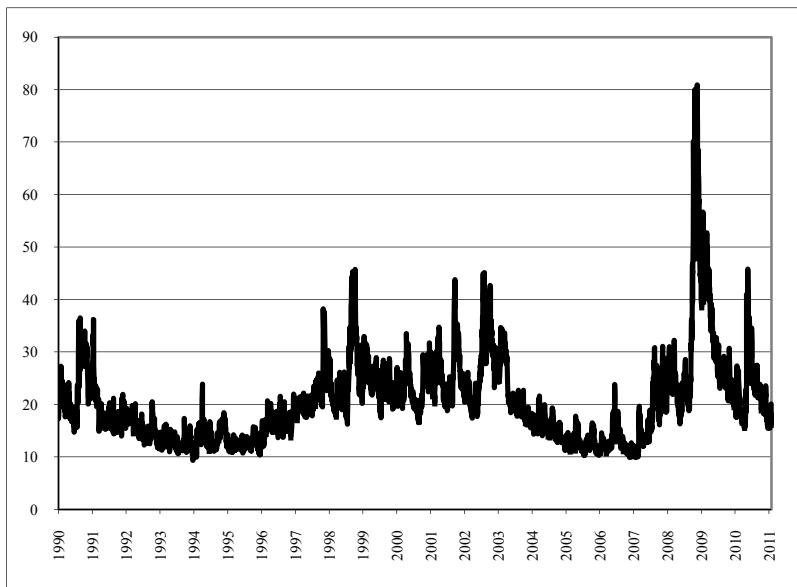


Figure 3. S&P 500 options implied volatility index VIX in 1990-2011. Source: Chicago Board Options Exchange.

Banks were among the most vulnerable companies. If quality assets on developed markets became available at cheap prices, such speculations like bubbles in emerging market assets had no other outcome as to explode. At that moment steady inflow of foreign capital had reversed in the Baltic countries. This was the most important abrupt change in economic environment.

Emerging markets reacted differently to this change. The countries with the biggest bubbles suffered the most – like the Baltic countries and especially Latvia. The change is depicted on Figure 4 on the next page. Risk premium for emerging markets had increased throughout 2007 and exploded in Q3 2008. The mainstream economic thinking concluded that the Baltic country's currencies should be devalued to allow such abrupt adjustment after so big current account deficits. But the political will was against it. All the necessary adjustment had to take place through deflation and increase in unemployment. This was political decision to avoid devaluation at any cost.

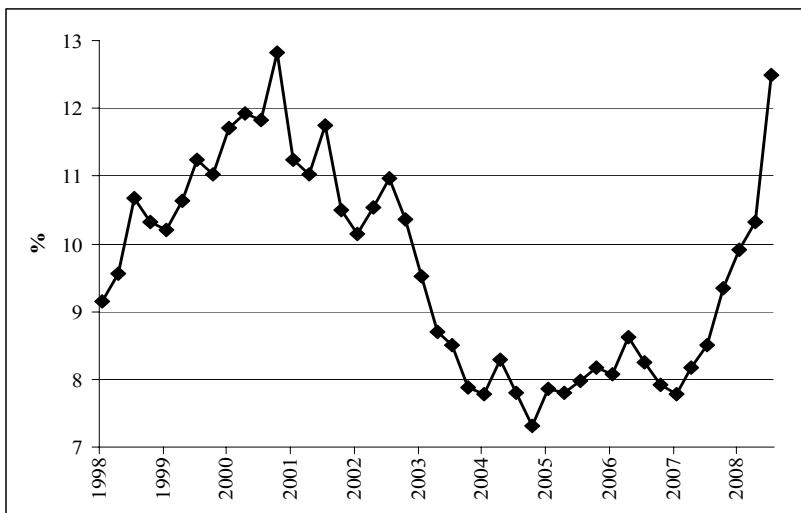


Figure 4. Emerging market risk premium 1998–2008. CSFB High Yield Institutional Index. Compiled by Credit Suisse First Boston. Source: Credit Suisse First Boston.

But some other countries shared the adjustment pressure between labour market and real exchange rate letting their floating currencies to depreciate. The following Table 1 presents the maximum downward movements on selected Eastern European countries.

The Table 1 shows that the Baltic countries experienced the deepest downturns in almost every category except in currency depreciation. Polish economy was able to avoid GDP loss during economic crises because real exchange rate depreciation was the largest in Eastern Europe. But it has to be remembered that Polish GDP was

measured in local currency which depreciated against the euro. Polish population also was not possessing big loan burden in strong foreign currency.

Table 1. Maximum losses of the crisis in Eastern European countries 2008-2009

	Max. stock market decline	Max. currency depreciation against €	Max. property prices downturn	Max. GDP loss, S.A.	Max. unemployment
Estonia	-77.48%	0.00%	-62%	-19.23%	19.8%
Latvia	-73.50%	-2.07%	-60%	-28.28%	20.4%
Lithuania	-73.65%	0.00%	-40%	-19.69%	18.3%
Czech Rep	-68.79%	0.00%	0%	-4.94%	9.7%
Poland	-68.20%	-31.57%	-9%	-2.54%	12.3%
Slovak Rep	-56.31%	0.00%	-18%	-5.40%	15.1%
Russia	-80.28%	-29.00%	-12%	-18.50%	8.6%
Romania	-83.12%	-29.88%	n.a.	-10.35%	8.1%

Source: IMF International Statistics Database, Global Property Guide, author's calculations.

Relative euro wages as alternatives to exchange rates

When talking about adjustment through unemployment, wage level becomes a key. But wage level is also an alternative measure of price level or real exchange rate. Proxy for real exchange rate may be **wage level** expressed in international currency. Wage level is important cost factor for international entrepreneurs or investors. Halpern (Halpern *et al.* 1997, p. 434-435) also pointed to dollar wage index similarity to real exchange rate. The same indicator was promoted by Thorvaldur Gylfason (1.1) (Gylfason 2002).

$$(1.4.) \quad R_W = \frac{eW}{W^*}$$

where R_W is the real exchange rate from wage indices, e is the nominal exchange rate (foreign units per one domestic unit), W is the wage index in domestic country in domestic currency and W^* is the wage index in foreign country in foreign currency.

But this index still fails to account for relative productivity change. Still, if local labour force is assumed to be nontradable or immovable resource over country borders, then this indicator is a good proxy for local price or cost level. The cost and price of local nontradable services depends directly on local wage level as local market is unavailable for international price competition and local labour is often the most important input. The following Figure 5 depicts growth of euro wages in Eastern European countries.

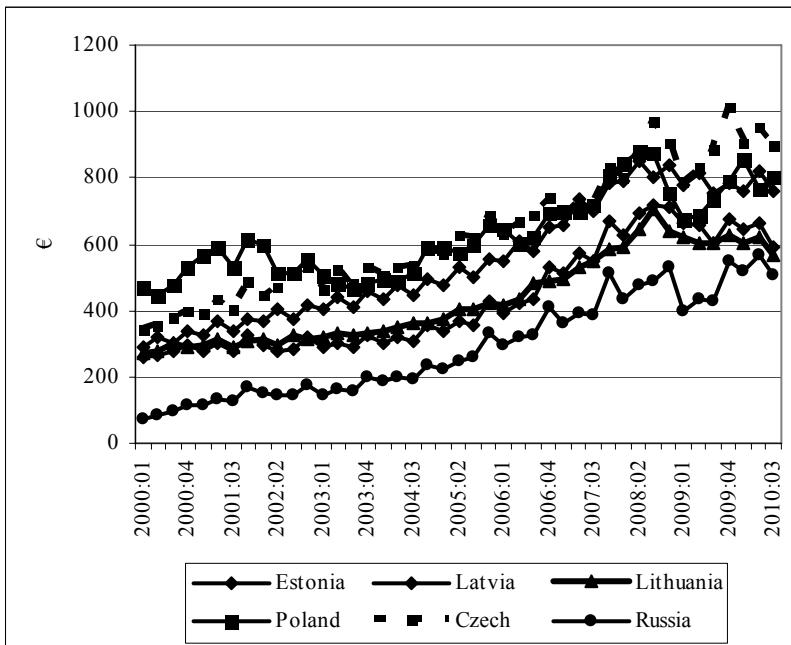


Figure 5. Annual nominal euro wages in selected Eastern European countries 2000-2010. Source: IMF International Statistics Database.

The Figure 5 shows that rapid appreciation of wage level or real exchange rate indeed started in 2005. Due to nominal depreciation of the exchange rate Poland and Russia managed to adjust euro wages to lower level among the first selected developing countries. Estonia was quite slow. But avoidance of devaluation actually served this goal.

The next Figure 6 shows year-over-year change in euro wages in selected Eastern European countries. This figure convinces also that those countries with floating exchange rates were able to achieve more rapid upward or downward adjustments of euro wages or real exchange rates.

Generally downward adjustments of euro wages were still rather small. Even in those countries which had floating exchange rates. Therefore the loss for the Baltic countries was not probably so big. On the other hand other countries were not in such a deep disequilibrium.

As a result of the crisis and slow downward adjustment of the local price level, likely short-term overvaluation of the real exchange rate or price level was created. Several indirect signs recommended that. For example large GDP loss and high unemployment rate. The previous Table 1 shows that the Baltic countries

experiences the largest GDP losses and the highest unemployment in the sample of Eastern European countries.

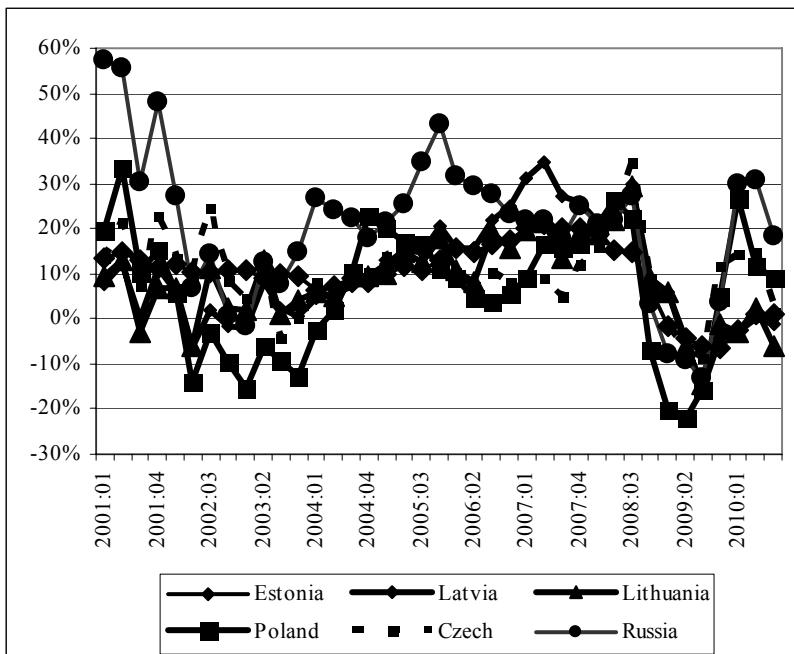


Figure 6. Annual nominal euro wage growth in selected Eastern European countries 2001-2010. Source: IMF International Statistics Database.

3. The solution and way out of the crisis

The problem is that adjustment takes long time. Considering how volatile were Estonian macroeconomic variables during boom times, ensuing downward adjustment should be probably much bigger than was visible in terms of relative price level depreciation.

The consequence of choosing so-called internal devaluation is that unemployment will stay high for long period and GDP growth rate rather low. Real exchange rate misalignment of overvaluation is likely related to slower GDP growth rate (Razin *et al.* 1997, p 1) than otherwise. Wage level growth rate should remain also low in order to allow relative euro wage level adjustment. The vicious view on internal devaluation is that choosing such track of economic development was advantageous to high rank officials and businessmen. They were able to keep their high level wages and profits. Fighting high level of unemployment was not in their first interest. Politicians pursued to avoid devaluation in any case as this was their core

promise to voters. The benevolent view could be that loan-burdened people were saved and wage-earners were supported in expense of enterprises, whose profitability was depressed because of higher-than equilibrium euro wage level.

The next step is to wait until productivity in the economy catches up with actual level of wages and prices in the Baltic countries' economies. Until then unemployment rate will stay high and nominal growth rate of wages remain low. Eventually the world is fair.

Consequences of running probably overvalued price level and high unemployment rate are increasing income inequality, weak property markets, high delinquency rates of bank loans, difficulties in financing start-up companies and stressful relationships between employers and employees. These points result in high social costs in terms of active emigration of young workforce, insufficient investments into education and creation of discouraged workers.

During the last economic boom the Baltic countries took on large amounts of foreign capital. This pushed short-term equilibrium real exchange rate higher. The net investment position ratio to GDP is depicted on Figure 7 below.

The Figure 7 shows that Estonia should probably return foreign investor's funds rather than increase foreign investments. This should put ceiling on real exchange rate or price level or wage level appreciation in future.

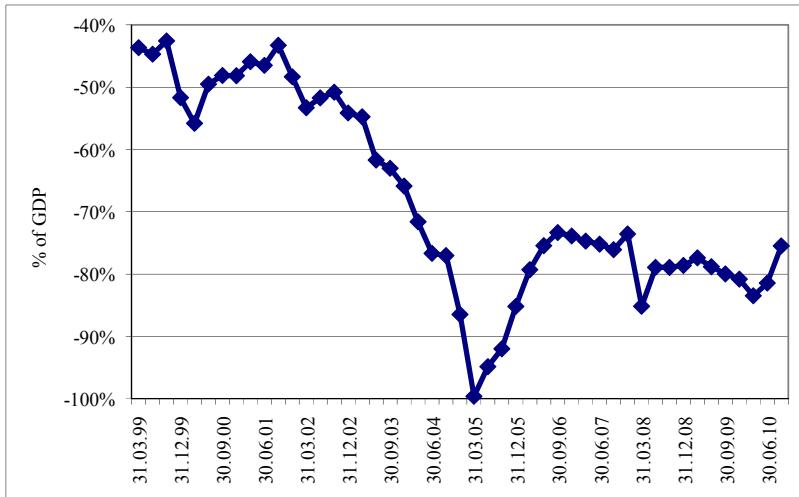


Figure 7. Net investment position to annual GDP ratio in Estonia 1999-2010.

Source: Bank of Estonia, Statistics Estonia, author's calculations.

Probably the Baltic countries experienced overvalued real exchange rate or relative price level at least in short-term. This fact is supported by facts that Baltic countries suffered deflation and downward pressure on wages, unemployment rate moved to very high level, GDP loss was large and property prices crashed.

How positive real exchange rate misalignment (MISAL) is corrected:

MISAL↑ ⇒ production costs (wages)↑ ⇒ profits↓ ⇒ foreign investments↓ ⇒ current account↑ ⇒ money supply↓ ⇒ absorption↓ ⇒ prices, wages ↓ ⇒ RER↓ ⇒ MISAL↓

4. The main lessons of the crises and discussion

1. The crisis was beneficial for the Baltic countries' economic future so that irresponsible risk-takers on properties market were ripped off of their capital. Preceding decades of Estonian economic history convinced local businessmen that you can not lose capital in developing real estate projects. Therefore perceived risk-reward ratio in real estate business was very good. Therefore the first and the most important lesson for Estonian entrepreneurs was that real estate business is not risk-free.
2. Another lesson was that businessmen should keep their heads cold and not buy the politicians propagandistic promises of everlasting economic prosperity. This is especially true in Estonia where the government pursued balanced budget policy. Previously too rapid growth favoured reckless businessmen who acted first and then performed analysis and justified.
3. If economic agents would think more often about the equilibrium level of price level, the actual price level in the economy and the difference between them, then economic decisions could be better. Necessity for painful cost-cuttings and destructive steps in future could be smaller. Finding the exact equilibrium value of the real exchange rate is a difficult task but is highly rewarding as estimating fair value of the share in listed company.
4. Policy-makers and individuals underestimate importance of market forces, its impact on macroeconomic development and everyday life. This lack of knowledge about modern macroeconomy is visible in average voters rhetorics on economic slump. Emotions and expectations have bigger role than mainstream economic thinking presumes.

Financial theory says that in order to achieve optimal total risk level and if operating leverage is high, then financial leverage should be low to maximize capital-owners welfare. The recent crises showed that Estonia belonged clearly into the group of emerging market countries and operating risk was high. This was demonstrated in how foreign investors cut back their investments in Estonia. Despite much lower prices for properties and labour force they still keep low profile. Estonia is forced to finance capital outflow from higher current account surplus. This requires rather

lower real exchange rate and puts pressure on local price level in terms of decreasing wages and high unemployment. Therefore the two most realistic ways to restore equilibrium price level or real exchange rate is to:

- 1) restore investor's confidence and investments inflow or;
- 2) go through deflation of wages and nontradables prices.

Mainstream economic theory would recommend devaluation of the local currency but Estonia does not possess this option after adoption of the euro. Deflation is painful and costly because it means keeping overvalued real exchange rate for a long time. Therefore the only positive option is restoring investor's confidence in Estonian economy. During the progress of the last crises this restoration took long time since US subprime mortgage securities crises was followed by several problems in Europe which intensified in May 2010.

On the other hand if international investors presume that local price or cost level is too high for productivity level in that specific country, they discard their investments. Overvalued real exchange rate should mean too high costs, lack of price competitiveness and lower expected rate of return on investment. Probably even bigger problem is that foreign investors are scared of the extent of macroeconomic downturn. The crisis itself creates new uncertainties regarding confidence in local banks and exit opportunities.

Rational expectations theory says that current expectations for the future are correct. In Estonia during real estate boom property investor's and Estonians expectations for everlasting bull market for properties were not correct. Therefore the asset bubble was not rational. Political implication could be that monetary policy should fight against irrational asset price bubbles. Estonia put their hopes on European Central Bank's interest rate increases. These steps were not sufficient to fight country-specific booms in Baltic countries. According to Gruen, Plumb and Stone (Gruen *et al.* 2003) from Australian central bank in the ideal world central bank reacts to asset price boom with raising interest rate and asset price weakness with lowering interest rates. But this would require central bank to give very precise estimation to price level's possible over- or undervaluation and existence of asset price bubble. Due to this fact central banks in real world are not able to provide optimal reaction to asset price bubble.

Estonian economic policy have been clearly right-wind. It means that economic individuals or speculators who participated in the bubble must suffer their consequences. Deep economic crises is just punishment for being overly optimistic. The world is finally still fair place. There is still at least one minor flaw in this kind of thinking. The individuals responsible for speculative boom were in large part foreign individuals or companies looking for risky business ventures of speculative nature. Therefore suffer other individuals (locals) than those who created the boom (international speculators). The simplest solution would be closing Estonia for capital mobility. This is impossible because Estonia wants to receive more foreign investments in long-term. More realistic proposition would be that local individuals

and institutions should understand better economic reality and keep higher financial reserves to avoid cutting back their costs in too extreme pace during bad times.

Conclusions

The main issue of the article was the statement that Estonia experienced speculative boom which included overheating in property prices, stock prices and prices which determine labour costs. It was probably not the optimal outcome for Estonian economy and development. Abrupt and sizable adjustments are probably accompanied with high restructuring costs in society and high unemployment.

The main conclusion is that Estonian economic agents were inexperienced, emotional and probably irrational because such booms and busts are likely characteristics of inefficient markets.

The Baltic countries and other Eastern European countries went through speculative boom due to accession to the EU and expected adoption of the euro in 2004-2008. As a result of the boom local prices for assets and resources appreciated. The main local manly nontradable resource was labour force. According to the main definitions of the real exchange rate, real exchange rate appreciated rapidly. Actually wage level expressed in euros is quite good proxy for real exchange rate or local price level development. This was also expressed in rapid official inflation rate of consumer prices.

The boom was interrupted by US mortgage-backed securities crisis. Risk-aversion of global investors rose and emerging markets lost their previous attraction as a place of above-average speculative returns. Instead, investors pursued to massively sell assets on emerging markets. Rapid reversal of capital inflow instantly created short-term real exchange rate overvaluation. The data shows that some other developing countries, like Poland and Russia let their price level to adjust through depreciation of nominal exchange rate. Estonia and other Baltic countries decided to go through adjustment with deflation of prices and wages. This contributed to higher unemployment rate and GDP loss.

As Estonia lost its opportunity to lower actual real exchange changing nominal exchange rate and deflation of wages takes long time, the only positive way out of likely real exchange rate overvaluation appears to be restoration of foreign investors interest in local economy and reversing capital flows. According to the theories of real exchange rate, higher sustainable capital inflow raises equilibrium real exchange rate and this removes likely misalignment.

The other important implication was that local businessmen and other individuals were too much risk-takers for volatile emerging market economy. This was lesson to keep higher reserves for tougher times even if the government and politicians tout everlasting economic prosperity in order to become elected back.

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FOCJ AS MODEL FOR FINANCING THE ESTONIAN GENERAL EDUCATION¹

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Abstract

The share of GDP used for financing education in Estonia is somewhat lower in comparison to the EU average, the nominal amount of per capita education funds is much more lower due to a low level of economic development. Moreover, because of thin population per square km many small schools exist in Estonia without a sufficient number of pupils, which makes the education system more costly. We consider two different basic strategies to improve the situation.

The current strategy of financing Estonian general education refers mainly to the prevailing educational and spatial organization. This strategy is not based on a fair equal treatment of cases. Therefore a new strategy of improvement of education financing system is discussed. It is based on the idea of Functional Overlapping Competitive Jurisdictions (FOCJ). The municipalities voluntarily form FOCJ that are operating schools. In this way municipalities may form a school jurisdiction that can negotiate with central government institutions for the loan and the school equipment etc. A municipality can act individually or the FOCJ negotiates for the municipal members in total. Theories of FOCJ-establishment, FOCJ-contribution determination and FOCJ-negotiations with central government are demonstrated. The FOCJ can supplement positively the first strategy of reform.

Keywords: funding of education, central government budget policy, local governments finance

JEL Classification: H52, I22

Introduction

The funding of school education has become a complicated issue for the public sector (Aaronson 1999; Nechyba 2003) and for securing the financial sustainability of general education schools (Downes 2001; Murray *et al.* 1999) especially under conditions of reduction of population.

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Therefore, this article deals with changes and adaptations of spending schedules for general education in the regions of Estonia³. The following research questions are formulated:

- What are the actual conditions of school finance in Estonia?
- What reform approaches exist?
- May the introduction of FOCJ improve the reform results?

The article consists of four parts. The first part analyses the starting points of the financial reform in Estonian general education. The second part presents the FOCJ model to organize financing of general education. The third part analysis the institutional conditions of introducing the FOCJ in Estonia.

1. The situation of the general education funding in Estonia

The nominal amount of Estonian per capita education funds turns out low⁴. Estonia has many small schools with an insufficient number of pupils, which makes the education system costly. The reform planned for 2005-2006 aimed at increasing the level of investments in the learning environment of schools and the funds for educational expenses, as well as at introducing higher transparency into the system. There are a number of problems hindering the implementation of the reform, increasing risks and questioning the need for several changes.

In the funding of educational investments, the central government has planned to be in the role of a long-term loan and construction service provider via state owned real estate firm (RKAS – Riigi Kinnisvara AS) from one side to achieve the economy of scale both on financial and construction market. From another side, the investment component was allocated to municipalities from the state budget as part of the per capita funds for financing the necessary school investments. The reform comprises the transition from the political distribution of investments to a funding scheme based on the number of pupils in the municipality and investment allowance per pupil.

But the reform was actually interrupted. The institutions of EU have included RKAS to state institutions and it loans to state budget deficit. As result the central government has lost interest to support the school-investments of municipalities through loans of RKAS and the implementation of the school-investment program “Schools in Order” in RKAS passed away. In years 2005-2009 13 new schools were

³ The article uses the information of the Ministry of Education and Research about the educational funds. Funds for school operation get allocated proportionally to the number of pupils in particular schools (per capita funding, or the so-called capitation fee) between 2001 and 2007. Investment funds are provided through the State Investments program to municipal general education institutions between 1996 and 2004. Statistical data educational on expenditures of EUROSTAT are used as well.

⁴ In the period 1996-2008 in Estonia the GDP grows 4.42 times, but the funding of general education increases only 3.67 times.

built up and 19 old school buildings reconstructed. Total investments amount 1.1 billion EEK, including 0.9 billion EEK for municipality schools. (RKAS 2011)

From municipality side the development trends of the state-allocated investment component was not fixed. The growth of the investment component should be tied to GDP growth to enable the financing of long-term investment projects besides the savings from exploitation costs as a result of investment in school buildings. The changes in the funding scheme were dramatic and vary to a great extent from school to school and also from county to county. The new system has eliminated several bottlenecks, but it ignores the volume of investments made so far, differing needs in investment, and differences between the financial capacities of municipalities. The initial level of investment component was not sufficient, but was for stronger municipalities a stimulus to mobilize own resources too for the investments in improvement of the teaching-learning environment in schools.

During the economic and fiscal crisis the central government investment support (investment component of general education funding) was declined drastically in year 2009 (by 77% in comparison to year 2008 from 2010 EEK to 468 EEK per pupil) and stayed on this very low level in years 2010 (528 EEK) and 2011 (495 EEK) (Estonian Ministry of Finance homepage). In addition, because of general essential declining of budget revenues the stronger municipalities too do not have more financial resources for new investments. Many participants of RKAS school loan-construction program “Schools in Order” have serious difficulties to service their rental (credit) obligations. RKAS has to face high risks, especial risk managements methods are worked out (RKAS 2011).

According to the new rules of funding schools' current educational expenses for 2008, the coefficients for the re-calculation of the funds reflecting pupils' numbers per municipality have been dropped. In order to take into account the needs of small schools, schools will be financed depending on the number of classes in them. If a school is recognized as regionally important, it is reckoned that teachers have to do their work regardless of the size of the classes. For schools with undersize classes, the so-called base fee (75% of the capitation fee) will be allocated for each pupil falling short of the set standard minimum class size.

An advantage of the new funding system concerns the switch from the municipality related scheme to a school-related scheme. Until now, municipalities with several regionally important schools were at a disadvantage compared to those with only one school on their administrative territory. The combination of per capita and base fee aims at finding a single applicable funding scheme for all schools that would consider the differences in the numbers of pupils and classes at different schools (Riigikogu kultuurikomisjon 2005). The regional effect of the transition to the new funding scheme is illustrated by figure 1 presenting the allocation of state funds to general education schools in different counties of Estonia in 2008.

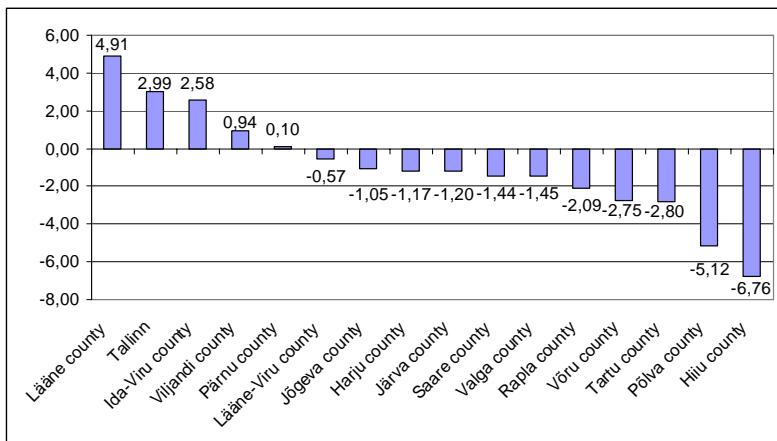


Figure 1. The impact of introducing new funding model on current educational expenses in the counties of Estonia in 2008 compared to old funding model (%).
Source: Data from Estonian Ministry of Finance 2008, compiled by authors.

The proportions of the funds for current educational expenses offered to counties by the state change considerably. Such a change in funding of general education might be regionally justified on the basis of objective indicators, if it can be followed that the schools of e.g. Hiiu, Põlva, Tartu and Võru counties have been in a better situation than those of Lääne and Ida-Viru counties. Unfortunately, no such research has been done.

At average growth in funding sum nearby 13.7%, revenues in more than ten schools will increase by more than 40%, while in more than 40 schools the funds allocated for 2008 will decrease nominally. Mostly the substantial decrease of financing has touched small schools in rural area. Even if there are sufficient arguments for introducing the changes, and the transition will be organized smoothly during three years, the negative impacts on the regional development could be not prevented.

The new calculation of funding takes into account the number of pupils and classes, but no other conditions causing discrepancies between the educational expenses of individual schools (such as different levels of exploitation costs). Unpredictable is the further development of the state current school funding. Either macro-economic or school-level criteria have been established in relation to the levels of funding. The existing organization will be unstable and may undergo further adaptations. The characteristics of the reform are depicted in table 1.

Table 1. The advantages and disadvantages of the new general education funding system

Improvements	Weaknesses
<ul style="list-style-type: none"> • Cost-saving via the large-scale activity of RKAS • Financial empowerment of RKAS in the procurement of means • Avoiding state budget deficit • Increased authority of municipalities in deciding the location and volume of investments • Funding of educational expenses no longer local-government-, but school related • Funding per capita replaced by funding based on the number of classes and pupils in classes • Rapid increase in allocations for educational expenses in several schools 	<ul style="list-style-type: none"> • Peculiarities of institutions and special needs of small schools in rural area are not given enough consideration • Service fees of RKAS too high • The principles of calculating school investments as part of the loan burden of municipalities are unclear • Allocation of the investment component fails to take into account the real investment need and the volume of investments already made • The criteria for assessing the sustainability of schools are unclear • The per capita investment component is insufficient and its development trends not regulated. • Sufficient funds for investment will be available only if the growth of the investment component is tied to GDP growth • Ignores the differences in the financial capacity of municipalities • Ignores differences in exploitation costs

Source: compiled by the authors.

As already said above, because of the economic and fiscal crises the reform of general education funding has lost desired advantages and suspected weaknesses have been realized. The competences of municipalities and central government regarding school location and operation need more clarification. School financing should be integrated in regional development plan. Criteria, to determine the school locations and the need of existence of schools, and acceptable schooling conditions, have to be developed jointly between central government and municipalities. Specifications have to be made for the establishment of private schools. The funding scheme should comprise a rule to determine the total funds available to subsidize investment and current activities by the central government, e.g. percentage of all expenses for internal affairs, a percentage of tax receipts of the central state, a relation to growth of GDP. Moreover, there should be a stipulation determining the institution that has to finance investment. This can be the municipality through a loan from the central state, by debts in a framework of public private partnership, loans from the capital market, the use of municipal or central state owned real estates or municipal finance from other sources.

The central government may finance investment by loans, tax receipts, profits or revenues from real estate management or public enterprises etc. In order to protect fiscal autonomy of municipalities they may come to a sharing of investment costs according to fixed percentages. In this framework present financial allocation rules to schools may be applied. Particular situations of municipalities in distressed areas, e.g. in border areas, may be considered in a special addition to general grants.

The current reform may end up in a sophisticated planning system where the municipalities have to give up a considerable part of their organizational and fiscal autonomy. Therefore, we discuss whether through so-called Functional Overlapping Competing Jurisdictions (FOCJ) some of the ramifications of the reform could be avoided.

2. FOCJ to improve the financing system of general education

2.1. FOCJ: definition and integration into the financing system

The Reform might be totally or partially changed by introducing FOCJ. FOCJ are functional, overlapping, competing, jurisdictions, which are recommended to organize the production of special public services such as school services. The concept is not very new but Frey (Frey 1997; Frey and Eichenberger 1995, 1996, 2006; Eichenberger 1998, 2002; Spindler 1998; Detig, Feng, Friedrich 2002; Friedrich 2002, 2006; Dohse 2007; Bartholomae, Friedrich 2008) has initiated a discussion for application of this concept in the European Union.

FOCJ might be categorized according to their members to:

- (1) FOCJ with citizens as members, e.g. school communities in Switzerland
- (2) FOCJ with jurisdictions as members, e.g. Association of municipalities for school services
- (3) FOCJ with jurisdictions, institutions of public and private law as members, e.g. communities, public schools, private schools
- (4) FOCJ with citizens, and entities of private and public law as members, e.g. jurisdictions, associations, chambers of handicraft and commerce, firms, citizens interested in school activities).

All of them might be applicable in Estonia, but we concentrate on type (2) that is more close to the reform system described above. School-FOCJ compete for municipalities as members to organize the provision of school services. A municipality can choose to establish jointly with other municipalities a FOCJ or it may participate in an already existing FOCJ. A FOCJ is functional because it concentrates on a specified type of school services, e.g. elementary schooling, secondary schools, high schools. The FOCJ are overlapping because several of them may offer the same education services in a region. It does school investments and operates the schools.

The legal form may be that of a public association for special purposes. This form is often used in some countries (Detig, Feng, Friedrich 2002). A legal form of this type

for cross border cooperation in the European Union has just been created (Regulation (EC) No 1082/2006).

If such a possibility exists: Which municipalities are going to form or participate in such a School-FOCJ? We tackle this question within a model (1). Apart from financing the establishment of the FOCJ, investments and operational activities of the schools possessed by the FOCJ must partly be financed by the members through capital participation (simple arrow, figure 2). To some extent they may use the reform grants mentioned. We discuss a model (2) (showing how the contributions of the municipal members are fixed if contributions are related to the number of pupils (dotted arrow, figure 2). The FOCJ will be the partner of central government representing their municipal members as a joint association. Therefore, they receive the Estonian special grants to renovate, extend, construct, etc. schools (symbolized by a thick arrow, figure 2). Thus we refer to a model (3) to specify the negotiation solution on such grants. The FOCJ may be integrated into the reform system as shown in figure 2.

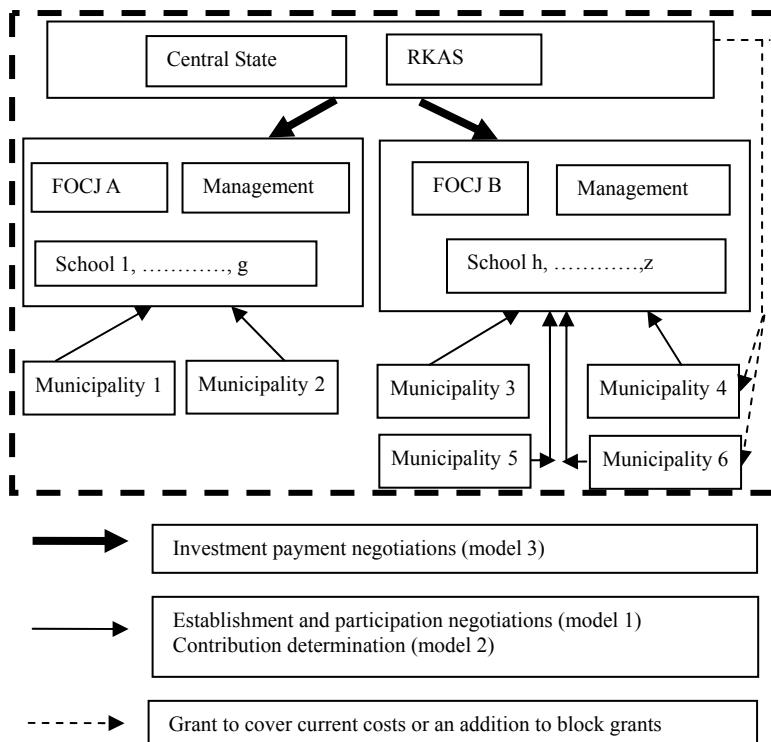


Figure 2. The role of FOCJ concerning the funding reform.

2.2. Establishment model for school-FOCJ

The municipalities have to decide which resources should be dedicated to the FOCJ. Such resources might be expressed in monetary terms (financial means, real estates, existing schools, etc.) and named as x_i . x_i shows the resources brought in by town i and $\sum x_j$ ($j=1, \dots, n$) shows the total amount of resources X dedicated by municipalities to the FOCJ. X_R depicts the total resources of the FOCJ without that of the town i . The possible number of towns is indicated by n . The town i expects advantages from schooling the pupils by the FOCJ and expects higher advantages from its engagement in the FOCJ if the share of its resources in the FOCJ increases⁵. These advantages are expressed by the parameter c_i . The dedication of resources by the town to the FOCJ shows also some negative effects⁶ captured by the parameter b_i ⁷. We obtain a utility function of town i (c.f. figure 3):

$$(1) \quad u_i = c_i \cdot (x_i / \sum x_j) - b_i \cdot x_i ;$$

$$(2) \quad X_R = X - x_i ;$$

$$(3) \quad u_i = c_i \cdot (x_i / (x_i + X_R)) - b_i \cdot x_i = c_i \cdot (1 - X_R / (x_i + X_R)) - b_i \cdot x_i .$$

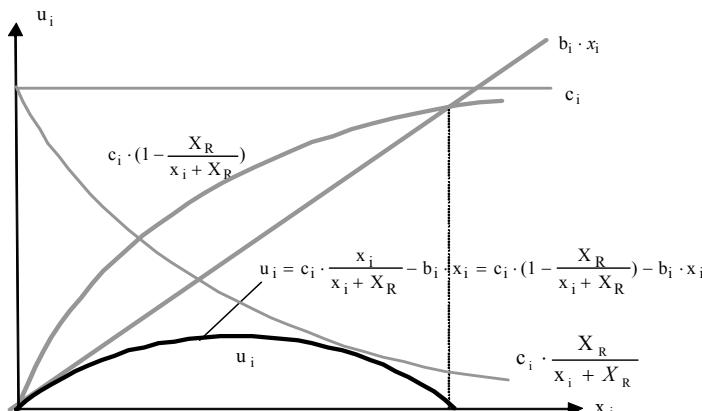


Figure 3. Utility development of town i .

In case of n candidates the uncertainty about the strategies chosen by other communities' increases. Therefore, we assume that the municipalities escape to a more simple autonomous strategy that means that one municipality maximizes utility under the assumption that the others do not react that means X_R the offers of

⁵ There might be more pupils taught or the location of schools can be situated more in favour of citizens of the town, transportation times and costs may diminish. There might be broader educational program if pupils from different towns are educated jointly.

⁶ Such as opportunity costs, less centrality of the town if the schools are not located there, transportation times for pupils and other unfavourable effects on achievement of municipal goals.

⁷ Other forms of b_i can be treated as well (Friedrich 2002: 248-250).

the other partners keep constant. The solution found refers to an approach of Cornes and Hartley (2001). The utility function (1), (3) becomes maximized⁸:
 The optimum share of resources in FOCJ turns out (c.f. figure 4) to:
 (8) $x_i/X = 1 - (b_i/c_i) \cdot X$.

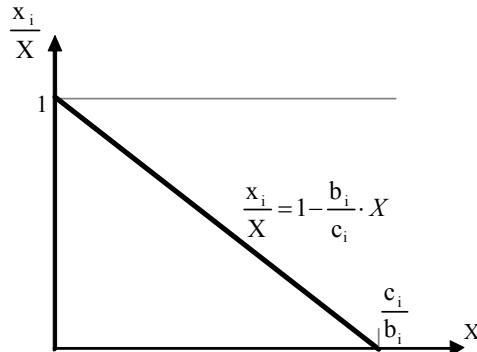


Figure 4. Best response of town i.

The optimal solution that means the optimal number of communities and the adequate volume of X is determined where the sums of the values of the optimal shares add up to one (c.f. figure 5). To participate in a FOCJ the cost/benefit ratio must be smaller than the average of the sum of other members of the FOCJ.

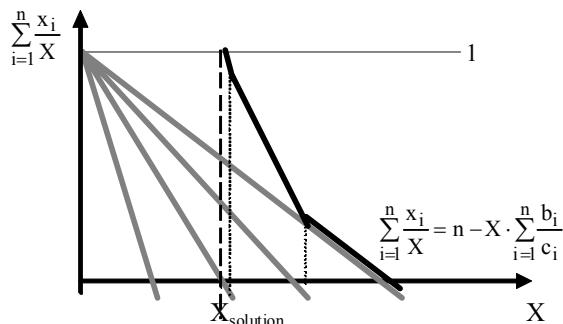


Figure 5. Solution of FOCJ formation.

⁸ (4) $du_i/dx_i = c_i(X_R/(x_i + X_R)^2) - b_i = 0$;

(5) $x_i = \sqrt{(c_i/b_i) \cdot X_R} - X_R$;

(6) $x_i = \sqrt{(c_i/b_i) \cdot (X - x_i)} - (X - x_i)$;

(7) $X = (c_i/b_i) \cdot (1 - (x_i/X))$

Many times favourable benefit/cost relations develop for neighbouring municipalities that are going to form a FOCJ and thus delegate part of their school competences to the FOCJ. Competition among existing FOCJ can be considered in extended models. Municipalities, which do not like to join an FOCJ, have low c parameters. They have a high preference for small schools and high opportunity costs.

2.3. A model of contribution to the operating costs by the FOCJ members

The members of the FOCJ have to cover a share of the operating costs of the FOCJ⁹. For shake of simplicity we assume that a specified percentage of costs are to be covered by the members. The members have to pay a contribution that is equal, (e.g. per pupil, or related to resources dedicated to the FOCJ) to the costs per unit. The usage of the services of the FOCJ depends also on the contribution to be paid. If the costs are high less usage is made of the capacities of the FOCJ services. There might be still some uncomfortable substitution possibilities for the municipalities.¹⁰ An added up demand curve of all members exist for the services of the FOCJ depending on the level of cost contribution per service unit the municipalities have to pay. The FOCJ possesses a management that shows a utility function related to the production and labour input of the FOCJ.

If the rule of cost coverage is stipulated and the management has the right to fix or to suggest the contribution rate on basis of costs the following results are obtained. The model comprises a modification of a fee determination model (Friedrich 1998; Friedrich, Kaltschütz, Nam 2004).

It comprises:

- A utility function U of the public firm's management depending on output Z and labor input L.

$$(1) \quad U = U(Z, L), \quad \partial U / \partial Z = U'_Z, \quad \partial U / \partial L = U'_L$$

- A restriction concerning the production function. There is one fixed factor A and there are two variable production factors, L = labour and C = materials.

$$X = f(L, C) \quad \begin{aligned} \partial f / \partial L &= f'_L > 0 & \partial f / \partial C &= f'_C > 0 \\ \partial f'_L / \partial L &= f''_L \leq 0 & \partial f'_L / \partial C &= f''_C \leq 0 \end{aligned}$$

$$(2) \quad \partial f'_C / \partial L = f''_{CL} = f''_{LC} = \partial f'_L / \partial C > 0$$

- A demand function showing the relationship between price P and volume Z of output sold

$$(3) \quad P = P(Z), \quad \partial P / \partial Z = P' < 0$$

⁹ Some costs, e.g. interest payments, normal amount of teacher services, etc., might be paid by the central state.

¹⁰ If the costs are high less usage is made of the capacities of the FOCJ services. There might be still some uncomfortable substitution possibilities for the municipalities.

- The cost function demonstrating fixed cost K_A and two types of variable cost. The factor price of labour is w and that of materials is i , hence

$$(4) K = K_A + wL + iC$$

- Under Estonian conditions the towns have to cover a percentage g of the variable costs K_V , they need not to pay for K_A

$$(5) g \cdot K_V = g \cdot (wL + iC)$$

- A restriction that contribution revenue is equal to total cost is introduced. We assume a self-financing FOCJ

$$(6) P(Z)Z = g \cdot (wL + iC)$$

- Utility maximization of management under the restrictions mentioned above leads to the following Lagrange equation

$$(7) \Lambda = U(Z; L) + \lambda(P(Z)Z - g \cdot (wL + iC)), \text{ where } Z = f(L, C)$$

- The following first-order conditions for the utility maximization are delivered

$$(8) \delta\Lambda/\delta\lambda = P(Z)Z - g \cdot (wL + iC) = 0$$

$$\delta\Lambda/\delta Z = U'_Z + \lambda(\delta P/\delta Z \cdot Z + p) = 0$$

$$\delta\Lambda/\delta L = U'_Z \cdot f'_L + U'_L + \lambda(P' \cdot f'_L \cdot Z + P \cdot f'_L - g \cdot w) = 0$$

$$\delta\Lambda/\delta C = U'_Z \cdot f'_C + \lambda(P' \cdot f'_C \cdot Z + P \cdot f'_C - g \cdot i) = 0$$

Equations (8), (9) show two optimality conditions. One concerns the equivalence of the relation of marginal utilities of marginal factor-inputs to the proportion of respective marginal profits from contribution and the other refers to the contribution rate under the percentage of cost coverage. Consequently

$$(U'_Z \cdot f'_L + U'_L)/U'_Z \cdot f'_C = (P' \cdot f'_L \cdot Z + P \cdot f'_L - g \cdot w)/(P' \cdot f'_C \cdot Z + P \cdot f'_C - g \cdot i) \quad (8)$$

$$\text{and } P = (g \cdot (wL + iC))/Z \quad (9)$$

The optimal contribution rate from the point of view of FOCJ-Management is shown by figure 6 at point B. Here the management of the FOCJ has a high influence on the contribution and the towns are depending to high degree on the type of management that manages the FOCJ (c.f. figure 6). If it is only interested in Z that means $U(Z)$ than it realizes cost minimization with a low contribution rate and no X-inefficiency according to Leibenstein. Several types of managers can be considered that evaluate pupils education and labour input positively (type I), are only interested in education (type II), or that want to maximise labour (type III) (c.f. figure 6). Type I and III are Leibenstein X-inefficient, but produce more than under profit maximization (hidden).

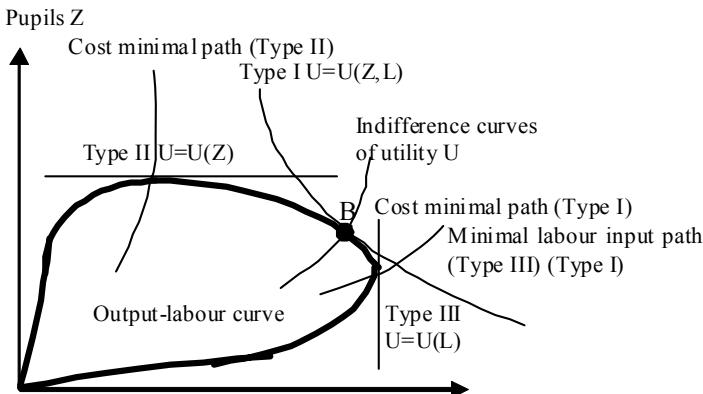


Figure 6. Types of managers of FOCJ.

This approach opens an analytic framework for the analysis of school FOCJ-behaviour. Typical conditions can be considered as well. Restrictions result for the FOCJ management to produce too costly. Some municipalities do not use the FOCJ if the contribution rate becomes too high.

Moreover, there might be a monitoring council of the municipalities and a negotiation process between the FOCJ management and the municipalities' representatives in the council. This can be considered in an extension of the model with utility functions of the management and a utility function of the council, e.g. the council $U_T(Z)$ and the management $U_M(Z, L)$. A utility combination results along the pupil-labour curve between the tangency point of type II (highest utility of the council) and tangency point of type I (highest utility of management). It shows a utility frontier concerning the two negotiators where a Nash solution can be identified. It shows a higher education volume than according to the wishes of the management. (c.f. Friedrich, Dehne, Nam 2009)

Moreover, if towns can leave the FOCJ maximum restrictions can be introduced that show a contribution rate and related a utility level at which the towns leave the FOCJ. There is a pressure in the direction of lowering costs involved.

Horizontal competition among school-FOCJ can be introduced if towns are allowed to send pupils to FOCJ where they are no members or if they are allowed to be member in several of them (similar Friedrich 2002).

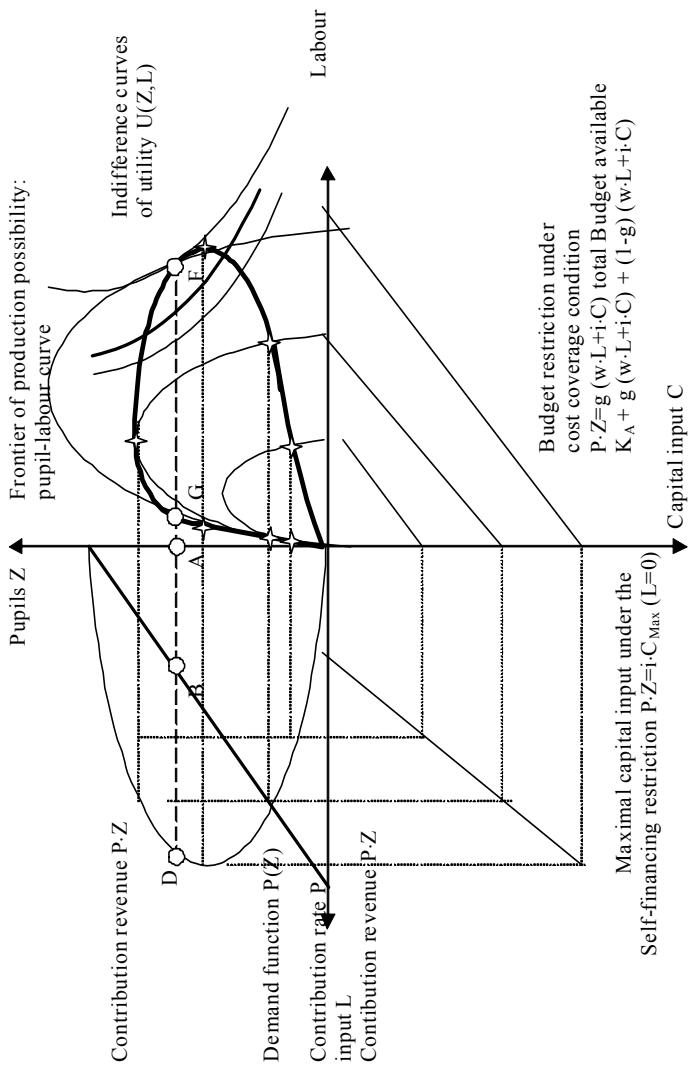


Figure 7. Determination of contribution rate for FOCJ.

2.4. Model concerning special grants

Under Estonian institutional conditions the fixed costs are mostly covered by the central government. This concerns especially the construction and extension costs of schools. Therefore a FOCJ should apply for a credit from RKAS or for a conditional grant. We turn at first the case of conditional grant, Negotiations between the FOCJ and a ministry or RKAS take place to specify the conditions for such a special grant. A similar problem was tackled by Friedrich, Gwiazda, Nam (2007).

The ministry (RKDA) evaluates a unit of investment for a pupil by g_{ZL} and a unit of grant by g_{FL} . The resulting utility the ministry wants to maximise is:

$$(1) U_L = g_{ZL} \cdot Z - g_{FL} \cdot F \rightarrow \max$$

The utility of the FOCJ is determined by evaluation of the educational services through the parameters a , b and by the evaluation of a unit of grant g_{FG} . The utility function

$$(2) U_G = (a - b \cdot Z) \cdot Z + g_{FG} \cdot F \rightarrow \max$$

is to be maximized by the FOCJ.

An indifference curve of the ministry shows the condition (c.f. figure 8):

$$(3) dU_L = (\delta U_L / \delta Z) \cdot dZ + (\delta U_L / \delta F) \cdot dF = 0$$

for that of the FOCJ we obtain:

$$(4) dU_G = (\delta U_G / \delta Z) \cdot dZ + (\delta U_G / \delta F) \cdot dF = (a - b \cdot Z)dZ + g_{FG} \cdot dF = 0$$

The two equations deliver the solution:

$$(5) dF/dZ = g_{ZL}/g_{FL} = -(a - 2bZ)/g_{FG}$$

$$(6) Z_{Pareto} = (g_{ZL} \cdot (g_{FG}/g_{FL}) + a)/2b$$

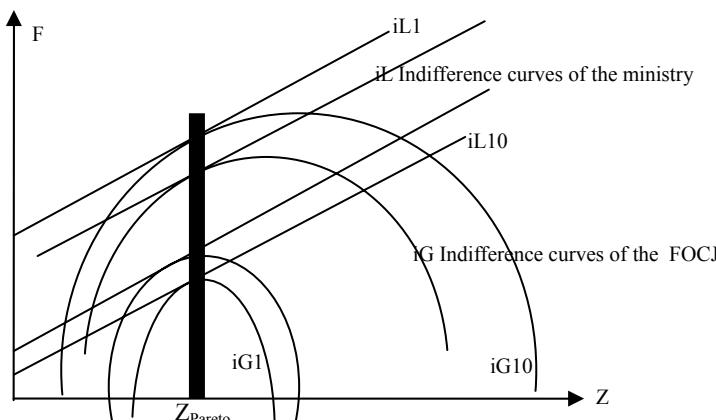


Figure 8. Negotiation situation between ministry and FOCJ. Indifference Curves and possible solutions.

The utilities along the Pareto-solution are:

$$(7) U_L = g_{ZL} \cdot Z_{\text{Pareto}} - g_{FL} \cdot F$$

$$(8) U_G = (a - b \cdot Z_{\text{Pareto}}) \cdot Z_{\text{Pareto}} + g_{FG} \cdot F$$

(9) While $Z_{\text{Pareto}} = (g_{ZL} \cdot (g_{FG}/g_{FL}) + a)/2b$ turns out constant (c.f. figure 8).

If we solve one equation for F and if we substitute F in the other one we receive:

$$(10) \begin{aligned} U_L &= -g_{FL}/g_{FG} \cdot U_G + (g_{ZL} + g_{FL}/g_{FG} \cdot (a - b \cdot Z_{\text{Pareto}})) \cdot Z_{\text{Pareto}} \\ &= -g_{FL}/g_{FG} \cdot U_G + g_{FL}/g_{FG} \cdot (g_{ZL} \cdot (g_{FG}/g_{FL}) + a)^2/4b \end{aligned}$$

It demonstrates the utility frontier between the two negotiators (c.f. figure 8, 9). To derive the negotiation solution we maximize the Nash product (NP) considering minimum utilities that the ministry $U_{LM_{\text{Min}}}$ and the FOCJ $U_{GM_{\text{Min}}}$ want to achieve and the utility frontier (c.f. figure 9). The expression:

$$(11) \begin{aligned} \Lambda &= (U_L - U_{LM_{\text{Min}}}) \cdot (U_G - U_{GM_{\text{Min}}}) + \lambda(-U_L - g_{FL}/g_{FG} \cdot U_G + g_{FL}/g_{FG} \cdot (g_{ZL} \cdot (g_{FG}/g_{FL}) + a)^2/4b) \end{aligned}$$

$$(12) \delta\Lambda/\delta\lambda = -U_L - g_{FL}/g_{FG} \cdot U_G + g_{FL}/g_{FG} \cdot (g_{ZL} \cdot (g_{FG}/g_{FL}) + a)^2/4b$$

$$(13) \delta\Lambda/\delta U_L = U_G - U_{GM_{\text{Min}}} - \lambda = 0 \quad \lambda = U_G - U_{GM_{\text{Min}}}$$

$$(14) \delta\Lambda/\delta U_G = U_L - U_{LM_{\text{Min}}} - \lambda g_{FL}/g_{FG} = 0 \quad \lambda = g_{FG}/g_{FL} \cdot (U_L - U_{LM_{\text{Min}}})$$

We obtain:

$$(15) U_{LNash} = ((U_{LM_{\text{Min}}} - (g_{FL}/g_{FG}) \cdot U_{GM_{\text{Min}}} + g_{FL}/g_{FG} \cdot (g_{ZL} \cdot (g_{FG}/g_{FL}) + a)^2/4b)2$$

$$(16) U_{GNash} = ((U_{GM_{\text{Min}}} - (g_{FG}/g_{FL}) \cdot U_{LM_{\text{Min}}} + g_{FG}/g_{FL} \cdot (g_{ZL} \cdot (g_{FG}/g_{FL}) + a)^2/4b)2$$

$$(17) F_{Nash} = (U_{GM_{\text{Min}}}^2/2g_{FG} - U_{LM_{\text{Min}}}^2/2g_{FL} + (g_{ZL} \cdot (g_{FG}/g_{FL}) + a) \cdot (3g_{ZL} \cdot (g_{FG}/g_{FL}) - a))/8bg_{FG}$$

If the parameter b increases the grant F decreases. If a is smaller than $g_{ZL} \cdot (g_{FG}/g_{FL})$ it increases as long as a is larger than $g_{ZL} \cdot (g_{FG}/g_{FL})$. If FOCJ expands its education services the ministry or RKAS is willing to pay a higher conditional grant as long as the difference $g_{ZL} \cdot Z - g_{FL} \cdot F$ increases. If the evaluation of the FOCJ is high the grant keeps smaller. The model can be extended to the case where several FOCJ compete for the grant. The FOCJ that offers the highest utility to the ministry will win.

The ministry and the FOCJ show utility functions depending on the Volume of the grant F and the amount of school service Z that lead to a mapping of the sets of utility curves shown in figure 9. Possible solutions reflect the points of tangency between the indifference curves at a volume Z. A Nash solution gives us in figure 9 the result of the negotiation between the ministry and the FOCJ. If FOCJ expands its education services the ministry or RKAS is willing to pay a higher conditional grant. The model can be extended to crediting as well. The RKAS has a similar utility function but it gives better conditions if the number of pupils the FOCJ is willing to teach increases. The FOCJ is considering the amortization as fixed costs and the model (2) can be integrated. Such an approach was used for a theory of real estate sale to firms by municipalities including and a federal real estate institution (Feng, Friedrich 1993).

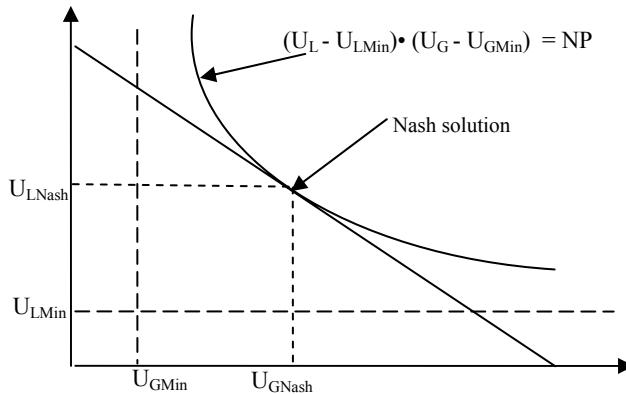


Figure 9. Nash solution of conditional grant.

2.5. FOCJ to improve the financing model of general education

The introduction of FOCJ improves the financing model of the general education in Estonia (see table 2). In this system the FOCJ or individual municipalities own schools. FOCJ possess budgets. Their revenues are from contributions of municipalities, debts, grants from central government, sale of unused school buildings. Their expenses are for school investment, school operation, and amortization. The new funding system can be considered within this FOCJ oriented framework. The FOCJ negotiates for his members the investment funds, school locations and teaching programs influenced also by the member municipalities. The operational central government funding can be received by municipalities operating own schools or through the number of classes they fill up with their pupils within the FOCJ. For shake of simplicity this amount can be directly transferred to the FOCJ thus lowering the contributions of the respective municipalities. Detailed research concerning the legal possibilities to introduce school FOCJ in Estonia is welcomed.

3. Institutional basics for educational FOCJ in Estonia

The FOCJ model of financing the general education can be introduced because an appropriate juridical company form is available in Estonia and there is the desire to contract out the local public services in Estonia.

Local Government Organisation act (RT I 17.12.2010, 33) § 35 gives the municipalities rights to establish foundations and to participate in foundations for achieving goals described in the statutes of the foundation. The establishing, work and liquidation of foundations is regulated by Foundation Act (RT I 17.12.2010, 28). Differently from business organisations foundations are non-profit organisations for offering services for community and they are juridical personalities of public law.

For cross border co-operation in FOCJ the European form of a European Grouping of Territorial Cooperation (EGTC) (Council of Europe 2006; European Union 2008), which is of public law or the European Economic Interest Grouping (Council of Europe 1985) of private law.

Table 2. Improvements of financing model of general education expected from FOCJ

- The system of planning gets stabilized as rules prevail that cannot be changed according to sudden changes of the power structure in Parliament and Central Government. Ministries, RKAS, FOCJ and municipalities have to keep to stable acceptable rules and solutions to keep the sector stable, e.g. longer term principles of subsidization.
- Participants are forced to agree on indicators used to subsidize, to plan schools etc. that are permanently in use and at least to a FOCJ and its members.
- The autonomy of municipalities is not totally lost. They can organize political influence through the FOCJ organization, they co-ordinate and they have an agent that is acting in favour of them.
- The FOCJ takes care of more pupils thus representing more families, voters, party members.
- The FOCJ achieves better fiscal solutions with the central government as they can organize more classes.
- FOCJ representing several schools might be a better negotiation partner for banks. More times achievement of private profits, e.g. banks, real estate companies, consultants' expertises can be avoided. The power of the central government and RKAS is reduced, for they rely also on information and co-operation with FOCJ.
- The FOCJ is able to have a higher skilled management that is able to negotiate with RKAS or even consider European procurement laws and to organize a house keeping and facility management system.
- It can offer more career chances to teachers and might broaden the teaching programs.
- Because of higher economic potential FOCJ can maintain small schools more easily, on the other hand it can reduce the disadvantages of school closures.
- There is no centralized school planning by the central government necessary. There will be regional planning concepts by the FOCJ in such a way that the municipal autonomy is not totally lost. The municipalities as FOCJ members are incorporated through the decision making bodies of the FOCJ. School clusters are going to be established.
- The FOCJ also depend on the municipalities because municipalities can opt out or change to another FOCJ, e.g. if the contribution becomes high. The FOCJ compete with school services and low costs for the municipalities.
- The management that has to consider more low-cost productions (e.g. is of type 1).
- The school sector is not so influenced by day to day politics and political business.
- The municipalities get less exploited by private business through unfavourable Public Private Partnership, leasing and similar solutions.

Source: compiled by authors.

The foundations offer a democratic structure for co-operation of the municipalities with each other, but also with public and private juridical persons. Municipalities can be participants and through participation fees they can ensure the financing of foundations. It is also possible to transfer public authority to such institutions to execute public tasks, e.g. school planning, and partly education competences. Moreover, municipalities are allowed to transfer means for current expenses through their budget to the FOCJ and they may give grants for FOCJ if investments are not fully covered by the investments funding through the central government budget or RKAS. Moreover, FOCJ may raise public debts in form of loans with banks.

There might be some problems concerning foundations for public educational services (FOCJ) established by municipalities:

- approval of FOCJ by monitoring central state authorities,
- open questions about the taxing of such public institutions,
- possibilities to model the voting and power of membership of municipalities in decision making bodies of FOCJ of such kind,
- possible extent to which public tasks can be switched to foundations,
- the power of the member communities to bind their representatives in the decision making bodies to their decision will,
- the inclusion of the FOCJ debts to the allowed debts of member communities,
- the possibilities and necessities to guarantee for debts of the FOCJ by member communities,
- the legal situation of the leading managers in directory and the supervisory board,
- the transfer of municipal or central state real estates to the FOCJ,
- participation rights of staff in decision making have to be considered.

Most of this problems may be solved in the framework of the statutes of the foundation (§ 8 of the Foundation Act) and in discussions with central government institutions which have to approve the legal form of the FOCJ to be established.

More restricted possibilities are prevailing if the municipalities are going to choose a company form of private law (Bartholomae, Friedrich 2008). With the stock company the competences of the directory are too strong concerning current management, finance and investment decisions and the influence of municipal member share holders is weak because it concerns in the shareholders assembly only some fundamental rights referring to the structure of the firm. Supervisory boards could be installed which can only bind some decisions of directory internally but not against third parties. It is normally not possible to switch public tasks and authority, e.g. school planning, to a non-public body of private law. More adequate might be a limited partnership of public municipalities because the decision power of the proprietors is much stronger, but there is also the barrier of being not of public law and difficulties to execute public tasks by means of public authority exist. Also designated in its legal form for cooperation among the members and the possibilities to include municipal members, there are also difficulties to shift public municipal competences to the FOCJ in form of a cooperative. If a legal private form of

institution is chosen the FOCJ will not be able to execute the full function of the FOCJ. The FOCJ may be restricted to auxiliary tasks, to prepare common appropriate decisions of the municipalities to establish and operate a school network.

Another possibility might offer a contract of public law between the included municipalities to establish and operate a FOCJ showing the structure mentioned above. There we have the problem of incomplete contracts which hinder decision making in situations not in advance considered in the contract.

According to our opinion there are institutional possibilities to operate FOCJ if central government and municipalities are willing to come to solutions. FOCJ may also be serve to overcome the next 30 years until a finite solution of territorial municipal reform and functional reform of Estonian public sector is going to be found.

The report of the research centre PRAXIS (2009) is described the present situation for contracting out local public services in Estonian municipalities. The experiences of co-operation with non-profit organisations for offering public services have about 60% of municipalities, ca 42% of municipalities practice the contracting out of public services to non-profit organisations. Mostly contracting out take place in field of social (42% of all cases), sport (15%) and culture (10%) services. The municipalities have interest to contract out the public services if it helps to access new sources of financing and to increase the quality of public services. At the same time, the co-operation between municipalities is very rare, there is the tendency to local protectionism, especially in small municipalities (contracting out only to partners on own territory). (Praxis 2009: 7-8).

The introduction of FOCJ to organize educational services in Estonia causes radical changes in mutual co-operation. The central government should create favourable conditions to educational FOCJ to promote municipalities to use this kind of voluntary co-operation.

Summary

To reduce the weaknesses a more and more tight central planning system is debated that abolishes to a large extent municipal autonomy. A compromise would concern the establishment of so-called Functional Overlapping Competing Jurisdictions (FOCJ) for schools. The municipalities can be members there. The FOCJ is like a special purpose municipality. It takes care of the schools, negotiates with central government for financial support and has own revenues consisting of contributions of the member municipalities, grants from central government and sale of unused school real estates and own debts. The municipalities can participate in an FOCJ; they can leave a FOCJ, enter a competing FOCJ or operate schools themselves. A theory of FOCJ establishment, a theory of contribution formation for municipalities, and a theory of grant or loan negotiation is offered to estimate the behaviour of FOCJ. The concept can be realized in Estonia by means of establishing so-called foundations as legal entity of public law.

The realization of the FOCJ concept would stop the shift of power to the central government in favour of keeping more municipal autonomy and enables regional specific solutions in Estonia.

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COMPETITION FOR PEOPLE AS DRIVERS OF FUTURE ECONOMIC GROWTH: EUROPEAN PEOPLE'S ATTITUDES TOWARDS MIGRATION¹

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Abstract

The paper follows an argument that the key elements of global competition are no longer trade of goods and services and flows of capital, but the competition for people. We claim that economic growth is driven by educated and innovative people, who prefer to live and migrate to countries that are diverse, tolerant and open to newcomers. Countries should compete for educated and diverse people and therefore a positive attitude to migration is an important argument for future economic growth. We analysed peoples' attitudes to migration in 23 European countries based on the micro-data of the European Social Survey fourth round database. The outcomes of the empirical analysis show that European peoples' attitudes toward immigrants vary depending on 1) personal characteristics of the respondents; 2) country's characteristics; 3) peoples' attitudes towards countries' institutions. The results of the study provide empirical evidence based grounds for development of policy measures for improving peoples' attitudes to immigration and to ethnically diverse human capital that support future economic growth.

Keywords: attitudes, immigration, tolerance, economic growth, policy implications

JEL Classification: O40, R11, C31, P51

1. Introduction

The key elements of global competition are no longer trade of goods and services and flows of capital, but the competition for people (see Florida, Tinagli 2004). Human capital and knowledge agglomerate because educated, skilled and creative people like interacting with each other. The resulting concentration of human capital in an area generates more spillover benefits than the same level of human capital spreads over different locations and thereby the preconditions for innovative and knowledge based development are determined by "peoples' climate". The 3Ts (Technology, Talent, Tolerance) model, initially proposed by Richard Florida

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(Florida 2002 and 2004), emphasizes the important role of interaction and integrity of technology, talent and tolerance in attracting and retaining creative people and thereby driving economic growth. The results of the 3T model based studies are both supporting and disproving (see Glaeser 2005; Niebuhr 2006; Ottaviano and Peri 2006; Boschma 2007; Cooke and Clifton 2007; Clifton 2008; Asheim 2009, Boschma and Fritsch 2009). Following the discussions regarding verification of the model, it is possible to conclude that the 3T model and its empirical implications have explained and predicted economic growth reasonably well, sometimes even more accurately than traditional human capital measures in the long run perspective.

We follow the opinion that economic growth and development strategies are greatly affected by the ability of regions and countries to develop proper policies attracting and retaining creative and innovative people and supporting development of tolerance to immigrants. Therefore our paper focuses on examining the attitudes of European people to immigration putting emphasis to exploring possible diversity of peoples' attitudes depending on their personal characteristics as well as peculiarities of the countries where they live.

The overwhelming aim of the study is to get empirical evidence based grounds for policy proposals that through favourable "peoples' climate" can support economic growth. In order to achieve it, our main research task is to conduct an empirical analysis allowing clarifying factors that frame peoples' attitudes towards immigration as a process that support diversity of human capital and thereby may drive future economic growth.

The empirical part of the paper bases on the data of the European Social Survey (ESS). Based on the ESS data we estimate cross-section regression models dependent variables of which describe peoples' attitudes to immigrants; independent variables express personal characteristics of people (sex, age, education, religion, ethnicity, work experience in other countries, etc) and their attitudes to the countries' institutions (political and legal system), and future well-being. We rely on several theoretical considerations in order to specify regression models (e.g to choose dependent and independent variables) that base on some questions of the EES (appendix 1).

In the second part of the paper, we discuss some theoretical and empirical arguments that explain the determinants of peoples' attitudes towards immigration. The third part of the paper presents the results of our empirical analysis looking for an answer to the questions how tolerant European people are to immigrants and how diverse European countries are in sense of peoples' attitudes to immigration. The fourth part shortly concludes the main outcomes of the study.

2. Theoretical framework for examining determinants of peoples' attitudes towards immigration

Countries and regions gain competitive advantage if they are successful in attracting educated and diverse people and in integrating these people in business life. We

follow the view that migration of people supports diversity of human capital and creates conditions for favourable peoples' climate if migration is supported by proper policy measures and positive attitudes of local people to newcomers. It is understandable that people's attitudes to migration are different. Considering "a lump of jobs" concept, an increase in labour supply may raise the level of unemployment in a country, because there is only a limited number of jobs available (Dustmann *et al.* 2005). Opposite empirical evidence has got confirmation as well: migration inflows may raise the level of employment by creating incentives for new jobs (e.g. see Pope, Withers 1993; Gross 1998; Angrist, Kugler 2001). These results also support the main arguments of the 3T theory. When managed in a right way, countries and regions may experience several gains from migration. The impact of immigrants on the labour markets in their destination countries depends on how knowledge and skills of immigrants compare with those of natives. Additionally, it also depends on whether a country and region is ready to integrate new people, how tolerant is a society to newcomers and how supportive are public policies and institutions.

Theories that explain determinants of attitudes towards immigration are diverse. Some of them emphasize importance of economic competition, the others cultural, political and other aspects of life. Most generally, the theories can be divided into two groups – individual and collective theories. What distinguishes between the two groups is the level of measurement. The same factor enables to define another two categories of the theories in the group of collective theories – national and regional. In this paper we mainly rely on individual economic theories (micro-approach) taking into account the empirical focus of the paper. Only short review of the collective theories is given.

Individual theories of attitudes towards immigrants emphasize on individual drivers, such as level of education (human capital theory), personal income, employment status (individual economic theories), cultural conflicts with immigrants when natives cannot relate themselves to immigrants (cultural marginality theory), level of one's political involvement (political affiliation theory), interpersonal trust (societal integration theory), and feeling of safety (neighbourhood safety theory). Collective theories focus on aggregated variables, such as share of immigrants in a country (contact theory), level of unemployment, unemployment growth rate (collective economic theories), amount of foreign investments from a country (foreign investment theory).

According to individual economic theories, individuals with less economic security (i.e. with lower level of education, low skills, lower level of financial resources) tend to have more intolerant attitudes towards immigrants. Explanation to that comes from neoclassical economic theory and trade theory. When a labour supply increases due to immigrants, competition on labour market becomes tougher. Moreover, wages of natives (at least in some skill groups) will decrease. Since immigrants tend to be overrepresented in low-skilled jobs, low-skilled natives are most likely to have anti-immigrant attitudes. It has also been found that high-skilled individuals are more likely to have tolerant attitudes towards immigration than the low-skilled, and

this effect is greater in richer countries than in poorer countries and in more equal countries than in more unequal ones (O'Rourke and Sinnott 2006).

According to collective economic theories, higher unemployment rate in a country leads to higher level of anti-immigrant attitudes. Explanation is similar to the aforementioned one – higher competition in the labour market makes natives feel threatened. It has also been found that in countries with higher GDP attitudes towards immigrants tend to be more positive. However, economic cycles also matter. In addition to level of GDP and unemployment their growth rates influence the attitudes. Economic growth means increased number of new jobs and lower competition on labour market even if immigrants will come. Therefore, attitudes are more likely to be tolerant. (Kehrberg 2007: 266) In times of economic downturn higher competition on labour market reinforced by immigrants turns the attitudes into anti-immigrant (Zolberg 1991).

Contact theory and collective threat theory claim that attitudes towards immigrants are dependent on the relative size of the immigrant population (Quillian 1995, Scheve, Slaughter 2001). Higher share of immigrants as a percentage of country's population leads to increased perceived threat of immigrants (both, economic and political). That, in turn, changes the attitudes into anti-immigrant ones. The impact of the relative size of immigrant population has therefore two effects, direct effect by increasing perceived threat, and indirect by decreasing political tolerance which leads to higher anti-immigrant attitudes.

The attitudes are not influenced only by the size of immigrant population, though. Level of personal contacts matters too. Individual approach of the contact theory says that having a lot of immigrants in a neighbourhood increases the level of perceived threat of them. Therefore, more casual contacts with immigrants mean intolerant attitudes. On the other hand, having more personal contacts with immigrants leads to higher level of tolerance, because natives' knowledge of immigrants will improve and they will not be seen as a social threat that much. (Allport 1954, Pettigrew 1998, McLaren 2003) According to cultural marginality theory, attitudes towards immigrants are more tolerant when people can relate themselves to immigrants. People who have belonged to any minority groups that have been discriminated tend to be more tolerant towards other groups in similar situation (Allport 1954).

Human capital theory claims that higher level of education leads to higher level of tolerant attitude. One channel for that is via improved skills and higher qualification. Economic security acquired by these repositions an individual so that he/she doesn't have to compete with immigrants on labour market (Mayda 2006). Another channel is broadened horizon that might lead to increased tolerance.

Higher level of education also contributes to political and social engagement. Political affiliation theory claims that people who are alienated politically may be looking for others to blame and consequently, may be more negative towards immigrants (Espenshade, Hempstead 1996). Another aspect of political life that

influences attitudes towards immigrants is political tolerance. High level of political tolerance has found to be decreasing the probability of having negative attitudes to immigration (Kehrberg 2007: 267).

Neighbourhood safety is a determinant that might influence the attitudes too. If people are afraid of walking around in their neighbourhood in a dark and their attitudes towards immigrants tend to be negative, they probably blame immigrants for criminal activity and violence. Chandler and Tsai (2001) who studied the relationship between feeling of safety and attitudes towards immigration have found a weak positive relationship between the two variables.

In addition to the theories described authors of the paper analyze impact of religious belonging and type of area where individual lives. In 1938 Wirth suggested that exposure to the city's social heterogeneity promotes tolerance (Wilson 1991). That means that people who are living in larger cities should have more tolerant attitudes. Age and gender are used in the analysis as background variables. It is argued that age is negatively correlated with attitudes towards immigrants (Hernes and Knudsen 1992, Quillian 1995) and that the level of tolerance is higher among women (Hernes and Knudsen 1992).

In the empirical part of our study we rely on these theoretical arguments and evidence of previous empirical studies in order to specify econometric models for examining the relationship between peoples' attitudes to immigration and factors that may explain variability of these attitudes.

3. Empirical evidence: how tolerant are European countries' people to immigration

3.1. Data and methods

The empirical study presented in this paper was carried out based on ESS 4th round database, which includes data from 28 different countries. As there were no values of one variable (*hinctmta* - household net total income) that was used as a part of the final model for Bulgaria, Cyprus and Slovak Republic, data for these countries was completely excluded. Data for Israel and Turkey was also excluded due to the fact that cultural differences could have influenced results too much. All in all, there were 23 countries under review. Initial number of cases (54988) was cut down to 25880 after dropping the cases for which there was no consistent value for one or more variables. The number of dropped cases was bigger for some countries and smaller for the others, but the amount of missing values for each question was random (there was no clear pattern of non-answering for single questions) which enables to say that the final data is representative even after the cut. In addition to the ESS database Eurostat database is used to get data on share of immigrants.

Variables from the ESS database used in this paper are presented in appendix 1. The table also includes coding of answers and expected effects of the variables. Based on the ESS data we estimate several cross-section regression models dependent variables of which describe peoples' attitudes to immigrants; independent variables

express personal characteristics of people and their attitudes to the countries' institutions (political and legal system), and future well-being.

Dependent variable of an econometric model is an index variable that measures individuals' attitudes towards immigrants. In earlier studies on attitudes towards migration that use ESS data the attitude has been measured only by one of the questions about impact of immigrants on different areas of life in a country. In that paper an index variable calculated as a mean of all the three questions on the same topic is used. First three questions presented in appendix 1 are components of the dependent variable.

Independent variables (table 1) of the estimated regression model are selected relying on the several theories that explain people's attitudes to immigration (see part 2) and on questionnaire and background data of the ESS (see appendix 1). Based on the ESS data we calculated index of political trust (mean of the answers to the questions about trust in different institutions) for analyzing impact of the factors suggested by political affiliation theory, and index of expectations of future well-being (mean of the answers to the questions about probability of becoming unemployed, not having enough money for household necessities and not receiving health care needed if becoming ill during next 12 months) for offering additional approach to individual economic theories. The purpose of adding this variable is to add a slightly new approach to analyzing the impact of factors suggested by individual economic theory.

Another variable for controlling economic theories is household's total net income. It is modified a little. Respondents are divided into three groups (low, middle and high income) based on the information about their household's total net income. Respondents' main activity was also included into the model initially for controlling the economic theories, but due to the fact that it the effect of the variable occurred to be statistically insignificant it was excluded.

Relying on human capital theory, indicators of highest level of education are used. Variable measuring this is also slightly adjusted. Highest level of education is divided into four groups: 0 – ISCED 0 (not completed primary education), 1 – ISCED 1, 2 (primary or first stage of basic, lower secondary or second stage of basic); 2 – ISCED 3, 4 (upper secondary, post secondary, non-tertiary) and 3 – ISCED 5, 6 (first stage of tertiary, second stage of tertiary). In addition to previously mentioned adjustments, respondents are divided into three groups (urban, town and rural) by their domicile. Other variables (gender, age, religious belonging, born in a country, experience of working abroad, attitude towards EU enlargement and fear of walking around in a neighbourhood when it is dark) are recoded (binary variables) or unchanged.

The question about individual's feeling about further enlargement of European Union (whether it has gone too far or should it go further) is added to the variables to test a paradox that has been found in an earlier study. Licata, Klein (2002) presented a paradox according to which strong European identifiers are more likely

xenophobic than weak European identifiers. Authors are going to analyze the paradox based on ESS data.

Our econometric model is estimated based on the ESS data of the 23 European countries. The total number of respondents is 25880; 65% of them are from old member states of EU (Norway and Switzerland are also included in the group because of cultural matters) – Belgium, Denmark, Germany, Spain, Finland, France, United Kingdom, Greece, The Netherlands, Portugal, Sweden, Norway, Switzerland. The rest (35%) are from Eastern European countries (Czech Republic, Estonia, Hungary, Latvia, Poland, Romania, Russia, Slovenia, Ukraine). 48.4% of all respondents are men and 50.6% women.

3.2. Empirical results and discussion

Table 1 presents the estimators of an econometric model that describe the relationship between Europeans' attitudes towards immigration and the determinants that may explain the variability of these attitudes. After diagnostics of the estimated regression models (testing for heteroskedasticity, normal distribution of residuals, model specification) we can conclude that we got robust and consistent estimators.

Results of the estimated model are consistent with several theories that are behind empirical analysis (e.g. contact theory at both, individual and collective level). For instance, the estimated results confirm that people who are not born in the country where they live, people who have ever belonged to a group discriminated against in the country they live in and people who have worked abroad for at least 6 months during last 10 years have more tolerant attitudes towards immigrants. However, the attitudes become more anti-immigrant when the share of immigrants in a country increases.

An interesting aspect is that the impact of the share of immigrants doesn't seem to be linear. Squared variable derived from the variable 'share of immigrants' was included into the model and as it is statistically significant and positive, it can be said that the attitudes become more anti-immigrant until a certain point. From that point on the increased share of immigrants leads to more tolerant attitudes. It might be due to the nature of the contacts with immigrants. It might be true that in countries where the share of immigrants is significantly higher than in the others, natives' contacts with them are more personal which decreases the perceived threat of immigrants and leads to more tolerant attitudes.

Expected effects of the variables mentioned so far are consistent with the signs of coefficients estimated with the models in most of the cases. Only one variable used for controlling individual contact theory – born in a country – owns predictive power in predicting the attitudes towards immigrants in this country group.

Table 1. Estimators of the model describing European peoples' attitudes towards immigration

	Coeficcient	s.e.	Beta
Gender	0,041	0,039	0,009
Age	0,009	0,006	0,072
Age (square)	0,000 *	0,000	-0,083
Education (reference group - ISCED 0)			
ISCED 1, 2	-0,099	0,145	-0,019
ISCED 3, 4	0,007	0,145	0,002
ISCED 5,6	0,480 ***	0,148	0,104
Religious belonging	-0,043	0,040	-0,010
Type of living area (reference group - urban)			
Town	-0,052	0,054	-0,012
Rural	-0,223 ***	0,055	-0,048
Income (reference group - low income)			
Middle income	0,011	0,046	0,002
High income	0,084	0,052	0,018
Estimated socio-economic risk	-0,274 ***	0,024	-0,134
Born in a country	-0,671 ***	0,078	-0,082
Discriminated group	0,155 **	0,074	0,019
Working abroad	0,286 ***	0,085	0,028
Index of political trust	0,227 ***	0,012	0,213
Think that EU enlargement should go further	0,208 ***	0,009	0,257
Feel threatened when walking in the dark	-0,387 ***	0,027	-0,147
Share of immigrants	-0,170 ***	0,010	-0,291
Share of immigrants (square)	0,008 ***	0,000	0,289
Constant	5,421 ***	0,345	
Number of observations	25880		
F (Prob > F)	195,97 (0,000)		
R-squared	0,2691		

* p < 0,10; ** p < 0,05; *** p < 0,01. Dependent variable: average index of individuals' attitudes towards immigrants. Estimators are heteroskedasticity consistent.

Source: authors' estimations based on the ESS 4th round data.

In addition to contact theory, the area of living also influences peoples' attitudes towards immigrants. People living outside from urban areas (in town and rural areas) have more anti-immigrant attitudes in comparison with the attitudes of the people living in urban areas. That confirms what Wirth claimed in 1938 – city's social heterogeneity seems to promote tolerance (Wirth 1938). Political affiliation theory works in all of the models as well. People who trust different institutions

(parliament, legal system, police, politics and political parties) of the country where they live have more tolerant attitudes towards immigrants. Is it because the people who are more engaged to politics are less likely to blame others for everything unpleasant as claimed by Espenshade and Hempstead (1991) or are there any other reasons cannot be said based on the data used for this paper. However, one possible suggestion could be that people who can trust political and legal system of a country don't have to worry that much about possible threats that immigrants might cause. Therefore, creating a transparent and reliable political system might help to increase tolerant attitudes towards other aspects of life (e.g. immigration) as well.

Authors used the variable 'think that EU enlargement should go further' to test a paradox that Licata and Klein found as a result of their survey in which 313 French-speaking Belgian students' attitudes were studied. It became apparent that strong European identifiers tend to be more xenophobic than weak European identifiers (Licata and Klein 2002: 21). Results of the models created by us contradict the findings and are more consistent with theory. People who are in favour of further enlargement of EU have tolerant attitudes towards immigrants.

Another determinant which is included into the model and which has a statistically significant impact on the attitudes in all of the models is neighbourhood safety. People who feel fear when walking alone in their neighbourhood when it's dark have more anti-immigrant attitudes. It suggests that people associate crime with immigrants. To increase tolerant attitudes, linking neighbourhood safety with contact theory seems to be important. If natives would have better knowledge about immigrants they wouldn't associate them with crime unless there really have been some criminal incidents.

When comparing present and future economic well-being the latter seems to be more important in driving the attitudes towards immigrants. People whose highest level education corresponds to level 5 or 6 are also more tolerant than people at level 0. The parameter of religious belonging variable is statistically insignificant.

We also tested the hypothesis whether the determinants of peoples' attitudes are statistically different between the two groups of countries implementing Chow test. According to this test, the differences of the coefficients are statistically significant among two groups of countries. In our next studies we will focus on examining these differences. We also suppose that it is reasonable to estimate country specific models and to conduct country by country analysis in future.

4. Conclusion

We follow the opinion proved by theoretical considerations and empirical evidence of previous studies that the diversity of human capital that can support economic growth is closely related to migration and positive attitudes to immigrants. Therefore, we developed an empirical analysis looking for an answer to the question how tolerant European people are to immigration and which factors explain the variability of peoples' attitudes to immigrants. Empirical analysis bases on the

European Social Survey (the ESS) fourth round database. We analysed peoples' attitudes to immigration in 23 European countries; the total number of respondents is 25880. We estimated econometric model where dependent variable describes peoples' attitude to immigrants and independent variables express personal characteristics of people, peoples' attitudes to institutions of the countries and the share of immigrants in the countries.

The outcomes of the empirical analysis allow us to conclude that European peoples' attitudes toward immigrants are in general consistent with several theoretical considerations. We summarise that the variation of peoples' attitude can be explained by personal characteristics of the respondents (education, personal experience of working abroad, ethnic group, place of living) and their attitudes towards countries' institutions (e.g. to political and legal system, to police work, etc.). Ethnic minorities, urban people, people with higher education and higher income as well as people who have work experience abroad are, as a rule, more tolerant to immigrants. Furthermore, people who evaluate higher the political and legal systems of a country, police's work and household's economic stability are more tolerant to immigrants.

We believe that the results of our study improve the understanding about the variability of European peoples' attitudes to immigration and suggest that these results are applicable for future development and implementation of policy measures that support economic growth. The results of the study allow us 1) to better understand peoples' environment that create attitudes towards immigration, e.g. composition of population (age, sex, education, religion etc); 2) to determine possibilities for some interventions with proper policy measures, e.g. to improve stability of economic situation and trust to institutions of a country, to create supportive conditions for temporal labour mobility between countries, to encourage and support people to improve their educational level, to support migration of educated people etc. Creating a transparent and reliable political system might help to increase tolerant attitudes towards several aspects of life (e.g. immigration). In addition, increasing tolerant attitudes, linking neighbourhood safety with contact attitudes seems to be important for future improvement of peoples' climate. If natives would have better knowledge about immigrants, they wouldn't associate them with crime unless there really have been some criminal incidents.

We suggest that in future studies the drivers of the attitudes towards immigrants should be studied more profoundly bearing in mind the possible impact of country-specific determinants. In future, more advanced methods, such as multi-level analysis should be used.

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Appendix 1. ESS variables used in the study.

Question	Coding	Expected effect
Immigration bad or good for country's economy	0 – bad ... 10 - good	
Country's cultural life undermined or enriched by immigrants	0 – undermined ... 10 – enriched	
Immigrants make country worse or better place to live	0 – worse ... 10 – better	
Gender*	1 – female, 0 - female	+
Age of respondent		-
Highest level of education*	0 - Not completed primary education 1 - Primary or first stage of basic 2 - Lower secondary or second stage of basic 3 - Upper secondary 4 - Post secondary, non-tertiary 5 - First stage of tertiary 6 - Second stage of tertiary	+
Belonging to particular religion or denomination*	1 – yes 0 – no	-
Domicile, respondent's description*	1 A big city 2 The suburbs or outskirts of a big city 3 A town or a small city 4 A country village 5 A farm or home in the countryside	-
Household's total net income, all sources*	Deciles	+
How likely unemployed and looking for work next 12 months	1 – not at all likely ... 4 – very likely	-
How likely not enough money for household necessities next 12 months	1 – not at all likely ... 4 – very likely	-
How likely not receive health care needed if become ill next 12 months	1 – not at all likely ... 4 – very likely	-
Born in country*	1 – yes, 0 – no	-
Member of a group discriminated against in this country*	1 – yes, 0 – no	+
Paid work in another country, period more than 6 months last 10 years*	1 – yes, 0 – no	+

Question	Coding	Expected effect
Trust in country's parliament	0 – no trust at all ... 10 – complete trust	+
Trust in the legal system	0 – no trust at all ... 10 – complete trust	+
Trust in the police	0 – no trust at all ... 10 – complete trust	+
Trust in politicians	0 – no trust at all ... 10 – complete trust	+
Trust in political parties	0 – no trust at all ... 10 – complete trust	+
European Union: European unification go further or gone too far	0 - unification has already gone too far ... 10 - unification should go further	+
Feeling of safety of walking alone in local area after dark	1 – very safe ... 4 – very unsafe	-

* - variables that are recoded.

Source: composed by authors based on the guidelines of the ESS.

SYSTEMATIC DIFFERENCES OF RETAIL EXCHANGE RATE SPREADS IN SOME EU COUNTRIES: THE BANKS AGAINST FINANCIAL INTEGRATION

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Abstract

An important policy goal in European Union has been integration of markets and economic convergence. The aim of this exploratory paper is to study pricing of currency exchange services based on bid-ask spreads in commercial banks and the policy implications of the delayed integration of banking markets. The currency rate spreads in different bank groups and countries are compared with each other. The main results of the study are that statistically significant differences exist in the spreads set by banking groups in different countries. All banking groups in the sample offer more favorable rates in Western countries indicating that the pricing policy of bank groups may be discriminatory. Further research is needed to understand the extent and the mechanism of it and to determine which policy measures may help to overcome the problem.

Keywords: policy, convergence, integration of markets, international business, commercial banking, currency rates, spreads, pricing

JEL Classification: G21, M16, M31

1. Introduction

The main objects of research of this paper the retail currency exchange rates and their spreads in commercial bank groups both in Western and Eastern Europe. It will be shown that in contrary of the EU level integration policy banks keep at least the retail currency markets of countries separated from each other. The area of the study is relatively unexplored despite the fact that enormous amount of literature exists on the related fields of research.

The study is based on the premise that the retail rates are determined by two groups of factors: by underlying macroeconomics influencing bank units in a country in a similar way and by the internal policies of banking MNC-s that may or may not be discriminatory. The creation of Euro area has certainly helped integrating the financial sector but the retail banking has been seen as less integrated among other markets (Vajanne, 2007, p.7) that is in correlation with the results of this study.

The convergence of financial sector in EU has been subject to number of studies but surprisingly, the currency rates that the banks charge and pay their customers have almost left out of the interest by academic researchers and the retail exchange rates *per se* of commercial banks have not been studied much. The main focus has been on studying exchange rates on the country level and on the interbank market. The situation is understandable if one takes into account fact that only about 5% of

currency market is connected to economic needs of agents and remaining 95% is driven by speculative motives (Krishnan et al, 2009). Example topics of the research on influence of currency rates on economy are relationship between trading volumes and rates' volatility (Bjønnes et al, 2005) and relationship between currency rates and stock prices (Stavarek, 2004).

The authors study retail currency exchange rate spreads from a viewpoint of nonfinancial firms. The present paper is an attempt to uncover some regularity in international banking setting and to describe the differences in exchange rates between banks in Eastern and Western Europe. The actuality of the topic derives from the fact that the full integration of financial sector is not achieved even in monetary terms and the expansion of the euro-zone is still in process. One aim of the process is also to achieve better integration of banking services market.

The aim of this exploratory paper is to study pricing of currency exchange services based on bid-ask spreads in commercial banks and the policy implications of the delayed integration of banking markets. Authors suggest that exchange rates in banks of Western Europe are more favorable for clients than in Eastern Europe. To reach the aim following main research questions were kept in mind:

- 1) to explore the pattern of behavior of different banking units inside of same countries;
- 2) to compare retail currency spreads of the same banking group units in different countries;
- 3) to compare aggregated behavior of MNC banking units in different parts of European Union.

The study is mainly exploratory and is the first stage of a research program. Section 3 of the study gives overview of the sample of model and of data. The limitations that derive from data collection process are discussed and data and data sources are described in this section. The section 4 begins with the overview of the methodology of comparison. The results of comparison of banks in the countries under study are described in subsection 4.2. The question do different banking units inside a particular country have similar or diverging pattern of behavior is studied here. The in-group comparison of banking units of different countries is described in subsection 4.3. Main research question to be answered is how different is the behavior of banking units of the same banking groups in different countries. Section 5 deals with the comparison of currency rate spreads in the banks of groups of countries dealing with aggregated differences on the level of country groups. The paper ends with discussion of results and conclusions.

2. Overview of related literature

Extensive literature on the interbank currency exchange market exists today with detailed studies on the influences of different factors on the currency rates and currency rate spreads. The main findings have long quoted even in textbooks – “spreads on the interbank market are based on the breadth and depth of a market for a given currency as well as on the currency's volatility” (Clark, Levesseur, et. al.,

1993, p. 147). Levi (1990, p. 37) mentions without further discussion that banks charge their customers more than interbank ask rate and pay less than bid rate and that the size of the spread depends mainly on the volume of retail transactions. Lyons (1995) finds that inventory risk is main determinant of currency rate quoted spreads.

Currency rates became important object of research after the breakdown of the Bretton Woods fixed-parity system both because of monetary policy considerations and because of the needs of international financial management in MNCs (Multinational Corporations). The research on the relationship between exchange rates and (goods) prices has been developing rapidly during recent decades (Menon, J., 1995; Goldberg and Knetter, 1997). Either exchange rate pass-through (Goldberg and Knetter, 1997) or the pricing-to-market as termed by Krugman (1987) are main strands of literature.

Studying financial integration in Europe Pichler, Steiner *et al* (2008) mention that “integration and the single market for financial services *per se* are the ultimate objective of the EU’s integration efforts”. Faruqee (2007) defines that “financial integration can be viewed as a multidimensional process, in which a system of financial markets becomes more closely interrelated over time in terms of its (1) market organization and infrastructure, (2) rules and regulations, and (3) pricing, transactions, and market practices.” While Horobet, Joldes *et al* (2008) find some exchange rate convergence in Central and Eastern Europe, our findings contradict to these results in retail markets.

Our study is focused on the question of integration of markets in pricing. Possible price discrimination is one of research questions in this study. It is well known that if international bank groups have certain degree of monopoly power in their markets then they can increase the profit discriminating against the customers in a particular country of operations (Hill, 2009).

An important flow of related literature is connected with foreign exchange rate exposure (Muller and Verschoor, 2006) that is partly determined by the behavior of commercial banks. The fact that belonging to Euro area is not distinguishing with respect of exposure to foreign exchange risk (Bartram and Karolyi, 2006; Hutson and O’Driscoll, 2010) allows to study Euro area and non-Euro area banks together.

Deeper analysis of determination of spreads is given by market microstructure theory that counts three or four components for the spreads: inventory risk, operating costs (and profit margin), monopoly power, and adverse selection (Huang and Stoll (1997), Harris (2003)). Monopoly power is frequently excluded in currency microstructure literature (Rime, (2003)). Two important results from this literature apply to our study. The spread is dependent upon the type of client (Fan and Lyons, 2003) and upon the level of activity (order flow) influences the size of the spread (Osler, 2006). Based on this result we divide research object and consider in our study separately the big (GBP, JPY, USD) and the small currencies (NOK, SEK, DKK, CHF).

3. The sample

Authors used daily exchange rates quoted by sample banks during the period January-March 2010. For the comparison, the differences (*spread*) from the daily exchange rates of European Central Bank were calculated for all the banks' retail currency rates being compared. The comparison was made between banks in two countries from Eastern Europe and two countries from Western Europe using seven currencies: CHF, DKK, GBP, JPY, NOK, SEK and USD.

Seemingly, the potential data set may be enormous. Closer inspection shows that only few banks can easily be incorporated into this study and sample selection is influenced by availability of data. Main problems are:

- 1) many banks have subsidiaries or branches in Eastern Europe but only few of them in Western Europe;
- 2) homepages of the majority of Western banks are uninformative about currency rates;
- 3) only selected retail currency rates are public in majority of banks;
- 4) banks frequently publish the spot rates but do not publish the time series of the rates on their homepages.

According to European Banking Federation statistics (2010) Germany has Europe's largest banking sector and represents with Austria banking environment in Western Europe. Czech Republic and Poland represent Eastern Europe. In all cases the headquarters are located in the West and daughter companies are in the East. These four countries were chosen because of the geographic and economic closeness. If the integration is present it should be most developed in the case of these Central European countries. If not, the convergence policy has not created its results yet.

Four international banking groups were chosen into sample – Unicredit Bank, Erste Group, Raiffeisen Bank, and Commerzbank (called Unicredit, Erste, Raiffeisen, and Commezbanks in following sections and Tables for simplicity). Each of these banks runs business at least in two of sample countries and each of countries is represented by two banking units from different bank group.

Unicredit Bank Czech Republic that belongs to the Unicredit Group with Italian roots (History of the Group, 2010) is a universal bank that offers services both to private persons and firms (About us, 2010). The data were drawn from Unicredit Bank Czech Republic complete Exchange rates (2010). Another bank is Česká Spořitelna that belongs to Erste Group since 2000 (Erste Group, 2010) and the data are obtained from Česká Spořitelna exchange rates (2010).

Poland is represented by BRE Bank and Raiffeisen Bank Polska S.A. (70% of BRE Bank's shares are owned by Commerzbank). Data were obtained from BRE Bank exchange rates (2010). Raiffeisen Bank Polska S.A. data were obtained from Exchange Rates of Raiffeisen Bank Polska S.S. (2010).

From Austria Raiffeisen Zentralbank Österreich and Erste Group were included into sample. The data for Raiffeisen come from Raiffeisen währungen (2010). Erste Bank's data come from Erste Bank Market Overview: Currencies (2010).

HypoVereinsbank (HVB) and Commerzbank are the two banks from Germany. HVB belongs to the Unicredit Group (Strategy, 2010) and will be called Unicredit below for clarity reasons. The data come from Commerzbank Devisen-Marktkurse (2010) and from HypoVereinsbank Währungen (2010).

The country-bank pairs in sample are illustrated in the Table 2. It was also the aim was to create a symmetric group of sample banks when the data choices were made.

The data set contains altogether approximately 6950 retail currency rate values. Two types of currencies were chosen for study to control possible size effects based on the results of order-flow literature of market microstructure above. “Big” currencies are GBP, USD, and JPY. “Small” currencies are CHF, DKK, SEK, and NOK. As a benchmark, currency rates quoted by European Central Bank were used throughout the study. The data come from European Central Bank Euro foreign exchange reference rates (2010).

Table 1. Average spreads and coefficients of variation of daily spreads (standard deviation divided by average spreads; in brackets, %, January-March 2010)

Bank	CHF	DKK	GBP	JPY	NOK	SEK	USD	Average
Poland Raiffeisen	3,152 (16)	3,143 (16)	3,151 (18)	3,156 (18)	3,084 (18)	3,135 (19)	3,176 (16)	(17,4)
Poland Commerzbank	2,942 (11)	2,771 (11)	2,436 (16)	2,84 (18)	2,743 (10)	2,775 (10)	2,488 (16)	(13,0)
Czech Erste	1,796 (19)	1,835 (16)	1,838 (27)	1,729 (51)	1,765 (20)	1,761 (21)	1,749 (36)	(27,2)
Czech Unicredit	1,983 (17)	2,012 (14)	2,014 (25)	1,962 (39)	1,921 (18)	1,938 (19)	1,767 (34)	(23,5)
Austria Erste	0,500 (14)	0,376 (2)	0,314 (55)	0,526 (51)	0,338 (42)	0,359 (37)	0,340 (48)	(35,4)
Austria Raiffeisen	0,186 (88)	0,015 (121)	0,393 (58)	0,629 (68)	0,248 (73)	0,327 (55)	0,430 (57)	(74,34)
Germany Unicredit	0,197 (35)	0,272 (4)	0,299 (65)	0,353 (81)	0,302 (56)	0,275 (64)	0,367 (55)	(51,44)
Germany Commerzbank	0,137 (41)	0,268 (3)	0,205 (72)	0,189 (106)	0,245 (50)	0,227 (47)	0,201 (64)	(54,79)

Source: authors' calculations.

The analysis was carried out based on differences of bid currency rates and those of Central Banks (spreads). First, the currency rates of non-Euro countries were transformed to Euro bases using the local Central Bank's Euro versus home currency rates. Second, to make all data comparable the spreads with ECB rates

were calculated. Actual comparison of banks and countries was made using these spreads.

As a first step of the study average spreads and the coefficients of variation (standard deviation divided by average value of corresponding spreads) for the sample were calculated for all spreads over banks, countries and currencies (Table 1). One can easily verify that there are systematic differences in the behavior of bank units.

4. In-country and in-group comparison of currency rate spreads

4.1. Methodology of comparison

In Table 2 the country and bank pairs are given to form the bases for analysis. The analysis is carried out for 7 currencies (CHF, DKK, GBP, JPY, NOK, SEK, USD).

Table 2. Countries and Bank Groups in sample

	Unicredit	Erste Group	Raiffeisen	Commerzbank
Czech Rep.	X	X		
Austria		X	X	
Poland			X	X
Germany	X			X

Source: author's illustration.

Based on the daily time series (January – March, 2010) of retail currency rates average spreads were found for all banks and currencies. The analysis and comparison of banks is based on these averages. To control for statistical significance of findings the Student's t-test was used with confidence level of 0,05 (the results given in Table 4). The in-country, in-group, and between countries comparison was based on the time series of differences of spreads that were found as a differences of corresponding larger and smaller spreads quoted by units of comparison.

4.2. In-country comparison

The currency rates in the same country are driven by same factors except in-group policy factors. In this subsection we compare behavior of banks with the aim to uncover differences of spreads of different banking groups operating in same environment. It is clear from data presented here that the different banks' views on suitable currency rates in the same country differ from each other considerably but the differences remain smaller compared to the differences between countries as we will see later in this paper. Some differences of banks decisions seem to derive from the different policies of bank groups towards their group units in different locations but the question of the policies remains out of scope of this paper.

In Czech Republic the sample banks Unicredit and Erste were compared with each other. Unicredit's spreads are larger in the case of all currencies in sample as can be

evidenced on the Figure 1. The spread is the largest for GBP (2,014%) and the smallest for USD (1,767%) in Unicredit. Erste's the largest spread is also for GBP (1,838%) and the smallest for JPY (1,729%). The spreads' differences are statistically significant only in the cases of "small" currencies (Table 4).

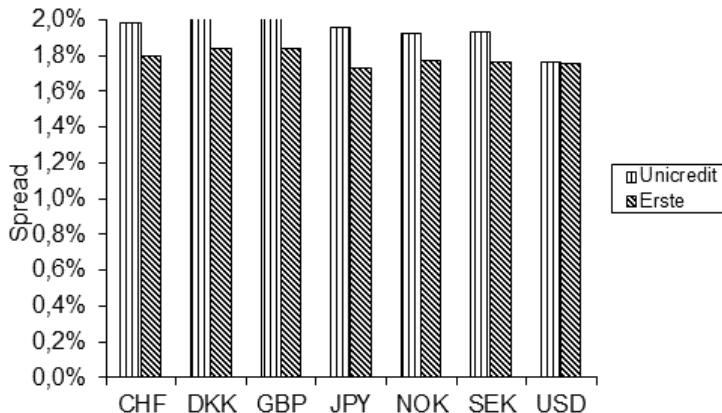


Figure 1. Comparison of average spreads in Czech banks. Source: authors' illustration.

In Poland the retail currency rate spreads quoted by sample banks are very similar to those in Czech Republic. In all cases the spread is larger in one bank, Raiffeisen, but the differences of spreads are larger compared to the case of Czech Republic (Table 3). In Raiffeisen the spread is the largest for USD rates (3,177%) and the smallest for NOK rates (3,085%). Commerzbank's the largest spread is for CHF (2,94%) and the smallest for GBP (2,436%). The differences are statistically significant for all currencies (Table 4).

Table 3. Differences of average spreads from ECB rates

	Czech Rep.	Austria	Poland	Germany
	Unicredit-Erste	Raiffeisen-Erste	Commerzbank-Raiffeisen	Commerzbank-Unicredit
CHF	10,4	169,5	7,2	43,9
DKK	9,6	2433,5	13,4	1,5
GBP	9,6	-20,1	29,3	45,6
JPY	13,4	-16,4	11,1	86,8
NOK	8,9	36,3	12,5	23,3
SEK	10,1	9,7	13,0	21,1
USD	1,0	-20,9	27,7	82,6

Source: authors' calculations.

The pattern of the spreads is very different in the case of Austrian banks when compared to Eastern European countries (Figure 3). The spreads in Austria are distributed unevenly with Erste having larger spreads in the case of 4 currencies and Raiffeisen in the case of 3 currencies. Also the level of spreads is smaller having the maximum below 0,65%. Both banks have their largest spreads in the case of JPY (Raiffeisen – 0,629% and Erste – 0,526%). Erste's the smallest spread is for GBP (0,314%) and Raiffeisen's the smallest spread for DKK (0,015%). Except JPY and SEK the differences of average spreads are statistically significant (Table 4).

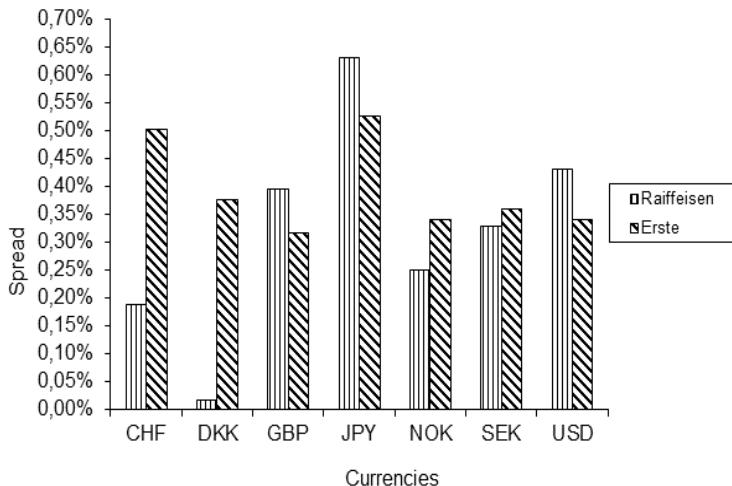


Figure 2. Comparison of average spreads in Austrian banks. Source: authors' calculations and illustration.

The spreads in Germany are distributed unevenly as in Austria but the level of spreads is lower. However, the spreads are larger in Unicredit for all currencies in sample. The largest spread in Unicredit is for USD (0,367%) and in Commerzbank for DKK (0,268%). The spread is the smallest in Unicredit for CHF (0,197%) and in Commerzbank also for CHF (0,137%). Except of NOK and SEK, all differences are statistically significant (Table 4).

The results of pair wise comparison (statistical significance) are described in Table 4. The reasons for such results are not clear but it seems of importance for future research that in the case of smallest banking sector (Czech Republic) the differences were not significant for the big currencies and that in the case of biggest banking sector (Germany) in the sample the differences were not significant only for the two small currencies.

The different distributions of spreads over currencies in different country groups cannot be explained by macroeconomic factors and they exist due to the in-group policies. The bank groups tend to have different policies towards their customers in

Eastern and Western Europe. The contents of these policies remain out of scope of this study but they can exist only if these markets are separated and the customers cannot take advantage of the arbitrage opportunities.

Table 4. Statistical significance of differences of spreads (95% confidence)

	Czech Rep.	Austria	Poland	Germany
	Unicredit-Erste	Raiffeisen-Erste	Commerzbank-Raiffeisen	Commerzbank-Unicredit
CHF	+	+	+	+
DKK	+	+	+	+
GBP	-	+	+	+
JPY	-	-	+	+
NOK	+	+	+	-
SEK	+	-	+	-
USD	-	+	+	+

Source: authors' calculations, results of Student's t-test.

4.3. In-group comparison between countries

If price discrimination is present in our data it could be evidenced by comparison of behaviour of the subunits of same banking group in different countries. The research objective in this subsection is to compare behavior of the same bank group units acting in different countries with the aim to understand whether the spreads are mainly determined by the membership in a group or the spreads are depending on the fact that they are located in a particular country. In all cases one banking unit compared is the Western mother bank and the other is the Eastern daughter bank. The literature review indicated that the difference may be considerable.

The units of Unicredit group in our sample are located in Germany and in Czech Republic. The comparison (Table 1) shows that the levels of spreads in these countries are considerably different over the countries but very similar over the currencies under study. In Germany the spreads are between 0,19% - 0,4% and in Czech Republic between 1,8% - 2,1%. The differences of spreads are distributed evenly (Table 5).

Another comparison was made between units of Erste in Austria and Czech Republic. The pattern is very similar to the previous one. In Austria the spreads were between 0,31% - 0,53% and in Czech Republic between 1,72% - 1,84%.

Comparison of units of Commerzbank in Poland and Germany lead to conclusion that in Germany the spreads are 0,13% - 0,27% being more evenly distributed compared to Poland (2,4% - 3,0%).

The analysis of data from Raiffeisen group gave similar results compared to those above. In Austria the spreads are between 0,01% - 0,63% being relatively most

volatile in the whole sample. In Poland the spreads are more evenly distributed and are between 3,08% - 3,18%.

Table 5. Comparison of differences (% points) of average spreads from ECB rates

	Unicredit	Erste	Commerzbank	Raiffeisen
Germany-Czech Rep.	Austria-Czech Rep.	Germany-Poland	Austria-Poland	
CHF	1,79	1,30	2,81	2,97
DKK	1,74	1,46	2,50	3,13
GBP	1,72	1,52	2,23	2,76
JPY	1,61	1,20	2,65	2,53
NOK	1,62	1,43	2,50	2,84
SEK	1,66	1,40	2,55	2,81
USD	1,40	1,41	2,29	2,75

Source: authors' calculations.

The results of this section indicate again that all bank groups in the sample have different policies towards their Western and Eastern customers.

5. Comparison of countries and country groups

To finalize our analysis the spreads are compared by countries. We compare the spreads quoted by the banks' units in two pairs of similar countries and also between the country groups (Eastern Europe and Western Europe) in this section. The section ends with the comparison of all bank groups and countries to control the transitivity of spreads over the sample.

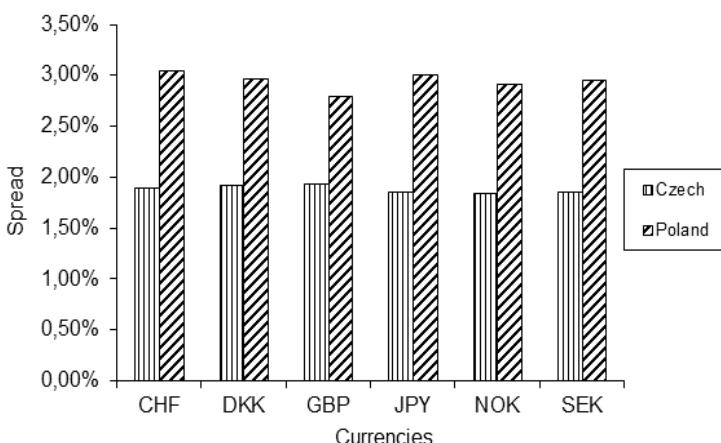


Figure 3. Average spreads in the sample from Czech Republic and Poland. Source: authors' calculations and illustration.

First we compare the spreads quoted by banks of sample in Czech Republic and Poland. The spreads are calculated based on currency rates of local central banks (National Bank of Poland fixing, 2010 and Selected exchange rates ..., 2010) instead of ECB. It is clear from Figure 3 that in all cases the spreads are larger in Poland. Differences of the spreads are statistically significant. Czech spreads remain in interval 1,7% - 2% and in Poland the spreads are between 2,8% - 3%.

The distribution of the spreads in the case of Austria and Germany (Figure 4) is different compared to the Eastern countries. First, Germany's spreads are distributed more evenly and Austria's ones are more volatile. The volatility over different currencies is considerably higher in relative terms in Western Europe and the levels of spreads are lower compared to those in Eastern Europe indicating once more that banks have different policies depending on the country of location.

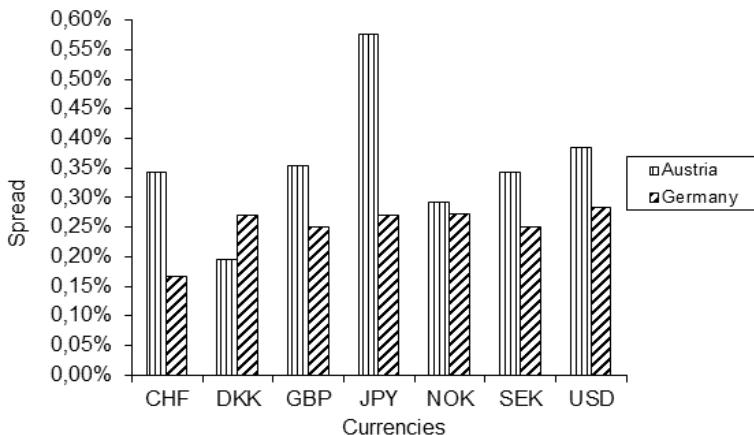


Figure 4. Average spreads in the sample from Austria and Germany. Source: authors' calculations and illustration.

The difference of spreads in two groups of countries is very large – spreads in Eastern Europe are higher (Table 6) compared to spreads in Western country. Relative volatility over currencies is higher in Western countries.

Considerably lower spreads and higher relative volatility over currencies in Western units of bank groups indicates that in-group policy rules that apply to the units in the West and in the East are as a rule different in the groups under study.

Findings above do not depend on the size. However, bank groups do handle the small and the big currencies differently as expected based on the results of the earlier literature about the influence of order-flow.

Table 6. Average spreads from ECB currency rates in Eastern and Western Europe sample banks (January–March 2010, %)

	Czech Rep.	Poland	Eastern Europe	Austria	Germany	Western Europe
CHF	1,890	3,047	2,469	0,343	0,167	0,255
DKK	1,924	2,957	2,441	0,195	0,270	0,233
GBP	1,926	2,794	2,360	0,354	0,252	0,303
JPY	1,846	2,998	2,422	0,578	0,271	0,424
NOK	1,843	2,914	2,378	0,293	0,274	0,283
SEK	1,849	2,955	2,402	0,343	0,251	0,297
USD	1,758	2,832	2,295	0,385	0,284	0,335

Source: authors' calculations.

6. Conclusions

The objective of the paper was to explore the extent of fulfilling the integration policy goal in European banking market. In the case of full integration of the market customers of banks should get similar services with similar prices not depending on which part of market (country) they are located. Using data provided on homepages of banking groups the study was carried out in retail currency exchange sector where the services are most uniform.

The aim of this paper is achieved comparing the behavior towards their currency exchange customers of different banking groups having business in Eastern and Western Europe. As the bases for comparison the retail currency exchange rate spreads were used. Under the constraint of data availability a symmetric sample of four countries (Austria, Czech Republic, Germany and Poland) and of four international banking groups (Unicredit, Erste, Commerzbank and Raiffeisen) was formed with the headquarters located in Western Europe and all banks having business in two countries of the sample.

The average retail currency exchange rate spreads were compared among the banking units and countries to uncover the banks' units' behavioral patterns. The prices (here spreads) for similar services should be same in all parts of the market in the case of fully integrated markets. If the prices (spreads) are discriminatory, there is a need to further integrate the markets and to set specific policy goals.

Main results of the study were following:

- 1) In-country comparison of the banking units belonging to different MNC-s (banking groups) showed that the pattern of spreads was similar inside a country. The statistically significant differences existed but not in all cases of currency-country pairs;
- 2) In-group comparison of retail currency spreads showed that in all cases banking groups offer more favorable terms to their Western customers (the spreads in Western banking units were lower compared to their Eastern

counterparts. In all cases the differences of spreads were statistically significant and larger compared to in-country differences);

- 3) The determination of the spreads in Western banking units seems to be based on discretion and in Eastern banking units it seems to be rule based over the currencies; considerable differences in volatility over currencies in East and West indicate that in the Eastern European banking units the decisions seem to be based on the groups' policy rule and in the Western banking units the decisions are more discretionary;
- 4) The comparison of aggregated data by countries showed that the differences of spreads offered by these international banking groups were much more different between the Western-Eastern country pairs compared to Eastern-Eastern and Western-Western pairs.
- 5) Differences in exchange rates between Eastern and Western Europe within chosen countries are very significant. It was found that exchange rates in Western Europe are more favorable for all analyzed currencies in the case of all analyzed banks.

The results are contradicting to the frequent assumption made in currency market microstructure literature (Rime, 2003) that monopoly power should be excluded as a factor determining the spreads. The results show that in case of retail market the assumption is most probably not correct and the theory should be improved to fit the reality of retail markets.

All results of the study above indicate that commercial banks' in-group policies may be discriminatory and the integration of banking markets at least in retail currency exchange area is not achieved. Anecdotal evidence exists, supporting the idea that banks may even act contrary to attempts of overall European policies of markets' integration.

Special policy measures should be designed to overcome the problem and to prevent the banks using discriminatory pricing inside of the European Union market.

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ECONOMIC BENEFIT OF MAXIMUM TRUCK WEIGHT REGULATION CHANGE FOR ESTONIAN FOREST SECTOR

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Abstract

Current paper is focused on analysing the economic benefit of increasing maximum allowed truck weight for Estonian forest sector. It is producing economic benefits to the firms of forest sector in two broad areas. The change in truck weight limit regulation is causing the reduction of transportation costs for forest sector firms. Increase of the truck weight limit from current 44 up to 60 tonnes is going to reduce the share of transportation costs in roundwood material prices from 17.7% to 14.2%. Secondly, the growth of demand for roundwood as the result of decreasing transportation costs was determined. Using own and cross elasticities between road and rail transportation, the apparent domestic consumption is expected to grow in the range from 0.7 – 4.6 % depending on the change of regulation from 44 to 60 tonnes, whereas in the most probable situation (change from 52 to 60 tonnes) the growth in apparent domestic consumption is 0.3 – 1.1%.

Keywords: maximum truck weight, forest sector, transportation demand, modal shift, economic benefit, elasticities

JEL Classification: L51, L92

1. Introduction

Transportation is playing an important role in the well functioning of every economic system. The reduction in transportation costs is seen as an important trigger of improving competitiveness of many industries, which are heavily dependent on frequent and significant materials flows. Therefore legal maximum weight of trucks plays important role in the competition between industries in competing nations. Currently the maximum limits in the Baltic Sea Region differ significantly, from 40 tonnes in Lithuania up to 60 tonnes in Sweden and Finland (see table 1).

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Table 1. Permissible weight (in tonnes) for 5 axle road train in Baltic Sea region

Country	Permissible weight (in tonnes)
Estonia	44
Latvia	40
Lithuania	40
Finland	60
Sweden	60
Poland	40
Germany	40

Source: Permissible maximum ... 2010.

Increasing maximum truck weight enables firms to consolidate loads, reduce the amount of required vehicle movement in order to distribute a given quantity of freight. Although the increase in maximum truck weight may produce under certain conditions economic, environmental, social benefits and costs, it can also cause reduction of tax revenues and increase of infrastructure investments (roads and bridges). The above provided variety of potential positive and negative results of maximum truck weight regulation change reveals its importance for the transportation policy in narrower, and economic policy in wider sense.

Current paper is based on a research commissioned by the Estonian Government and Estonian Association of Forest Industry in 2009-2010 about the case of increasing maximum weight of trucks from 44 tonnes to 52 or 60 tonnes (afterwards marked as 44→52 and 44→60). The paper outlines only some results of the interdisciplinary research and is therefore limited only to the economic aspects of changing weight limits for the Estonian forest sector. Results about the impact of the weight increase on traffic frequency and safety, environmental conditions etc. have not been reflected in current paper, but were part of the integrated research mentioned above. Derived from previous aspect a cost-benefit analysis covering all aspects of regulation change has not been conducted in current study.

The paper is focused to figure out the economic benefits of increasing maximum truck weight for Estonian forest sector (incl. forest transportation). Economic benefits of regulation change are assessed in two broad areas. Firstly, the reduction in transportation costs for forest sector firms due to regulation change is estimated. Secondly, the possible impact of decreasing transportation costs on the demand of roundwood and also resulting transportation demand considering different transportation modes are determined.

Selection of forest sector as a research object is explained by its important role in Estonian economy, forming around one fifth of total sales, and its strong material intensity, which leads to the relatively high share of transportation costs in the total costs of sector. Transportation costs are currently forming around 17% of the total

cost of materials in forest sector, which is remarkably more when compared to Kiisler (2008: 357-358) estimates for other sectors. In addition, Estonian forest sector is facing strong competition from the neighbouring Baltic Sea region countries.

The paper is structured as follows. After introduction, the first section provides a short overview of the previous research on the impact of changes in truck weight and dimension regulations on the whole economy or particular economic sectors. Next section is devoted to the explanation of methodology and empirical calculations for identifying the impact of the change in truck weight limits on the transportation costs of Estonian forest sector firms. Following section of the paper is devoted to determining possible impact of decreasing transportation costs on the demand of roundwood and also resulting transportation demand. Final section is discussing the obtained results and concludes.

2. Previous research of maximum truck weight changes

The impact of changes in truck weight and dimension regulations has been a research object for academics and organisations for a long time. The main reason for conducting such research is the potential increase in competitiveness through more effective transportation system (see e.g. Mačiulis, 2009). Beside competitiveness aspect there have been other research reasons, like the European Union transportation policy implementation, environmental cost reduction etc. The topic is still very novel, as many European countries (including Baltic countries) are considering the increase of maximum truck weight limit in the framework of EU Directive 96/53.

Previous research by its nature has been both, theoretical and practical. Many studies focus only on the economic benefits, but others consider truck weight and dimensions changing effects on society as a whole (including environmental, safety, infrastructure etc aspects). Most of the research has been considering the macroeconomic view and sector specific approaches are quite rare, which probably is connected with the (political) difficulties of changing weight and dimension constraints for only single sector of the economy.

Outstanding research has been carried out on the example of USA and European Union. *Comprehensive truck size and weight study* (2000) calculates different scenarios for changing truck dimensions and maximum weight on the example of USA. Although the study does not sum different effects on society level, it finds that regulation changes can impact shippers total cost negatively or positively. *Regulations of weights, lengths and widths of commercial motor vehicles* (2002) sums methodological background for regulation change analysis on the example of USA. Important analysis in the EU context is *Effects of adapting the rules of weights and dimensions of heavy commercial vehicles within Directive 96/53/EC* (2008), which provides similar methodological background used in current analysis. Several analyses have been conducted to research the effects of decreasing allowed weight limits on the example of Finland and Sweden, where the norms have been more

favourable than in other EU countries (Consequences arising ... 1994; Kuormautoyhidisteleminen ... 1993; Harmonization of vehicle ... 1994). Theoretical external costs problems of transport regulation changes have for instance been viewed by Verhoef (1994), Friedrich and Bickel (2001), Išoraite (2003). Both, theoretical and practical studies on British experience conducted by McKinnon (see the most comprehensive McKinnon (2005)) are very thorough. As current study focuses on the economic impact of maximum weight regulation change for Estonian forest sector, then we find methodologies in McKinnon (2005) and European Union (2008) studies as most suitable for the current analysis. The summarised calculation mechanism for economic impact measurement from those studies is as follows:

1. Detect the share of weight-constrained loads from total tonne-kms moved.
2. Calculate migration to new weight and dimensions.
3. Take into account tonne-km cost increases or decreases for changed situation.
4. Use elasticity figures to forecast modal shift and change in demand.

In previous list the three first analytical stages view the situation as *ceteris paribus*, not taking into account that cheaper road transport can result in shifts from other transport modes (mainly railway) and greater demand for road transport service because of price decrease. That is why the economic benefit increase or decrease estimation would remain partial without modal shift or demand change calculations.

In McKinnon (2008) several problems have been brought out concerning previous regulation impact assessment, of which very important are questions concerning calculating degree of load consolidation, freight modal split and induced road freight traffic growth. Those questions have also been addressed in current analysis.

3. Analysis of benefits arising from maximum truck weight limit change for Estonian forest sector

The first stage of analysis is to find out the change of transport cost share in roundwood price after increasing maximum truck weight. The analytical procedure had the following steps and also some limitations of analysis have been brought out.

1. Find out vehicle kilometres for weight-constrained loads in case of 44 tonne limit and calculate vehicle kilometres in case of 52 tonne and 60 tonne limit. For those purposes Estonian University of Life Sciences analysis (Kaimre *et al.* 2010) of roundwood consumption, roundwood resources location and roundwood transport routes was used. As the transport routes are dependent on where the lumbering exactly takes place, then on specific year the routes might not perfectly reflect the real situation, but in an average it provides us proper understating of the situation.
2. Find out fuel consumption in case of 44, 52 and 60 tonne weight limits. Using the Estonian Road Administration data and survey conducted among roundwood material transport firms it was figured out that the average empty weight of wood material carrier is 20 tonnes and fuel consumption for abovementioned truck weights are 57.25 litres per 100 km (44 tonnes), 58.96 litres per 100 km (52 tonnes) and 60.73 litres per 100 km (60 tonnes). The fuel consumption figures (3% fuel increase per each additional 8 tonnes of load) are

- also supported by the information collected from wood material transporters' round table, where the majority of sector representatives were present, and by the test results made available for authors by one transporter. As fuel price the wholesale price of diesel fuel in Estonia as of 27.06.2010 has been used.
3. Weight limit increase results in changes of driver work hours. The calculations assume 2/3 of work time for driving and 1/3 work time for loading for 44 tonne weight limit. For other weights the driving time decreases, but there are no changes in loading time because of the constant quantity transported. Sector average hourly wage of 8.69 EUR (all taxes included) has been used in calculations.
 4. All other costs (except previously mentioned fuel and labour costs) are considered to account for 2/3 of the sum of fuel and labour costs, which is based on the data provided by transport firms. In case of three different weight limits no changes are considered in other costs (e.g. depreciation, maintenance, administration etc costs). Firstly, because of different firm policies, work practices, trucks used etc. it is very difficult to generalise the possible changes in one firm's costs to whole sector. Secondly, transporters admit, that changes in other costs, if they occur at all, would be marginal. Thirdly, there is no clear calculation methodology to find out changes (increase or decrease) of those costs.
 5. All calculations are made with total annual quantity of 4.6 million tonnes of roundwood material (scenario 1; 5.75 million m³) and 6.72 million tonnes of roundwood material (scenario 2; 8.4 million m³). The forecasted 4.6 million tonnes figure corresponds to year 2009 (but also to year 2005) lumbering amount and 6.72 million tonnes is hypothetical lumbering amount in the future (although it is the same as for year 2000). Table 2 sums kilometres covered by trucks for mentioned two scenarios.

Table 2. Vehicle kilometres for two scenarios taking into account only weight constrained loads

Weight limit	Annual vehicle kilometres for 4.6 million tonnes roundwood	Annual vehicle kilometres for 6.72 million tonnes roundwood
44 t	33 636 604	49 139 886
52 t	24 666 843	36 035 916
60 t	19 473 823	28 449 408

Source: Composed by authors.

Tables 3 and 4 summarize costs of previously mentioned scenarios. The share of transport costs from roundwood material is the same for both scenarios and it can be seen that weight constraint change has remarkable effect on roundwood transport costs.

Table 3. Costs in case of 4.6 million tonnes roundwood transported and transport cost share in roundwood material price (in thousand EUR)

Variable / Weight limit	44 tonnes	52 tonnes	60 tonnes
Fuel costs	20 363	15 790	13 148
Labour costs	10 867	8 839	7 665
Other cost	20 820	20 820	20 820
Total costs	52 050	45 449	41 633
Transport cost share from roundwood material price	17.7%	15.5%	14.2%

Source: Composed by authors.

Table 4. Costs in case of 6.72 million tonnes roundwood transported and transport cost share in roundwood material price (in thousand EUR)

Variable / Weight limit	44 tonnes	52 tonnes	60 tonnes
Fuel costs	29 749	23 068	19 208
Labour costs	15 875	12 913	11 198
Other costs	30 416	30 416	30 416
Total costs	76 040	66 397	60 822
Transport cost share from roundwood material price	17.7%	15.5%	14.2%

Source: Composed by authors.

4. Forecasting changes in roundwood road transportation demand and modal shifts

4.1 Methodological remarks

The second part of the analysis focuses on determining the possible impact of decreasing transportation costs on roundwood demand and also resulting transportation demand. The total predicted change in demand incorporates domestic consumption (including imports) and export of roundwood, which all are expected to increase due to lower costs of transportation. The quantitative assessment of this impact requires several simplifying assumptions:

1. The price of transportation services is decreasing in the amount of the cost difference resulting from maximum truck weight regulation and this price cut is channelled to roundwood price (i.e. we are excluding cost shifting possibilities).
2. The elasticity of domestic roundwood supply is disregarded, instead the two scenarios of roundwood supply are analysed as described above.
3. For two scenarios, different starting positions in terms of proportions of domestic consumption, import and export demand have to be determined. The market situation in the past (see also Fig.1) has been used for that purpose: for the first scenario, the situation of the year 2005, and for the scenario 2, year 2000 are selected as closest proxies. Respective proportions of imports were 34% and 4%, and export proportions 35% and 50% from the domestic production. The apparent

domestic consumption (production plus imports minus exports) was in 2005 (first scenario) 5.5 million m³ and in 2000 (second scenario) 4.8 million m³.

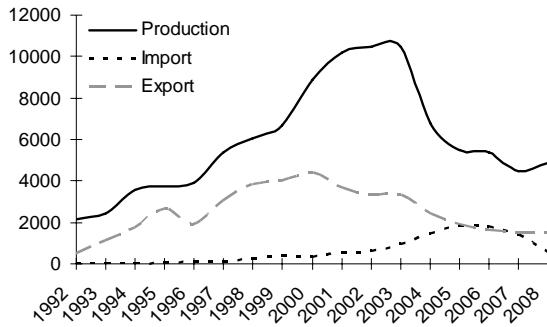


Fig. 1. Production, imports and exports of roundwood in Estonia (in million m³) (FAO ForesSTAT 2010).

4. Total domestic roundwood transportation is split between two modes (truck and rail), the waterways are excluded, because these are practically not used for domestic roundwood transport, but used only for exports.

For assessing the shifts in roundwood and transportation demand, the mechanism of price elasticity is used that reflects the responsiveness of volumes on the changes in price as follows (Effects of ... 2008: 39):

$$q_{T,t+1}^D = q_{T,t} \cdot \left(\frac{p_{T,t+1}}{p_{T,t}} \right)^{\xi_{T/T}} \quad (1)$$

$q_{T,t+1}^D$: quantity after price change;

$q_{T,t}$: initial quantity;

$p_{T,t+1}$: new price;

$p_{T,t}$: initial price;

$\xi_{T/T}$: price elasticity of demand.

As the limitations in data do not allow us to assess demand elasticity directly for Estonia, the elasticity estimates from the literature are used. It is generally found in the literature, that the transportation demand is relatively inelastic to price changes in case of wood products. It is more elastic in cases where different transportation modes are easily substitutable. By reviewing different elasticity estimates (mostly for USA and Canada) Oum *et al.* (1990) show that in case of wood the absolute values of elasticity remain in the range of 0.14–1.55; however taking into consideration methodological and other issues Oum *et al.* (1990) narrow this range

down to 0.1–0.6. In the Global Forest Production Model of UN Food and Agriculture Organization (FAO), the Estonian domestic roundwood demand elasticity is set to 0.3 in absolute value and supply elasticity accordingly to 0.8 (Zhu *et al.* 1998). However, in this study we use the elasticity range $\xi_{T/T} \in [-0.3; -1.2]$ taken from a similar study for European countries (Effects of ... 2008) probably the closest to Estonian conditions.

Transportation demand is derived from the roundwood demand; however, the specific demand of a transportation mode depends from the relative prices of other modes as well. For assessing this aspect, the cross-price elasticities of road transport demand with other modes are used according to the following formula (Effects of ... 2008: 39):

$$q_{R,t+1}^D = q_{R,t} \cdot \left(\frac{p_{T,t+1}}{p_{T,t}} \right)^{\xi_{R/T}} \cdot \left(\frac{p_{R,t+1}}{p_{R,t}} \right)^{\xi_{R/R}} \quad (2)$$

$q_{R,t+1}^D$: the quantity of rail transportation after price change;

$q_{R,t}$: initial quantity transported via rail;

$p_{T,t+1}$: new price of road transportation;

$p_{T,t}$: initial price of road transportation;

$p_{R,t+1}$: new price of rail transportation;

$p_{R,t}$: initial price of rail transportation;

$\xi_{R/T}$: elasticity of rail transportation to the price of road transportation;

$\xi_{R/R}$: elasticity of rail transportation to the price of rail transportation.

The cross-price elasticities of road and rail transportation are also taken from the literature and they remain in the range of $\xi_{R/T} \in [0.9; 3.3]$ (Effects of ..., 2008).

As no changes in prices of rail transportation are considered, $\left(\frac{p_{R,t+1}}{p_{R,t}} \right)^{\xi_{R/R}} = 1$.

This assumption means that the rail firms are not responding to the changed conditions in transportation markets. In reality when railway firms adjust their service price, the quantity reduction may be even smaller. In case of roundwood imports to Estonia, the modal shifts concerning waterway (sea) transportation have to be accounted as well, but there the sensitivity to road transportation is even lower and remains in the range of 0.9–0.1 (Effects of ... 2008).

In Estonia, most of the roundwood in domestic market is transported via road. The share of rail transportation has been in 2002–2005 around 11%, but in recent years dropped to 6% and this share has been also taken as a basis for forecasts. In case of exports, it is assumed that the transportation regulations and prices are not changed in export markets; therefore export behaves like domestic transportation (the same

proportions between rail and road transportation to harbours are taken as basis). In case of imports, the situation is more complicated (see also Fig. 2).

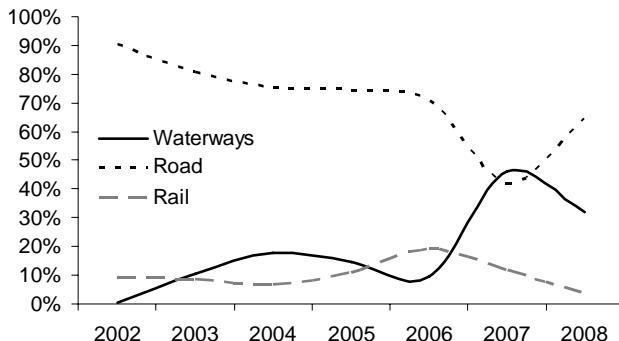


Fig. 2. The shares of road, rail and waterway transportation in Estonian roundwood import (Composed by authors based on Statistics Estonia and FAO ForesSTAT).

In period of 2004–2006, rail and waterways seem to be mutually substitutable; however in 2007–2008 road and waterways have become substitutable modes of transportation for roundwood. The reasons here have been associated with rail transportation failures from Russia in 2007, which also significantly disturbed the road transportation. Rail and road transportation even more lost their positions to waterways. It still seems that the long-term patterns are going to be recovered and therefore the average proportions of the whole period of 2002–2008 are used (road 71%, waterway 19% and rail 10%).

Another difficulty arises in assessing the impact of the regulation, because the 44t assumption may not be realistic. A survey of roundwood transportation firms pointed to the fact that despite of 44t restriction, it is often not followed and significantly larger loads are common (smaller than 44t weights are only occasional). However, reliable statistics about the distribution of weights (and exceeding of weight limits) is missing. The existing sources give biased estimates. For example, sawmills or other firms procuring roundwood have transportation statistics about loads in cubic meters, but the weight of the loads cannot be derived from those data, because it varies across the species and grades of wood, but depends also from other factors like moisture content etc. The authorities responsible for the inspection of truck weights possess statistics of their inspection results; however that data may be biased towards larger loads. Still taking into account the survey results, current situation with average weight of 52t may seem most reliable. Therefore impacts of the regulations 44→52 and 44→60 are largely overestimated in this study. This is also the reason, why the possibility for increasing maximum weight from 52→60 is additionally considered.

4.2. Impact of change in maximum truck weight limits on the roundwood demand

Figure 3 describes changes in transportation quantities with regard to the price of road transportation. The demand is expected to grow in case of 44→52 regulation in the range of 0.7–2.8%; in case of 44→60 in the range of 0.7–4.6% and in most probable case of 52→60 in the range of 0.4–1.7%.

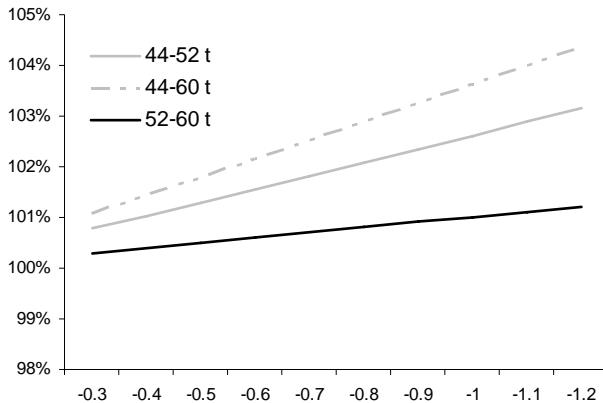


Fig. 3. Impact of own price elasticity on road transportation demand (Ccomposed by authors).

The quantities of estimates are brought out in Tables 5 and 6. Table 5 summarizes the growth for domestically produced roundwood (including both, domestic consumption and export demand) stemming from the lower transportation costs (calculated by the formula (1) in 4.1). Additional demand for truck transportation stemming from the rail transportation being relatively more expensive after the truck regulation change (calculated by using formula (2) in 4.1). Table 6 summarizes the growth of import demand, but in this case the additional demand for truck transportation from sea transportation being relatively more costly is considered as well.

Considering the data difficulties with actual loads, the bias in 44→52 estimations may be very large (in case the actual loads are 52t, the bias equals the estimated change in quantity), in case of 44→60 the quantity is also over-estimated, but the magnitude of bias cannot be determined. Therefore the apparent domestic consumption is expected to remain 5.71–5.75 million m³ or 6.48–6.53 million m³.

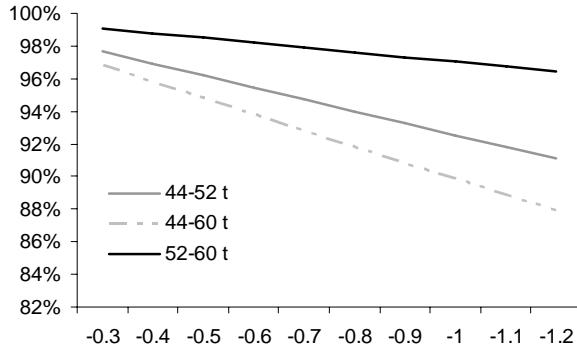


Fig.4. Impact of road transportation through cross-price elasticity on rail transport
(Composed by authors).

Considering the impact on rail transportation, the quantity changes across different elasticity values (Fig. 4) remain in most probable situation in the range of 0.2–1.0%. The impact on waterways remains in the range of 0.4–1.7%.

Table 5. Impact of regulation change on domestically produced roundwood and road transportation demand (in m³)

1. Domestic roundwood production (m ³)	5750000	8400000			
Own price elasticity:	-0.3	-1.2	-0.3	-1.2	
2. Demand growth due to 44t→52t	36251	146534	52958	214068	
the drop in transportation 44t→60t	58864	239506	85993	349886	
costs 52t→60t	21935	88299	32044	128994	
Cross price elasticity (road/rail):	0.9	3.6	0.9	3.6	
3. Additional demand 44t→52t	4028	16282	5884	23785	
growth from costlier rail 44t→60t	6540	26612	9555	38876	
transportation 52t→60t	2437	9811	3560	14333	
4. Total growth in road transportation (2+3)	44t→52t	40279	162816	58842	237853
	44t→60t	65405	266117	95548	388763
	52t→60t	24372	98110	35605	143326
5. Total demand (1+4)	44t→52t	5790279	5912816	8458842	8637853
	44t→60t	5815405	6016117	8495548	8788763
	52t→60t	5774372	5848110	8435605	8543326
5.1. Incl. export demand	44t→52t	2026598	2069486	4229421	4318927
	44t→60t	2035392	2105641	4247774	4394381
	52t→60t	2021030	2046839	4217802	4271663

Source: Composed by authors.

As can be seen from the tables 5 and 6, the economic impact from the regulation change is not large, because the increase in domestic roundwood consumption remains between 0.3–1.1%, in case of imports, the impact is larger (0.6–2.2%),

because of the complementary road transportation arising from other transportation modes.

Table 6. Impact of regulation change on roundwood (road transportation) demand for imports (in m³)

Import quantity (m ³)		195500	336000	
Own price elasticity:		-0.3	-1.2	-0.3 -1.2
Import demand growth due to the drop of road transportation costs	44t→52t	9723	39304	1671 6755
	44t→60t	15789	64241	2714 11041
	52t→60t	5883	23684	1011 4070
Cross price elasticity (road/rail)		0.9	3.6	0.9 3.6
Additional demand growth from costlier rail transportation	44t→52t	2602	10518	447 1808
	44t→60t	4225	17191	726 2955
	52t→60t	1574	6338	271 1089
Cross price elasticity (road/waterway)		0.09	0.1	0.09 0.1
Additional demand growth from costlier waterways transportation	44t→52t	1369	5536	235 951
	44t→60t	2224	9048	382 1555
	52t→60t	829	3336	142 573
Total growth of road transportation demand in imports	44t→52t	7999	32335	6567 26544
	44t→60t	12989	52851	10663 43386
	52t→60t	4840	19485	3973 15995
Total import demand	44t→52t	1962999	1987335	342567 362544
	44t→60t	1967989	2007851	346663 379386
	52t→60t	1959840	1974485	339973 351995

Source: Composed by authors.

5. Discussion and conclusions

Increase in the maximum truck weight in Estonia is producing economic benefits to the firms of forest sector. Economic benefits were revealed in two broad areas. Firstly, the change in regulation of truck weight limits is causing the reduction of transportation costs for forest sector firms. In case of allowing weight limit of 60 tonnes, the share of transport cost in roundwood material price decreases from 17.7% to 14.2%, creating therefore remarkable saving for the sector. Although it must be noted, that given impact value is valid only in case current regulations are followed. Secondly, the growth of demand for roundwood as the result of decreasing transportation costs was determined. The increase in domestic apparent roundwood consumption remains between 0.3-1.1%, in case of imports, the impact is larger (0.6-2.2%) because of the complementary road transportation arising from other transportation modes. Calculations show, that transportation regulation change would have modest impact on roundwood demand and derived from that transportation demand change.

Although results in current study show, that changing transportation policy to allow heavier loads creates remarkable saving for forest sector and increases demand, still a cost-benefit analysis covering all effects is needed to prove the efficiency of such regulation change. The economic benefits of the reduction of minimum truck weight could be extended to the other industries, which are freight intensive and using heavy trucks as transportation means. In Estonia the best examples are road construction, energy sector, peat industry. In road construction alone the total volume of transported sand and gravel is approximately four times bigger than the volume of wood materials transported annually. Hence the economic impact of the increase in the maximum truck weight covering all sectors could be much more significant. Therefore is necessity to launch this type of analysis in the near future.

Acknowledgements

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INCENTIVES TO RETIRE IMPOSED BY OLD-AGE PENSION POLICY IN ESTONIA

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Abstract

The paper analyses the incentives that Estonian state pension scheme imposes on retirement incentives. The specific focus is on actuarial neutrality and benefit equivalence of adjustments for early and late reirement. The benefit adjustments for early and deferred retirement set in current legislation are established as not actuarially neutral and they do not assure benefit equivalence. They impose an incentive to postpone retirement for too long – assuming rational behaviour the effective retirement ages should be way above statutory retirement age if current legislation is not amended. Assuming a real discount rate of 3%, the rational effective retirement ages would lie at 70 in 2016 and 72 in 2026. Not legislating benefit adjustments that assure benefit equivalence could bring along adverse effects, such as higher than expected replacement rates and thereby higher than expected overall costs.

Keywords: incentive to retire, actuarial neutrality, benefit equivalence

JEL Classification: H31, H55, J14, J26

1. Introduction

The fiscal soundness of many pension systems in developed countries is put under stress due to aging populations. Population aging is driven by two main factors – decreasing fertility and increasing longevity. While the first one mostly affects the financing side of traditional (or pay-as-you-go) pension schemes, the second is the driver of costs in pension systems. This is further aggravated by a trend towards leaving the labour force earlier. The fraction of people still employed at ages 60-64 has dropped significantly in past 50 years (Gruber and Wise 2006: 43-44).

Although there clearly are many reasons why people retire earlier, one must always consider the incentives that the pension system itself imposes⁶³. Pension system as a part of general social insurance system of a country explicitly defines the conditions at which it is possible to exit labour market at any given age. Therefore it is a very

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⁶³Reasons for early retirement other than stemming from the social insurance system itself are mostly individual (meaning that they average out over the whole population) – health, occupation, structure of family, overall wealth etc.

important influencing factor of labour market behaviour of the elderly. Many empirical studies show that the social security system might be the main driver behind the decline in the effective retirement age (Gruber and Wise 2006: 1-2, Palme and Svensson 2003:2-3, Brugiavini and Peracchi 2005:2, Walraet and Mahieu 2002: 7-8).

Besides the statutory retirement age, there are some other factors to consider while assessing the incentives that pension systems impose on people. One of them is the possibility of early pensions. The age, at which one can first become entitled to an old-age pension – the early retirement age – is typically considered to be substantially more important than the statutory retirement age (Gruber and Wise 2006: 5)

Many pension offer replacement rates for early retirees that are very close to the ones received at normal retirement age. For that reason there is a strong incentive to stop working after early retirement age – by this, the social security systems impose an implicit tax on working. In most EU countries for example, the average effective age of retirement (the age at which individuals really retire) is significantly lower than the statutory retirement age (Eurostat 2007: 3). For example, while the statutory retirement age in 2005 lies between 60 and 65 years for women and 62 and 65 years for men in EU, the median effective retirement age at the same year is 59,4 for women and 60,7 for men (*Ibid*: 2). The implicit tax on working after the early retirement age is often very significant – in many cases amounting to 50-80 per cent of income (Blöndal and Scarpetta 1999:88). The fall in effective retirement age is therefore not a fundamental change in labour-leisure preferences, but should rather be attributed to rational individuals maximising their pension wealth.

Therefore, one could find a way to relieve the fiscal strain put on several social insurance systems by increasing labour supply among older workers. To do that, pension system in compliance with the whole social insurance systems, must provide better financial incentives to continue working. Simply changing the statutory retirement age might not be an effective tool to achieve these goals if there are no similar changes in replacement rates. A more effective way is to decrease the pension benefit for early retirement and increase it for deferred retirement.

The size of these decrements or increments of benefits is naturally dependent on other features of the old-age pension system (the statutory and early retirement age, benefit formula, indexation of pensions etc), the long term goals of the pension system and projected changes in population (especially mortality). Stemming from the importance of mortality, when discussing the most important features of an old-age pension system and incentives that it provides, often actuarial concepts are used, mainly in reference to actuarial neutrality and benefit equality.

The aim of this study is to elaborate proposals for development of the state-funded old-age pension scheme in Estonia. The specific focus of the study lies on the adjustments of pension benefits in relation to early and deferred retirement and the incentive to retire these adjustments impose on individuals.

The paper consists of four main parts. In the next part of the paper the relevant factors related to the benefit adjustments – actuarial neutrality and benefit equality – are introduced and the relevant problems discussed.

In the third section, the theoretical benefit adjustments to achieve actuarial neutrality and benefit equality for Estonia are calculated. Comparing the theoretically correct benefit adjustments to benefit adjustments stated in the current legislation yields possible incentives for workers to stay on the labour market or to move to inactivity that current legislation imposes. For that reason a measure of incentive to retire is elaborated. Also the effects of ongoing reforms on statutory retirement age are viewed. Section 4 concludes.

2. Actuarial neutrality and benefit equivalence in a defined-benefit pension scheme

2.1 Considerations regarding the definition of actuarial neutrality

Actuarial neutrality is often a confusing term, while two different concepts can be entitled this way. Desmet and Jousten (2003: 3-4) distinguish between actuarial neutrality *on the average* and actuarial neutrality *on the margin*. Actuarial neutrality on the average is achieved when the (present) value of pension benefits received during retirement is equal to the (present) value of contributions paid during the working life. It is very often also used as a definition of *actuarial fairness*, while the latter is realised as actuarial neutrality in later studies. However, Oksanen (2005: 5-8) uses actuarial neutrality in the first sense, requiring the present value of pension contributions to equal the present value of pension entitlements of the households. In this paper we follow the definition of marginal actuarial neutrality.

Actuarial neutrality, as defined here, requires that pension wealth for retiring a year later is the same as pension wealth when retiring today plus whatever pension is accrued during the additional year of work. Actuarial neutrality therefore relates to the pension already accrued at the beginning of the year and not to the extra pension earned during the year. (Queisser and Whitehouse 2006: 13). Therefore the actuarial neutrality concept is not the best indicator of the incentives to retire that are imposed by the pension system in the case when acquiring new pension rights is possible while deferring retirement. However, for the majority of modern pension systems it is impossible to compile a measure that would also take into account the new contributions (*Ibid*: 14). Therefore actuarial neutrality is the best indicator for broad cross-country comparison. Other concepts are either based on actuarial neutrality or closely related to it. Therefore it is useful to first calculate the benefit adjustments that ensure actuarial neutrality and then move to other indicators.

Formally, actuarial neutrality of pension benefit adjustments is defined as follows (*Ibid*: 16):

$$PW_{t|t+1} = PW_{t|t} + \delta \quad (1)$$

where $PW_{x|y}$ is pension wealth measured at time x, conditional on retiring at time y.

This means that the pension wealth that has already accrued by time t remains the same if retiring is deferred. Pension wealth at any time t can be calculated by multiplying the pension entitlement p_t with the annuity factor A_t :

$$PW_{t|t} = p_t A_t \quad (2)$$

The annuity factor represents the present expected value of the sum of future pension receipts. Present expected value of future pension flows are calculated by increasing the present benefit due to indexing of pensions, discounting the benefit to present value and multiplying the benefit by the probability of the recipient living to receive pension in the future. Therefore the annuity factor is the sum of present values of future pension flows:

$$A_t = \sum_{i=t}^T s_i \left(\frac{1+u}{1+z} \right)^{(i-t)} = \sum_{i=t}^T PVPF_i \quad (3)$$

where s_i is the survival function of a representative individual, i.e. the probability of this individual being alive at time i , conditional of being alive at the time the annuity is calculated (t), u is the growth rate of pensions and z is the discount rate in real terms. T is the maximum life span which is taken to equal 100 in this study.

Duggan and Soares (2002: 2-3) use the same definition⁶⁴ and point out possible undesirable effects of a pension scheme that is not actuarially neutral. Schemes that are not actuarially neutral alter the retirement incentives and therefore might distort benefit acceptance definitions. These distortions may have effects on several levels stated as follows (*Ibid*: 3-4).

- First, any policy decision taken that affect retirement behaviour also affects long-run costs of old-age pension systems. This would not be the case if the system was actuarially neutral.
- Secondly, pension systems that are not actuarially neutral create a distortion at the labour market – they create an incentive to retire at a time that is different from optimal time of retirement stemming from the preferences of the individual.
- Third, adjustments to benefits that are not actuarially neutral create some redistribution of benefits that might not be intended.

Actuarial neutrality at the margin is always a question of which subgroups are considered (as are various other indicators based on this concept, i.e. benefit equality). A pension system that is actuarially neutral *over the whole population* is most likely not actuarially neutral for different sub-groups with different mortality assumptions, i.e. by gender, income, occupation, time of birth etc. Therefore the question of actuarial neutrality depends on the interests of the desired group. For example if the financial sustainability of the whole old-age pensions system is considered, the reference group is the whole population (or at least part of the population that is covered by state pension insurance⁶⁵).

⁶⁴ However, in their paper the concept is entitled as „actuarial equivalence“

⁶⁵ In Estonia for example, almost 100% of population is covered with the state pension insurance

But one can also address this issue from the viewpoint of equality between genders (as men and women have different mortality rates, especially at older ages), generations (as different birth cohorts tend to have different mortality rates in the lights of increasing longevity) or general income inequality (as individuals with higher income tend to also have higher life expectancy).

The most important limitations to different angles of analysis are available data sources. Most population projections offer mortality data for men and women separately. Therefore it is possible to conduct gender-specific analysis of actuarial neutrality. Cohort specific analysis is also possible, considering that different mortality assumptions are used for different birth cohorts in population projections.

2.2 Calculation of actuarially neutral adjustments to benefits

In defined benefit schemes as i.e. pay-as-you-go scheme, actuarial neutrality is an important issue only when penalties for early retirement and compensation for late retirement is considered. In order for the system to be actuarially neutral, the increments of pension benefits for retiring a year later have to compensate for three components of revenue loss (Disney and Whitehouse 1999: 25):

- 1) First, the effect from the annuity factor that captures the loss in total pension due to shifting pension payments one year to the future, decreasing the life expectancy at the moment of receiving the pension.
- 2) Secondly, the compensation for the risk of dying during the year for which the retirement is deferred
- 3) Third, the discounting of the pension wealth back to the moment of decision.

Formally, the calculation of actuarially neutral compensation rate is calculated as follows (Queisser, Whitehouse 2006: 26)⁶⁶:

$$\alpha = \frac{A_t}{A_{t+1}} \frac{PVPF_t}{PVPF_{t+1}} - 1 \quad (4)$$

where A_t and $PVPF_t$ are the annuity factor and the present value of future pension flows respectively as stated in equation (3).

Here, the first requirement made by Disney and Whitehouse (1999: 25) is respected in the first member of the equation on the left hand side (the quotient of annuity factors) and the other two in the second member (the quotient of present value of pension flows).

⁶⁶ For a detailed derivation of this formula, see Box 6 and additional explanations on page 25-26 in Queisser and Whitehouse (2006: 25-26)

2.3 A step further – benefit equivalence

As stated earlier in this paper, actuarial neutrality of benefit adjustments is not the only factor influencing the incentive that an old-age pension system gives on time of retirement. Often contemporary old-age pension systems are built in a way that career-long contributions are taken account for in the calculation of pension benefits (rather than requiring a fixed minimum contribution period, for instance 40 years). In this kind of systems, by deferring retirement by one year, an individual is not only receiving pension entitlements already accrued (may they be adjusted in an actuarially neutral way or not), but is also earning new pension rights.

Therefore, when it is possible to earn additional pension entitlements by working longer, deferring retirement might still be meaningful, even if the increments in existing entitlements due to deferring retirement are not actuarially neutral. This has turned the attention from actuarial neutrality of benefit adjustments to adjustments that guarantee benefit equivalence.

Benefit equivalence is ensured if the pension wealth (the present value of pension entitlements) does not change regardless of when people retire. The adjustments for early and late retirement that ensure benefit equivalence keep the pension wealth constant even when new pension entitlements are earned during the year. Lifetime benefits are constant regardless of when workers retire. (Queisser, Whitehouse 2006: 36)

To derive a formal notation of the rate of benefit adjustment to reach benefit equivalence, one has to consider the change of entitlements due to accrual of new pension rights. Therefore, the change in pension entitlements from year to another becomes:

$$p_{t+1} = p_t (1 + \beta)(1 + \pi) \quad (5)$$

where π is the additional pension accrued during the year and β is the benefit adjustment that ensures benefit equivalence.

Using this notation in equation (4), the benefit adjustment to reach benefit equivalence becomes:

$$\beta = \frac{A_t}{(1 + \pi)A_{t+1}} \frac{PVPF_t}{PVPF_{t+1}} - 1 = \frac{(1 + \alpha)}{(1 + \pi)} - 1 \quad (6)$$

where α is the actuarially neutral rate of compensation defined in equation (4).

Note that this is the case only when additional pension accrued (π) is constant in real terms. In case of variable π , equation 6 becomes more complex⁶⁷.

⁶⁷ See authors modifications in order to use variable growth rate on page 9 (equations (7) and (8)). The logic for applying the variable accrual rate is similar.

The adjustments to benefits for deferring retirement that are required to guarantee benefit equivalence equal those that are actuarially neutral in case earning additional pension rights is impossible (π equals 0). Any other arrangements of entitlement accumulation lead to smaller adjustments in case of benefit equivalence than actuarial neutrality. Therefore the benefit equivalence can be viewed as a more general term. It is also more useful indicator analytically. First, it sets the lifetime benefit expenditure per person to be same, regardless when they leave the labour market (Queisser and Whitehouse 2006: 36-37). This is a very important feature when considering the long-term costs of the pension scheme. Secondly, it is rather rational to believe that retirement decisions on an individual level are based on the absolute pension wealth, not only the pension wealth already accrued till the time of the decision.

3. Analysis of the incentive to retire in Estonian state old-age pension system

3.1 Current legislation and stylised facts

The Estonian state-managed old-age pension scheme is a defined benefit (DB) type pay-as-you-go scheme. It is financed by social contributions paid by employers (which constitute 20% of gross salary for those not contributing to the privately managed 2nd pillar and 16% for those who are contributing to 2nd pillar).

The statutory retirement age for men is 63. For women, the statutory retirement age is gradually rising to be equal to men by 2016. In 2010, women were able to retire in the age of 61. Starting from 2017, the statutory pension age will gradually rise to 65 by 2026 for both men and women.

Earlier retirement is possible within the old-age pension system. For every month of earlier retirement, the pension benefit is reduced by 0.4% (*4.8% per annum*). The maximum possible early retirement is 3 years prior to the normal pension age. Thus retiring at a youngest age possible (i.e. in the age of 58 for women and 60 for men in 2010) would result in the pension benefit being 14.4% (36 times 0.4%) smaller than it would be at normal retirement age. For every month that retirement is deferred, the pension benefit is increased by 0.9% (*10.8% per annum*). There is no upper limit set to postponing the retirement. The OECD average decrement of pension benefits for early retirement in 2006 stood at *5.08% per annum* and the average increment for deferred retirement stood at *6.19% per annum* (Queisser and Whitehouse 2006: 28-30).

The option of early retirement and deferred retirement came into force in 2001. Early retirement is slowly becoming more popular, with about 6 per cent (or 17000) of all old-age pensioners receiving their pension under the terms of early retirement in 2010. However, this is still far less than in some old EU member states where the proportion of early retirees is often near half of all retirees or even higher (Kühntopf and Tivig 2008: 3). A legal obligation to quit working while receiving early pension is one of most probable explanations for this.

The deferred pension is received only by a marginal number of retirees with only some 636 old-age pensioners receiving their pension under the terms of deferred retirement in 2009 (Sotsiaalkindlustusameti... 2011). However, this figure can be misleading while it does not cover the individuals who are currently deferring retirement – who have already reached the statutory retirement age but have not yet drawn pension. Nevertheless, the figure has shown an extremely modest increase over 2007-2010, which implies that deferring retirement is not a very popular choice in Estonia.

The average effective age of withdrawal from the labour market for Estonia lies slightly above the statutory pension age. In 2008, the average age of withdrawal from the labour market was 62.1 years in Estonia (Country profiles of Joint Pension Report 2010: 35). Since pension can be drawn in combination with salary in Estonia, the age of withdrawal from the labour force is generally higher than the age when the pension is first drawn. This fact also contributes to the relatively high participation rates among older workers in Estonia. In 2009, the employment rate among the age group 55-64 was 60.4% in Estonia, while the EU average stood at 46% (*Ibid*: 35).

3.2 Data and methodology

Since it is interesting to know the effects of ongoing reforms of the statutory retirement age (in addition to the situation at the present moment), it is important to calculate the actuarially neutral rates of compensation for at least 3 points in time.

Therefore we have calculated the actuarially neutral compensation rates for deferring retirement separately for men and women for 2011, 2016 (when both men and women have a statutory retirement age of 63) and 2026 (when the planned rise in statutory retirement age to 65 has been fully implemented). In doing this, besides changes in legislation also changes in mortality had to be taken account of. The mortality assumptions used in this study are based on the Europop 2008 main⁶⁸ scenario for Estonia.

In addition to that, we have used variable real income growth rate projections (as proposed by The Ageing Report of European Commission and Ageing Working Group) instead of a constant growth rate suggested by Queisser and Whitehouse (see equation (3)). Therefore, the calculation of annuity factors in this paper is conducted according to:

$$A = \sum_{i=R}^T s_i \frac{g_i}{(1+z)^i} \quad (7)$$

$$\text{where } g_i = \prod_{i=R}^i (1+u_i) \quad (8)$$

⁶⁸ This is the convergence scenario that foresees a convergence in EU demographic indicators by 2150. The scenario also takes into consideration the effects of migration. However these are very minor for Estonia, especially in the older age groups which are relevant for this study.

This allows taking account of growth convergence in the EU in the long run and the effects of the transient economic downturn on the wages in the short run, thus allowing staying as close as possible to the most likely course of events. In the short run (2011-2014) the growth rate from the Ministry of Finance latest (Rahandusministeeriumi 2010: 35-37) forecast is used. For 2015-2060, the variable growth rate projections from the Ageing Report (2008: 104-109) are used. In the base scenario a 3% real discount rate⁶⁹ is used and sensitivity analysis is conducted using a range of discount rates from 1 to 5 per cent.

3.3 Results and discussion

In 2011 the statutory pension age for women is 61 years and the youngest women eligible for early retirement are 58 years old. For men, the statutory and the early retirement age are 63 and 60 years respectively. The **actuarially neutral** adjustment factors for relevant age cohorts in 2011 (individuals born in 1943-1953) are presented in table 1.

A woman at the age of 61 deferring the pension by one year (until 2012, when she is 62) would have the same pension wealth as retiring immediately, if the pension was increased by 8.8 per cent. A man at the same age would require a more substantial increase – his pension should rise by 12.3 per cent in order to keep the pension wealth the same regardless on which of the two years he retires.

Table 1. Actuarially neutral benefit adjustment factors by age and sex in 2011,%

age	58	59	60	61	62	63	64	65	66	67	68
women	8.1	8.3	8.5	8.8	9.0	9.3	9.7	10.0	10.4	10.8	11.2
men	na	na	11.9	12.3	12.8	13.3	13.8	14.4	15.1	15.8	16.5

Source: Authors' calculations.

A woman at the age of 61 deferring the pension by one year (until 2012, when she is 62) would have the same pension wealth as retiring immediately, if the pension was increased by 8.8 per cent. A man at the same age would require a more substantial increase – his pension should rise by 12.3 per cent in order to keep the pension wealth the same regardless on which of the two years he retires.

As can be seen from the table, the actuarially neutral benefit adjustment is not constant – it varies with gender (while statistically the mortality of men at older ages substantially exceeds the mortality of women) and tends to grow exponentially with age (while the mortality rates rise at older ages). This implies that in any case the constant benefit adjustment as stated in current legislation must not be actuarially neutral for at least some age groups.

⁶⁹ A 3 per cent real interest rate roughly corresponds to long term average government bond rates.

In order to evaluate the possible effect of assumptions, a sensitivity analysis of the benefit adjustment rates was conducted.

Table 2. Sensitivity of theoretical benefit adjustments at age 63 to discount rate, %

discount rate	1%	2%	3%	4%	5%
women	5.9	7.6	9.3	11.1	12.9
men	9.6	11.4	13.3	15.2	17.1

Source: Authors' calculations.

As expected, the more one discounts the future (the less one values money to be received later compared to money received today), the more he or she has to be compensated to not take the benefit today but a year later.

Table 3. Sensitivity of benefit adjustments at age 63 to pension indexation, %

indexation	100:0	80:20	50:50	0:100
women	8.89	9.33	10.02	11.21
men	12.78	13.26	14.00	15.25

Source: Authors' calculations.

Here the columns refer to different indexation formula compositions. The first one comprises a situation where pensions are fully indexed to growth in average wage income, the last one a situation where pensions are indexed only to consumer price index. The column for 80:20 indexing refers to current legislation.

An important issue in the development of actuarially neutral benefit adjustment rates is the role of reforms of the pension system. In Estonia there is an ongoing reform designed to raise the statutory pension age for women to equal that of the men (63) by 2016. Since the availability age of early retirement is defined as being 3 years lower than the statutory retirement age, this will also change and equal 60 years for both men and women in 2016. This will raise the actuarially neutral rates of benefit adjustment. On the other hand, the mortality rates for the cohorts retiring at 2016 will be lower than those retiring at 2011, which will lower the rates of benefit adjustment.

The effect of increased longevity seems to be somewhat stronger than the effects of pension reforms – the actuarially neutral benefit adjustment rates for average women at age of 60 in 2016 are substantially lower than for women at the age of 58 in 2011. This is also the case for all subsequent ages. Note that for men, the statutory pension age is not reformed between 2011 and 2016, meaning that the fall in their actuarially neutral benefit adjustment rates can be fully attributed to predicted decrease in mortality after the age of 60.

Table 4. Actuarially neutral benefit adjustment factors by age and sex in 2016, %

age	60	61	62	63	64	65	66	67	68	69	70
women	6.4	6.6	6.8	7.1	7.4	7.6	8.0	8.4	8.7	9.2	9.8
men	9.3	9.7	10.1	10.5	11.0	11.5	12.1	12.7	13.4	14.2	15.0
total	7.5	7.8	8.1	8.4	8.7	9.1	9.5	9.9	10.4	10.9	11.6

Source: Authors' calculations.

The statutory retirement age will be further raised to 65 for both men and women by 2026. During 2016-2026 the mortality of both men and women at older ages will fall further, with men benefiting more. This will contribute to lower benefit adjustment rates at both the statutory and early retirement age, in spite of the rise in retirement age by 2 years.

Table 5. Actuarially neutral benefit adjustment factors by age and sex in 2026, %

age	62	63	64	65	66	67	68	69	70	71	72
women	6.0	6.2	6.4	6.7	7.0	7.3	7.6	8.0	8.4	8.9	9.5
men	8.5	8.9	9.3	9.7	10.2	10.7	11.3	11.9	12.7	13.4	14.3
total	7.1	7.3	7.6	7.9	8.2	8.6	9.0	9.4	10.0	10.5	11.2

Source: Authors' calculations.

In case of Estonia the standard definition of actuarial neutrality is less important, for there is an opportunity to earn additional pension entitlements while working even at relatively high age. This is induced by the fact that lifelong earnings are the basis of the calculation of pension benefits. Therefore it is important to measure the incentive that the old-age pension system imposes on retirement decisions by using another term that is very closely related to actuarial neutrality – **benefit equivalence** (see verbal and formal definition at page 6-7, equation (6)). In this study, a variable pension wealth accrual factor (π) was used. The π value depended on age group and gender. The reason for a variable accrual factor was the fact that older workers tend to earn lower wages than the whole population on the average. In addition to that, gender specific accrual factor is used due to the fact that although the average wage for women is lower than for men, it shows a smaller drop in older age groups than the wage income for men. The age specific wage coefficients that the calculation of accrual factor is based on are shown in Appendix 1.

The benefit adjustments that lead to benefit equivalence were calculated separately for men and women and also for different stages of the reform – the current (2011) situation, 2016 when the statutory retirement age for men and women equalises at 63 and 2026 when the rise of the statutory retirement age to 65 has finished.

Table 6. Benefit adjustment factors that lead to benefit equivalence by age and sex in various stages of the pension reform, %

age	2011		2016		2026	
	women	men	women	men	women	Men
58	6.5	-	-	-	-	-
59	6.7	-	-	-	-	-
60	7.0	10.5	4.9	7.9	-	-
61	7.3	10.8	5.2	8.2	-	-
62	7.6	11.3	5.5	8.6	4.7	7.1
63	8.0	11.9	5.7	9.2	4.9	7.6
64	8.3	12.5	6.0	9.7	5.1	8.0
65	8.8	13.1	6.4	10.2	5.5	8.5
66	9.3	13.8	6.9	10.9	5.9	9.0
67	9.7	14.6	7.3	11.6	6.3	9.7
68	10.2	15.4	7.8	12.3	6.7	10.3
69	10.9	16.4	8.4	13.2	7.1	11.0
70	11.5	17.4	9.0	14.2	7.7	11.8
71	12.3	18.5	9.7	15.1	8.3	12.6
72	13.1	19.7	10.3	16.2	8.8	13.6
73	14.0	21.0	11.1	17.4	9.5	14.6
74	15.0	22.5	12.0	18.6	10.2	15.6
75	16.2	24.2	13.0	20.2	11.1	17.0

Source: Authors' calculations.

As expected in the case of positive π value, all benefit adjustments leading to benefit equivalence are somewhat smaller than actuarially neutral adjustments. The effect that the decreasing mortality among older age groups has on benefit adjustment rates is clearly evident – benefit adjustments that lead to benefit equivalence are substantially lower in 2026 compared to similar age cohorts at 2011.

The effect is more significant for men (since the expected decrease in mortality of men is greater). For example, a 65 old woman in 2011 would expect her lifetime pension to be raised 8.8 per cent if she postponed retiring by one year. In 2026 this adjustment for a woman in the same age would only have to be 5.5 per cent, constituting a fall in benefit adjustment rates of 3.3 percentage points. The same figures for a man of the same age group would be 13.1 and 8.5 respectively, constituting a fall of 4.6 percentage points.

Moreover, the fall in adjustment rates is not entirely offset by the reforms in statutory retirement age. Both for men and women, the benefit adjustment rates at statutory

pension age in 2026 (being 5.5 and 8.5 per cent for women and men at the age of 65 respectively) are lower than in 2011 (7.3 for women at their statutory pension age of 61 and 11.9 for men at the age of 63). This implies that in case the benefit adjustment rate stated in the current legislation is not changed, the incentive to continue working at older age will grow more than the simple rise in the statutory retirement age suggests.

Therefore, any study that expects the effective retirement age to rise exactly in line with statutory retirement age is bound to underestimate the behavioural incentives that benefit adjustment rates higher than needed for benefit equivalence impose. The expected replacement rates and overall pension system costs would also be underestimated in this case.

Next, to try to quantify the effects of deviations from the benefit equivalence of the current legislation an **index of incentive to retire (ITC)** was formulated. This measure represents the ratio of adjustments that lead to benefit equivalence to the ratio of adjustments stated in current legislation and is calculated according to the following:

$$ITC_t = \frac{\beta_t}{\omega_t} - 1 \quad (12)$$

where ω_t is the annual benefit adjustment as it is stated in the current legislation, i.e. 4.8% for early retirement and 10.8% for late retirement.

In case of benefit adjustments that lead to benefit equivalence, *ITC* should be zero at all time. A positive value denotes an increased incentive to retire, a negative value denotes that staying on the labour market increases the expected future wealth of the individual. The ITC for different age groups of the total population are presented on figure 1⁷⁰

During the 3 years prior to the statutory retirement age, there is a large discrepancy between the legally set decrease in benefits for early retirement (4.8% annually) and the adjustment that would bring along the benefit equivalence⁷¹. This results in a rather high ITC at the ages where early retirement is possible. However, as seen from statistics of early retirement, there are relatively few estonians compared to other OECD countries, who have chosen to retire early.

⁷⁰ Note that the figure of 2011 is missing on this figure, while the statutory retirement age is different for men and women at 2011, which makes the presentation of a total impossible. See Annex 2 for a separate presentation of incentive to retire for men and women.

⁷¹ Kühnertopf and Tivig (2008: 13-15) argue that since the mortality rates of the individuals retiring earlier seem to be higher, the benefit adjustments should also reflect that. Assuming this, the decrements for early retirement should be even larger to compensate for the higher mortality of the early retirees compared to those who choose to work longer.

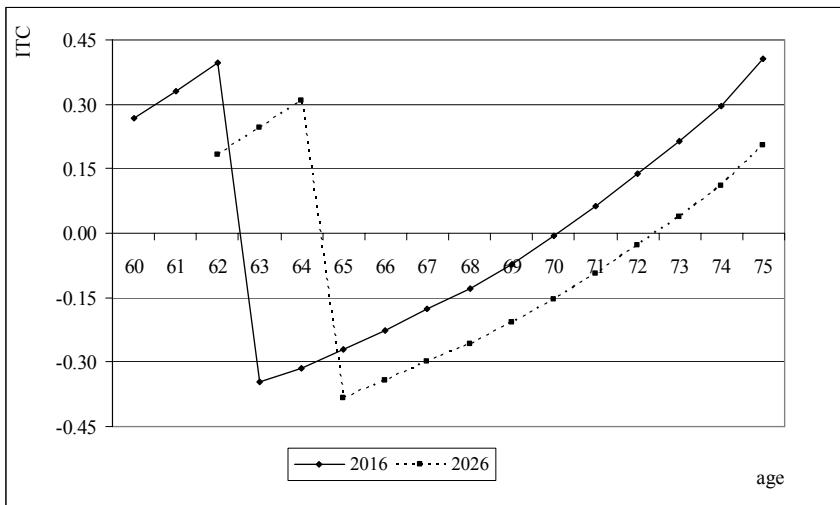


Figure 1. ITC of total population for different ages in 2016 and 2026.

There are three possible drivers behind the low rates of early retirement in Estonia. First, there is a restriction that early retirement can be claimed only when the individual is not employed, while after reaching the statutory retirement age, one can draw a pension and work at the same time. This means that an individual still at the labour market would have to give up working in order to receive an early pension. This provides an incentive to not retire early for workers, that by far compensates for effects of benefit inequivalence. Secondly, the replacement rates that the state pay-as-you-go system offers, are rather low, being the lowest in EU in 2008 (Joint Report...2010: 35). Further lowering ones expected pension income by retiring early would very often mean accepting a retirement spent below poverty line (*Ibid*: 35-36). Thus one would imagine decisions being made based on an absolute rather marginal income change at this perspective. Third, the ITC only measures the true incentive to retire at any given moment in time, conditional that at all other moments the benefit equivalence is granted. This is not the case for Estonia, while there is a strong incentive to postpone retirement after the statutory retirement age.

The first claim seems to be confirmed by an earlier empirical study of early retirement in Estonia.Uudeküll and Võrk (2004: 7) have found that the large majority of applicants of early pension have not had any work related income 14 month prior to retirement.

Therefore, the rather small decrements of benefits for early retirement seem to serve another purpose than assuring benefit equivalence – they provide a smaller reduction for the low-income or discouraged workers, thus reducing the number of elderly living in poverty. The social role of a smaller than actuarially neutral benefit

reductions for early retirement increase the costs of early pensions (compared to the situation when benefit equivalence is respected). However, at the same time it lowers the costs of other social insurance and social protection programs by reducing the number of elderly claiming disability pension (Börsch-Supan *et al* 2003: 13-14, Uudeküll and Võrk 2004: 6 for Estonia), unemployment benefit (Uudeküll and Võrk 2004: 6) or subsistence allowance. The benefit non-equivalence of decrements of pension benefits for early retirement can be accepted as a social agreement and not be a very important cost driver due to other aforementioned constraints and externalities.

However, this is not the case for non-equivelance of increase of benefits for deferred retirement. As can be seen from figure 1, there is an incentive for an average individual past the statutory retirement age to postpone retirement to the age of 70 in 2016 and 72 in 2026⁷². Assuming rational behaviour, the rise in the age of drawing the pension should exceed the rise in statutory pension due to behavioural effects. This would result in higher replacement rates for future retirees, but also in higher overall costs of the old-age pension system.

The possible effects are opposite to those that are haunting the old-age pension systems of developed countries – individuals would stay on the labour market for too long time because they are compensated too generously for working longer. This can be seen as a favourable solution to a problem of tight labour market⁷³, but it also constitutes a welfare loss due to distorted labour-leisure choices. Therefore the choice of any benefit adjustment rate different from those ensuring benefit equivalence should bring along welfare gains in other parts of the society.

4. Conclusion

The aim of this study was to elaborate proposals for development of the state-funded old-age pension scheme in Estonia with the specific focus on the adjustments of pension benefits in relation to early and deferred retirement and the incentive to retire these adjustments impose on individuals. The adjustments for early and deferred old-age pension were analysed from the point of view of actuarial neutrality and benefit equivalence. Thereafter a quantitative measure of discrepancy between the benefit adjustments that theoretically ensure benefit equivalence and adjustments purported in the current law is elaborated. This measure captures the incentives that the benefit adjustments impose on the retirement behaviour. All the mentioned calculations were conducted for 3 different time frames – in addition to current (2011) situation, the two other important dates (2016 when the statutory retirement age of women has been raised to 63 to equal that of the men and 2026 when the statutory retirement age for both men and women will have risen to 65) for ongoing reforms in old-age pension system were taken into account.

⁷² There is heterogeneity across gender in these figures, see Appendix 2 for separate presentation of ITC for men and women.

⁷³ And a possibility to raise the effective age of retirement without making the (politically inconvenient) choice of raising the statutory retirement age.

It can be concluded that neither the decrements for early retirement nor increments for late retirement stated in current legislation ensure benefit equivalence.

The decrements for early retirement seem to be somewhat smaller than are needed for them to ensure benefit equivalence in all years. This results in higher costs on early pensions than would be the case if the benefits were on the level of benefit equivalence. However, the effects these deviations impose on retirement behaviour are rather limited, for there are other restrictive factors that limit the use of early retirement, most important of which being the need to quit ones job to receive early pension. The costs imposed by benefit non-equivalence of early pensions are somewhat offset by the reduced costs of other social insurance and social protection programs. However, those positive externalities should be taken account for in any study concerning the long term sustainability of old-age pension system in Estonia.

The increments for deferred retirement seem to be higher than it would be necessary to assure benefit equivalence. This is not offset by the reforms of the statutory retirement age, while the mortality of elderly age groups (especially men) is expected to decrease even more. Therefore there is less incentive to retire at the statutory retirement age both for men and women if the present legislation concerning increments of pension benefits for deferred retirement is not amended. This could result in adverse effects for the expected replacement rates and overall costs of the state old age pension system. The distortions in leisure-labour preferences would lead to welfare losses.

The increased costs and welfare losses could be justified; provided that they were offset by welfare gains elsewhere in the society (i.e. when they provide a solution to shortage of labour that produces gains of the same magnitude in welfare). However, viewed only from the perspective of the sustainability of old-age pension system, the benefit increases for the deferred retirement should be reduced over time to reflect adjustments that provide benefit equivalence. Another option to control overall expenditures of the system would be to set an age cap to deferred pension, or to establish differentiated benefit adjustment rates that would work as a *de facto* age cap on deferred retirement.

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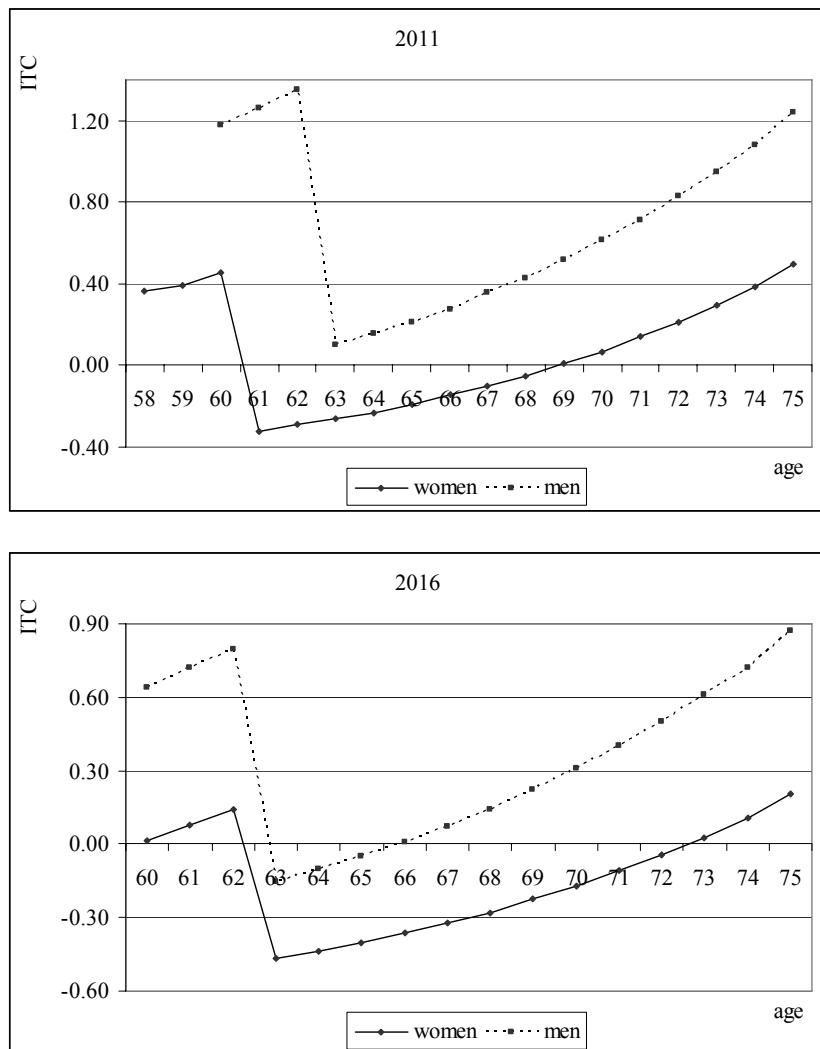
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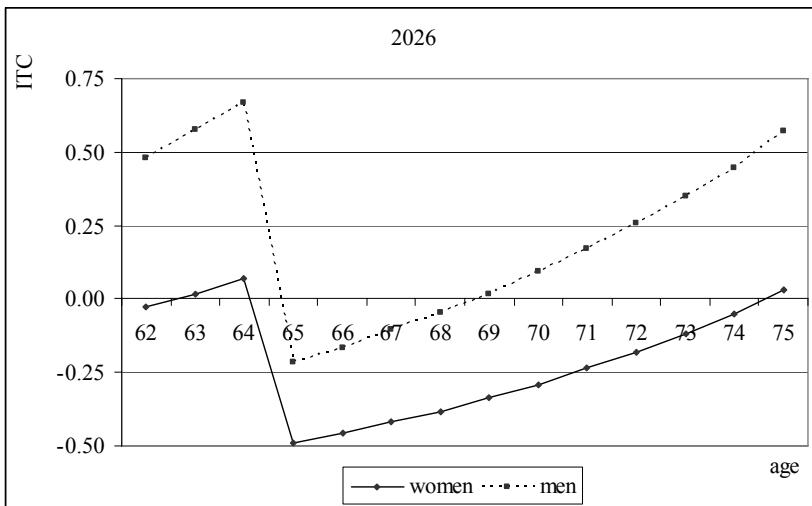
Appendix 1. The ratio of the wage income of specific age group to the gender average

age	women	men	total
58	103.1	91.2	95.4
59	108.9	92.9	99.4
60	103.2	91.3	96.2
61	96.8	92.9	94.0
62	91.8	94.7	93.0
63	89.4	87.4	88.0
64	87.7	84.9	85.6
65	80.3	81.5	80.3
66	72.0	78.3	74.9
67	66.7	70.0	67.7
68	63.1	66.8	64.5
69	55.3	60.2	57.6
70	51.6	54.7	52.9
71	43.8	50.8	47.3
72	42.5	43.8	43.0

Source: Authors calculations based on data presented by Estonian Social Insurance Board

Appendix 2. Gender specific ITC for different ages in 2011, 2016 and 2026





ECONOMIC CAUSES AND CONSEQUENCES OF INTERNATIONAL MIGRATION OF LABOUR

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Abstract

Migration waves in Europe in the past century had diverse causes but currently prevailing purposes for migration are of economic origin. International labour migration is mainly promoted by economic interests. This paper puts together important facts regarding motivation to labour migration and provides explanations of their impacts on the macroeconomic level. Understanding of broader migration patterns and identification of key determinants of migration described in this paper may allow the evaluation of applied migration policies and the determination of macro- and microeconomic benefits and costs of international labour migration.

A partial objective of the practical part of the paper is to evaluate relationships between the rate of migration and the unemployment rate in countries of the Visegrad group using adequate quantitative methods. To determine parameters of a regression function were used methods of regression and correlation analysis including testing the statistical significance. Based on these results, the existence of correlation is evident between the crude rate of net migration and the unemployment rate in the Czech Republic and Hungary but calculated correlation indices in Poland and Slovakia were evaluated as statistically insignificant which can be attributed to higher structural problems of those two economies.

Keywords: international migration, labour market, European Union

JEL Classification: F22, J61, O15

Introduction

Migration is an usual phenomenon worldwide. Within the European Union, mobility is encouraged by freedom of movement for every citizen, whereas there are restrictions in regard to persons who would like to immigrate from outside the European Union or who are seeking asylum. Migration, therefore, has a general relevance but there is also an historical, geographic, demographic and economic relevance of migration. After the World War II migration policies in Europe were very tolerant as labour shortages grew after achieving full employment in many West European countries. In Mediterranean countries (Italy, Portugal, Spain) economic emigration took place since the beginning of the 1960's particularly to the West European countries. Other emigration flows led from Malta to the United States and Canada after gaining its independency from Great Britain in 1970's.

As unemployment started to grow in 1970's, the formerly very liberal approach to migration in Europe was becoming more and more restrictive. The development of Central and Eastern Europe differs much from the above in West Europe. Until the

beginning of the 1990's the countries of the former Eastern bloc applied restrictive journey policies and so the migration issues gained importance only after the collapse of the communist regime. There were several exceptions, e.g. a legally approved process of repatriation of the members of the German minority from Romania or uncontrolled emigration flows from Czech Republic during the "Prague Spring" a short period of political liberalization before 1968 which resulted in a Soviet occupation of the country until the collapse of the communist regime. After the definite fall of the "Iron Curtain" in Europe in early 1990's migration flows between the "East" and the "West", that were bundled for many decades, started to play an important role in European migration patterns.

Aim of the paper

Although migration is one of the accompanying phenomena of a globalized society, economic analyses often don't pay enough attention to this highly topical issue which has significant impacts on individual economic subjects and also broad macroeconomic consequences. This paper puts together relevant facts regarding labour migration and provides explanations of their impacts on the macro- and microeconomic level.

A partial objective of the practical part of the paper is to evaluate relationships between the rate of migration and the unemployment rate in countries of the Visegrad group using adequate quantitative methods. To determine parameters of a regression function were used methods of regression and correlation analysis including testing the statistical significance.

Understanding of broader migration patterns and identification of key determinants of migration described in this paper allows the evaluation of migration policies and the determination of macro- and microeconomic benefits and costs of international labour migration. In my paper I primarily focus on legal migration rather than the illegal labour movement and trafficking of workers from one country to another despite these situations without doubt present another serious problem with considerable economic, social and personal consequences.

Methods and Data

The data for following analysis come from the source of Statistical Office of the European Union (EUROSTAT). I focussed on four countries of the Visegrad group: Czech Republic, Poland, Hungary and Slovakia. All of them are post-communist countries but they had experienced significant differences in their economic development after the collapse of the communist bloc. At the time of the data collection there weren't available data for 2010 so the series ends in 2009. If some of the countries didn't publish the data for first one or two years of the reference period, the reference period might be shorter than. After obtaining information on the character of data a decision followed concerning the use of methods suitable for the evaluation of relationships between the crude rate of net migration and the

unemployment rate. Statistical methods have been used for the evaluation of data represented by the EUROSTAT.

The data for an indicator of the crude rate of net migration plus adjustment comes from the source of EUROSTAT (2011) and is defined as the ratio of net migration plus adjustment during the year to the average population in that year, expressed per 1 000 inhabitants. The net migration is the difference between the total change and the natural change of the population. The values of the indicator of unemployment rate result also from the data of EUROSTAT. The use of statistical methods was described by Aczel (1989) or Mason, Lind (1990). The factual data processing comes from the methodology published by Hindls et al. (2003), Dirschedl, Osteermann (2001) and Palát (2010). Minařík (1996, p. 97) states, that the statistical dependence of two characteristics (numeric figures) can be expressed as their functional relation by a formula, table or graph. We recognize these types of statistical dependence: fix, functional alias deterministic dependence and free, statistic alias stochastic dependence. The stochastic dependence makes itself felt like more or less significant repeatable tendency, which realizes in different form on different place and in different time. It is characteristic for its variability of individual causes and makes itself felt under a row of noteless, variously reacting factors. The stochastic dependence is referred to as a correlation dependency. For this dependency, we distinguish from dependent and independent variable. The correlation analysis of two variables is called pair or simple analysis.

The main graphical data presentation tool for examining the dependence between two variables is a point diagram, where we mark particular cases as points in a reference frame with coordinates, which are the values of particular dependent and independent variables.

The equation for a linear model is: $y' = b_0 + b_1 x$

The equation for a quadratic model is: $y' = b_0 + b_1 x + b_2 x^2$

The equation for a cubic model is: $y' = b_0 + b_1 x + b_2 x^2 + b_3 x^3$

The equations for a bisector or second-degree parabola are the same as trend determination in temporal series. In this paper, particular characteristics of tightness of the dependency of variables are calculated. Conjugate regression lines show the same values of the tightness dependency characteristics, the correlation coefficient $r_{yx} = r_{xy}$, determination coefficient $r_{yx}^2 = r_{xy}^2$ (at the first place in this index is stated variable thought to be dependent). The correlation index I_{yx} is a dependency tightness characteristics for any type of regression function (for simple as well as multiple dependencies of variables). Its second power is determination index I_{yx}^2 . Determination index multiplied by 100 presents the explanation percentage of the calculated regression function - how the changes of dependent variable Y are explained by the changes of independent variable(s). Statistical software Unistat 5.11 for Windows has been used for the calculation of following results.

Basic migration patterns

Lacina, Rolný (2001) pointed out possible confusion in using of concepts of mobility and migration. They explain that the term “mobility” includes all types of movements of individuals (including temporarily movements) with a various periodicity, purposes, directions and distances. The term of “migration” is than to be defined as a much closer term that is rather to be put into connection with a permanent change in residence. And this is according to them the main difference to other types of movements which don't lead to permanent but only to temporarily change in residence. Migration waves in Europe in the past century had diverse causes but currently prevailing purposes for migration are of economic origin and are linked with the movements of the labour force. International labour migration is mainly promoted by economic interests (higher obtained real wage, higher standard of living) and therefore it is sometimes called as an “economic migration”.

Boeri and van Ours (2008) point out that economic theory suggests that migration increases efficiency by arbitraging away cross-country (and even cross regional when natives are immobile) differences in productivity and unemployment. Boeri and Brücker (2005) state, that international migration can significantly increase income per capita. They estimated that at the given wage and productivity gap between Western and Eastern Europe, migration of 3% of the Eastern population to the West could increase total EU GDP by up to 0.5%. They also stress out the fact that a desirable migration policy is to be coordinated at the European level.

Lacina, Rolný (2001) assume that statistical estimates of the migration potential linked with economic reasons are deduced from following presumptions: The 10 % difference in economic, living and income standards triggers off a propensity to emigrate by 0,05 to 0,15 % of the population in the country with lower level of these standards which is dealt in detail in one dimensional gravity models of migration. Together with a diminishing difference in income levels is the propensity to migrate declining progressively. According to them, achieving of 70-75 % of the standard of living in an advanced economy creates a boundary of the motivation to migrate (a so called “migration threshold”). After achieving that point, economic migration discontinues because lingering disparities in income levels are evening out by economic and psychological costs of migration. They also mention other substantial factors influencing migration, e.g. the extent and the structure of the demand for labour in the target country, the level and the structure of unemployment, the demographic development, the initial migration costs and the willingness of migrants to accept working positions not entirely corresponding with achieved qualification levels. It is also necessary to take into account other social and psychological factors. Such factors are not easy to be quantified but despite that they keep playing an important role in decisions regarding migration issues. Some of those factors are given by the necessity to adapt to other cultural environment, habitual practice, working hours, separation from family, relatives, friends etc.

Thus, the reasons why people decide to migrate can be divided into two categories: financial and nonfinancial incentives. As regards to financial incentives, potential

migrants compare private costs and private benefits of moving to another country. If the expected increase in earnings exceeds all the cost of relocation, it creates incentives to migrate depending on the resulting difference. The higher is the difference in average wage level between original and potential host countries the more it presents a motivating factor for immigration. Existing economic inequalities boost the motivation to move to another country from financial reasons. At the same time, migrants have time take into account other economic differences, usually esp. higher cost of living in the target country. To establish the real income gains from work estimates of purchasing power parity can be used. Furthermore, financial incentives can also be influenced by the tax and welfare systems existing in particular countries. Just like international capital movements seeking the highest expected rate of return after taxation, so workers may be motivated to move because of diversity of welfare systems with a different grade of generosity and differences in the rates of income tax.

The nonfinancial incentives may include many other aspects that can be covered by generally better quality of life and better standard of living, not only in the purely economic sense but for instance also profiting from existing health care and pension system, advanced educational system with opportunities for migrants and their children, attractive geographical location, existence of a minority originating from the migrant's country in the target country, reuniting of family members or just an opportunity to live in a society tolerant to minorities and migrants. The extent of migration is also encouraged by current information society where all necessary information on potential host countries, receiving procedures, accommodation or vacancies can be found in the World Wide Web and also dense transport networks (especially air but also ground traffic with fast trains, highways etc.) allow fast migration movements even from more distant places.

Migration policies

While barriers to international trade and capital mobility have been removed in a large extent in the past, international migration flows remain restricted in many regards, are still quite undiscovered and very uneasily predictable. Boeri and van Ours (2008) suggest that gains from liberalizing labour movements across countries are enormous (due to high income differences among countries) and might be larger than from liberalization in the areas of goods and capital. The reality is that European migration policies are getting stricter because Europe is attracting more and more migrants, recently even more than the United States (especially in proportion to the total population). It is essential to control not only the magnitude of migration but also to try to affect their composition according current needs of the labour market. But many member states of the European Union are finding it difficult to balance public hostility towards immigration against the need to attract high-skilled migrants (OADBS, 2005). The economic explanation of Boeri and van Ours (2008) why migration is so severely restricted is that migration policies are essentially distributive tools, aiming at reducing negative effects of migration on wages and unemployment among natives and moreover, they stress out the gradualist tendencies of migration where such migration restrictions can mitigate

supply-side shocks that may negatively affect incomes or jobs of some specific groups. According to them, migration policies are also affected by minimal wage legislation, the strength of unions, family policies and unemployment benefits because wage compression and income floors affect the skill composition.

Restrictions of illegal migration applied across Europe aren't enforced quite efficiently in all cases and these results in a significant rise in illegal migration inflows. Boeri and van Ours (2008) state that up to 40 % of migration to Europe might be illegal, according to other estimates this number could be even higher. They also mention a number of restrictions on the movement of people that migration policies do include. The most common means of migration policies are quotas that provide only a limited number of work and residence permits for foreign migrants within a certain time period until its depletion. A more flexible system which is at present adopted by more and more countries presents a points system where certain explicitly given abilities (vocation, educational background, professional experience, language knowledge etc.) are assessed.

Other measures of migration policy apply to implementation of various administrative obstacles in admission procedures. Those bureaucratic barriers are less visible but still very effective. The maximum length of stay presents another possibility to restrain migration flows. A less restrictive attitude of a country toward international migration is characteristic by an easy application for citizenship after spending only a few years in the host country where the process can be reinforced with further assimilation policies. A part of international migration is not primarily provoked by economic reasons but is a result of non-economic, especially political turbulences in affected countries. Asylum seekers escaping from non democratic or war-torn countries have a different position compared to all other migrants as there are special rules applied towards them. Boeri and van Ours (2008) point out that it is important to include also asylum policies when analyzing the more or less restrictive stance of any given country because although asylum policies are largely inspired by non-economic considerations, in practice most asylum seekers respond to economic incentives, just like other migrants.

Castles (2004) distinguishes between three types of reasons for migration policy failure: factors arising from the social dynamics of the migratory process, factors linked to globalization and factors arising within political systems. He concludes that migration policies might be more successful if they were explicitly linked to long-term political agendas concerned with trade, development and conflict prevention. Reducing inequality is then the real key to effective migration management.

The development of migration in the European Union and its wider determinants

Labour markets of many European countries are particularly dependent on migrant workers. Let's start with the geographical relevance of migration. From the geographical point of view, Luxemburg can be used as an example. This small

country is situated in direct neighbourhood of France, Germany and Belgium which influences this country in many regards. It shows the highest share of foreign workers in the EU (2/3 of the labour force in total) and a general share of foreign nationals is also extremely high (around 40 %). A geographical issue, which raises considerable concerns of many affected countries, is the threat of illegal migration in Mediterranean countries and at the new Eastern external border of the European Union after its last “Big enlargement” in 2004 and 2007. Illegal immigration flows present first of all a logistic problem for the neighbouring countries in terms of registration, accommodation, general catering and other factors that are generally very expensive. Furthermore, Spain and Italy that are the main target countries for the entry thus have the task to grant social support to the immigrants according to the European social standards. And many questions raises also the security issue.

The declined birth rate and the increased life expectancy in European countries over the last decades led to negative changes in the demographic structure of the population that are not about to change in near future. The OADBS source (2005) quotes that the EU's working age population will decline by some 20 million by 2030 and this prospect of a declining and ageing workforce has also prompted a greater focus on immigration. The preservation of the current European welfare model is than partly dependent also on future immigration flows. Some of the NMC (new member countries) of the European Union faced a significant emigration wave during a long and painful era of economic transition from the centrally planned economy to a fully functioning market economy of the Western type (Romania, Poland or Estonia). And the negative demographic development was intensified by very low birth rate during transition, e.g. in Estonia. Those three above mentioned countries reported negative immigration balances. This means that emigration rates were considerably higher than immigration rates. Reasons for this can be found in the prosperity gap between established and new member countries of the European Union.

Another part of the increase in migration in Europe reflects the effects of immigration flows (from NMC to West European countries) following the expansion of the European Union in 2004. On 1 May 2004, first countries (United Kingdom, Ireland and Sweden) opened its labour market for eight NMC. Many ex ante economic studies claimed that fears of mass migration from Central and Eastern European countries seemed to be highly exaggerated and came to conclusions that with regard to the decline of the EU population and the ageing of the society, the expected East-West migration potentials will generate rather positive consequences, e. g. Straubhaar (2002). The impacts of EU enlargement on migration flows during the years preceding the Eastern enlargement were also dealt by IOM (1998), Bauer, Zimmermann (1999), Boeri, Brücker (2000), Fertig (2001), Dustman et al. (2003), Breitenfellner et al (2008).

Despite these findings other 12 established EU member countries decided to maintain restrictions. From NMC, only workers from Cyprus and Malta did not face restrictions. Than from 1 May 2006, Finland, Greece, Spain and Portugal opened

their markets for foreign workers from eight NMC. And 1 May 2011 became a final deadline to remove labour restrictions for all members.

Already in 2004, net migration to United Kingdom reached value around 300,000 and the very next year, it rose rapidly to around 470,000. Ever since Poland joined the European Union many Poles have become a distinct part of the British labour market and increased significantly the share of foreign workers on the UK labour force. A strong emigration flows were also observed from Poland to Germany, whereas immigrants from Romania preferred Italy and Spain (mainly from language reasons as they are part of the same language group of Romanic languages). Czech Republic, Estonia and other NMC had to face the loss of its economically active population, particularly in health services but also in other important sectors of the economy.

In terms of migration, the size of the economy presents another considerable factor. In relatively small countries of the European Union, such as Malta, Luxembourg or Estonia, high immigration rates may raise the question of the preservation of national identities as the fast growing share of foreigners may result in a higher share of persons with a foreign nationality than the share of native citizens. The controversy of the topic of migration is mentioned for instance by Boeri and van Ours (2008) when even the same individual may at the same time paradoxically support and oppose migration. As a manager of a firm he needs to fill up vacant positions, as a native-born individual he is afraid of higher competition at the labour market, lower wage, higher crime rates, higher pressure on social system or possible increase in social transfers abuse. But he is on the other side also aware of changing demographic structure of the society and the unsustainability of the current pension system. Therefore it is quite obvious that migration patterns will always present a very controversial topic.

Migration inflows may satisfy needs for both low and high level workers on labour markets of receiving countries. A part of the migration inflows helps to satisfy the need for low level workers in agricultural, gastronomic or building sectors as domestic workers are not interested in some of those professions. Native workers attain than higher positions, since lower positions are taken over by immigrants. Emigration countries on the other side suffer from a shortage of manpower and the immigration of third state nationals may be needed to satisfy their domestic needs. Romania and Poland start to seek workers for particular industrial sectors that are no longer attractive for native workers due to the poor wage compared to the other EU member states. This way the prosperity gap is shifting bit by bit from the centre to the periphery. Another part of migration flows satisfies the need for highly trained workers in the destination country. While the receiving country can profit from the qualified labour force from abroad without bearing any of the costs of educational system and vocational training, the countries where the workers come from suffer from lack of highly qualified labour force which is often described as a "brain drain". Many highly developed countries that support a smooth immigration of high qualified workers, have at the same time a legislation that creates barriers for immigration of low qualified workers and as a result of this uneven situation the

difference gap in the human capital level between advanced and developing countries is widening ever more.

Migration and labour market

The rising scale of labour migration over recent years makes the discussion about the economic and social costs and benefits of migration of labour a highly topical issue among economists and policy-makers. An increase in the rate of net migration can have significant effects on the labour markets of both receiving countries and countries of origin and further macroeconomic effects on variables such as economic growth, unemployment etc. Immigration brings economic benefits for the receiving country as immigrants are usually more economically active than the local population, are willing to take undesirable jobs, work for lower wage or under worse working conditions. This might provide a valuable contribution to raising productivity, entrepreneurship and economic growth. The actual economic effects of immigration depend not only on economic situation in the receiving country and its current needs for labour force but also on the legal frame of immigration and also cultural and personal characteristics of the immigrants themselves and their ability and willingness to work and live in the host country and integrate themselves to the majority society.

Macro- and microeconomic benefits of labour migration

Let's have a look at macroeconomic benefits of international migration of labour. The influx of foreign workers into the economy increases the labour supply in the receiving country. Firms have wider options in the selection process of new employees, they can choose from a wider range of workers available. Occupations and sectors of the national economy that evince shortages (possibly agriculture, construction, IT services etc.) attract skilled migrants who contribute to alleviation of these shortages. An increase in labour supply from migration will also restrain inflationary tendencies of wages or a lead to a decline in wages as the expanding labour market supply side is easily able to satisfy the needs of firms in terms of labour demand. Another reason for a reduced pressure on wages is the fact that migrants usually come from less developed countries and are prepared to accept lower wages than the most of the domestic workers. Those moderate wage pressures and low price inflationary tendencies in general present a suitable economic environment for low interest rate policies of the central banks that promote investment and growth. This all presents positive cost changes for firms in a short-term period. But self-evidently not only for firms. As lower wages result in lower production costs and in effect this may lead to lower retail prices of goods and services for final consumers.

Possible impacts of migration on social exclusion patterns were dealt by Fevre (1998). He argues that there are many reasons why freedom of movement is desirable, but one of the most persuasive arguments in its favor lies in its potential to combat social exclusion by bringing supplies of labour into the places where a demand for labour exists. But then he adds, that in fact, there is very little empirical

evidence that the dismantling of internal obstacles to migration within the European Union has created the sort of migration flows which would suggest that free movement is working in this way. Anyway some role of migration in amelioration in social exclusion patterns is not inconceivable.

From a demographic point of view it is obvious that the migration influx increases the total population which may result in an immediately increased aggregate demand in the host country. Thus, an increase of population from migration can add to economic growth in the short run and economic benefits from migration can be still visible also in the long-term growth. Higher economic growth boosts government tax revenues and allows a smooth implementation of economic policies, incl. migration policy.

The most migrants are younger people that are generally more flexible and able to adapt to new conditions than older workers that have already their established career and private life that most of them is not willing to endanger. And language skills, that are generally better in the new generation, also play an important role in the decision for migration. From these reasons, the growing number of (mainly young) migrants increases the working age population and markets become more flexible. Admitting of talented, highly skilled migrants (working for instance in finance, IT or research) contribute to the economic and technological advancement of the receiving country and may create new job opportunities for natives. Moreover, young people are also less risk feared which may come out in higher entrepreneurial activity and to present another potential gain for the supply-side of the economy. For some of young workers the migration may be regarded a temporary episode (e.g. to increase qualification, learn foreign language, get some experience). When admitting workers that prefer to stay in the long-term we have to take into account that their extended families join them as well and as to corresponding policies this may increase the requirements on the system in terms of education, health care, social issues, housing etc.

The costs of international labour migration

Growing influx of workers raises a legitimate question about the costs of international migration for a receiving country. Among many explanations rational reasons mix with more or less substantiated subjective assumptions rising from concerns of the native population. Critics of labour migration assume that an inflow of low skilled migrant workers that will increase labour supply in the low skill segment of the labour market will also (in an excessive extent) cut back the equilibrium wage of local low-skilled workers. Other concerns are about the risk of higher unemployment among migrants when the qualifications of migrants don't match current demand of firms on the labour market. Low-skilled migrants are also more likely to be unemployed or economically inactive which may evoke doubts about actual productivity effects. These situations may produce increased pressures on the welfare state with a higher level of government spending on necessary infrastructure providing unemployment and other social benefits, bearing increased costs for education, health care etc.

To reduce some of those risks many countries applied selective immigration policies ensuring that the migrant's skills profile meets the requirements of the labour market. Foreign workers usually migrate in a larger extent to some specific areas of the country (esp. big cities) and the increased migration influx may have an influence on housing market in these areas. The increase of the demand for housing pushes up the living costs which results in higher wage requirements of the employees and an increase in wage inflation potentially. This last example shows that the consequences of mass immigration are much wider and cannot be reduced only on growth and productivity issues but have to be considered in wider economic and socio-cultural context. The long term benefits of migration are therefore very uneasy to quantify. They depend also on the stage of assimilation (or better integration) of immigrants into the majority society, on their ability to deal with different economic, cultural and social conventions or habits in the target country.

Correlation between migration and unemployment

First, it is possible to meet the development of an indicator of the crude rate of net migration plus adjustment in the reference period 1996–2009 which is defined as the ratio of net migration plus adjustment during the year to the average population in that year, expressed per 1 000 inhabitants. The net migration is the difference between the total change and the natural change of the population.

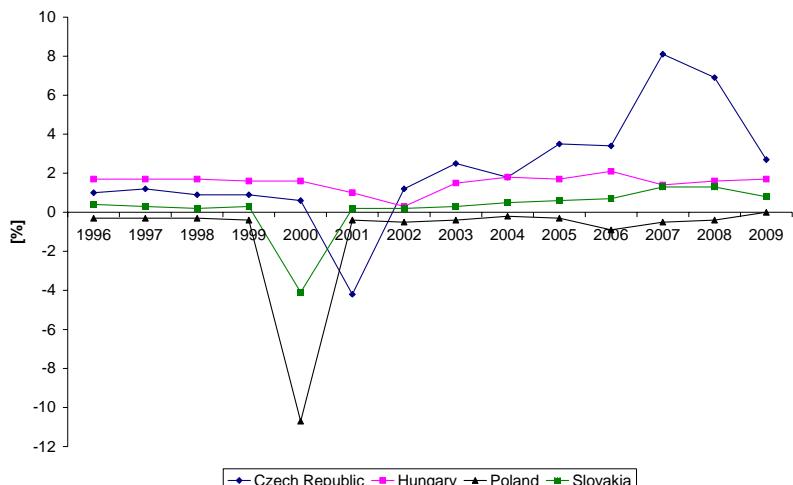


Figure 1. The development of the crude rate of net migration in countries of the Visegrad group in the period 1996–2009. Source: own calculations.

The Development of the crude rate of net migration in the selected sample of countries is evident from Figure 1. While Hungary evinces a relatively stable crude rate of net migration, the Czech Republic shows a significant increasing trend in it

during 2002–2007 which was the period of fast economic growth preceding to the last global financial and economic crisis. Thus trends in Czech Republic refer to developmental tendencies characterized from the midst of the reference period by increasing the crude rate of net migration significantly and then follow-up dramatic decline towards the balance. From the same figure a completely different development in Slovakia and Poland can be observed. The values of the crude rate of net migration in those two countries fluctuated around zero permanently (with an exception of the deep decline in 2000 as a result of an economic stagnation).

It is obvious that the average values for examined countries fluctuated in the interval of +2 to -0,5 per cent during the most of the reference period which is also evident from Fig. 1 but there are significant differences in particular countries. According to the available data one of the highest positive values of the crude rate of net migration were observed in 2007 and 2008 in the Czech Republic, the lowest values occurred in Poland and Slovakia in 2000. But while in Slovakia this decline was only temporary, Poland has been achieving negative values steadily during the whole reference period.

For the purpose of a more profound analysis, data available from EUROSTAT in monitored countries are repeatedly used. Due to availability of data on EUROSTAT a time period 1996–2009 has been set as the reference period in Hungary, a time period 1997–2009 presents a reference period in Poland and a time period 1998–2009 is a reference period in the Czech Republic and Slovakia. I shall try to prove statistically the existence of correlation between the crude rate of net migration and the unemployment rate in all analyzed countries. To determine parameters of a regression function were used methods of regression and correlation analysis (including testing the statistical significance) described in the part Methods. Parameters of linear, quadratic and cubic regression functions in the given reference period are presented in Tab. 1.

Indices of correlation were calculated for particular countries and types of a regression function. Based on these results, the existence of correlation is evident between the crude rate of net migration and the unemployment rate in the Czech Republic where correlation indices achieve highly statistically significant results already using a polynomial of the first degree. The use of a polynomial of a higher degree doesn't improve correlation indices very distinctively. In Hungary, the use of a polynomial of the first degree doesn't mean achieving statistically significant results. But the use of a polynomial of a higher degree improves Hungarian correlation index results significantly when the use of a polynomial of the second degree means already achieving statistically significant results and the use of a polynomial of the third degree means then achieving highly significant results comparable to those in the Czech Republic. While these two above mentioned countries achieve highly significant results, in Poland and Slovakia not even the change of a polynomial to a higher degree doesn't show a sign of statistical significance. The explanation can be found in a comparative assessment of total rates of unemployment among countries under examination and based on these data we can argue that despite the sharp decline in unemployment in Poland and Slovakia

during the last years preceding the global financial and economic crisis the rates of unemployment kept remaining at a relatively high level. Thus, the examined relation between net migration and unemployment is much weaker than in countries with relatively lower rates of unemployment.

Table 1. Parameters of a regression function for the crude rate of net migration with respect to the unemployment rate in countries of the Visegrad group

Country	Model	Model parameters				I_{yt}
		b_0	b_1	b_2	b_3	
Hungary	1	0,455	0,144	-	-	0,4800
	2	-5,400	1,710	-0,101	-	0,6367 ⁺
	3	-36,015	14,014	-1,717	0,069	0,6963 ⁺⁺
Slovakia	1	3,448	-0,212	-	-	0,5166
	2	-0,917	0,4128	-0,021	-	0,5307
	3	23,188	-4,906	0,358	-0,008	0,5516
Czech Republic	1	14,501	-1,682	-	-	0,7101 ⁺⁺
	2	26,009	-5,302	0,272	-	0,7252 ⁺⁺
	3	-31,820	22,445	-4,020	0,215	0,7361 ⁺⁺
Poland	1	0,024	-0,084	-	-	0,1364
	2	11,079	-1,861	0,064	-	0,3539
	3	-33,721	9,291	-0,804	0,021	0,5197

Note: Correlation index: I_{yt} Significance level: + $\alpha = 0.05$; ++ $\alpha = 0.01$

Source: own calculations.

Conclusions

The rising scale of labour migration over recent years makes the discussion about the economic and social costs and benefits of migration of labour a highly topical issue among economists and policy-makers. This paper puts together relevant facts regarding labour migration and provides explanations of their impacts on the macro and microeconomic level. An increase in the rate of net migration can have significant effects on the labour markets of both receiving countries and countries of origin and further macroeconomic effects on variables such as economic growth, unemployment etc. Immigration brings economic benefits for the receiving country as immigrants are usually more economically active than the local population, are willing to take undesirable jobs, work for lower wage or under worse working conditions. This might provide a valuable contribution to raising productivity, entrepreneurship and economic growth in the short period.

The influx of foreign workers into the economy increases the labour supply in the host country and may evince shortages appearing in some occupations and sectors of the national economy. An increase in labour supply from migration will also restrain inflationary tendencies of wages or even lead to a decline in wages as the expanding labour market supply side is easily able to satisfy the needs of firms in terms of labour demand. Those moderate wage pressures and low price inflationary tendencies in general present a suitable economic environment for low interest rate policies of the central banks that promote investment and growth.

From a demographic point of view, an increase of population from migration can add to economic growth in the short run and economic benefits from migration can be still visible in the long-term growth too. Higher economic growth boosts government tax revenues and allows a smooth implementation of economic policies, incl. migration policy. But despite this, mass immigration, cannot be regarded as a unique solution to all labour market problems arising from population ageing. Several examples from the past, such as German migration policies of the 1970's, show that it is not always providing effective and durable solutions to these issues. Migration certainly has its economic benefits that were described above but increasing shortages at the labour market must be primarily tackled within the existing society. The effective mobilizing of the population presents than a long-term challenge for responsible policy makers.

Growing influx of workers also raises a legitimate question about the costs of international migration for a receiving country. Critics of labour migration assume that an inflow of low skilled migrant workers that will increase labour supply in the low skill segment of the labour market will also (in an excessive extent) cut back the equilibrium wage of local low-skilled workers. Other concerns are about the risk of higher unemployment among migrants when the qualifications of migrants don't match current demand of firms on the labour market. Low-skilled migrants are also more likely to be unemployed or economically inactive which may evoke doubts about actual productivity effects. These situations may produce increased pressures on the welfare state with a higher level of government spending on necessary infrastructure providing unemployment and other social benefits, bearing increased costs for education, health care etc. To reduce some of those risks the governments should apply selective immigration policies ensuring that the migrant's skills profile meets the requirements of the labour market.

Foreign workers usually migrate in a larger extent to some specific areas of the country and the increased migration influx may have an influence on housing market in these areas. The increase of the demand for housing pushes up the living costs which results in higher wage requirements of the employees and an increase in wage inflation potentially. This last example shows that the consequences of mass immigration are much wider and cannot be reduced only on growth and productivity issues but have to be considered in wider economic and socio-cultural context.

As regards to a practical part of the paper a partial objective was to evaluate relationships between the rate of migration and the unemployment rate in countries

of the Visegrad group using adequate quantitative methods. To determine parameters of a regression function were used methods of regression and correlation analysis including testing the statistical significance. As first, it is possible to get acquainted with the development of an indicator of the crude rate of net migration in the reference period 1996–2009. Based on values of this indicator, it is evident that Hungary evinces a relatively stable crude rate of net migration; trends in Czech Republic refer to developmental tendencies characterized from the midst of the reference period by increasing the crude rate of net migration significantly and then follow-up dramatic decline towards the balance.

The development of this indicator in Slovakia and Poland differ significantly from the above mentioned countries. The values of the crude rate of net migration in those two countries fluctuated around zero permanently (with an exception of the deep decline in 2000 as a result of an economic stagnation). It is obvious that the average values for examined countries fluctuated in the interval of +2 to -0,5 per cent during the most of the reference period but there are significant differences in particular countries.

To determine parameters of a regression function were used methods of regression and correlation analysis (including testing the statistical significance) and parameters of linear, quadratic and cubic regression functions in the given reference period were calculated. Based on these results, the existence of correlation is evident between the crude rate of net migration and the unemployment rate in the Czech Republic where correlation indices achieve highly statistically significant results already using a polynomial of the first degree. The use of a polynomial of a higher degree doesn't improve correlation indices very distinctively. In Hungary, the use of a polynomial of the first degree doesn't mean achieving statistically significant results. But the use of a polynomial of a higher degree improves Hungarian correlation index results significantly when the use of a polynomial of the second degree means already achieving statistically significant results and the use of a polynomial of the third degree means then achieving highly significant results comparable to those in the Czech Republic.

While these two above mentioned countries achieve highly significant results, in Poland and Slovakia not even the change of a polynomial to a higher degree doesn't show a sign of statistical significance. The explanation can be found in a comparative assessment of total rates of unemployment among countries under examination and based on these data we can argue that despite the sharp decline in unemployment in Poland and Slovakia during the last years preceding the global financial and economic crisis the rates of unemployment kept remaining at a relatively high level. Thus, the examined relation between net migration and unemployment is much weaker than in countries with relatively lower rates of unemployment. Understanding of broader migration patterns and identification of key determinants of migration described in this paper allows the evaluation of migration policies and the determination of macro- and microeconomic benefits and costs of international labour migration.

Acknowledgement

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ECONOMIC CRISIS AND ECONOMIC POLICY IN ESTONIA 2007-2010

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Abstract

Estonia suffered the deepest economic crisis of its history in 2007-2010; also, the crisis was one of the most troublesome ones among the member states of EU and among the industrialized countries worldwide. The paper deals with main indicators describing the size and dynamics of the crisis and with the economic politics of government in the period. The latter one can be characterized by delay in giving estimation to economic processes and the lack of means against the crisis. At the same time government erected task to join euro at any price. The economic reactions were centred on it. The taxes were lifted and the costs were cut down in order to balance the budget at the highest peak of the crisis, it was done also in the middle of the budget year. All the criteria to join euro were succeeded to fulfil for a certain period (today the inflation is much higher again), but the difficulties of the crisis were magnified. The paper doesn't give prognosis for the development of Estonian economy in euro zone, neither does it give any variances of economic politics for next years.

Keywords: economic crises, euro, budget balance, taxation, development

JEL Classification: H2, H24, H3

Problem erection

The deepest economic crisis of Estonian history began in 2007. I don't want to argue whether the crisis is over or not; the purpose is to assert the fact that its severe results in economic would be felt for years. It's didactical to analyze the course of the crisis and to observe, which economic political measures and when were taken at the time of the crisis and which were their results. An analyse of that kind gives good assumptions for coping with new crises.

The analysis didn't attempt to find any formulas from specialized literature as firstly, according to our knowledge there aren't any generally accepted ones, and secondly, the specific situation of Estonia (and Latvia and Lithuania) doesn't give the possibility to use many methods and formulas, suitable for usage in world, for the analysis of economic processes with sufficient accuracy. Also, the author didn't try to construct his own theory or formulas. The analysis has been performed on the basis of classical and widely spread methods of research.

The paper is of a mildly unusual structure due to the above mentioned reasons. Instead of usual theoretical initial part and consequent practical part it begins with the description of the situation, which is followed by the observation of concrete economic political steps. The theoretical treatment of each concrete economic

political reaction (if it has been considered to be necessary) has been given together with the analysis of its practical usage.

All the data are given in Estonian kroons (EEK) as this was the currency of Estonia in the period. Kroon was fixed with euro (1 Euro = 15.6466 kroons).

Extent of crisis

In order to understand the extent of economic crisis of 2008-2010 in Estonia we'll bring out its main features and compare them with the other EU states.

The economic crisis is above all characterized by two main characteristics: its duration and its deepness. All the other features are considered less important; also, their use or disuse depends also on specificity of concrete crisis. The data have been demonstrated in table 1.

Table 1. Dynamics of tax funds, wages, unemployment and GDP in 2007-2010 (per cents in comparison with the same quarter of the last year)

Period	2007				2008			
	I	II	III	IV	I	II	III	IV
GDP	9,8	7,6	6,4	4,5	0,4	-1,4	-3,3	-9,9
Tax revenues	27,6	28,4	18,6	18,2	10,2	5,7	7,1	-2,8
Average wage	20,1	21,2	12,9	20,2	19,5	15,2	14,4	6,9
Unemployment (%)	4	3,9	4,1	4,1	16,2	16,2	16,2	16,2
Period	2009				2010			
	I	II	III	IV	I	II	III	IV
GDP	-15,1	-16,5	-15,6	-9,7	-2,4	1,7	3,1	6,2
Tax revenues	-10,1	-12,1	-13,6	-10,9	5,7	-2,2	-1,0	2,2
Average wage	-1,5	-4,4	-5,9	-4,9	-2,3	-1,7	-0,7	
Unemployment (%)	16,2	16,2	16,2	16,2	16,2	16,2	16,2	16,2

Source: Homepages of Ministry of Finance. <http://www.ee/index.php?id=233>; Eurostat.

Economic depression (and other negative phenomena) of Estonia turned out to be enormous and exceeded greatly the average ones of EU. The decrease of GNP (2008 - 5.1%; 2009 -13.9% and in the 1st quarter of 2010 it was still -2.4%) was the biggest with the exception of Latvia and it was mildly less than in Lithuania. The decrease of other states has been considerably smaller (the biggest in Ireland in 2008 - 3.5% and 2009 - 7.6%). Probably it may last for longer time in some other countries (first of all in Greece (2008 +1.3%, 2009 -2.3% and the prognosis for 2010 is -3.0%; maybe in Romania and Bulgaria), but it will hardly overcome Estonian. The average decrease of EU (-4.2%) was lesser than Estonian one in quite a big amount; the best states, for example Poland, had it positive all the time (see table 2).

Table 2. Main data characterizing the economic crisis in European Union in 2007-2010

State	GDP growth				Unemployment			
	2007	2008	2009	2010	2007	2008	2009	2010(Sept)
EU (27)	3	0,5	-4,2	1,8	7,2	7	8,9	10
EU (15)	2,8	0,3	-4,3	1,8	7	7,1	9,0	10
Euroarea (15)	2	0,4	-4,1	1,7	7,4	7,5	9,4	9,5
Belgium	2,9	1	-2,8	2,0	7,5	7	7,9	8,5
Bulgaria	6,4	6,2	-4,9	-0,1	6,9	5,6	6,8	10,1
Czech Republic	6,1	2,5	-4,1	2,4	5,3	4,4	6,7	7,1
Denmark	1,6	-1,1	-5,2	2,3	3,8	3,3	6	7,6
Germany	2,7	1,0	-4,7	3,6	8,4	7,3	7,5	6,7
Estonia	6,9	-5,1	-13,9	2,4	4,7	5,5	13,8	16,2
Ireland	5,6	-3,5	-3,5	-0,2	4,6	6,3	11,9	13,9
Greece	4,3	1,3	-2,3	-4,2	8,3	7,7	9,5	17,9
Spain	3,6	0,9	-3,7	-3,7	8,3	11,3	18	12,9
France	2,2	2,4	0,2	-2,6	8,4	7,8	9,5	9,7
Italy	1,5	-1,3	-5	1,1	6,1	6,7	7,8	8,4
Cyprus	5,1	3,6	-1,7	0,5	4	3,6	5,3	6,9
Latvia	10	-4,2	-18	-0,4	6	7,5	17,1	18,2
Lithuania	9,8	2,9	-14,7	0,4	4,3	5,8	13,7	18,3
Luxembourg	6,6	1,4	-3,7	3,2	4,2	4,9	5,1	4,7
Hungary	0,8	0,8	-6,7	1,1	7,4	7,8	10	11,8
Malta	3,9	2,7	-1,9	3,1	6,4	5,9	7	6,5
Netherlands	3,9	1,9	-3,9	1,7	3,6	3,1	3,7	4,4
Austria	3,7	2,2	-7,9	2	4,4	3,8	4,8	4,7
Poland	6,8	5,1	1,7	3,5	9,6	7,1	8,2	9,7
Portugal	2,4	0	-2,5	1,3	8,1	7,7	9,6	11,1
Romania	7,3	-7,1	-1,9	1,5	6,4	5,8	6,9	7,3
Slovenia	6,9	3,7	-8,1	1,1	4,9	4,4	4,9	8,6
Slovakia	10,5	5,8	-4,8	4,1	11,1	9,5	12	14,5
Finland	5,3	0,9	-8,2	2,9	6,9	6,4	8,2	8,2
Sweden	3,3	-0,6	-5,3	4,8	6,1	6,2	8,2	8,3
United Kingdom	2,7	-0,1	-4,9	1,4	5,3	5,6	7,6	7,8

Source: compiled by the author on the basis of Eurostat data.

Another generally accepted feature of the crisis is unemployment. I'd like to mention the states of highest unemployment in October 2009 and July 2010 (the later data are incomplete). The average of EU in October 2009 was 9.4%; the worst ones were as follows: Latvia – 19.9%; Spain – 19.0%; Lithuania – 15.9%; Estonia – 15.6%; Slovenia - 13.8%; Ireland - 13.0%. It will be followed by a longer gap. The average of EU in July 2010 was 9.6%; the worst ones in July 2010 were as follows: Spain - 20.2%; Latvia – 19.4%; Estonia - 18.6%; Lithuania - 181%; Slovakia - 14.4% and Ireland - 13.7%. Some states as Poland didn't have any growth of unemployment during the period of crisis at all (see table 2).

The deepness of the crisis is characterized by the duration of economic depression, which proved to be long. Today we can suggest that the growth of GDP was negative in Estonia during 9 quarters but in most of the states of EU it was 4-6 quarters. Just Latvia, wherein the second quarter of 2010 (the data of the third quarter aren't available yet) was still negative, can run over us; and probably Greece, wherein the depression began later and the growth isn't still to be seen; maybe also Ireland and Romania, wherein the depression is lasting (see table 2). As about the level before the crisis, GDP would probably reach the level in 4-5 years and employment may take more time. Anyway, according to the data we've got no one serious source has dared to prognose the latter number.

The deepness of the economic crisis could be well characterized by the comparison of the main data with the previous crises, particularly with Great Depression of 1929-1932. The statistics of Estonia was different in that period from the present one; also, the economic situation was different. Therefore I won't like to take it as absolutistic, but the differences are so great that they speak by themselves.

The data from sources, which aren't the most solid ones, confirm that gross production of Estonia decreased by about 5%. Agricultural production, which was especially important in the period, even grew (Depression..., 2007). However, the difference with the summary minus of GDP 23% is great.

At that time maximal amount of unemployed was suggested to be 16 000 (NB! Not 160 000). The difference with the amount of unemployed now is rather great; also, these tens of thousands of people, who are looking for job abroad, should be added. If even to consider the dominant farming of that period, the picture wouldn't be in favour of present crisis.

Also, the duration of crisis was shorter. Estonia could overcome it in less than 1.5 year due to vigorous means of government. Exact statistics, which could give the data with accuracy of quarters was impossible to find from the period. But the information of newspapers allows to suggest surely that it lasted no more than 5 quarters.

The conclusion could be only one – the economic crisis of the last years was the deepest of all the history.

Economic policy during the crisis period

The deepness of the economic crisis in Estonia in 2007 (2008?) – 2010 is obvious from mentioned above. It's clear that state had to arrange its economic policy due to the crisis.

The states usually take reactions during the periods of crisis, which could be divided into two groups: enlivening of the economics and assurance of its own financial capacity. The efficiency of the reactions is the bigger, the timely they have been taken and the closer they have been directed to concrete state and to overcoming the

bottlenecks of the situation (reasons) of concrete economic crisis (as crises differ by themselves).

Estonia has basically been governed by the same government from March 2007 since March 2011. The economic political principles of the government are given in the clearest way in the budget strategy of State, which is published in II quarter of each year. Let's observe them more closely. (see table 3)

Table 3. Basic prognosis of government economic strategy and their comparison with the reality 2007-2010

	2007	2008	2009	2010	2011	2012
GDP						
Forecast in 2007	9,2	8,3	7,7	7,5	7,4	-
Forecast in 2008	-	3,7	6,4	6,8	6,5	6,3
Forecast in 2009	-	-	-8,1	-3,5	2,9	5,4
Forecast in 2010	-	-	-	1,0	4,0	4,2
Actual	6,9	-5,1	-13,9	2,4	-	-
Unemployment						
Forecast in 2007	4,8	4,3	4,4	4,4	4,4	-
Forecast in 2008	-	4,3	5,1	5,5	5,5	5,3
Forecast in 2009	-	-	12,2	15,6	15,4	13,5
Forecast in 2010	-	-	-	15,5	13,9	11,9
Actual	4,7	5,5	13,8	16,2	-	-
Inflation (CPI)						
Forecast in 2007	4,9	5,2	4,4	3,6	3,3	-
Forecast in 2008	-	9,0	5,3	3,6	3,5	3,4
Forecast in 2009	-	-	0,4	-0,6	1,3	2,2
Forecast in 2010	-	-	-	1,1	2,0	2,4
Actual	6,7	10,6	0,2	0,7	-	-

Source: compiled by the author on the basis of State budget strategies of 2007, 2008, 2009 and 2010. The reality data are from Eurostat.

The first of them was taken on 19. April 2007. It's directly gone from the euphoria of especially rapid economic growth of previous years (growth of GDP in 2005 10.5%; in 2006 11.4%; Riigi..., 2007) and from total ignoring the signs of danger obvious already from 2006. The government aims on a task to proceed the especially rapid growth of economics for the whole observed period (since 2011) in an average 7.5% in a year, to increase tax burden, to preserve the unemployment at the level of 4.4%. The prognosis of the income of state budget is especially optimistic – it should be 109.2 billion kroons (the real one was 84.5 billion kroons and taxes formed 63.4 billion kroons from it). GDP, which had to reach up to 216.6 billion kroons since 2010 in current prices, was really 142.5 billion kroons.

There isn't anything strange that on the basis of such a supreme optimism that spontaneous continuation of the development of economic politics is relied upon.

So, the strategical part of economic politics was too general containing just some principle economic slogans as innovation, growth for the demand for tourism products, economic environment favouring entrepreneurship, macroeconomic stability, taxation politics stability etc in addition to universal slogans as the growth of social connectedness, care for children, good education, wealth of people etc. Particular numbers are 2.087 billion kroons for innovative activities and 885 billion kroons for supporting tourism planned by the Ministry of Economic Affairs and Communications. It's relied on high employment rate to be preserved by itself. The preservation of especially simple taxation system, the decrease of labour and capital taxes and increase of consumption taxes and environmental taxes are drafted in the part of incomes of budget. (Riigi..., 2007) Actually, the increase of consumption and environmental taxes was the only one, which was realized; labour taxes in connection with unemployment insurance increase didn't decrease. Moreover, the role of social tax in tax revenues of state budget had grown from 39.4% in 2006 up to 42.0% in 2010; also, the unemployment taxes had essentially grown.

The next programme of government's economic strategy is from May 2008. First of all, the concrete numbers have been mildly decreased in connection with already deeply functioning economic crisis. (The growth of GDP was already negative in the second quarter of 2008.) The numbers (GDP +6.4%; unemployment 5.1%) prognosed for 2009 by government are supreme optimistic and probably originate from inadequate perceiving of arising crisis situation on the basis of the real situation. As the crisis situation hasn't been perceived, so the reactions absent; the economic political programme repeats mostly the previous one. But there has become a new one: transition to euro. Estonia has fulfilled 2 conditions from necessary 5 for it – stability of currency (Currency board system had ensured it since 1992) and low level of national debt (the lowest in Europe!). The decrease of inflation under the conditions of high growth of unemployment and salaries to be cut down could be prognosed at least temporarily. The interests of long-term credits are calculated on the basis of public sector bills. Their level was higher than it was stated in Maastricht agreement. As about the balance of budget, in spite of the fact that it's already a great problem (in the same summer of 2008 government had to make negative additional budget) it isn't reflected in economic strategical programmes in May yet. A surplus of budget in the amount of 1% is talked about (Riigi, 2008). Any extraordinary reactions for budget balancing aren't certainly planned if there is 1% surplus programme.

The economic strategy of government from May 2009 is certainly of other style. Year 2008 finished in spite of a negative additional budget with a consolidated deficiency of budget 7.3 billion kroons; GDP had been negative since the second quarter of 2008. The minus of GDP growth had already reached 15.1% in first quarter of 2009. Certainly, the economic strategy of last years was impossible to proceed under such conditions. As the same government proceeded, so it had only two possibilities – to recognize the mistakes of prognosis for 2 last years and its supreme optimism in economic political prognoses or to call attention aside. Government chose the second way under the conditions of forthcoming elections. Transition to euro was proclaimed to be purpose number one and all economic

politics was subjected to it (Riigi..., 2009). Estonia had difficulties in fulfilling two conditions as it was explained above – interests of long-term credits and balance of budget. Government didn't announce it anywhere (the reaction isn't mentioned in strategy or in explanatory note of budget) but used the circumstances that they weren't very great and just redempted them. Hence the criterion succeeded to be fulfilled, at least formally. That's a matter for itself what's the macroeconomical influence of the reduction of such an enormous mass of money at the highest peak of crisis. A slogan was erected in order to fulfil the criterion of budget balance – budget gap mustn't be bigger than 2.9% of GDP. Essential retrenchment of state expenses and lifting of taxes were necessary for its realization. Retrenchment of expenses was carried through direct retrenchment of state expenses (additional payments to retirement funds were temporarily stopped, budgets of local municipalities were decreased, salaries were cut down etc). Tax increase was used in taxation politics: value-added tax (named VAT in Estonia) was increased (the reduced level of 5% was increased to 9% from 1. January 2009; the list of reduced tax goods was limited; VAT ordinary level was increased from 18% to 20% from 1. July 2009). The excises were essentially increased and income tax incentives were reduced. (Riigi..., 2009).

As a result of enormous efforts the state budget gap was held under 3% of GDP and Estonia joined euro 1. January 2011. The question is what's the macroeconomic influence of these reactions. The essential increase of taxes at the highest peak of crisis isn't within the frames of the paper; but we'll try to observe more closely the influence of negative additional budgets. As it's a difficult and miscellaneous problem, so we'll limit on their influence on the incomings of the period after the budget.

Estonian state budget income structure

It's essential to observe the influence of crisis on state budget. The possibilities of a state to break in economic crisis (diminish taxes, increase state expenses etc) depend essentially on the size, structure etc characteristics of state budget. As about Estonia, the strong influence of economic crisis on budget is connected first of all with the individuality of the structure of Estonian state budget.

In the initial stage of its transition period, Estonia (like most other Eastern European countries) was in a unique position – it essentially lacked a taxation system, a vital instrument of economic policy, which now needed to be constructed. In a perfect world, that would have meant building a system based on contemporary economic theory. Unfortunately Eastern European countries lacked pertinent knowledge, both in regard to taxation theory and the economic situation (an accurate description of the development phase and the processes).

So what characterizes the Estonian tax system? Its characteristic features are a relatively low tax burden, simplicity bordering on primitiveness (which has significantly reduced the possibilities of using taxes as a control device of economy), a very high percentage of indirect and consumption taxes.

The tax burden in Estonia has been 33.7–35.1% since Estonia joined the EU (<http://www.fin.ee>; the data are slightly different in various parts of the website). The tax burden ought to increase up to 36% as a result of the taxation lifting in accordance to the economical crisis in 2010 (2010 Riigieelarve...). But as the Ministry of Finance of the Republic of Estonia has already decreased the prognosis of GDP in comparison with the time of state budget passing, so we can speak about tax burden of 37%. Also, it's lower than the EU average (41–42%). However, these numbers are not comparable. Estonian state budget includes social benefits tax, which has for many years been the greatest source of income for the state budget (table 1). In most EU member states such a tax does not exist or is slight. When that is taken into account, the tax burden in Estonia appears to be about 26–28%.

The economic crisis has brought attention to the issue of tax structure. Table 4 presents taxes in Estonian state budget from 2005, i.e. after Estonia joined the EU. It is difficult to assess what is the percentage of indirect taxes in Estonian state budget. Indirect taxes clearly include VAT, excises and the customs tax. However, also the gambling tax has some features characteristic to indirect taxes, as it is not imposed on the revenues from economic activities but rather as a preventive lump-sum tax, i.e. before launching the slot machine etc. The tax sum is transferred by the manager of the gambling business in some way (e.g. by raising drink prices) to the actual bearer – the gambler, i.e. consumer. Accordingly this tax also has the incidence characteristic of indirect taxes and therefore it is more accurate to regard it as an indirect tax (at least when it is established in such a way as in Estonia).

Table 4. Income from taxes in Estonian state budget 2005–2010(millions of kroons)

	2005	2006	2007	2008	2009	2010
Total taxes	53831	55208	67718	70396	63780	63299
Personal income tax	10911	3846	4786	4328	2419	3000
Corporate income tax	2365	3123	4083	4166	4010	3032
VAT	14021	18645	22304	20548	18809	19531
Excises	6424	7030	8195	8971	9818	10425
excise on tobacco	1205	1208	1529	2519	2088	1794
excise on alcohol	1838	2089	2314	2434	2590	2585
excise on fuel	3363	3728	4353	4697	4870	4870
excise on packaging	...	3	...	1	1	1
Gambling tax	292	354	467	484	278	323
Customs tax	347	401	549	508	307	373
Social benefits tax	18392	21764	27268	31299	28084	26562
Other taxes	1079	45	66	92	55	62

Source: the author's calculations based on the Ministry of Finance homepage, <http://www.fin.ee/>.

As far as we know, there is no other country that has social benefits tax in the form that it exists in Estonia. The tax is paid by the employer, but it is calculated based on

the amount of money paid to the employee. That tax is meant only for pensions and healthcare, i.e. it functions largely as retirement and health insurance. Clearly, the defining criterion here is whether the employee's salary would increase by the amount that makes up the social benefits tax if that tax was abolished. If yes, the social benefits tax has enough characteristic features to regard it as an indirect tax; if not, the features of direct taxes probably prevail (the social benefits tax is the employer's expenditure). As this question is impossible to answer properly, authors classify it arbitrarily, depending on their views, as either a direct or indirect tax. Eurostat has taken a „diplomatic” position and classifies that Estonian social tax as a labour tax, regarding it therefore as primarily a resource tax (Taxation. http://epp.eurostat.ec.europa.eu/portal/page?_pageid=136748), but that is not entirely accurate as the income from social benefits tax is allocated for certain social expenditures.

It is probably reasonable to bring out the percentage of indirect taxes in different versions, with social benefits tax included and not. In the first case, the percentage of indirect taxes has made up 75.3–87.8% of state budget revenues ever since Estonia joined the EU; in the latter case the percentage has been 41.1–53.6%. If we take the first approach, we arrive at what is clearly the biggest percentage of indirect taxes among EU member states; even with the second approach the result is well above EU average.

When trying to determine the percentage of consumption taxes in Estonian state budget, we likewise have to face the question of how to classify some taxes that are different from those in other countries. Again we are talking mainly about social benefits tax. In the form that it exists in Estonia, it has been regarded as a tax on using one of the goods – labour – and hence as a resource tax. That, however, raises the question of whether it is a consumption tax. It is not the purpose of this study to discuss whether the multifunctional tax established during the transition period when there was no economic-theoretical knowledge available belongs to this or that category. Therefore – although the author does not share the opinion that the social benefits tax as it exists in Estonia is a consumption tax – also the percentage of consumption taxes has been given in two versions.

The figures demonstrate a growing dominant of social taxes in Estonian state budget tax funds from 34.2% in 2004 to 44.4% in 2008.

Estonian state budget and economic crisis

The economic Crisis in 2008-2010 reflected in the state budgets of EU members. But its range and course have been very different. As the crisis began in financial sector, so the states, wherein the income from the financial sector formed the greatest part of the GDP, suffered first of all. Due to urgent and powerful measures taken by these states the situation has been stabilized at this point. The economic depression turned into a severe crisis, which could be compared with Great Depression of 1929-1932, in some Eastern European states, especially in Estonia,

Latvia and Lithuania. There are several reasons for it, both objective and subjective ones.

The state budgets have found themselves in an especially severe situation. The crisis, which began in 2008, frozened the sums paid as wages in 2009 due to the unemployment and it led to the decrease of social taxes. It beat the state budget of the Republic of Estonia and essentially cut the amount of budget of 2010. Obviously, the incomes of budget, which base on consuming taxes, have got a great elasticity during the periods, wherein the incomes and consumption are rapidly growing, but a system of this kind has got a low floatage (see table 5).

Table 5. Indirect taxes in Estonian state budget 2005–2010

	2005	2006	2007	2008	2009	2010
Total taxes	53831	55208	67718	70396	63708	63299
Indirect taxes (social benefits tax included)	40505	48217	58816	61856	57019	56923
Percentage of indirect taxes (%, social benefits tax included)	75.3	87.3	86.9	87.8	89,5	89,9
Indirect taxes (social benefits tax not included)	22113	29572	31548	30557	29213	30351
Percentage of indirect taxes (%, social benefits tax not included)	41.1	53.6	46.6	43.4	45.8	47,9
Consumption taxes, social benefits tax included	40505	48217	58816	61856	57019	56891
Percentage of consumption taxes (%, social benefits tax included)	75.3	87.3	86.9	87.8	89,5	89,9
Consumption taxes, social benefits tax not included	22113	29572	31548	30557	29213	30329
Percentage of consumption taxes (%, social benefits tax not included)	41.1	53.6	46.6	43.4	45,8	47,9

Source: the author's calculations based on the Ministry of Finance homepage, <http://www.fin.ee/>.

The figures of table 5 demonstrate once again that the tax funds react on GDP changes with some lag time. The peculiarity of the state budget of the Republic of Estonia – a great proportion of consumption taxes – brings a peculiar fact: the tax funds are in correlation with the dynamics of wages (especially in 2008) rather than the dynamics of GDP. A smaller decrease of tax funds in comparison with the GDP ones in 2009 has diversely been occurred from the lifting of tax burden (the growth of turnover taxes rate by 2 percentage points, the increase of excises, the purring of income tax benefits). The concrete influence of taxes lifting and the influence of prices elasticity on tax funds can't be explained here.

Influences of negative additional budgets

The state budgets have found themselves in an especially severe situation. The contents of state budget have to be cost cut and negative supplementary budgets have to be made i.e. the contents of state budget have to be cost cut within the year. But a cutting of that kind reduces the consumption. As the consumption taxes form the main part of Estonian state budget, so a cutback of any description of the budget means the cutback of the next period's incomes.

Let's observe the influence of three negative supplementary budgets of Estonia on the incomes of the next periods. A cutback of budget expenses unavoidably results in decrease of the budget income during the periods to come. This is a process of multiple levels. First, the taxes will not be gained from budgetary purchases, wages paid from the state budget etc.

However, people go to the market with the money originating from the budget, their purchases feed the private sector – bakers, weavers, tailors and so on. Also, the state gets taxes from their wages and VAT from their purchases, so the process is repeated.

In the case of negative supplementary budgets, the amount of money spent on consumption is reduced. The people and institutions that receive funds to finance their business from the state budget will, therefore, have less to spend and so less tax will be paid. The amount of money that reaches the second level is also reduced and the income of taxes will decrease even more.

Since it is not possible to ascertain the structure of expenditures in the case of the second and upward levels, it is not possible to clearly bring out the effect of cutting the expenses on tax profit; visible is only the first level as a result of the so-called direct calculation. The indicator of the average tax burden is used further on.

Income of taxes is depends directly on the valid taxation system, both the types of taxes and tax rates. Table 6 provides an overview of the most important taxes in Estonia during 2008-2009. Since various expenses are taxed with different taxes, it is essential for the purpose of this study to categorise the expenses by the taxes that are collected from them.

The budget expenses are divided into four major categories based on their economic content (Seadus Eesti..., 2009): 1) purchasing and renovating material and nonmaterial property (i.e. investments); 2) appropriations; 3) carrying costs; 4) other expenses. In order to obtain better overview when observing the returning funds, we have to use a more specific subdivision of the carrying costs and appropriations. The carrying costs are divided into personnel expenses, operating expenses, and funds for buying equipment for protection purpose; the appropriations are divided into five categories: subventions, social benefits, appropriations for intended and not intended use, appropriations and other appropriations.

Table 6. Rates of the main taxes in Estonia in 2008 and 2009 (per cent)

Taxes	2008	2009
Social benefits tax	33	33
Income tax	21	21
VAT	18	19*
Percentage of excise tax in retail sales	12,9	17
Unemployment insurance tax (employer)	0,30	0,88*
Unemployment insurance tax (employee)	0,60	1,75*

* -measured average of the year's real tax rates

Source: Homepages Ministry of Finance. <http://www.ee/index.php?id=233>.

Since it is difficult to point out the proportion of money spent on different products under the excise tax among general consumption, the author has concluded that, in order to get a clearer overview, it is wise to use the proportion of excise tax in retail turnover which has been calculated by the figures that show retail turnover and income of excises in state budget. In 2008, the excises comprised 12, 9% and in 2009 17% of retail turnover (Seadus Eesti..., 2009). VAT exemptions have not been taken into account since they form a very insignificant part of Estonian turnover. Also, the proportion of goods and services that are taxed with reduced tax rate is very small.

People divide their available income into two: savings and consumption. The proportion of savings among general income can be calculated by the sum of the savings and available income. In 2008, the average saving per person was 7, 9% from available income; in 2009 it was 9, 2%. Rest of the available income was spent on consumption.

The next feature to demonstrate the expenses of state budget returning to the state is the proportion of employment expenses. In 2008 it was 13%. Since it has remained stable enough for years, the same percentage has been shown for 2009 as well (The income ... 2010).

It is possible to calculate the proportions of decreased tax income caused by the negative supplementary budgets of 2008 and 2009 by the tax rates, proportion of savings and employment expenses mentioned above. A more detailed overview of the calculating methodology of returning funds in the case of various expenses follows.

In the case of cutting the expenses on purchasing and renovating material and non material property we have to calculate the VAT applied on the cut amount and we find the amount that reduces the tax income.

The subsidies of persons involved in business are divided into two: 13% of the cut amount would have been spent on employment expenses and the rest on other expenses necessary for running the business. Social benefits tax on the employment expenses and unemployment insurance tax on the employee will not be repaid into the tax income. After counting off those two, the left amount would be taxed with income tax and unemployment insurance tax. The employee will use part of the money he finally receives for savings and it does not affect the tax income. The other part he uses for consumption. The cutting decreases consumption, therefore, VAT and excises will not be paid into the budget. The amount left for other expenses after calculating off the employment expenses will be entirely used for consumption and, in case of budget cuttings, VAT will not be paid into state budget.

In the case of social benefits, tax is applied on the whole amount. People save one part of their actual income and consume the rest of it. When consumption is decreasing, the income from consumption taxes – VAT and excise tax - into the state budget is also decreased.

In the case of appropriations with intended purpose we deduct the amount that is paid to non residents because there is no income back to the state budget. The actual amount left after that will be divided into other expenses and employment expenses. It is possible to find the sum of the cut employment expenses based on the measure of employment expenses and, therefore, calculate the social benefits tax and the employer employment insurance tax that will not be paid back into the state budget. There will also be no income tax and the employee employment insurance tax paid from the rest of the amount. From the amount that is left after deducting all the taxes we also deduct savings as a factor for reducing consumption which leads to the decreased income of VAT and excise taxes. Cutting back appropriations for other expenses also has a negative effect on VAT income into the state budget.

When speaking of appropriations with no intended purpose, a certain amount is also paid to non residents and since it does not affect the return to the state budget, it should be deducted from the sum of the total cutting. Similar to appropriations with intended purpose, we can notice the decreasing income of social benefits tax, income tax, employment insurance tax, VAT, and excise tax.

Other appropriations are entirely used for consumptions. Cutting back expenses induces the decrease in consumption and there will be less income from VAT into the state budget.

When cutting back personnel expenses, the social benefits tax and the employer unemployment security tax calculated from the whole amount will not be paid. In addition to previous, there will also be less income tax and employee unemployment insurance tax calculated from the rest of the amount paid into the state budget. If the amount that is left after deducting the savings is reduced and so is the consumption, the excise tax and VAT calculated from that amount will also not be paid.

VAT that will not be paid into the state budget is calculated from the cut amount of budget expenses. The same is done in the case of expenses on materials and equipment for protection purpose, as well as on other expenses.

The first negative supplementary state balance was accepted on the 19th of June in 2008. The amount of the first state balance, 93 579 601 thousand EEK, was decreased by 3 210 282 thousand EEK (3, 4%). Even two negative supplementary state balances were accepted in 2009. In the first one, the expenses were cut by 6 575 775 thousand EEK (6, 3%) and in the second one by 2 563 464 EEK (2, 4%).

If we divide these amounts based on previously mentioned principles we will see that the tax income was reduced as a result of the negative state balances by 768 171 thousand EEK in 2008 (see table 7) and by 2 111 586 thousand and 1 036 175 thousand EEK in 2009, a complete 3 147 761 thousand EEK in 2009. Accordingly, the decrease of returning income due to the different structure of cuttings was 23, 9% in 2008 and, due to the negative supplementary state budgets, 32, 1% and 40, 4 % in 2009 (the wages fund which has the highest percentage of returning income was especially cut in the last supplementary budget), (see table 7).

Still, we have to consider one more aspect. Every kroon that is paid into the state budget circulates about 2.8 times a year. We can calculate based on the assumption that it is 2 times since negative balances are made in the middle of the year. We discover that the negative state balances have cut the state balance income for the future periods at least by 5 billion EEK or 41.8% from their own proportion. The above only involves the so-called first level which does not involve the fact that thanks to the amounts paid from the state budget and spent on consumption, we have work for tailors, weavers, bakers, construction workers and so on (see Table 7). In order to find these amounts, we have to use indirect calculations as shown above.

Simple arithmetic shows that the turnover was decreased by 2.7 billion kroons in 2008 and by 7.3 billion kroons in 2009 as a result of the budget cutting. If we deduct the proportion of import from the total turnover, we find that the domestic turnover decreased at least by 5 billion kroons during the two years. If the tax proportion is 35%, we can conclude that the tax income has decreased by at least 1.7 billion as a result of the decreased turnover of the so-called secondary sector. Summary: three cuttings of state budget in a total amount of at least 12.4 billion caused the decrease of the state budget income by at least 7 billion. If we also consider the fact that if the cuttings had not been made, the unemployment rate would have risen more slowly and the unemployment benefits, income supports and other similar payments would have been lower, we start to question whether the cuttings were really economically justified.

Table 7. Negative supplementary budgets and their connection to the decrease of tax income in 2008 and 2009

	2008	2009	
		I supplementary budget	II supplementary budget
Negative supplementary budget (thousand kroons)	-3 210 282	-6 575 775	-2 563 464
THE FIRST CIRCULATION OF MONETARY UNIT			
Decrease of tax income (thousand kroons)	-768 171	-2 111 586	-1 036 175
Decrease of tax income altogether in 2009 (thousand kroons)		-3 147 761	
Proportion of the decrease of tax income in supplementary budget (%)	23,9	32,1	40,4
THE SECOND CIRCULATION OF MONETARY UNIT			
Decrease of tax income (thousand kroons)	-243 581	-669 567	-328 563
Decrease of tax income altogether in 2009 (thousand kroons)		-998 129	
Proportion of the decrease of tax income in supplementary budget (%)	7,6	10,2	12,8
THE WHOLE CIRCULATION OF MONETARY UNIT			
Decrease of tax income (thousand kroons)	-1 011 752	-2 781 153	-1 364 737
Decrease of tax income altogether in 2009 (thousand kroons)		-4 145 890	
Total decrease of tax income in 2008 and 2009 (thousand kroons)		-5 157 649	
Proportion of the decrease of tax income in supplementary budget (%)	31,5	42,3	53,2
Average proportion of the decrease of tax income in 2008 and 2009 total	41,8		

Source: Authors calculations. Homepages Ministry of Finance.

<http://www.ee/index.php?id=233;Eesti vabariigi 2009 aasta I...; Eesti vabariigi 2009 aasta II....>

Summary

The following can be concluded from the above:

- Economic depression took place in EU in 2008-2010; it hasn't been finished in some states yet. The depression of Estonia was one of the deepest in EU

amongst most of the economic characteristics; it was even deeper than during the Great Depression of 1929-1932.

2. Economic crisis demands from the states to correspond their economic politics with the changed conditions of administration. The economic politics carried on by the government of the Republic of Estonia is made public in a document named State Budget Strategy (Riigi eelarvestrateegia) annually in May. The strategies of 2007 and 2008 demonstrate that government didn't acknowledge the deepness of the crisis and relied upon spontaneous and fast recovery of the situation on the basis of the extremely fast growth of the years before the crisis.
3. The crisis was rather deep already in 2009. State Budget Strategy recognizes the presence of crisis but it takes the direction on fulfilling the demands for transition to euro, not on reactions to crisis.
4. Thereat the main difficulty was the assurance of the demand of budget balance under the conditions of economic depression. Taxes were increased at the highest peak of crisis (VAT and excises; cost-cutting of income tax incentives) and budget incomes were cost-cut. This gave the possibility to hold the budget deficit lower than 3% of GDP, but worsened the overcoming of economic crisis.
5. State budget of Estonia decreased essentially under the conditions of crisis. The decrease of budget was bigger than it had to be proceeding from the extent of the crisis. It forced government to establish additional negative budgets as in the centre of 2008, so in the centre of 2009. Great decrease of budget was essentially predisposed by particular structure of tax revenues of Estonian state budget.
6. Determining the percentage of indirect and consumption taxes in the whole tax burden is complicated as there is no generally accepted method for it. Also, several of the taxes used in Estonia possess features characteristic of both direct and indirect taxes. Furthermore, it is not clear what we should consider a consumption tax – only those taxes that affect household consumption, or also corporate ones in case the tax is imposed on final consumption.
7. Whichever approach we take to defining indirect and direct taxing, it is clear that indirect taxes prevail in the income of the Estonian state budget. The social benefits tax makes up a particularly big – and growing – proportion. Different approaches lead to the same conclusion: the percentage of consumption and indirect taxes in the state budget is equal, i.e indirect taxes have been imposed on consumption.
8. The structure of the revenues of the Estonian state budget differs considerably from that of other EU member states. The percentage of environment taxes is negligible, while the peculiarly structured social benefits tax, which constitutes the greatest and increasing source of revenue of the state budget, is difficult to classify as either a direct, indirect or labour tax. Due to the huge proportion of consumption taxes the buoyancy of Estonian tax system is weak. The provisional conclusions of 2008 demonstrate clearly that during periods of economic recession the state budget is very vulnerable.
9. The shortfall of income to the state budget in 2008 and especially in 2009 has forced the government to make cutbacks up to 10% and has acutely raised the issue of increasing the tax burden. As the tax burden in Estonia is substantially

lower than the EU average, it is possible. However, that raises the question of the optimal tax burden. Based on Slutsky's principle of compensated demand curve and Ramsey's optimal tax theory we can take the optimal level of indirect taxes (which are dominant in Estonia) to be the point where the household welfare reduction curve and the social welfare increase curve intersect.

10. The way Estonian Government has chosen to balance the budget – a continuous cut of the expenses- forms a dead circle as the cut of the expenses, particularly the wages, is going to decrease the incomes of the next period. According to the most modest calculations, which haven't taken into consideration the decrease of the demand due to macroeconomic influence, the state budget of Estonia lost 2.2 billion kroons in 2008 and 10.5 billion kroons in 2009 due to the cuts of the budget.
11. The purpose of transition to euro was fulfilled on 1. January 2011. But it isn't still obvious how to ensure the criteria of the balance of inflation level and budget.

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EINIGE KRITISCHE BETRACHTUNGEN ZU NEUESTEN ENTWICKLUNGEN IN DER ESTNISCHEN WIRTSCHAFTSPOLITIK

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Abstract

The paper contains a brief treatment of the economic crisis in Estonia, associating it critically with the general economic situation and reasons. The issues of unemployment, increase in prices and several other important areas are under review. Adoption of euro and the price dynamics in Estonia are treated separately. In the opinion of the author the price increases are not caused by the euro but by the greed for profits and irresponsibility of businesses and traders. National institutions do not view economic policy as an integrated activity either but rather see it as behaviour and choices appropriate for a particular political party. Situation in quite a few areas is critically evaluated, including the activities of the Estonian political parties in power. Organisation of the recent elections of the Estonian Riigikogu (Parliament) is evaluated and suggestions are made both for improvement of the organisation of elections in the spirit of democracy and for the related needs for further development of the Estonian national economy.

Keywords: economic crisis, general economic situation in Estonia, unemployment, dynamics of prices, adoption of euro, activities of national institutions, benchmarking with other countries, parliamentary elections, needs for further development of the Estonian national economy

JEL Classification: E, H, J, O, R

Einführung

Die auch in Estland seit 2008 grassierende Wirtschaftskrise hat allem Anschein nach im Jahre 2009 ihren vorläufigen Höhepunkt überschritten. Jedenfalls deuten die wichtigsten Wirtschaftsdaten darauf hin, dass es wieder aufwärts zu gehen scheint. Um diese Entwicklung durch wirtschaftspolitische Maßnahmen aufrechtzuerhalten, bedarf es zunächst einer gründlichen Analyse der Ursachen, die in den zurückliegenden Jahren zu der Krise geführt haben. In diesem Sinne wird im Folgenden ein kurzer Überblick über die Entwicklungen der estnischen Wirtschaft in der jüngsten Vergangenheit gegeben. Dann werden weitere wirtschaftspolitische Schritte erörtert. Dabei sind auch Probleme zu erörtern, die bei der Weiterentwicklung der estnischen Wirtschaft als neuer EU-Mitgliedstaat aufgetreten sind und möglicherweise auch in der Zukunft die Handlungsziele gefährden können.

Folgende Fragenkomplexe sind zu erörtern:

- Wirtschaftskrise, allgemeine wirtschaftliche Lage, Arbeitslosigkeit und Preissteigerungen;

- Übergang zum Euro in Estland: Wirtschaftspolitik, die im Vorfeld der Einführung des Euro betrieben wurde, und ihre Hintergründe;
- Estnische Parlamentswahlen und Entwicklungsmöglichkeiten danach.

Dieser Artikel beruht auf unterschiedlichen Einschätzungen und Analysen der Wirtschaftskrise – auch seitens des Autors – und berücksichtigt Erfahrungen anderer Länder, soweit sie auf Estland übertragbar sind. Hier sollen keine wirtschaftstheoretischen Themen und darauf beruhende kontroverse Diskussionen angeschnitten werden. Im Vordergrund steht die kritische Betrachtung der tatsächlichen Lage in Estland und des Handelns der wirtschaftspolitischen Akteure.¹

1. Wirtschaftskrise, allgemeine Lage der Wirtschaft, Arbeitslosigkeit und Preissteigerungen

Die Wirtschaftskrise hat – wie in anderen Ländern auch – tiefe Einschnitte in der estnischen Wirtschaft hinterlassen und einen gravierenden Abschwung mit sich gebracht (siehe Tabelle 1). Die Erwerblosigkeit erreichte im Jahre 2010 mit 16,9 % (*Enim ... 2011*) eine vorläufige Rekordmarke, wobei der absoluten Höchststand – nämlich 19,8 % – im ersten Quartal 2010 lag (*Kire ... 2011*). Nach unterschiedlichen Einschätzungen gab es im Zeitraum 2009-2010 in Estland insgesamt ca. 125-130 Tausend Erwerblose,² das macht etwa 20 % der gesamten estnischen Arbeitskräfte aus. Dabei ist zu berücksichtigen, dass einige Menschen in der Statistik gar nicht erfasst sind. Wenn zum Beispiel ein Arbeitsloser nach Ablauf eines Jahres keine Arbeit angetreten hat, wird er aus dem Arbeitslosenregister gestrichen. Andererseits gibt es Menschen, die sich nie arbeitslos gemeldet haben, obwohl sie seit Jahren keinen Arbeitsplatz innehaben. Diese enorme Arbeitslosenzahl in Estland ist nicht hinnehmbar. Sie charakterisiert die Wirtschaftspolitik des Landes. Als László Andor, EU-Kommissar für Beschäftigung, Soziales und Integration, am 11. März 2011 in Brüssel vor Journalisten sprach und im Zusammenhang mit der Arbeitslosenproblematik in erster Linie auf Estland und Spanien verwies, stellte er fest: „Eine hohe Arbeitslosigkeit ist ein Beleg für das Scheitern der Wirtschaftspolitik der Regierung.“ (*Kõrge ... 2011*). Dieser Aussage ist nichts hinzuzufügen.

Diese extrem hohe Erwerblosigkeit, die sich zwar in der zweiten Hälfte des Jahres 2010 abzuschwächen begann, ist neben der verfehlten Beschäftigungspolitik der Regierung auch noch auf folgende Umstände zurückzuführen:

- Nicht alle Erwerblosen haben ein Interesse, wieder eine Beschäftigung aufzunehmen, oder sie sind nicht fähig, erfolgreich eine Umschulung abzuschließen.

¹ An dieser Stelle weist der Verfasser darauf hin, dass der Beitrag im April 2011 fertiggestellt wurde, und dass es zu diesem Zeitpunkt noch nicht möglich war, eine abschließende Bewertung der Krisenbewältigung, des Übergangs zum Euro und der weiteren Entwicklungsperspektiven vorzunehmen.

² Nach Angaben des estnischen Statistikamtes gab es im Jahre 2010 in Estland 686 900 arbeitsfähige Menschen im Alter von 15 bis 74 Jahren.

- Auf der Unternehmerseite fehlt nicht selten eine klare Vorstellung von dem tatsächlichen Bedarf an Arbeitskräften in der Gegenwart und nahen Zukunft, auch spezifiziert nach Fachgebieten und Qualifikationen.
- Die Arbeitskräfte sind oft nicht bereit, die Kosten für Umschulung und Steigerung ihrer persönlichen Qualifikationen selbst zu tragen.
- Es fehlt die Weitsicht örtlicher Unternehmer, rechtzeitig kapazitätserweiternde und produktivitätssteigernde Investitionen durchzuführen.

Tabelle 1. Grunddaten der Entwicklung in Estland, jeweils Veränderungen zum Vorjahr (2010-2012 Prognosen)

Estnische Grunddaten	2007	2008	2009	2010	2011	2012
BIP (Mrd. €)	15,8	16,1	13,9	0,5	0,8	1,1
BIP zu Festpreisen (%)	6,9	-5,1	-13,9	1,5	0,1	0,5
Inflation der einheitlichen Verbraucherpreise (%)	6,7	10,6	0,2	1,2	1,6	0,4
Privater Konsum zu Festpreisen (%)	8,6	-5,6	-18,8	4,7	5,1	0,5
Investitionen zu Festpreisen (%)	6,0	-15,0	-33,0	-9,0	6,3	-0,5
Export zu Stammpreisen (%)	1,5	0,4	-18,7	6,5	-1,7	0,1
Import zu Festpreisen (%)	7,8	-7,0	-32,6	11,7	1,4	-2,9
Arbeitslosigkeit (%)	4,7	5,5	13,8	1,8	0,3	0,2
Beschäftigung (%)	1,4	0,2	-9,2	-2,3	1,8	-0,4
BIP je Beschäftigten zu Festpreisen (%)	5,4	-5,2	-5,1	4,1	-1,7	0,9
Durchschnittlicher Bruttolohn (%)	20,4	13,8	-4,6	4,4	1,8	0,1
Kreditvolumen am Ende der Periode (%)	30,2	7,3	-6,4	-1,3	-1,4	-2,4
Brutto-Auslandsverschuldung (% vom BIP)	109,8	118,2	125,5	-4,2	-8,5	-13,3
Öffentlicher Haushaltssaldo (% vom BIP)	2,6	-2,8	-1,7	1,1	1,1	0,5

Quelle: *Statistikaamet [Estnisches Statistikamt]; Eurostatistika; Eesti Pank [Estnische Bank]*

Im September 2010 stellte die estnische Bank in ihrem Wirtschaftskommentar (*Toormehindade ... 2010*) unter anderem fest, dass:

- die estnische Wirtschaft den Abschwung überwunden habe und nunmehr wieder wachse, und zwar in erster Linie auf Grund steigender Exporte;
- estnische Unternehmer und Regierung in ihrem Handeln effizienter geworden seien;

- in der zweiten Hälfte 2010 die Arbeitslosigkeit in Estland abnehme, die Langzeitarbeitslosigkeit im Jahre 2011 aber weiter zunehmen werde;
- die durch die Wirtschaftskrise bedingten Entwicklungen der Lohn- und Preisniveaus günstiger verlaufen seien, als das auf Grund des schrumpfenden Bruttoinlandprodukts (BIP) ursprünglich zu erwarten war.

Das sind verhältnismäßig optimistische Einschätzungen. Betrachtet man die Lage differenzierter, zeigt sich ein weniger vielversprechendes Bild.

Im Jahr 2010 musste Estland die für den Beitritt zum Euro-Währungsverbund erforderlichen Maastrichter Kriterien erfüllen. Der Öffentlichkeit wurde vor der Euroeinführung und auch noch zu Beginn des Jahres 2011 versichert, dass der Euro keine wesentlichen Preissteigerungen mit sich bringen werde, zumindest nicht wie das zum Teil in anderen Euroländern nach deren Währungsumstellung der Fall gewesen war. Obwohl bereits im Verlauf des Jahres 2010 in Estland von unmittelbar an den Preisbildungsprozessen beteiligten Wirtschaftssubjekten die Angebotspreise still und heimlich angehoben worden waren, sodass man folglich nach dem 1. Januar die Preise nicht oder nur noch moderat hätte zu erhöhen brauchen, sind die Preise – insbesondere bei einigen ausgesuchten Verbrauchsgütern (vgl. auch Tabelle 2) – zum Teil drastisch gestiegen.

Der Verbraucherpreisindex in Estland lag Ende März 2011 um 5,2 % über seinem Vorjahresniveau (höchste Steigerung in der Eurozone) und gegenüber Februar 2011 um 0,8 % höher. Im Vergleich zum März 2010 waren die Waren um 7,0 % und die Dienstleistungen um 2,1 % teurer. Die administrativ geregelten Preise für Waren und Dienstleistungen stiegen im Jahresverlauf um 6,3 % und die nicht geregelten Preise um 4,8 %. Die Verteuerung der Lebensmittel machte dabei fast die Hälfte der Gesamtsteuerung aus. Besonders ins Gewicht fielen die Preissteigerungen bei Kartoffeln (+ 84 %), Milch (+ 30 %) und Milchprodukten (+ 18 %), Backwaren (+ 12 %), Äpfeln (+ 40 %), Grützwaren (+ 31,6 %) sowie Kaffee (+ 48 %). Einen starken Einfluss hatte zusätzlich die Teuerung von Heizöl (+ 32 %) und Motorkraftstoffen (+ 14,2 %) gehabt. (*Tarbijahinna-indeks [Verbraucherpreisindex] ... 2011*)

Es ist zu erwarten, dass sich dieser Trend fortsetzen wird. Inwieweit die inflationären Entwicklungen in der Weltwirtschaft und insbesondere auf den Rohstoffmärkten dabei einen Einfluss gehabt haben und in Zukunft haben werden, ist fraglich. Es liegen über diese Zusammenhänge keine wissenschaftlich fundierten Analysen vor. Dennoch wird immer wieder auf diese Preisentwicklungen im Ausland hingewiesen.

Preisvergleiche mit vergleichbaren Produkten in Deutschland haben dem Autor gezeigt, dass in den Monaten November und Dezember 2010³ die Preise wichtiger Lebensmittel dort gesunken waren,⁴ der vom Autor gewählte Lebensmittelkorb war

³ der Autor war in diesen beiden Monaten in Deutschland.

⁴ was wohl sicherlich auch auf vorweihnachtliche Rabattaktionen zurückzuführen war.

jedenfalls um 20 bis 25 % billiger als in Estland. Hier stellt sich die Frage: Haben nicht auch in Deutschland die Entwicklungen auf den Weltmärkten die Lebensmittelpreise beeinflusst?

Es bestehen Zweifel, wie ernst die Mitte 2010 in Estland gestarteten Kampagnen gemeint waren, die darauf abzielten, mit der Euro einföhrung keine Preiserhöhungen vorzunehmen. Die entsprechenden Appelle wurden mit hohem Werbeaufwand betrieben. Die tatsächlichen Entwicklungen zeigen aber, dass sie wenig Gehör fanden. Trotz der Zustimmungen bedeutender estnischer Lebensmittelketten und anderer Gewerbetreibenden sind die Preise dennoch angehoben wurden.

Die estnische Zentralbank bemerkt zu diesem Geschehen: 'Die Inflation in den Ländern der wichtigsten Handelspartner Estlands hat sich in letzter Zeit beschleunigt. Weil die estnischen Preise auch von den Marktentwicklungen im Ausland abhängen, sind sie im letzten Jahr bemerkenswert gestiegen. Die estnische Lebensmittelindustrie hat bis jetzt vom Preisanstieg kräftig profitiert und im vierten Quartal 2010 ihren bisher höchsten Gewinn eingefahren. Dieser lag um ein Sechstel über dem im Jahr 2008 erzielten Rekordniveau. ... Starke Schwankungen in den Preisaufschlägen sind auch bei Verbraucherpreisen spürbar, und deswegen ist die Inflation in Estland im Vergleich zu der in anderen Ländern deutlich wechselhafter. ... Dabei kann man die ausschließliche Schuld für wachsende Preisaufschläge nicht nur im Ausland suchen. Die Preisaufschläge haben 2010 wiederum eine neue Rekordmarke erreicht.' (*Lindpere 2011*)

2. Der Übergang zum Euro und die Preisdynamik in Estland

Der Beitritt zur Euro-Zone war und ist für Estland mit zahlreichen Aufgaben verbunden. Vor allem ging es zunächst darum, alle Kriterien zur Einföhrung des Euro zu erfüllen und die Wirtschaftskrise zu überwinden. Die Einföhrung des Euro wird dabei als eine wichtige Maßnahme zur Belebung der Wirtschaft und Wiedererlangung eines nachhaltigen Wirtschaftswachstums angesehen.

Hier stellt sich aber die Frage: War die Einföhrung des Euro angesichts der hohen Erwerblosigkeit und des in letzter Zeit zunehmend gesunkenen Lebensstandards vieler – insbesondere kinderreicher – Familien und daraus resultierender sozialer Konflikte zum gegenwärtigen Zeitpunkt wirklich die richtige Entscheidung? Vielleicht wurde zu voreilig gehandelt. Kann es sein, dass hier eher parteipolitischen Interessen im Vordergrund standen als zielgerichtete ökonomische Überlegungen?

Interessant sind in diesem Zusammenhang die Ergebnisse von Untersuchungen statistischer Organisationen in einzelnen europäischen Ländern⁵ über die Budgets

⁵ Die Untersuchungen wurden nach einheitlichen Kriterien durchgeführt. Für Estland bildet die Erhebung des estnischen Statistikamtes über Budgets der estnischen Privathaushalte aus dem Jahre 2010 die Grundlage. Die letzten Vergleichsdaten stammen aus dem Jahre 2007. In der Zwischenzeit wurden keine weiteren Erhebungen durchgeführt. 2010 waren an der Erhebung mehr als 3.600 Privathaushalte beteiligt. Ein Privathaushalt wird als eine Personengruppe

von Privathaushalten. Für Estland ergibt sich ein sehr trauriges Bild, das durch sinkende Einkommen, steigende Preise und steigende Ausgaben für Lebensmittel und Wohnung (sogenannte Zwangsausgaben, weil sie unvermeidlich sind) eine Verschlechterung des Lebensstandards zeigt. 2007 gab ein Haushaltmitglied monatlich durchschnittlich 278 € (4.358 estnische Kronen) aus, woran die die Ausgaben für Lebensmittel und Wohnung mit 108 € einen Anteil von 40 % hatten. 2010 betragen die Haushaltsausgaben pro Kopf nur noch 265 € (4.139 estnische Kronen), wohingegen die Zwangsausgaben auf 119 €, also 45 % gestiegen waren. Auch im längerfristigen Vergleich 2010 gegenüber 2001 sind die Gesamtausgaben pro Haushaltmitglied deutlich gesunken, wobei allerdings der Anteil der Zwangsausgaben am Familienbudget ständig zugenommen hat. Eine solche Entwicklung signalisiert einen sinkende Lebensstandard und damit Abnahme der Lebensqualität, weil durch solche divergierenden Entwicklungen für die übrigen Bedürfnisse weniger Geld zur Verfügung steht. (*Sundkulutuste [Zwangsausgaben] ... 2011*)

2010 gab ein Haushaltmitglied monatlich mit 69 € am meisten für Lebensmittel aus, und zwar 26 % der Gesamtausgaben. Weitere Ausgaben pro Haushaltmitglied und Monat betragen unter anderem für Wohnung 50 €, Freizeit 25 €, Kleidung und Schuhwerk 12 €, Transport 29 €, Gesundheit 10 €. Im Vergleich zu 2007 sind die Ausgaben für Wohnung um fast ein Viertel gestiegen. Für Kleidung und Schuhwerk dagegen mussten die Ausgaben um ein Drittel eingeschränkt werden. Auch für Transport und Gaststättenbesuche mussten die Ausgaben eingeschränkt werden. (*Ibid.*)

Tabelle 2 zeigt die Preisentwicklungen bei einigen ausgesuchten Warengruppen in der Übergangszeit der Euroeinführung. Soweit Preissteigerungen auf höhere Weltmarktpreise für Rohstoffe zurückzuführen sind, ist dagegen nichts einzuwenden. Andererseits haben Unternehmer und Kaufleute den Übergang zum Euro für ihre egoistischen Geschäftsziele ausgenutzt.

Die Preise für Milch lagen im Januar 2011 um 23 % höher als im Jahr zuvor, im Vergleich zu Januar 2009 betrug der Preisanstieg sogar 29 %. Die Einkaufspreise für Speiseweizen sind gegenüber 2010 um 112 % höher, im Vergleich zu 2009 liegt der Anstieg bei 84 %. Schweinefleisch ist innerhalb eines Jahres um 1,4 % teurer geworden. Gegenüber Februar 2010 müssen die Verbraucher für Milchprodukte, Brotwaren und Gemüse deutlich mehr zahlen. So kostet Milch in Folienverpackung 46,9 %, saure Sahne 32,7 %, Kaffeesahne 29,9 %, Käse 20,4 %, Kefir 18,2 % und Butter 12,9 % mehr als ein Jahr zurück. Schweinefleisch und Produkte daraus wurden 2010 zwar billiger, Rindfleisch, Hühnerfleisch und Hackfleisch sowie

definiert, die zusammen in einer Wohnung unter einer gemeinsamen Adresse wohnt, über ein gemeinsames Budget verfügt und sich seinerseits auch als Privathaushalt ansieht. Ein Privathaushalt unterscheidet sich demnach von einer Familie, die auf verwandschaftlichen oder angeheirateten Beziehungen beruht. 2010 gab es in Estland fast 600.000 Privathaushalte mit einer durchschnittlichen Größe von 2,3 Personen. (*Sundkulutuste [Zwangsausgaben] ... 2011*)

Fleischwürstchen wurden dagegen teurer. Im Jahresvergleich verteuerten sich Weißbrot in Supermärkten um 15,8 % und Schwarzbrot um 7,5 %. Dasselbe gilt für alle Gemüsesorten: Weißkohlköpfe verteuerten sich um 226,3 %, Importtomaten um 17,8 %, Möhren um 17,5 % und frische Gurken um 1,4 %, lose Kartoffeln um 112,7 %. Hühnereier kosteten in Supermärkten 5,6 % weniger. Der Motorkraftstoff (95E) kostete an Selbstbedienungstankstellen im Februar 1,20 Euro pro Liter, das sind 12 % mehr als ein Jahr zuvor, und der Dieselmotorstoff verteuerte sich um 18 %. (*Toidukaupade ... 2011*).). Diese Entwicklungen haben dazu geführt, dass die Güterpreiserhöhungen in Estland den EU-Durchschnitt um fast das Doppelte übertreffen. (*Pao 2011: 8*). Beim Vergleich der Preise im Februar 2011 mit denen des Vorjahrs beträgt die Änderung des Verbraucherpreisindexes 5,7 % (*Enim ... 2011*).

Tabelle 2. Preisentwicklungen bei einigen Warengruppen in Estland 2010-2011 in der Vor- und Anfangsphase der Euroeinführung

Nr.	Ware / Dienstleistung	Preis im Dezember 2010 (EUR)	Preis im Februar 2011 (EUR)	Preisanstieg (%)
1.	Würstchen "Rakvere viiner", 1 kg	2,70	3,61	34
2.	Schweinekotelett	5,00	8,95	79
3.	Fertigsuppe "Soljanka"	1,92	2,50	30
4.	Frische Tomaten, 1 kg	1,50	2,00	33
5.	Frische Gurken 1 kg	2,27	2,99	32
6.	Möhren, 1 kg	0,26	0,38	46
7.	Weißkohl, 1 kg	0,46	0,65	41
8.	Bananen, 1 kg	1,25	1,69	35
9.	Makaroni	0,95	1,25	32
10.	Kartoffeln (ungewaschen), 1 kg	0,33	0,60	82
11.	Speiseöl (Raps) 1 l	1,91	2,59	36
12.	Zucker, 1 kg	1,02	1,19	17
13.	Helles Bier, 4,5 %	2,24	2,50	12
14.	Palmoliv-Seife	0,30	0,44	47
15.	Haarschnitt (Damen)	8,50	12,20	44

Quelle: *Pealinn 2011: 4-6*

Das Verbraucherschutzzamt hat festgestellt, dass auch nach der Euroeinführung die Unternehmen ihre expansive Preispolitik fortgesetzt haben. Die Tankstellenbetreiber kaschieren – wie beispielsweise in Deutschland – nunmehr zunehmend ihre Preissetzungen, indem sie die auf Euro lautenden Preise bis auf eine dritte Stelle hinter dem Komma angeben und dort mit einer hoch- und kleingestellten Neun enden lassen. Im Januar 2011 hatten 10 % und drei Monate später bereits 20 % der

Anbieter eine solche vernebelnde Preispolitik betrieben. (*Eesti toiduainetööstus ... 2011*)

Die Einstellung der Bevölkerung zum Euro war auch schon vor dessen Einführung skeptisch. Sicherlich ist das auch darauf zurückzuführen, dass bereits vor dem 1. Januar für zahlreiche Waren die Preise sowohl in estnischen Kronen als auch in Euro angegeben worden waren und diese doppelten Preisauszeichnungen mit deutlichen Preissteigerungen einhergingen. Man verbindet folglich den Euro mit inflationären Entwicklungen.⁶ Das sind keine guten Startbedingungen für den Euro in Estland, weil bekanntlich die Erwartungen in der Ökonomie eine bedeutende Rolle spielen.⁷

3. Wirtschaftspolitik vor der Euro-Einführung

Die wirtschaftliche Entwicklung Estlands wird bereits seit geraumer Zeit durch die sich zunehmend bekämpfenden politischen Parteien blockiert. Es wird einfach kein Konsens über ein zielgerichtetes wirtschaftspolitisches Vorgehen gefunden. Oft kommt es vor, dass im Grunde vernünftige Vorschläge einer Partei keine Unterstützung in den Reihen der anderen Parteien finden, sondern mit Argumenten konterkariert werden, denen pragmatische Inhalte fehlen. Immer wieder gibt es Beispiele dafür im regionalpolitischen Bereich sowie in Fragen der Verwaltungs- und Gebietsreformen.

Hinzu kommen Fehleinschätzungen ausländischer Institutionen, welche die tatsächliche Lage in Estland nicht kennen oder falsch einschätzen. So hatte das internationale Wirtschaftsmagazin >Emerging Markets< 2010 den estnischen Finanzminister Jürgen Ligi zum besten Finanzminister des sich entwickelnden Europa (*Jürgen ... 2010*) ernannt,⁸ weil dieser – wie es heißt – 'Estland aus einem steilen Abschwung wieder in einen Aufschwung gebracht und in die Eurozone geführt habe'. In seiner Erwiderung wies J. Ligi darauf hin, dass diese Ehrung von >Emerging Markets< 'eine Anerkennung für ganz Estland und die gemeinsamen Anstrengungen' sei. Mit dieser Auszeichnung sollte zum Ausdruck gebracht werden, dass das estnische Modell zur Überwindung der Krise als effizient und nachahmenswert anerkannt wird.⁹

⁶ In diesem Sinne spricht in Deutschland der Volksmund in Verbindung mit dem Euro vom 'Teuro'.

⁷ In diesem Zusammenhang spricht man von der 'Gesetzmäßigkeit der sich rechtfertigen-den Erwartungen'.

⁸ Laut >Emerging Markets< sollen mit diesen Auszeichnungen führende Politiker der sich entwickelnden Länder für ihre Leistungen geehrt werden. Bei der Auswahl der Kandidaten arbeitet >Emerging Markets< mit Wirtschaftswissenschaftlern des öffentlichen und Privatsektors, Analysten, Bankern, Investoren und anderen Experten zusammen. Insgesamt wurden zehn Personen ausgezeichnet, aus jedem Erdteil wurden sowohl der beste Finanzminister als auch der beste Zentralbanker bestimmt. (*Ibid.*)

⁹ Diese sogenannte Führung "aus dem steilen Abschwung heraus wieder zum Aufschwung und in die Eurozone hinein" hat großen Teilen der estnischen Bevölkerung harte Opfer abverlangt, wenn man die hohen Arbeitslosenzahlen und die damit verbundenen sozialen Probleme berücksichtigt. Das hat nichts mit "Anerkennung für ganz Estland für gemeinsame

Auch das zur Financial-Times-Gruppe gehörende internationale Wirtschaftsmagazin >The Banker< hat Jürgen Ligi in ähnlicher Weise gekürt (*Jürgen ... 2011*). Um den besten Finanzminister herauszufinden, befragte das Magazin Banker und Wirtschaftswissenschaftler in zahlreichen Ländern. Die an der Befragung Beteiligten haben hervor, dass es Jürgen Ligi gelungen sei, während des wirtschaftlichen Abschwungs das Haushaltsdefizit unter Kontrolle zu halten. Die Befragten waren sich darüber einig, dass eine solche – in dieser schwierigen Situation – seltene Leistung besonders wichtig für Estland war, um die für den Beitritt zur Eurozone notwendigen Kriterien zu erfüllen und die Grundlagen für den Wiederanstieg der wirtschaftlichen Entwicklung zu schaffen. Nach dem Wortlaut des Magazins bekundet der Titel des besten Finanzministers das Vertrauen der Märkte. (*Ibid.*) Jürgen Ligi kommentierte diese Ehrungen: "Es ist sehr bemerkenswert, dass dem estnischen Finanzwesen bereits das zweite Mal innerhalb kurzer Zeit eine wichtige internationale Anerkennung zuteilwurde. Diesmal wurde Estland aus allen europäischen Ländern ausgewählt, und das bekräftigt erneut, dass es als Mitglied der Eurozone eine wesentliche Botschaft zu verkünden hat.¹⁰ ... Es gefällt mir besonders, dass in der Begründung nicht die Währung, die äußere Seite der Angelegenheit, hervorgehoben wird, sondern die Inhalte der Wirtschaft und des Finanzwesens gewürdigt werden".¹¹ (*Ibid.*)

Bei all diesen anerkennenden Worten bleibt unberücksichtigt, dass in Estland nach wie vor eine äußerst hohe Arbeitslosigkeit besteht und in weiten Teilen der Bevölkerung große Armut herrscht,¹² die ländlichen Räume unterentwickelt geblieben sind und die Randgebiete sich weiterhin selbst überlassen sind. Die Folge ist:

Anstrengungen" zu tun. Diese Worte des Finanzministers lassen eine überhebliche und zynische Einstellung erkennen und müssen als Verhöhnung der darbenden Bevölkerungsschichten empfunden werden. Das ist ein klarer Fall von Ignoranz der in Not geratenen Teile der Bevölkerung. Im Vordergrund standen bei diesen Worten offensichtlich wieder einmal parteipolitische Interessen gepaart mit rücksichtsloser Mandatsausübung, die schwerwiegende soziale Probleme mit sich gebracht hat. Fraglich ist auch, inwieweit Estland "der Mehrheit der europäischen Staaten" ein Vorbild sein kann und ob das sogenannte "Estnische Modell zur Überwindung der Krise" jemals irgendwo eine praktische Bedeutung erlangen kann.

¹⁰ Es bleibt unverständlich, welche wesentliche Botschaft Estland an Europa zu verkünden hat, wenn man das tatsächliche, äußerst bescheidene wirtschaftliche und soziale Niveau berücksichtigt. In diese Lage wurde das Land durch eine in vielen Bereichen übertriebene neoliberalen und ungeschickte Wirtschaftspolitik gebracht. Das Ergebnis ist, dass Lebensstandard und -qualität in Estland gegenwärtig weiter sinken.

¹¹ Betrachtet man diese Bewertungen von >Emerging Markets< und >The Banker< etwas kritischer, dann muss man zu dem Schluss kommen, das sich die Bewerter offensichtlich nicht näher mit der tatsächlichen Lage der estnischen Wirtschaft befasst haben und die gravierenden Probleme, vor allem die außerordentlich hohe Arbeitslosigkeit und die damit verbundenen sozialen Probleme, außer Acht gelassen haben. Folglich sind internationale Bewertungen dieser Art und Top-Listen mit äußerster Vorsicht zu betrachten, weil sie möglicherweise nicht objektiv sind, auf mangelnden Informationen beruhen und oberflächlich sind. Zuweilen gewinnt man auch den Eindruck, dass sie reine Höflichkeitsbekundungen sind.

¹² auch deshalb, weil die Arbeitslosengelder und andere soziale Transferleistungen für Bedürftige mit die niedrigsten in der EU sind.

Die oberen und unteren Einkommen klaffen immer weiter auseinander, und der allgemeine Lebensstandard ist in Estland im Vergleich zu den fortschrittlichen EU-Ländern deutlich niedriger.

Die Lage der estnischen Wirtschaft ist durch eine Vielzahl ungelöster Probleme gekennzeichnet. Die Bodenreform ist nicht zu einem befriedigenden Abschluss gebracht worden, sondern wurde bisher in unverantwortlicher Weise verzögert, die Regionalpolitik ist weiterhin unausgewogen, eine widersprüchliche Beschäftigungspolitik konnte die Arbeitslosenproblematik nicht lösen, ungenügende öffentliche und private Investitionen haben die Industrie auf einem niedrigen Produktivitätsniveau verharren lassen usw. Vor diesem Hintergrund findet eine massenhafte Auswanderung von jungen¹³ und – was für die Wirtschaft des Landes besonders schmerzlich ist – gut ausgebildeten Arbeitskräften statt. In Finnland wohnen und arbeiten gegenwärtig ca. 28.500 Esten, dazu kommen noch die Pendler. Es ist unverständlich, wie die verantwortlichen Politiker angesichts dieser Misere an ihrer neo-liberalen Grundhaltung¹⁴ festhalten können. Werturteile von Außenstehenden über die estnische Wirtschaft und die Politik der Regierung, die hin und wieder zu hören und nachzulesen sind, erscheinen ziemlich fragwürdig. So wird behauptet, dass die estnische Regierung – gemessen am Erfolg ihres Agierens – an dritter Stelle in Europa nach Luxemburg und Schweden steht. (*Ansip* 2011). Wenn das so wäre, müsste es um die Politik von Regierungen der EU-Länder und deren wirtschaftspolitischen Erfolgen sehr schlecht bestellt sein. Dass das nicht so ist, zeigen die Vergleiche von Wirtschaftsdaten in der EU.

Das Schweizer IMD (business school, Switzerland) in Lausanne vergleicht anhand ausgesuchter Kennziffern regelmäßig die allgemeine wirtschaftliche Lage einzelnen Staaten. Nach diesen Untersuchungen hat sich die estnische Situation in den Jahren 2005 bis 2010¹⁵ deutlich verschlechtert, sodass Estland unter 58 industriell entwickelten Ländern meistens nur noch in der zweiten Hälfte der Hierarchie angesiedelt ist und zum Teil auch nur noch einen der letzten Plätze belegt.

Estland ist im Hinblick auf: (*The World ... 2010*)

- den *allgemeinen Zustand seiner Wirtschaft* von Platz 15 im Jahre 2005 auf Platz 52 im Jahre 2010 zurückgefallen;
- seine *allgemeine Konkurrenzfähigkeit* von Platz 26 auf Platz 34 abgerutscht;
- die *Effizienz der Geschäftstätigkeit* von Platz 26 auf Platz 36 gesunken;
- die *Effizienz der Regierungspolitik* von Platz 13 auf Platz 24 zurückgestuft worden.

¹³ jede vierte bis fünfte Arbeitskraft im arbeitsfähigen Alter.

¹⁴ sprich: Nur zuschauen, sich nicht einmischen und alles dem freien Spiel der Marktkräfte überlassen.

¹⁵ Dieser Zeitraum ist deckungsgleich mit jener Periode, in der an der Regierungsspitze dieselbe Premierminister stand, der nach der Parlamentswahl am 6. März 2011 nunmehr erneut die Regierung gebildet hat.

Auch bezüglich des Bruttoinlandprodukts (BIP) hat sich die Lage Estlands in den Jahren 2005 bis 2010 verschlechtert: (*Sisemajanduse ... 2011*)

- 2005 – 9022,4 Mio. €
- 2006 – 9975,3 Mio. €
- 2007 – 10665,6 Mio. €
- 2008 – 10125,5 Mio. €
- 2009 – 8718,1 Mio. €
- 2010 – 8988,9 Mio. €

Oft hatten estnische Politiker und Regierungsmitglieder Irland für seine liberale Wirtschaftspolitik als ein vorbildliches Beispiel zum schnellen Erfolg gelobt. (*FitzGerald 2011: 13*). Es hat sich aber gezeigt, dass die allzu liberale Wirtschaftspolitik Irlands dazu führte, den Immobilien- und Bausektor immer mehr aufzublähen, obwohl Wirtschaftswissenschaftler schon Anfang 2000 das Entstehen einer Blase prophezeiten. Die irischen Banken liehen sich Geld auf internationalen Märkten und pumpten es danach auf den heimischen Immobilienmarkt und ermöglichen so ein ausuferndes Wachstum des Bausektors bis auf 14 % der Wirtschaftsleistung des Landes. Im Dezember 2005 kam die Warnung, dass die Immobilienpreise bald um 30 % sinken werden, was dann 2008 tatsächlich eintrat. Und als dann die Blase platzte, entstand die Katastrophe. Die gravierenden Fehler der irischen Banken bei der Kreditvergabe führten zu immensen Verlusten.¹⁶

Es bleibt zu hoffen, dass die estnischen Politiker aus diesen Entwicklungen die notwendigen Lehren und die richtigen Rückschlüsse ziehen.

4. Parlamentswahlen und weitere Entwicklungsperspektiven in Estland

Im Zusammenhang mit den Parlamentswahlen in Estland ergeben sich immer wieder kritische Fragen, die bisher noch zu keinen umfassenden Reformen des im Grunde verbessерungsbedürftigen Wahlsystems geführt haben. (*Riigikogu valimised ... 2011*).

In erster Linie ist zu bemängeln, dass der einzelne Wahlberechtigte bei seiner Stimmabgabe an den Wahlkreis gebunden ist, in dem er seinen Wohnsitz hat. Das hat zur Folge, dass, wenn ein Wähler unter den in seinem Wahlkreis aufgestellten Kandidaten keinen geeigneten findet und er den Wunsch hat, für einen in einem anderen Wahlkreis aufgestellten Politiker zu stimmen, ihm das verwehrt ist.¹⁷ Somit

¹⁶ In Estland verursachte die Expansion der Bautätigkeit einen Rückgang in der Bauqualität, weil gut ausgebildete Bauarbeiter immer knapper wurden und die Bauaufsicht schwach war oder vor Ort überhaupt fehlte. Das ganze wurde durch das Streben der Baufirmen, möglichst schnell die Projekte fertigzubauen, verstärkt. Dahinter steckte nicht selten die Gier nach mehr Profit.

¹⁷ Bei elektronischer Stimmabgabe ist es zulässig, vorab mehrmals seine Stimme abzugeben, das heißt, es besteht die Möglichkeit, den zunächst gewählten Kandidaten nachträglich durch einen anderen zu ersetzen, wobei dann die vorherige Stimmabgabe automatisch gelöscht wird; am Wahltag ist das dann aber nicht mehr möglich.

hat der Wähler praktisch keine andere Möglichkeit, als für einen aus der vorgegebenen und zahlenmäßig begrenzten Kandidatengruppe zu votieren. Auf der anderen Seite können die Wahlkandidaten unabhängig von ihrem persönlichen Wohnsitz vor jeder Wahl nach freiem Ermessen ihrer Partei in beliebigen Wahlkreisen aufgestellt werden. Der Wähler beziehungsweise – wenn man das ehrlicher ausdrückt – der 'Stimmabgebende' und die Partei, welche den Wahlkandidaten nach taktischen Gesichtspunkten auf die Liste setzt, befinden sich also in einer ungleichen Lage. Praktisch können so die politischen Parteien den Wahlausgang von vornherein ganz wesentlich beeinflussen.

Hinzu kommt, dass nach der Wahl möglicherweise nicht alle gewählten Kandidaten ihre Tätigkeit als Parlamentsabgeordnete aufnehmen, zum Beispiel wenn sie andere Posten, etwa in Institutionen der EU, innehaben und diese weiterhin besetzen. Sie sind vielleicht nur als publikumswirksame Persönlichkeiten zwecks Stimmenfang von ihrer Partei aufgestellt worden. Im Grunde bedeutet das dann letztendlich einen Betrug am Wähler.

Die in Estland stattfindenden Wahlen sind also nicht in vollem Maße frei von äußeren Einflussnahmen und demokratisch. Deshalb ist zu überlegen, wie das existierende Wahlsystem im Sinne von Freiheit und Demokratie verbessert werden kann.

Als Ergebnis der jüngsten Parlamentswahl am 6. März 2011 sind in das estnische legislative Organ *Riigikogu* die Vertreter von lediglich vier Parteien gewählt worden.¹⁸ Die 101 Parlamentssitze verteilen sich wie folgt:

Estnische Reformpartei	erhielt 28,6 % der Stimmen	– 33 Sitze
Union 'Pro Patria und Res Publica'	erhielt 20,5 % der Stimmen	– 23 Sitze
Estnische Zentrumspartei	erhielt 23,3 % der Stimmen	– 26 Sitze
Estnische Sozialdemokratische Partei	erhielt 17,1 % der Stimmen	– 19 Sitze

Die Wahlergebnisse im Einzelnen: (*Riigikogu valimine 2011*)¹⁹

- Von den insgesamt 575.133 abgegebenen Stimmen kamen vier Parteien über die 5%-Hürde. Die bisherigen und die jetzigen Koalitionspartner im Parlament (Reformpartei und Union 'Pro Patria und Res Publica') erhielten insgesamt 282.278 Stimmen, d. h. 49,1 % aller Stimmen, das sind etwas weniger als die Hälfte aller abgegebenen Stimmen. Die Oppositionsparteien (die Zentrumspartei und die Sozialdemokraten) erhielten insgesamt 232.431 Stimmen, das sind 40,4 % aller Stimmen;
- Die übrigen abgegebenen Stimmen verteilten sich wie folgt: Estnische Grüne Partei 3,8 % der Stimmen, Estnische Volksunion 2,1 % der Stimmen, Russische Partei in Estland 0,9 % der Stimmen, Estnische Christlich-Demokratische Union 0,5 % der Stimmen, Estnische Unabhängigenpartei 0,4 % der Stimmen und

¹⁸ Dem Parlament zuvor gehörten zusätzlich zu den jetzt vertretenen Parteien noch zwei weitere Parteien an, also insgesamt sechs Parteien, und zwar die Estnische Grüne Partei und die Estnische Volksunion.

¹⁹ ergänzt durch eigene Berechnungen.

die Einzelkandidaten erzielten insgesamt 2,8 % der Stimmen. Alle diese Parteien zusammen bekamen 60.424 Stimmen oder 10,5 % der gesamten abgegebenen Stimmen. Diese Wählerstimmen hatten also keinen Einfluss auf die Sitzverteilung im Parlament, denn keine dieser Parteien und keiner der Einzelkandidaten schafften den Einzug in das Parlament;

- Die Wahlbeteiligung lag bei 63,53 %, d. h. von 913.346 stimmberechtigten Bürgern nahmen 580.264 an der Wahl teil. Von den abgegebenen Stimmzetteln waren 575.133 gültig und 5.131 ungültig;
- Aus der Gesamtzahl der stimmberechtigten Bürger (913.346) ergibt sich nunmehr nach der bestehenden Wahlordnung eine regierungsfähige Koalition, die 30,9 % der Stimmen auf sich vereinigen konnte. Der Rest in Höhe von 69,1 % entfiel auf Stimmen für die Oppositionsparteien, Stimmen für Parteien, die an der Wahlhürde scheiterten, ungültig erklärte Stimmen und nicht an der Wahl beteiligte Stimmberechtigte.

Am 1.01.2011 lebten in Estland 1.340.122 Einwohner. Davon waren 426.776 Bürger oder 31,8 % nicht wahlberechtigt, die sich aus estnischen Bürgern unter 18 Jahren, Personen ohne estnische Staatsangehörigkeit sowie weitere Bevölkerungsgruppen rekrutierten. (*Eesti Vabariigi ... 1993: 16*). Man könnte gegen das Wahlergebnis und die daraus gezogenen Schlussfolgerungen für die Regierungsbildung kritisch einwenden, dass die regierende Koalition mit nur 282.278 Wählerstimmen oder 30,9 % aller wahlberechtigten Stimmen oder 21,1 % der estnischen Gesamtbevölkerung das Recht bekommen hat, die Mehrheit zu vertreten und für sie Entscheidungen zu treffen. Auch bei Zugrundelegung aller abgegebenen Stimmen liegt ihr Anteil – wenn auch knapp – unter 50 %. Folglich ist nicht nur zu überlegen, wie das estnische Wahlsystem vereinfacht und transparenter, sondern im Hinblick auf den vorgenannten kritischen Hinweis reformiert werden kann.

In Estland mangelt es an sozialer Gerechtigkeit. Es wird viel und lange über das Wohlergehen der Menschen gesprochen, aber tatsächlich stehen weniger menschliche als materielle Ziele im Vordergrund der Überlegungen. Der Profit zählt mehr als der Mensch. Wenn sich diese Einstellung nicht ändern sollte, dann sind in den nächsten zehn Jahren mindestens genauso schwerwiegende soziale und wirtschaftliche Schwierigkeiten zu erwarten wie in den Krisenjahren 2008-2010. Das Hauptproblem besteht darin, dass in Estland bei den Parteien kein ernst zu nehmender Wille und kein überzeugendes Können zu erkennen sind, die Wirtschaft als eine gesellschaftliche Veranstaltung zu sehen, die dem Menschen zu dienen hat und nicht umgekehrt. Stattdessen werden kurzfristige positive Entwicklungen, die im Moment parteipolitisch nützlich erscheinen, in den Vordergrund gestellt und damit von notwendigen längerfristigen Aufgaben abgelenkt. Es fehlt eine zukunftsorientierte Zielführung, um den Wohlstand und das Wohlergehen aller Bevölkerungsschichten in Estland, nicht nur der unternehmernahen Kreise, zu fördern. Wenn man die Programme der estnischen Regierungsparteien in der Vergangenheit und Gegenwart näher betrachten, muss man feststellen, dass diese immer nur auf vier Jahre bis zur nächsten Parlamentswahl ausgerichtet sind und weniger die Perspektive einer darüber hinausgehenden Entwicklung beinhalten.

Estland hat noch einen langen Weg zu einer wirklich sozial verträglichen Marktwirtschaft vor sich.

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COMPETITION POLICY IN INFRASTRUCTURE SPECIFIC SECTORS IN THE ESTONIAN CASE: ENTWINING OF NATURAL MONOPOLY AND UNIVERSAL SERVICE¹

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Abstract

There is a growing consensus that the successful development of infrastructure specific sectors depends a lot on the adaption of appropriate public policies and the effective implementation of these policies. The way how regulation is implemented plays an important role in infrastructure development and use. In the article the means of regulating economic policy in Estonia are systematized and evaluated looking at practices regarding both natural monopoly and universal service.

Keywords: competition policy, regulation, competition in infrastructure specific sectors, natural monopolies and universal service

JEL Classification: L4, L43, L87, L9

Introduction

The specific objects of competition policy are those economic sectors where the use of competition as the means of control and management is regarded impossible due to economic or political reasons. In those exception areas the invisible hand of market is replaced by the visible hand of bureaucracy. There are two distinct discourses on exception areas in literature (see Eickhoff 1993; Schmidt 2005: 35):

1. Normative regulation theory aims to explain why competition is impossible or unadvisable in some areas and what management tools would instead be more preferable.
2. Positive regulation theory, on the other hand, examines the political economy reasons behind exception areas and the consequences of using non-competitive management tools.

The framework of normative regulation theory is applied to this article focusing on possibilities of mitigation market failures (see survey Sepp 2010: 16 – 42). The aim of the article is to systematize and evaluate the means of regulating economic policy in Estonia, comparing different areas with each other and with recognized views of normative theory. The main attention has been turned at practices regarding both natural and political monopolies in energy, telecommunications, transport and postal service. What could be regarded innovative is viewing exception areas as a means of offering public goods and differentiating them from public choice solutions of

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regulation market (Stigler 1971). Here a problem is caused by certain contradiction between the policy objectives. If in the case of natural monopoly there is need for state supervision in the form of profit limitation, then in the case of universal service, the offering presumes an additional financing arrangement comparing to market solution. In the article are observed compromise solutions in energy sector², telecommunication, transport and post.

1. Theoretical bases – market failures

In the literature the efficiency and equity principles are given as the most essential motivations for state regulation in case of specific exceptional sectors. For example, Coen and Doyle (1999) suggest systematic as showed in table 1. Still, we will analyze mainly two market failure situations which are often concerns in the infrastructure sectors – natural monopolies and public goods. As in the case of universal service, including guaranteeing geographical uniformity as well security of supply and access to information society are political objectives, it means public goods what are not guaranteed by market. These services are possible to guarantee only via collective decision-making process with the support of special financial measures of economic policy.

Table 1. Efficiency and equity grounds for regulation in sector-specific industries

Industry Characteristics	Equity Arguments	Efficiency Arguments
Electricity: non-storable. Some economies of scale. Demand slowly rising. Innovations in service provision, less in network.	Security of supply Universal service Geographic uniformity	Natural monopoly in transportation: transmission and distribution. Third party access to customers. Incumbency dominance.
Gas: Storable. Demand rising as an input to electric generation. Innovations minimal.	Security of supply Universal service Geographic uniformity	Natural monopoly in transportation. Third party access to customers. Incumbency dominance.
Postal Services: Demand rising, innovations affecting sorting and tracking processes.	Universal service Geographic uniformity	Natural monopoly local delivery network. Incumbency dominance.
Telecommunications: Demand growing significantly, due especially to internet. Innovations significantly affecting industry. Convergence across fixed and mobile, and horizontally with IT and media sector.	Universal service Geographic uniformity Access to information society	Natural monopoly in some elements of the local loop (depends on demand and population density) and scarce resources (eg. Radio spectrum). Incumbency dominance.

Source: Coen *et al* 1999.

² Here is strong analogy with gas, water and heating services which all are grounded on certain physical infrastructure.

Natural monopolies can be talked about when the intracompany expense depression is so relevant to the market that in the long run only one business establishment ends up effective. Decreasing long-term average production costs can therefore express situations where one big enterprise is able to manufacture with cheaper costs than several smaller ones. Electricity economy and railway transport with distribution networks are one of the best examples here. Establishing more than one network in those sectors is probably more expensive than using only one. However, this argument presupposes that the innovations arising from competition cannot compensate additional costs that are consequential to parallel investments.³

If natural monopoly manufactures based on the conditions of perfect competition (price = marginal costs) and the average costs were always higher than marginal costs due to initial investments, it would result in loss that is represented by the dotted rectangular area (figure 1).

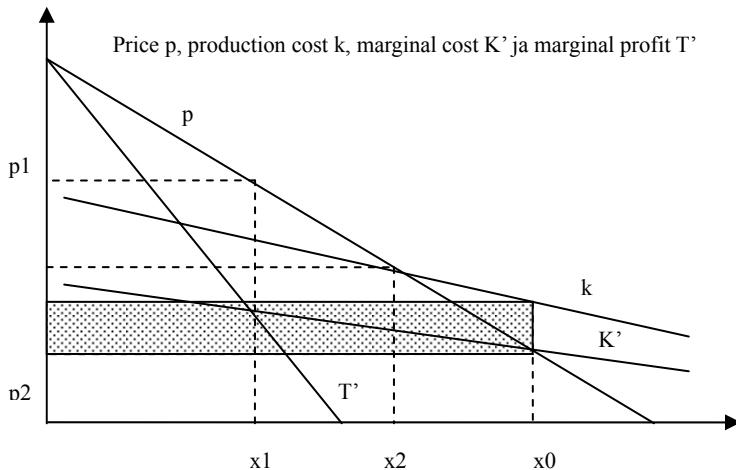


Figure 1. Price layout for natural monopolies.

The monopolist is therefore trying to maximize the profit and produce enterprise optimum x_1 instead of the gross national optimum x_0 , accruing from the condition $T' = K'$. For the consumer it means that the quantity will decrease by $x_0 - x_1$ and the prices will increase by $p_1 - p_0$. If the government has deemed such a monopoly necessary, they have to ensure that the tendency to increase prices, decrease quantities and to give up innovation that are all characteristic to monopolies would be balanced out with suitable methods of control and stimulation (Knieps 2001: 21-44).

³ A good example is mobile network accruing to the main line telephone.

Of course, the contestability of market cannot be overlooked. If the market lacks in all entry and exit barriers (see systematic Sepp 1998: 131–134), then the monopolist will be controlled by potential competitors just as in the case of pure competition. He cannot raise the prices above cost level without the fear of newcomers entering the market with lower prices and thereby losing his market share. Based on that argument, the contestable markets theory introduced by Baumol, Panzar and Willig (1982) has tried to dispute the necessity of government intervention in natural monopolies as well.

What does the degree of potential competition depend on? The newcomers' access to channels of supply and commerce obviously plays a part in it, but so does the availability of highest quality technology. Quite often the advantage of experience helps the older players to be cheaper than their potential competitors. However, the decisive importance lies on sunk costs.

Sunk costs are those investments that are important in order to enter the market, but are lost upon exiting the market. Let us take railroad tracks as an example. The value of railroad tracks that have been laid down is almost entirely sunk costs. Once the railroad traffic has ceased, only a small share can be retrieved. The more specialized the technology and the harder it is to find alternative usage to factors of production, the higher the share of sunk costs. For example, the share of sunk costs in railroad stations is much smaller than in railroad tracks. Sunk costs entail both entry and exit barriers. The higher the losses caused by sunk costs upon exiting the market, the smaller the likelihood of entering the market (under other equal conditions, of course). This is understandable because if the monopolist reacts to the appearance of potential competitors with lowering the prices fast enough, the newcomers won't have the opportunity to amortize sunk costs with price.

If the concentration regarding the economies of scale is unavoidable and sunk costs ensure its stability, it is important to find methods of economic policy in order to diminish the chances of monopolistic profit and loss of welfare due to deviation of price and marginal costs. The following possibilities are applicable (Fritsch 2010: 219–250; Knieps 2001: 79–114).

1. They are mostly associated with the new wave of industrial organization and the concept of essential facility hailing from the United States of America (Knieps 2001: 102–104). It is generally recognized that in order to enable competition it is acceptable to intervene in natural monopoly, usually in some infrastructure's owner's right of disposal. The outcomes of this are the European Union directives for liberalizing (opening) the telecommunications, electricity, gas and transport markets. In each instance, it is aimed to create a so-called permeation competition, which means that the owner of some important device is obliged to enable other interested parties to use that said device under reasonable and non-discriminatory conditions. Assuring of such obligation is especially difficult in vertically integrated markets where the possessor of natural monopoly is also its user. This is often the case of railroad and energy economics.
2. Restricting monopoly's activity in other markets without the advantage of size. This enables to avoid dumping caused by cross subsidizing. A more radical way

is to prohibit monopolist's activity in pre- and after-markets with mandatory and non-discriminatory servicing of all customers in the monopolized sector. Main counterargument to this is usually the abandonment of economies of scope. According to Williamson (1980) theory of transaction costs the vertical integration may be justified also for grounding the risks of specific investments. Joskow (1985, 1991) has been denoted this specially concerning the electric power stations and minings.⁴ If these really are important, it is necessary to choose the better of two evils in each instance.

3. Government price regulation that has several alternatives:

- Marginal cost prices with indispensable government subsidies. Measuring the marginal costs causes difficulties here. The incentives of expense savings are also at risk when the government decides to cover all over-expenditures. Taxes necessary for subsidies might, in their turn, cause competition changes.
- Pareto-optimal prices and price differentiation. If the monopolist is able to impose individual prices according to the customers' liquidity, the volume of production is the same as with pure competition. Essentially, the monopoly receives subsidies directly from the consumers. Therefore the necessity for government price control remains.
- Prices bearing the costs. If the marginal cost rule remains unrealized, only the suboptimal solution is applicable. Its advantage is the absence of problems regarding over-expenditure.

4. Creating anti-power in the market. Theoretically it could be shown that double monopoly could lead to the same outcome as pure competition. Unfortunately it is easy to set off a chain reaction of monopolization.

5. Selling monopoly right at auction. Competition in the market is replaced here with the competition for the market. The seller (often the government) of the right gets the monopolistic profit that can be used, for example, for consumer support. The problem, however, is the entry barrier for newcomers caused by sunk costs. Old market leaders might offer better prices than those that are yet to make specific investments.

6. Quality requirements for monopoly's products and contractual obligation. In case of price ceilings, the monopolist might often try to gain profits by lowering the quality. Quality standards must also compensate monopoly's few development stimuli. In relation to the latter, it is necessary to assure the monopoly's servicing of the less profitable customers as well.

The methods regarding the advantage of size and sunk costs must be based on specific analysis. Otherwise, there might be danger of overdosing with regulations. It is important to be especially careful with imposing market barriers because these are often followed by chain reaction of regulations. Regulations that have already been imposed are very difficult to retract. It is also important to delimit the natural monopoly as narrowly as possible.

⁴ A good survey about the discussion is presented by Richter and Furubotn (2003)

In case of political exception areas there are several meta-purposes on the forefront that are not guaranteed to be achieved through competition. Those can be regarded as public amenities.

- Distributive justice in terms of serving the need. In addition to classic instruments of redistribution (taxes and subsidies), administrative prices (e.g. for children's items) have also been used.
- Politically desirable economic structure. The reasons can be ensuring the quality (standards), equipment insurance in energy, crisis prophylactic (base industries, agriculture, infrastructure), modernizing the industry, etc.
- Adjusting demand when the public and politicians think that the private demand is not rational (compulsory school attendance, prohibition of narcotics).

One of the special cases of exception areas is the so-called universal services that must be available to all residents for reasonable and common prices.⁵ Barriers and/or minimum prices for entering and exiting the market become important here, because there is a risk of “picking a raisin”. Only profitable segments are serviced in the market and the less beneficial ones are left without service. The theory of economic policy offers two solutions here:

- 1) cross subsidizing certain lines at the expense of others, which, of course, presupposes blocking the so-called picking the raisin or skimming the milk by creating local monopolies and giving them special privileges;
- 2) if cross subsidizing cannot secure a wide enough access to passenger traffic, additional subsidization by public means or transition of other market participants must be provided.⁶

If it is acceptable to talk about applying highest bidding in order to centralize monopolistic profit *ex ante* to the society and then later using it to, for example, protect risk categories in the case of natural monopolies, then in the case of universal services the so-called lowest bidding is more common. Competition ascertains which enterprise would accept the minimal subsidy when providing a certain level

⁵ EU directive on universal services for telecommunications (2002) specifies the universal services as offering predetermined minimum services for a price acceptable to all end consumers. Eurostat says basically the same thing: Universal service refers to the legal obligation of providing a baseline service in every resident country. It is mostly used for providing necessary services in regulated industries (postal services, telecommunications, transport, etc.). Estonian Consumer Protection Act defines universal services particularly broadly: “universal service – a service provided for public benefit, used by the nation or the majority of people in a certain area, such as gas, electricity, thermal energy, water and sewerage, waste handling and communications services and other similar services.”

⁶ According to the EU directive on universal services for telecommunications (2002), it is acceptable to expect some services to be provided to end consumers for a price that differs from the usual market price. It is optimistically noted, however, that giving compensation to entrepreneurs who are obligated to provide certain services under such conditions does not necessarily cause deformation in competition if only their specific net costs are compensated and any additional loss that comes with net costs is covered in a natural way from the viewpoint of competition.

of the service. In both instances, competition in the market is replaced with competition for the market.⁷

Exception areas are therefore branches where competition does not function enough. Experience has shown that even substitutes can have negative effects (see Prosi, 1996). The history of command economy in Eastern Europe is a good example of that.

Limiting competition in certain sectors can not always be explained by problems with the market mechanism. For that reason, the new political economy (public choice) is trying to develop a positive regulation theory that aims to explain political decisions as a response to the requests of certain interest groups (see also Sepp, 1997: 125–164).

If we take into account that business enterprises prefer the security of government regulations to unpredictable competition and that politicians offer state regulations to those that can be expected to vote for or support the politician materially, then the formation of exception areas could be explained by the relationship between demand and supply in a market with state regulations. However, group interests play the decisive role here, not internal factors. A new hypothesis has been raised in the framework of a corresponding theory according to which the state control organizations usually represent the interests of enterprises rather than those of the consumers (*capture theory*).

Previously described state control (regulations) or nationalization of the enterprises (state enterprises) has usually been named as an alternative to mechanisms replacing competition. Unfortunately, the nationalization helps to resolve the problem only in theory. It is based on the presumption that the state or local government representatives in the enterprises stand for public interests and set those above the interests of the enterprise. In reality, the situation tends to be the other way around and the interests of the enterprise that they are running and their own personal agendas are on the foreground.⁸

⁷ See <http://www.regulationbodyofknowledge.org/chapter2/narrative/04/>

⁸ Experiences show that private monopolies regulated by the state are more expedient than state monopolies even in exception areas. The control mechanism in state enterprises is often defective because of the close connections between the effective managers and officials of trade union, political parties and government or even because they might be identical. For that reason, state enterprises (if they cannot be privatized) can't have any privileges that private enterprises don't have (rather the opposite). They must also obey monitoring that is as independent as possible. The situation isn't alleviated by the bigger role of the personnel or labor union in running of the enterprise. The interests of the consumers and the effectiveness of the national economy might thereby suffer even more. Short term profit interests emerge and the enterprise's reaction to prices and other economic signs becomes abnormal (preferring a higher salary to investments). Realizing competition factors becomes more difficult. Because of that the already existing state enterprises must guarantee a clear distinction between the employer (the state) and the employee. In addition to that, the effective managers must be tied to the employer's interests with maximally strong stimuli. In any case, the state organization in

2. Overview of Estonian legislation

The general framework for regulating exception areas is set in the chapter IV in Estonian Competition Act. § 14 and 15 define entrepreneurs with special and exclusive rights and essential facilities, including the entrepreneur who has the natural monopoly. Several special laws have also been passed: the Energy Act regulating the fuel and energy economics (renewed Electricity Market Act 2003), Railways Act (2003 renewed version), Cable Distribution Act (1999) and the general Telecommunications Act (2000) and the Postal Act (2006).

Bases of both the natural monopoly and the dominant position are observed in the Competition Act. Natural monopoly is related to the right of disposal concerning some network or infrastructure that is impossible or unadvisable to duplicate but the access to which is necessary in order to function in the market. In that case, the government and local government⁹ have the price regulation rights, “so that the buyers of the goods of such undertakings or sellers of goods to such undertakings are not placed in a substantially worse situation than they would be if free competition were present in the corresponding area of activity.” (§ 17).¹⁰ Thus, the invisible hand of competition is replaced with the visible hand of state. The legislation also formulates monopolists’ main obligations (§ 18):

- permitting access to the networks and infrastructure under reasonable and non-discriminatory conditions for the purposes of the supply or sale of goods;
- assuring transparency in accounting.

Competition Act also emphasizes one other mechanism that neutralizes the effect that natural monopolies have: to replace the competition in the market with the competition for the market. In order to do that the monopoly must be given out by open tendering according to the Public Procurement Act (RT I 1995, 54, 883; 1996, 49, 953).¹¹ In principle, the idea is correct, but it can not be regarded as a miracle cure. Irreversible investments accord advantages to older market leaders who do not need to worry about the profitability of their investments and can generally make better price offers.

charge of competition policy must stand as an anti-power to the economic power of the enterprise and represent the interests of weaker competitions, purveyors, buyers and consumers. The prospects of success are higher if the competition in the exception areas as well is only against the economic power of private enterprises (e.g. in USA) and not against the politic-economic pressure from state monopolies.

⁹ Privatized Tallinn Water extra profits motivated the *Riigikogu* (parliament of Estonia) to delegate the price monitoring of bigger water undertakers from Tallinn city government to Competition Board in 2010.

¹⁰ In theory this approach is called the just-as-concept.

¹¹ Based on this, the government lay down the public competition policy for special rights according to its 1998 regulation. As a rule, those rights are given out for five years but the government is allowed to make exceptions at the request of a respective minister.

3. Electricity market

The principles of the first Energy Act (RT I 1998, 71, 1201) already corresponded to the first directive of the EU electric energy's domestic market (ESD)¹² and stipulated technically suitable obligations for the network operators:

- to enable direct links between manufacturers and consumers,
- to provide distribution services,
- to allow connecting to the network.

In addition to that, network operators were referred to as market leaders in the context of Competition Act and the possibility of price regulation and transparency of accounting was imposed. The new Electricity Market Act (RT I 2003, 25, 153) enacts essentially the same principles, but it does so with the aid of a substantially more detailed regulation. Hence, the new Act is less transparent than the previous one and bears the seal of lobbying for Estonian Energy, the Estonian electricity monopoly.

Estonia has been provided with an exception in the European Union Treaty of Accession regarding opening the electricity market until 2012, to protect the interests of oil shale power industry. Right now Estonia lacks the technological preparedness to open the market for older EU members. Only the completion of the submarine cable in 2006 created the first qualified connection with the Scandinavian market. At first it started to serve the interests of the electricity export, because regulating the prices of oil shale electricity according to the EU's strict environmental requirements (especially concerning CO₂) is still ongoing. According to the legislation what was effective until 2009 in Estonia, the so-called free consumers whose yearly consumption exceeded 40 GWh had the right to choose their electricity purveyors. Since 2010, which means that with a slight delay, free consumers' rights to bigger consumers were assured in a way that their summary consumption is at least 35% of market bulk volume. In result was increase in price approximately 30 % for heavy users.

Estonia follows the EU requirements when determining network fees (*ex ante* coordinating and disclosing fees). However, the price regulation as a whole is stricter. ETS § 81 dictates that in addition to network fees, electricity and its main raw material, the oil shale prices must also be coordinated with the Competition Board. For small consumers this is probably unavoidable until the actual opening of the market. It has been opined in the literature that sooner or later the *ex ante* state regulation of even small consumers' electricity prices will become insignificant. In that case, the state's responsibility will be, analogously to the telecommunications market, to regulate the fees brought about by switching purveyors, rather than regulating electricity prices. The primary problem will still be regulating or monitoring network fees. Presently, the ETS § 71 stipulates not only three types of fees (admission fee, network usage fee and transmission fee), but also possibilities to

¹² By now the second electricity market directive 2003/54/EC has been replaced by the third 2009/72/EC.

differentiate these according to occurred changes and additional services.¹³ Seeing the asymmetric information in favor of the network operator, the Competition Board faces a very complicated task. Here, simultaneously is need for monopoly control and support of offering universal service. In the 2009, in order to concretize the last direction, the improvement in the Electricity market law adopted for regulation of subsidies of admission fees.¹⁴ Here, differently from several other universal services, state supports consumer not the supplier.

From the standpoint of Estonia, it is important to resolve the energy markets' problems in a complex way, making sure not to create new ones. So it is necessary to account for all the aspects of domestic market, competition policy, emissions trading of exhaust gas, external trade and security. It is also important for Estonia to find a solution to a question how to limit environmental dumping and electricity import from third party countries.

That has helped to set the prerequisites for privatizing energy economics – there is a regulation mechanism that replaces competition. Unfortunately, the first attempt to privatize the Narva Power Plants in the beginning of 2000 failed due to bad (non-competitive) organization and political opposition. Those against privatization ignore the viewpoints of political economy (especially the capture theory). According to the theory, the leaders of state monopolies always tend to represent the interests of the enterprise, rather than the interests of the consumers. Here, the relationships between effective managers and state officials and party politicians are stronger than in the case of private companies. Of course, the additional savings motifs and advantages of effectiveness related to them that are apparent in private economy are also left unused in state enterprises. In 2009, Estonia fulfilled the requirement of the EU 3rd energy packet and the primary network operator Elering was completely separated from the rest of the energy group. That opened a new possibility of at least partially privatizing the remaining share of Estonian Energy by taking it to the stock market. However, for the time being the government prefers the current owner, which is the state, financing the upcoming investments. The government and the parliament have also decided to subsidize the price of electricity produced in new oil shale power stations, which risks being in direct conflict with the EU State Aid rules. It should soon become clear whether European Commission accepts this step made under the pretext of equipment security in order to assure public amenities as a political exception area or will the solution be opening the electricity market with providing sufficient cross-border connections.

¹³ § 71 Network fees

(1) Network enterpriser offering network service takes network fee (hereafter network fees):
1) for connecting with the network (hereafter admission fee);
2) for the changes in consumption and production conditions (hereafter fee for condition changes);
3) for enabling usage of network connection (hereafter fee for network usage);
4) for electricity transmission (hereafter transmission fee);
5) for additional services which are directly connected to the network services.

¹⁴ <https://www.riigiteataja.ee/akt/13120873>

4. Telecommunications

If the regulation in energy sector took place rather calmly (political discussions are generally in relation to privatization attempts), then the early stages in telecommunications sector were received with considerably more critique. The first object of criticism was the Cable Distribution Act (RT I 1999, 25, 364). Local government was allowed to divide its territory into different areas like a market that all received one or more cable television licenses from the Communications Board of the time. Just one license was given if the applicant of the license was obliged to provide telephone service as well. This possibility for a local monopoly evoked objections. It was a situation where competition in one market (cable television) was sacrificed in the name of competition in another, more important telephone service market. This has been abandoned by now (RT I 2001, 53, 310).

Telecommunications Act that followed (RT I 2000, 18, 116) emphasizes the monitoring of enterprises with substantial market force that are active in the telecommunications market. Substantial market force is characterized by the 25% market share. If the market share exceeds 40% then certain competition policy provisions also apply. Nevertheless, it is not clear why, for example, mobile communications needs such special regulations, especially given its very competitive oligopoly structure that formed after the formerly state monopoly Estonian Telephone was privatized and its initial monopolistic concession contract expired. Authors find that regulating undertakings in a dominant position is enough.

On the other hand, the complexity of assuring permeation competition has become particularly evident. The owner of the main line as an essential facility, in this case Estonian Telephone, attempted to limit other operators' activity by imposing high interconnection charges using their market position. This forced *Riigikogu* to go back to direct price regulation and temporarily fixate the relations between interconnection charges and Estonian Telephone's end service prices¹⁵ (RT I 2001, 23, 125). This was not the usual and acknowledged price monitoring *ex post*, but interventionist price regulation *ex ante*. Temporarily (during the period of market opening) it could be deemed justifiable. This rule has been abandoned by now.

5. Railway transport

Fostering railway traffic into state networks is not an easy task in the fragmented European market. The obstacles include technical incompatibility between different railway systems and some Member States' governments' unwillingness to open the competition to foreign undertakings. The European Union has gradually moved towards securing a wider access to networks across the continent to railway undertakings. Liberalization does not necessarily mean privatization¹⁶, because both state and private enterprises can compete on the opening markets. As with electricity

¹⁵ 15-35% of Estonian Telephone's national call tariff rate.

¹⁶ Quite the opposite, because grants from the EU support funds are available only for developing public railways.

economy, it is necessary to distinguish possessing and governing infrastructure from operating on it, like it happened with Estonian railway monopoly in 2009.

The Act deregulating the railway activity in Estonia was passed in 2003 and it has been supplemented several times, most recently in 2009. Deregulation has caused conflicts between market participants on the railway as well. The former monopoly Estonian Railway¹⁷, who owns the railway infrastructure through AS EVR Infra, is feeling especially affected by the loss of control in the market of railway transport services. While the first Railways Act regarded the creation of competition rather carefully, compelling Estonian Railway to give 25% of the railway capacity to other enterprises by way of competition, the current Act (RTI 2003, 79, 530) is considerably more radical. Due to Estonian Railway's vertical integration, the organization of transport market is now the task of the governmental Technical Surveillance Authority (§ 63), whereby the entire railway infrastructure capacity is given out by way of competition¹⁸. Also, the Estonian Railway's transport undertaking EVR Cargo AS has to compete for the market under the same conditions as everybody else.

In the last couple of years, 4-8 railway enterprises have applied for Estonian Railway infrastructure capacity, six enterprises during the period of 2009/2010: EVR – EVR Cargo AS, WGT – Westgate Transport OÜ, ERS – AS E.R.S, EDR – South-West Railway AS, ELR – AS Electric Railway, GoRail – AS GoRail.

The access to infrastructure is for pay. The fee for the use of railway infrastructure that provides the access to essential services and service enhancements, access to assistance services and the fee for the use of a single capacity for special purposes is determined by the methodology of calculating the fee for the use of railway infrastructure imposed by the Minister of Economic Affairs and Communications.¹⁹ If the owner of the infrastructure acts as a transport operator or is connected to the transport operators through their owners, the functions of determining the fee for the use go to the Technical Surveillance Authority. For that reason, both the forecast and detailed fees for the use are determined by the Technical Surveillance Authority at the present time.²⁰

¹⁷ The process of privatization and re-nationalization that has taken place is noteworthy. The privatization of Estonian Railway was completed on August 31, 2001. On that day, Baltic Rail Services (BRS) finalized their purchase of 66% of Estonian Railway shares from the Estonian government. In 2006, however, they agreed that Estonia would buy the shares back for 2.35 billion Estonian kroon.

¹⁸ Railway infrastructure capacity is the potential to use railway infrastructure at a certain period. The capacity is divided into a yearly timetable period. The timetable period on the railway starts on the last Sunday in May and ends on the last Sunday in May of next year. Both the railway infrastructures of AS EVR Infra and South-West Railway Infrastructure AS are divided.

¹⁹ <http://www.riigiteataja.ee/ert/act.jsp?id=13304518>

²⁰ The Director General of the Technical Surveillance Authority determines the forecast fee for the use of essential services, service enhancements and assistance services for the entire timetable period two months before the timetable period starts. In case the railway

If politics previously came to play in exception areas with natural monopolies, then in case of the railway transport the passenger transport is in fact a political exception area, which entails providing political, i.e. public amenities or at least subsidizing positive external impacts. This is best apparent in subsidizing AS South-West Railway²¹ and AS Electric Railway²² that are both involved in passenger transport, in order to assure a passenger transport service that the market itself would not be capable of providing.

In 2009, the government subsidized the AS South-West Railway passenger transport with 182 million kroon. The same amount is planned for this year as well. According to the contract, the volume of passenger transport in 2009 was 1.7 million line kilometers. The contract also covers passenger train traffic on the lines of Tartu, Pärnu, Viljandi, Narva and Orava. In the budget for 2010, the subsidy for Electric Railway increased from 54 million kroon to 60 million kroon. Additionally, the budget contains a planned reserve for public transport that is 12 million kroon in 2010 instead of the 23 million kroon in 2009.²³

6. Bus transport

Passenger transport by buses on local county lines is an even clearer example of political exception areas. In the 2010 state budget project the planned subsidy for bus lines is 339 million kroon, the same as in 2009.²⁴

If we look at a specific transport service, there are no fundamental or technical problems in order to exclude tax payers from utilizing it. It is a private amenity. Here, the public amenity and market failure are not so much related to a specific transport service but more to the public availability of it for the majority of population. This is the factor that the market might not guarantee by itself. The situation is analogous to the universal service that is usually referred to in the context of postal and telecommunications services. Therefore, Levy (2009) suggests

infrastructure contract is issued for longer than one timetable period, the Technical Surveillance Authority co-ordinates the fee for the use of railway infrastructure to the period requested by both parties, guided by the motions of contract parties and the requirements in the legislations and accounting for the economic reasoning and the situation of competition in rail freight-transport areas.

²¹ South-West Railway AS is a railway enterprise in Estonia that was established in 1997. Since 2000, it belongs to the public limited company GB Railways Estonia AS that itself belongs to the British company GB Railways Group Plc. Since 2003, GB Railways Group Plc belongs to First Group Plc.

²² During the establishment of the undertaking, all the shares belonged to the AS Estonian Railway. Since November 15, 2000, 100% of Electric Railway shares were given to the Republic of Estonia that is represented by today's Ministry of Economic Affairs and Communications.

²³ http://www.ytra.eu/index.php?option=com_content&view=article&id=352:2010-aastal-jaeaeb-uehistranspordi-dotatsioon-sarnaseks&catid=34:uudised&Itemid=57

²⁴ http://www.ytra.eu/index.php?option=com_content&view=article&id=352:2010-aastal-jaeaeb-uehistranspordi-dotatsioon-sarnaseks&catid=34:uudised&Itemid=57

using the concept of the universal service in public transport as well. For Levy, the universal service is a service with an assured quality and reasonable price that is intended for all users of transport services independent of their geographic location. It is necessary to impose target values for services and the financing of those in order to implement universal service.

The alternative free market might lead to an important price differentiation and undersupply of certain market segments. It is understandable that there is no need to fear the lack of tendering on lines that connect larger centers and the price will end up quite low in the free market. Providing the peripheries with transport services, on the other hand, implies higher prices due to limited demand and additional costs that may result in being overly expensive and lead to market loss.

Subsidies should provide an effective service and sufficient tendering. Naturally, the need for subsidies depends on the relationship (proportion) between commercial and assisting lines. The more commercial lines there are, the least possibilities for cross subsidizing in monopolistic public line sets and the more the need for direct subsidies.

The key question in areas with a smaller population concentration is providing the people with minimal transportation possibilities with the aid of grants, in areas where the population concentration is higher, it is necessary to assure the optimal capacity with different types of transport, commercial lines and assisting lines, which is lacking at the moment. Because some lines working and assisting in the bases of commercialism can not be coordinated due to the inexpediency of some assisting lines, the need for increasing grants in case of a dense commercial line network has risen. Large-scale opening of commercial lines might entail a significant loss of ticket profit on the lines that are operating under the contract of public servicing, which in its turn entails the need for increasing grants.

Generally, the grants for county bus lines are characterized by their correlation to the surface area and population of the county (table 2 and 3). Regression coefficients are statistically relevant to both factors.

7. Postal market

International Post Corporation (IPC) and German Institute for Economic Research published a study²⁵ in 2007 where they argued that the authors of legislations do not understand the economic functioning of the postal sector. It is not right to force one model of liberalization on several different economic sectors. If gas, electricity and telecommunications consist of pipes, cables and other similar things, then postal sector is mostly characterized by delivering (intensity of labor force) letters, parcels, etc. sent by people and the roads that are open to everybody. According to the study, the postal sector is not a natural monopoly because there are no entry barriers in this

²⁵ How to regulate the postal industry. An economic approach.
http://www.postinsight.com/files/ ipc_diw_study_sept_07.pdf

market. Attention should be turned towards financing universal services and the hold on them in order to prevent market deformations. The authors believe that it would be better to lose sector specific regulations and let the valid Competition Acts deal with the deficits that might originate from the postal market.

Table 2. State budget grants for county bus lines in Estonia in 2009

County	Surface rea km ²	Population	Grant thousand kr.
HARJU	4 333	556 283	47 900
HIIUMAA	1 023	10 285	7 000
IDA-VIRU	3 364	166 350	31 600
JÖGEVA	2 604	35 220	11 600
JÄRVA	2 461	34 826	12 500
LÄÄNE	2 383	27 518	12 800
LÄÄNE-VIRU	3 627	66 234	19 000
PÖLVA	2 165	31 010	16 230
PÄRNU	4 806	90 409	44 200
RAPLA	2 980	37 145	10 870
SAARE	2 922	35 851	18 750
TARTU	2 993	148 886	27 600
VALGA	2 044	33 960	22 590
VILJANDI	3 422	53 496	17 750
VÕRU	2 305	37 752	21 450
Total	43 432	1 365 845	321 840

Source: <http://www.siseministeerium.ee/kov/>.

Table 3. Grant correlation to the county surface area and population (linear regression)

	Regression coefficient	Standard error	t-statistic
Intercept	-1 309	5 764	-0.22
Surface area (km ²)	6.57	2.13	3.08
Population	0.041	0.015	2.79

Source: Authors' calculations.

EU is ready to conclude the 15-year process of opening the postal market, having conquered the differences of opinion regarding liberalization of the market and offering universal service to the customers.²⁶ The first Postal Service Directive that was passed in 1997 and the second one from 2002 opened several postal service markets, including home delivery and express services, but these were limited to services regarding letters with a weight up to 50 g, because there lacked sufficient competition. Existing service providers were allowed to continue operating on that so-called "reserved area" that covers more than 70% of all mail in the EU and about

²⁶ See more <http://www.euractiv.com/en/transport/postal-services-liberalisation/article-161377>.

60% of all postal service profits, in order to keep their role as a “universal service provider”. The third directive in 2008 was the last step towards market liberalization. At least 95% of the market was to be released by 2011. Exceptions were allowed for new Member States, countries with “a particularly difficult topography or with a huge number of islands” (Greece) or with “a small population and a limited geographical size” (Luxembourg). In order to prevent competition deformities, a reciprocity clause prohibiting postal service providers in countries with “reserved areas” from entering the market that is already completely open, was introduced.

The provider of the universal service must gather every resident’s mail and deliver it at least once a day, five days a week. Existing providers believe that it is impossible to follow that requirement in the conditions of pure competition, because

- providing such a frequent service that extends everywhere to every citizen is expensive,
- “reserved areas” allowed the active enterprises to retain a profitable monopoly situation in a sector of letters weighing less than 50 g,
- they fear that eliminating such a monopoly allows newcomers to occupy the most profitable fields of activity (e.g. inter-establishment service providing in the cities), abandoning the servicing of isolated customers,
- old postal enterprises lose their income that they need in order to finance servicing less profitable customers.

However, the directive’s measures aim to keep the universal postal service viable in the competitive market as well, stipulating financing mechanisms, e.g. direct government subsidies, cross subsidizing from profitable areas to those making a loss or founding a compensation fund, which would mean additional service fees for the newcomers or the customers. The new directive allows the governments to finance the universal postal service in a way that suits their national distinctions, but does not hinder the functioning of the free market. The Commission is considering allowing national support. Nevertheless, traditional service providers are unsure, because in the long run, the state budgets are always under great pressure. They prefer the “competitor-pays” system where the newcomers have to pay a fee in order to enter the market. That kind of a compensation fund isn’t supported by private enterprises. The parliament has demanded an adjustment in the Directive stating that the Commission must issue a “detailed instruction” on how to calculate the net profit of the universal postal service. This is necessary in order to assure judicial security, create a level playing field and to prevent violation of Competition Acts.

In April 2009, Estonia was the fifth country in Europe to fully open its postal market, meaning that the Estonian Post lost its privilege to forward regular letters weighing up to 50 g.²⁷ After that date, all the market participants had the right to

²⁷ Countries that have opened their postal markets previously are Sweden, Finland, Great Britain and, since 2008, Germany. Netherlands opened their postal market alongside Estonia on April 1, 2009. The entire European postal market must be opened on January 1, 2013, by the latest.

forward regular letters with a weight up to 50 g, according to the terms stated in the new Postal Act. Opening of the market should benefit everybody that use postal services, i.e. the customers and small and medium sized postal enterprises and through them the entire economy. After the market was opened, the sustainable providing of the universal postal service was guaranteed on the whole territory of the country (letters weighing up to 2 kg and parcels weighing up to 20 kg delivered as regular, registered or insured mail). For the AS Estonian Post, opening the market entailed the motivation for more efficient functioning, reducing costs and offering good and novel services.

Postal market in Estonia in 2008 covered 39 different postal service providers (including 3 authorized enterprises in the letter service market) (table 4). The turnover in the postal market was 1.2 billion kroon (universal postal service 40.1%, courier postal service 36.1%, delivery of periodical publication 12.7% of market capacity).

Table 4. Postal market participants in Estonia in 2008

Services provided	Number of service providers
Universal postal service	1
Delivering letters as regular, registered and insured mail	2
Delivering parcels as regular, registered and insured mail	0
Delivering courier packages	38
Delivering direct mail	6
Delivering periodical publications	2
Other postal services	2

Source: Competition Board <http://www.konkurentsiamet.ee/?id=13903>.

The previous state postal monopoly Estonian Post (EP) won the competition for offering the universal postal service in the Republic of Estonia in 2008. In addition to traditional postal services, such as delivering letters, parcels and periodical publications, the EP also offers express, stock, transport, financial and other services. It has 407 post offices and 3116 mailboxes. 2910 of 3769 employees were in charge of providing postal services. The proportion of the universal postal service was 52% of the EP turnover, whereby its relative importance in the enterprise increased regardless of the decrease of turnover. There was an especially steep decrease in the volume of letters delivered as regular mail.

Amendments to the Postal Act that took effect on January 1, 2009²⁸, stipulate the regulation of the obligation to provide universal service, which guarantees that the universal service with assured quality and reasonable prices are available to

²⁸ <https://www.riigiteataja.ee/ert/act.jsp?id=13203345>

everybody on the territory of the Republic of Estonia. The universal postal service consists of the following national and international postal services:

- delivering letters as regular, registered and insured mail with a weight up to 2 kg;
- delivering parcels as regular, registered and insured mail with a weight up to 20 kg;

At least 90% of the letters sent as regular mail must be delivered to the addressee on the next workday after they are posted.

According to the EU directives, the monitoring of the fulfillment of requirements in the postal service regulation must be executed by a regulator legally and financially independent of the postal service provider, who, in Estonia, is the Competition Board. The compensation system of the universal postal service divides the postal market into authorized and unauthorized services.

- In every quarter of the year universal postal service tax (either a fixed percentage of authorized services' turnover or a given sum of a provided postal service unit) imposed by the government's regulation is collected on authorized services (except universal postal service);²⁹
- Once per a quarter, the provider of universal postal service has the right to submit an application for compensation of unreasonably high expenses due to fulfilling the requirements of the universal postal service to the Competition Board.³⁰ The affordable fees for universal postal service (fees charged from the user of the service) are determined by the Minister of Economic Affairs and Communications and charging higher fees for the service is not allowed.

Conclusion

In conclusion, we systematize exception areas according to primary distinctive features (table 5).

Natural monopolies can be absolute or partial. In the former case, we think about electricity and railway networks, where the *ex ante* regulation is permanent. The same goes for the gas-, water- and heat economy networks (pipelines). Electronic telecommunication entrepreneurs who may be regulated according to the Competition Board's special analysis and decision could be regarded as partial monopolies. Natural monopolies are also divided into vertically integrated and

²⁹ The regulation no. 46 “Imposing the tax rate on universal postal service” from the Minister of Economic Affairs and Communications on March 5, 2009, lays down the following tax rates for authorized postal services (except universal postal service):

- letter delivered as regular mail 2.3 kroon;
- letter delivered as registered mail 18.9 kroon;
- letter delivered as insured mail 18.9 kroon;

³⁰ <https://www.riigiteataja.ee/ert/act.jsp?replstring=33&dyn=13203345&id=13156387>

³⁰ <https://www.riigiteataja.ee/ert/act.jsp?replstring=33&dyn=13203345&id=13156505>

disintegrated entrepreneurs. Estonian Railway represents the former and *Elering* the latter type.

Respectively, the intensity and format of the regulation is different. *Elering* makes the decision to mediate the electricity manufacturers and consumers independently under the discipline stated in the regulations. ERV Infra's railway capacity is divided by a governmental institution – the Competition Board.

Table 5. Relations between natural monopoly and universal service and state regulation in the Estonian infrastructural sectors

Characteristic	Network of electricity, gas, water, heating	Railway		Electronic communication		Post: regular mail and packages	Local bus transport
		Infra-structure	Passenger transport	Net-work	Public phone		
Natural monopoly	+	+		?		?	?
Vertically integrated	+/-	+		+			
Universal service	+		+	+	+	+	+
with monopoly	+						+
with subsidy	+	+	+	+	+	+	+
• from budget	+	+	+				+
• from transfer				+	+	+	

Source: Compiled by authors.

Political exception areas are primarily connected to providing the universal service. It is a service that is physically (geographically) and economically accessible to the consumers. Furthermore, the accessibility of it is a good/service that the market does not compensate and therefore it can be regarded as a public good. Examples include public (pay) phone and regular mail services respectively in the electronic telecommunication and postal sectors, but also bus and railway traffic aimed for passengers. There are certain analogies with security of supply, what is emphasized in energy that can not be separately provided to single consumers. In this case as well, it is inclusive and therefore a public good. In short, we come into contact with the universal service practically in every infrastructure sector, which is understandable, given the specifics of this area. Therefore, is the general problem, how to combine the control of natural monopoly with ensuring the universal service.

The organization of providing the public good may greatly vary in different areas. In the postal and telecommunications market it is assured with transfers (compensations) from the competitors. True, only if exceptional costs accompany the providing of public goods. The entrepreneurs here usually have such a wide range of assortment that they are capable of providing moderate public good without

a lot of compensation. In passenger transport by railway and bus transport, the providers of the universal service are those infrastructure operators for whom the universal service is the principal activity. In this case, the public good is financed directly from the state budget. Ticket sales can be regarded as covering private amenities. In case of the local bus lines, cross subsidizing that demands the use of regional monopolies comes to play as a source. In the electricity market, the network operator Elering has the exclusive right to provide a service, based on what they should be able to generate a profit that does not need any additional mechanisms of subsidizing when the market will open up in 2013.

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BULLYING AT WORK: DO INDUSTRIES DIFFER IN THE ESTONIAN CASE?¹

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Abstract

The bullying at work has not so far analyzed in Estonia – its dispersal, causes and impact have not studied, while in the countries with long democratic traditions it has been the actual problem of work context for two decades. The current study examines the prevalence of workplace bullying in Estonian organizations and the extent of the problem by industries because bullying may put impact on the employees' efficiency. The sample consists of 1941 respondents which covers 59 organizations across Estonia and represents in all over 30 000 employee and the unemployed. The results reveal that bullying poses a serious problem in Estonia. According to Leymann's criteria (1996) at least one negative act per week with a duration of at least 6 months, has been reported by 23,44% of respondents. Although, it came out that bullying is not sector-specific problem in Estonia, several and different industries are vulnerable from bullying.

Keywords: bullying at work, differences in industries, sector-specific features

JEL Classification: M54, P30, P36

Introduction

Bullying presents a serious problem in Europe: hostile work environments, unfriendly communication, persistent criticism and personal abuse cause substantial damage to workers, organizations and society as a whole (Hoel, Einarsen, Cooper, 2003; Leymann, 1990). The perspective on bullying at work was developed in Sweden, Finland and Norway during the late 1980s and early 1990s due to national work environment legislation in those countries supporting the rights of all workers to remain both physically and mentally healthy at work (Leymann, 1996). Unfortunately, the studies indicate that a lot of workers still have to suffer from psychological bullying at work and corresponding negative behaviour in their daily work (Di Martino, 2002; Hoel, Cooper, Faragher, 2001; Salin, 2003).

Workplace bullying induces considerable economic loss or costs to society. For example costs to health care and medical treatment, premature retirement, loss of human resources in a society as a whole, quality of services and products which is related to lower productivity and motivation among workers (Leymann, 1996; Hoel, Cooper, 2001). This refers to the impact of a loss of productivity on the economy, competitiveness and the consequences on Gross Domestic Product (Giga, Hoel,

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Lewis, 2008). Thus, it is a matter of utmost importance to study the factors causing psychological bullying at work and options for its prevention. It is also important to mention that if we know whether employees from some sectors are more threatened than others, the mechanisms of prevention can be better targeted and thus more efficient. Namely, communication about bullying may help both employees and managers for avoiding workplace bulling.

The present research is the first large scale survey of studying bullying in Estonia. There are not special law of bullying in Estonia or employment law that states prevention and intervention responsibilities. The content of bullying is unclear as yet and there have no societal debates about bullying in Estonia. Therefore it is important to focus on the problem what could exist but we have ignored it. Before the present survey was tested the applicability of the internationally recognized research instrument, the Negative Acts Questionnaire Revised (NAQ-R) (Tambur, Vadi, 2009). The results of the pilot study confirm that the instrument is appropriate for using in bullying researches in Estonia. The aim of the present research is to find out how widespread bullying is and to propose some implications for policy recommendations.

The findings of previous studies reveal variations of bullying between sectors. The higher risk of being bullied is reported for the social and health, public administration and education sectors which all belong to public sector (Zapf, Einarsen, Hoel, Vartia, 2003). The prevalence of bullying differs across sectors but several studies reveal that unclear roles, stress from communication, and rapid changes in organizations may lead to the feeling of being victim (Lewis, Gunn, 2007). The object of the present research is to find out the bullying impact along industries in Estonia. For carrying out the further research, necessary to identify before which sectors are most damaged and what kind of problems mainly occur.

There are several reasons for investigating bullying in Estonia. First, bullying at work has not so far been dealt with in Estonia – its dispersal, causes and impact have not been studied. Likewise there is no special law concerning bullying or harassment in Estonia. The second reason is related to economical context: bullying has beside to person considerable harmful impact also to organization and to whole society. Estonian organizations have passed through very fast changes during last decades: first restructuring and assimilation new economic model, afterward coping with economic recession. Third, a number of economic costs associated with workplace bullying because of health problems. Several studies (Leymann, 1990; Rayner, 1999) suggest considerable costs of sick leave, absence from the work and leave the job as a result of the bullying acts. Traumatised by their experience of being bullied, the victims are often unable to work again. In these circumstances the economic suffering is not only confined to the victim but also flows to the victim's family (Sheehan, Barker, Rayner, 1999). Therefore, workplace bullying and negative acts at work represent an interesting topic for exploring whether bullying has injured organizations and industries and what kind of industries particularly.

The aim of the current paper is to supply the analysis of first bullying research about Estonia along industries. Whereas the bullying causes expansive economic costs, the aim also of the current paper is to offer economic policy recommendations for preventing bullying in Estonia.

The paper is organized as follows. The theoretical framework presents nature and causes of bullying and measurement tools for bullying research. The propositions for the present study are based on the previous investigations presented also in the theoretical framework. In the method section present the sample and instrument of current study. The findings of the research are explicitly presented in the section of results and are analyzed in the section of discussion.

The theoretical framework for bullying and the measurement tool

What is bullying at work

Bullying is a serious problem in Europe. According to recent research on work conditions in Europe, 1 worker out of 20 (5%) was subjected to bullying in 2005 (Fourth European Working Conditions Survey, 2007). Bullying is defined as hostile and unethical communication that is directed in a systematic way by one or more persons, mainly towards one targeted individual who, due to bullying, is pushed into a helpless and defenceless position (Leymann, 1996). One-off instances such as conflicts between two equal parties, which are solved between the participants, are not considered bullying. Psychological bullying at work is defined as acts that occur at least once a week and over a long period – approximately six months. Hence, bullying at work refers to repeated and enduring negative acts (Einarsen, 2000).

Bullying actions are divided into two main groups: those related to personal behaviour and those related to work-related behaviour. Work-related behaviours are giving unachievable tasks, impossible deadlines, unmanageable workloads, meaningless tasks, withholding information deliberately or supplying unclear information, threats about job security, scapegoating, etc. Personal behaviours are ignoring, excluding, public humiliation, insulting, spreading rumours or gossip, yelling, intruding on privacy, etc. (Beswick, Gore, Palferman, 2006). The definition of bullying does not comprise all potential acts, but it always involves behaviour or an attitude that causes the victim emotional harm and affects his or her mental and physical health.

The differences in the instances of bullying in different countries are remarkable – being very high in Finland and Holland (17% and 12% respectively), and the lowest in Italy and Bulgaria (2%) (Fourth European Working Conditions Survey, 2007). The differences are not so much related to different actual situations in these countries, but rather the awareness of bullying; cultural differences and traditions also influence the outcome. Bullying varies from sector to sector: it is lowest in agriculture and the construction industry, and highest in education, health care and the public sector. There are more women than men suffering from bullying (6% and 4% respectively), and the largest risk group is women under 30 years of age (8%) (Fourth European Working Conditions Survey, 2007). In terms of its spread, another

important circumstance is that while bullying is aimed at an individual worker (the victim), his or her colleagues are also forced to witness the act, and therefore, also suffer. Due to bullying, the work climate in the organization deteriorates, and the negative impact it causes partly affects the victim's colleagues. Thus, the problem is significantly more extensive than indicated in surveys carried out by the European Foundation for the Improvement of Living and Working Conditions.

The negative influence of bullying on the individual mostly appears in the form of physical and mental health disorders (e.g. stress, depression, low self-esteem, self accusation, phobias, sleeping disorders, problems with digestive and bone and muscle systems), loss of social relationships, job or income. Bullying has a negative effect on the organization's performance and efficiency mostly for the following reasons: an increase in instances of sick leave and absenteeism with no valid reason, decreased turnover and returns, lower productivity and motivation, professional dissatisfaction, less drive and effort and a negative impact on the organization's reputation (Hoel, Einarsen & Cooper, 2003; Martino, 2002). The whole society is also negatively affected by bullying: increased cost of health care (incapacity for work, unemployment benefits), medical treatment expenses, possible loss of able workers and premature retirement. Bullying presents a serious problem in the work environment in Europe; it has caused substantial damage to workers, organizations and society as a whole.

Disposition for bullying

Bullying results from various reasons and here we open some of these. First of all, the researchers dealing with bullying strongly agree upon: bullying can arise and spread only in an organization where it is tolerated. Leymann (1992) and Einarsen, Raknes and Matthiesen (1994) have found that conflicts may develop into psychological violence if an appropriate strategy of intervening or conflict management is not applied. Research also confirms that 95% of the reasons for the spread of bullying come down to the organization tolerating bullying and failing to intervene: the bullies are not stopped and the victims are afraid to report harassment, or submit a complaint (Rayner, 1998).

Second, bullying is likely to prevail in stressful working environments and situations where the immediate supervisor avoids intervening in and managing such stressful situations (Hauge, Skogstad, Einarsen, 2007). The organization and its management are responsible for intervening in cases of interpersonal conflict and bullying caused by factors at individual, organizational and societal levels (Hoel and Cooper, 2001; Zapf, 1999). Therefore, we can propose that especially in the stressful working setting the managers' awareness about and ability to react may help to avoid bullying or contrary, leads to the bullying.

Third, the large scale of bullying risk factors lies in the organization's work environment and special features of workflow. According to Leymann (1996) the factors that most likely cause psychological bullying at work are related to work administration in the organization where the roles and commands are unclear. In

addition, another reason may be poor conflict management. The correlation between work environment and bullying is demonstrated in an extensive study carried out in Norway where role conflict, interpersonal conflicts and tyrannical and *laissez-faire* leadership behaviour were found to be strongly related to bullying (Hauge, Skogstad, Einarsen, 2007). The risk factors for bullying at work refer to the work environment and the organizational climate: the poor flow of information, an authoritative way of settling differences of opinion and poor opportunities for influencing matters concerning and affecting oneself (Vartia, 1996).

Fourth, organizational size and sector of operation are related to bullying behaviour according to the previous research. Results reveal that bureaucracy and the difficulties in laying off employees with permanent status may increase the value of using bullying in public sector as a micro-political strategy for circumventing rules, eliminating unwanted persons or improving one's own position (Salin, 2001). At the same time studies bring out empirical evidences that the victims of bullying had jobs with good or average job complexity and task control, but they had less control over time. That mean the bullying prevalence is higher in public administration, health services, schools and offices in general and less a problem of industrial workers whose jobs are typically characterized by low complexity and control (Zapf, 1996).

Hence, there are sufficient arguments supporting the causes are related with organizational size and work sector. Bureaucratic organizations, role conflicts, poor information flow with autocratic leadership, little control over time, ambiguity in job descriptions are at the same time risk factors of bullying behaviours and characterize of public sector organizations. However, the work sector and organizational size impact to bullying is not completely clear yet, the results of other studies reveal that bullying prevalence is higher in private sector (Einarsen and Skogstad, 1996) and in small and medium organizations (Hoel and Cooper, 2000).

Fifth, the higher cooperation requirements and excessive workload are risk factors of bullying behaviours. Co-operation offers more possibilities for unresolved conflicts as basis for bullying behaviour to emerge (Zapf, 1996) and the collective bonus system may reinforce some workers' concern to control their colleagues (Collinson, 1988). In addition excessive workload may induce work stress and the experience of great work strain is found to have negative impact on person's relationships with colleagues (French & Caplan, 1972; Marcelissen, Winnubst, Buunk & de Wolff, 1988). According the theory of social interaction (Felson, 1992, Felson and Tedeschi, 1993) the negative events affect people's behaviour and indirectly cause aggressive behaviour in an organization. For example, a miserable or worried worker may not meet expectations, annoys others, behaves less professionally or even ignores social norms (Felson, 1992), and this way they may cause aggressive behaviour in the people they interact with. Therefore, the workplace bullying might be higher in industries where employees forced to do team-work and collaborate because of their job content.

Summarizing the primary antecedents of bullying, the following propositions were set up:

Proposition 1: organizational factors have influence on existence of bullying

Proposition 2: the prevalence of bullying is higher in public sector

Proposition 3: the prevalence of bullying is higher among bigger organizations

Proposition 4: the prevalence of bullying among private sector is higher in sales and service organizations due to higher co-operation requirements.

The mentioned propositions were considered in the present study.

Measuring bullying at work

The research on bullying has mostly used quantitative research methods and various questionnaires. The most frequently used instruments are the *Leymann Inventory of Psychological Terrorization* (Leymann, 1990), *Negative Act Questionnaire* (Einarsen and Raknes 1997) and *Work Harassment Scale* (Björkqvist, Österman 1992). Questionnaires make it possible to obtain data on the dispersal, reasons and duration of work-related bullying, and also differentiate the occurrence of bullying in terms of gender, age, education level, field of activity and other parameters. Questionnaires can also be used with other questionnaires if we are looking for correlations between bullying and organizational culture or resilience to stress. The advantages of the questionnaire method are that the researcher can collect large amounts of data in a relatively short space of time; also, the anonymity of the participants can be assured. It is easy to carry out statistical analysis of a range of factors (Cowie, Naylor, Rivers, Smith, Pereira, 2002). However, there are also disadvantages of questionnaires. If no definition is given and the questionnaire relies exclusively on the occurrence of negative or aggressive acts, it may not be clear that the imbalance of power criterion is satisfied. Also, there may be difficulties in relying on memory for defined periods such as 6 months or a year, and the questionnaire format makes it difficult to gain detailed information regarding the processes and dynamics of bully or victim situations. It is inflexible in its structure and thus non-responsive to the rich details of particular instances and to the potential for uncovering radically new findings (Cowie, Naylor, Rivers, Smith, Pereira 2002). Thus, a questionnaire allows us to collect a large amount of data, to make general conclusions and find correlations with other variables, but we have to keep in mind that the results obtained do not allow deep insights into the problem, as they do not reflect the bullying process in detail.

The Danish researcher Eva Mikkelsen and Norwegian researcher Stale Einarsen suggest on the basis of their extensive research of bullying in Danish work-life that researchers should use a combination of self-reported exposure to bullying and exposure to negative acts to provide information on both self-reported victimization from bullying as well as exposure to specific bullying behaviours (Mikkelsen and Einarsen, 2001). A subjective evaluation of bullying at work and evaluation of the occurrence of various negative acts may yield different results. If a questionnaire comprises both subjective self-reporting of bullying at work and responses about occurrences of negative acts, it is possible to get a more comprehensive overview of

the problem. In a subjective self-report, a respondent may take into account different negative acts that have occurred just once. However, only situations where a specific act is repeated regularly are regarded, and cases where the target is subjected to different acts are left out (Salin, 2001). Thus, it is important that a questionnaire should comprise questions about negative acts without using the term *bullying*. As a result, it is possible to measure the frequency of the behaviour in question. The respondent's self-reported exposure to bullying can be identified on the basis of a subjective evaluation of bullying at work.

An internationally standardized questionnaire for studying bullying that includes both a list of negative acts and a chance to give a subjective self-report is the Negative Acts Questionnaire Revised (NAQ-R). The NAQ is a research inventory developed for measuring perceived exposure to bullying and victimisation at work (Einarsen and Raknes, 1997). The questionnaire, which is based on studies of literature and accounts given by victims of long-lasting harassment, consists of 22 items, each written in behavioural terms with no reference to the term *harassment* or *bullying*. The NAQ measures both exposure to specific bullying behaviour as well as feelings of victimisation, the scale measures how often the respondent has been subjected to a range of negative acts and potentially harassing behaviours during the last six months. In its original Norwegian version, the NAQ consisted of 21 items. In a revised English version it consists of 29 items describing different kinds of behaviour, which may be perceived as bullying if they occur on a regular basis (Einarsen, Hoel, 2001). Based on the original Norwegian version and the English version of the NAQ, a revised version of the NAQ was developed. This new version called NAQ-R was then used in a representative survey of 4 996 UK employees recruited from 70 UK organizations representing 1 million employees (Einarsen, Hoel, 2001). Hence, NAQ-R is an eligible scale for measuring direct and indirect bulling and consists of personal-related bullying, work-related bullying and physical intimidation actions.

In conclusion, the NAQ-R is a valid and reliable measure of exposure to workplace bullying. So far no standard measure of workplace bullying exists in this field; therefore, this instrument permits better comparisons of survey results from different national cultures and organizational settings (Einarsen, Hoel, 2001).

Method

Sample

The survey was carried out from January to October 2010. The total number of valid questionnaires that were returned was 1941. The sample covers 59 organizations across Estonia which represents in all over 30 000 employee. Also includes the sample 73 unemployed who are not related any organization. The respondent's current areas of work divide as follows: 17,2% retailing, 13,5% energy/power industry, 13,3% manufacturing and other industry, 10,3% government department, 9,7% education, 9,6% information technology and telecommunication, 4,4% travel and hotel industry, 3,8% unemployed, 3,2% transport and 15% other. The sample consists of 62% women and 38% men. The mean age is 36,17 years, with ages

ranging from 18 to 77. The type of organization where the respondents are working was noted by 57,7% as private sector, by 36,5% as public sector and by 5,8% as neither. A total of 72,8% respondents were in worker position and 83,8% employment status was full-time. 92,9% of respondents are not union representatives in their workplace.

Instruments

In the present research we used the Negative Acts Questionnaire Revised (NAQ-R) method to measure bullying. The NAQ consists of two parts. First, the respondents were asked via 22 items how often they had been exposed to particular negative behaviour in the workplace during the last 6 months. Response categories were: never, now and then, monthly, weekly and daily. Second, the respondents were asked how often they had been bullied during the previous 6 months. The response categories were: no, yes but only rarely, yes, now and then, yes several times per week and yes almost daily. When answering that question, the respondents were asked to take into account the following definition of bullying: *A situation where one or several individuals persistently over a period of time perceived themselves to be on the receiving end of negative actions from one or several persons, in a situation where the target of the bullying has difficulty in defending him/herself against these actions. A one-off incident is not bullying.* Bullying was measured on the basis of the definition as the respondent's own perception and subjective feeling.

The following socio-demographic information was also gathered about the respondent: age, gender, marital status, education, current area of work, current employment status, type of organization, number of employees, at which level in the organization the respondent works and if he or she is a trade union member. The responses were given in the form of multiple choices.

In the research we used the English version of the NAQ-R questionnaire translated into Estonian and Russian, the content and meaning of the questions were not changed. Before the present research we tested the instrument with pilot study (Tambur, Vadi, 2009) and the results confirmed that the negative acts presented in NAQ-R method are understandable to respondents and therefore it was reasonable to continue using the measurement tool in Estonia.

Results

The aim of the research was to obtain the first representative results on bullying in Estonia in order to measure the dispersal, frequency and intensity of bullying by industries and sectors. According to the structure of the NAQ, the results are given in two parts. First, the prevalence of bullying is evaluated according to 22 negative acts. According to Leymann criteria (1996) at least one negative act per week with a duration of at least 6 months, was reported by 23,44% of the respondents. Considering the criteria recommended Mikkelsen and Einarsen (2001), two negative acts weekly during last 6 month, was declared 10,46% of respondents.

Secondly, the self-reported exposure to bullying was measured. Respondents were given the definition of bullying and they were asked whether they had experienced any bullying. Only 0,87% of the respondents defined themselves as victims of bullying that had a frequency of several times per week or daily and 8% of the respondents labelled themselves as occasionally bullied.

The most high prevalence of bullying occur in travel and hotel industry (36%) and catering (33,3%), after that energy industry (32%) and other industries (31,9%). Also very high prevalence of bullying reveals in government agency and voluntary organizations (31%). The bullied victims work more in public (24,6%) sector than in private sector (22,6%).

Table 1 summarises organizational indicators of bullying prevalence by industries, organization form and number of employees and Table 2 represents percentage of endorsed items of Negative Acts Questionnaire.

The negative acts which most of the respondents experienced at least once a week, were the following:

1. Being exposed to an unmanageable workload (8,4%);
2. Someone withholding information which affects your performance (7,4%);
3. Excessive monitoring of your work (5,8%);
4. Being given tasks with unreasonable or impossible targets or deadlines (4,5%).

The 22 acts presented for evaluation can be divided into two groups: acts related to work or performing work tasks (8 acts) and acts related to the personality of the respondent (14 acts). It turned out that the four acts that the largest number of respondents reported to have occurred “daily” and “weekly” all belong to the first group, i.e. questions about work or about performing a work task.

Discussion

The aim of the paper was to find out how bullying manifests itself in Estonia, which industries hide the problem and how serious it is. According to Leymann's criterion, bullying at work is defined as incidents with an occurrence of once a week or more over the past six months (Leymann, 1996). The results of the research indicate clearly that bullying represents very serious problem in Estonia. At least one of the negative acts presented in the questionnaire was reported to have happened at least weekly by 23,4% of the respondents. The research proved that the negative acts that the largest number of respondents reported to have experienced weekly or frequently were all related to work or performing work tasks. Compared to other research, we find very similar results (Salin, 2003; Hoel, Cooper, 2000) for the most frequent reports of respondents' experience of work-related negative acts.

Table 1. Organizational indicators of workplace bullying prevalence

Negative acts	TOTAL Number of victims (number of respondents) / % of victims from area of work/ % of victims from total sample	With- holding infor- mation (%)	Exces- sive monito- ring (%)	Unrea- sonable targets or dead- lines (%)	Unma- nage- able worklo- ad (%)
Area of work:					
Health care	7(53) / 13,2/ 0,36	1,9	3,8	1,9	9,4
Education	30(189) / 15,8/ 1,5	5,3	0	2,1	5,8
Government Agency	62(200) / 31,0/3,2	12,5	10,00	5,0	14,0
Local Authority	2(25) / 8,0/0,1	0	0	0	0
Pharmaceutical industry	6(25) / 24,0/0,3	4,0	4,0	0	12,0
Energy/power industry	84(262)/ 32,0/4,33	11,8	2,7	5,3	13,7
Other industry	31(97) / 31,9/1,6	16,5	1,0	5,1	9,3
Transport	13(63) / 20,6/0,67	8,1	3,2	1,6	1,6
Post/telecommunications	19(86) / 23/0,98	3,5	12,8	4,7	4,6
Manufacturing	15(162)/ 9,26/0,77	1,9	3,1	0	0,6
Owner/Manager	2(3) / 66,6/0,1	33,3	0	0	0
Retailing	75(334)/22,45/3,86	4,5	7,8	1,8	9,6
IT/Data	19(101)/18,81/0,98	9,0	3,0	3,0	6,0
Travel/Hotel industry	31(86)/36,0/1,6	5,8	8,2	5,8	8,1
Voluntary organizations	9(29)/31,0/0,46	25	10,3	6,8	13,7
Unemployed	18(73)/24,65/0,93	8,2	10,9	1,4	8,2
Other	10(48)/20,83/0,05	4,2	6,3	0	6,3
Real estate	1(25)/4,0/0,05	0	0	0	0
Banking	11(50)/22,0/0,57	2	4,0	6	12
Catering	10(30)/33,33/0,51	10	13,3	0	3,3
Organisation form:					
Private	242(1070)/22,6/12,47	6,5	5,6	2,5	7,8
Public	166(676)/24,56/8,55	8,1	5,6	3,2	9,2
Other	26(108)/24,07/1,34	9,3	4,7	1,9	9,3
Number of employees:					
Less than 25	27(108)/25,0/1,39	9,2	5,6	1,8	5,6
Between 26-100	125(669)/18,68/6,44	5,6	3,5	2,1	6,5
Between 101-500	181(625)/28,96/9,32	10,2	7,9	3,5	10,4
Between 501-1000	28(135)/20,74/1,44	4,4	6,7	1,5	6,6
More than 1000	75(324)/23,15/3,86	6,2	4,7	3,5	9,9

Table 2. Percentage of endorsed items on the NAQ-R by respondents (N=1941)

<i>How often have you been subjected to the following negative acts at work during the six month?</i>	<i>Never (%)</i>	<i>Now and then (%)</i>	<i>Monthly (%)</i>	<i>Weekly (%)</i>	<i>Daily (%)</i>
1. Someone withholding information which affects your performance	41,9	43,1	7,6	4,4	3,0
2. Being humiliated or ridiculed in connection with your work	79,0	17,6	1,9	1,1	0,5
3. Being ordered to do work below your level of competence	55,7	34,2	5,6	2,5	2,0
4. Having key areas of responsibility removed or replaced with more trivial or unpleasant tasks	65,9	27,5	4,3	1,8	0,6
5. Spreading of gossip and rumours about you	68,7	26,5	2,3	1,3	1,2
6. Being ignored or excluded	68,1	27,6	2,7	1,1	0,5
7. Having insulting or offensive remarks made about your person (i.e. habits and background), your attitudes or private life	78,0	18,0	2,1	0,8	0,6
8. Being shouted at or being the target of spontaneous anger (or rage)	63,5	30,7	3,4	1,8	0,7
9. Intimidating behaviour such as finger-pointing, invasion of personal space, shoving, blocking/barring the way	90,0	8,2	1,0	0,4	0,4
10. Hints or signals from others that you should quit your job	87,0	11,2	1,1	0,3	0,4
11. Repeated reminders of your errors or mistakes	59,6	34,0	4,4	1,4	0,12
12. Being ignored or facing a hostile reaction when you approach	68,4	26,8	2,8	1,2	0,7
13. Persistent criticism of your work and effort	69,7	25,8	2,6	1,2	0,7
14. Having your opinions and views ignored	45,6	46,3	5,6	1,4	1,0
15. Practical jokes carried out by people you don't get on with	82,8	14,5	2,0	0,5	0,3
16. Being given tasks with unreasonable or impossible targets or deadlines	59,0	33,9	4,4	1,8	0,9
17. Having allegations made against you	77,9	19,5	1,8	0,6	0,2
18. Excessive monitoring of your work	56,8	32,2	5,2	1,9	3,9
19. Pressure not to claim something which by right you are entitled to (e.g. sick leave, holiday entitlement, travel expenses)	81,3	15,9	1,8	0,4	0,6
20. Being the subject of excessive teasing and sarcasm	77,3	19,4	2,0	0,8	0,5
21. Being exposed to an unmanageable workload	45,6	39,4	6,6	4,2	4,2
22. Threats of violence or physical abuse or actual abuse	96,8	2,6	0,5	0	0,5

In present study, majority of negative acts which the victims have experienced were all related organizational features: unmanageable workload, excessive monitoring, the poor flow of information, incorrect tasks. A high degree of ambiguity or incompatible demands and expectations around roles, tasks and responsibilities may have created a high degree of frustration and conflicts within the work group (Einarse, Raknes & Matthiesen, 1994). Hence, the bullying tends to be connected directly with organizational factors which have an effect to economic activities.

Self-reported exposure to bullying revealed different results. The responses indicate that a large number of respondents have experienced negative acts at work at least once a week and even once a day. On the other hand, the respondents did not admit to a daily or weekly bullying experience if they were given the term bullying and its definition. For comparison, we can look at results from research that used similar methods for measuring bullying. Research carried out in the UK demonstrated that when adding together all those who labelled their experience as bullying independently of the frequency of their exposure, 10.6% of respondents reported having been bullied during the last 6 months. At the same time, a total of 9.2% were "occasionally bullied" and 1.4% "regularly bullied" (Hoel, Cooper, Faragher, 2001). Research shows that the results also vary significantly depending on the method of measurement and the self-reported exposure to bullying is noticeably lower.

The study reveals that victims of bullying work almost equally in private and public sector in Estonia. Nevertheless, the prevalence of bullying is a little higher in public sector. Researchers have reported different results about prevalence of bullying in public and private sector (Salin, 2003, Einarsen and Skogstad, 1996). The public sector is more bureaucratic and employees have less control over time (government agencies), at the same time employees in private sector have higher cooperation requirements (sales organizations). Thus, there could be different reasons in public and private sector for high prevalence of bullying.

One implication of present study is that prevalence of bullying is most high in organizations with 101-500 of employees. Most frequently appearing negative acts in present organizations are unmanageable workload and withholding information, which are related to organizational environment and structure. At the same time the bullying is quite serious problem in small organizations too, less than 25 of employees. Surprisingly for smaller organizations the most acute problem is poor information flow. Thus, insufficient job management may induce negative behavior between employees similarly in smaller and bigger organizations. The results do not affirm entirely the proposition the prevalence of bullying is higher in bigger organizations.

Among private sector bullying is most serious problem in service sector: travel, hotel industry and catering. In sales organizations the bullying prevalence is lower, but it is a problem for these organizations too. By study of H. Leymann bullying is frequent among employees who did graphical work, hotel and restaurant workers (Zapf, Einarsen, Hoel, Vartia, 2003). Some causes of bullying argued previously refer to the poor flow of information and autocratic or tyrannical leadership. The

results confirm that organizational environment is hostile and unfriendly in present sectors. Previous studies have found that there is a need to challenge the attitude in restaurant sector that aggression and bullying is a natural and even necessary part of the work environment (Mathiesen, G. M., Einarsen, S., Mykletun, R., 2008).

The prevalence of bullying is very high in energy industry and other industries too: poor information flow and unmanageable workload are most serious problems. That indicate from organizational structure and division of work may derive problems between employees. The results of present study show clearly, that bullying is not only a problem among office workers. Table 3 summarizes the presumptions and results of the study.

Table 3. The validity of the propositions

Propositions	Validity
Organizational factors have influence on existence of bullying	Completely valid: negative acts that the largest number of respondents reported to have experienced regularly were all related to organizational factors
The prevalence of bullying is higher in public sector	Partially valid: the bullying is higher in public sector, but not substantially
The prevalence of bullying is higher among bigger organizations	Not valid: the prevalence of bullying does not depend on the size of organization
The prevalence of bullying among private sector is higher in sales and service organizations	Completely valid: among private sector bullying is most serious problem in service sector

The high prevalence of bullying in different industries has a substantial influence on customer outcomes: services and products. This may be particular evident within service-led organisations where bullying could take place in front of public view or have an immediate impact on the quality of service received, but is equally damaging in for example manufacturing settings where an established brand image may very easily be compromised by the production of faulty goods (Giga, Hoel, Lewis, 2008). Most damaged are the services in travel and hotel industry and catering in Estonia consequently to workplace bullying.

In conclusion, prevalence of bullying is very high in Estonia and appears both in public and private sector. In spite of fact that bullying is higher in service sector, it is not only sector-specific problem, because numerous victims of bullying are working in energy industry, government agencies and even voluntary organizations. Bullying exists in very different industries.

The results of our study support some policy recommendations to prevent and for managing the workplace bullying in Estonia. Improving the legislation to enhance the juridical responsibility of perpetrator and guarantee the protection for victims and thereby diminish costs of bullying. Nation-wide communication campaign about workplace bullying: communication concerning the nature of bullying, it's

prevention and intervention could help recognize negative behaviours and preclude them. Proper training for personnel managers are needed for positive changes in organization level and prevent negative behaviour between employees. We need to continue research on the effects and costs of bullying in Estonia and develop national long-term prevention policy.

Conclusions

The present study of bullying reveals that bullying presents a serious problem in Estonia. The results reveal the strong dominance of work-related harassment over personality-related harassment. Findings of the study indicate that the organisational factors have considerable influence on existence of bullying.

The research clearly presents the occurrence of bullying weekly, but does not reveal the same frequency of occurrences of the problem by the self-labelling of respondents. The results of the study confirm the results of earlier research carried out in other countries: a subjective evaluation of workplace bullying and evaluation of occurrence of various negative acts yielded different results.

Bullying is most serious problem in service sector: travel, hotel industry and catering. Bullying prevalence is very high in energy industry and other industries, also in government agencies. The study reveals that victims of bullying work almost equally in private and public sector. Bullying is not sector-specific problem in Estonia, several and different industries are vulnerable from bullying.

For studying workplace bullying in Estonia it is important to consider that bullying as a term is yet unknown to respondents in Estonia – they are dealing with the definition of bullying for the first time and do not have any prior information about it.

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PERSONAL INCOME TAX IN ESTONIA – WHO'S BURDEN?

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Abstract

Despite many common features, the personal income tax (PIT) systems are broadly country specific and designed in accordance with society's preferences. The paper focuses on PIT developments during the last decade in Estonia. There will be considered income dynamics and allocation of taxpayers to income groups. Also will be analyzed PIT burden distribution across the income earners groups and explained main factors, influencing effective tax rates. Also will be given overview and explained dynamics of various deductions, which adjust actual tax burden. Despite the existing flat tax system in Estonia, different deductions are implementing significant progression to the actual tax system.

Keywords: personal income tax, income, tax rate, tax burden, fiscal policy, tax declaration, deductions

JEL Classification: H2, H24, H3

1. Introduction

Personal income tax (PIT) systems are broadly country specific and designed in accordance with society's preferences and economic needs. In very general, PIT systems can be classified as graduated tax rate or flat rate based arrangements.

Common understanding among economist is that certain PIT progressivity is necessary to achieve redistributive or economic stabilization goals (Messere; Veermend; Owens; Keen and others)). However, the principal issue is how to implement effective rates progression into the PIT system. The controversial issues are related with the extent and efficiency of instruments to reach desirable effective progressivity. Actually, personal income tax systems across the countries are exploiting various instruments to achieve that goal.

The paper considers Estonian personal income taxation developments and distribution of tax burden during the last decade. Particular research question is related with analysis of PIT burden degree across the income earners and tax deductions impact on effective personal income tax rate. At the end of the paper are made certain conclusions over Estonian PIT system progressivity and various factors influencing income earners tax burden.

In the process of analysis used in Estonian Tax and Tax Board (*in Estonian Maksu ja Tolliamet*) materials for respective period.

2. Short overview of Estonian personal income tax system

Estonia became newly independent in 1991 and had immediately to pass a new personal income tax (PIT) law to establish public finance system appropriate for market economy and democratic society. This first law was designed with progressive tax rates of 16%, 24% and 33%. Nevertheless, due to high inflation, economic uncertainty, and low sophistication both taxpayers and tax officials aroused an acute need for more workable PIT system.

In 1994, Estonia introduced a deep reform of its tax system and opted for a flat tax system for personal income taxation. Under this new system, the statutory PIT rate was relatively low at 26%, but the tax base was broader than in the first system: all three income sources – labor income, capital income and capital gains - were taxed at the same rate (that also matched the corporate tax rate). The system was made progressive by allowing for general exemptions and deductions available for some categories of taxpayers, such as families with several children and retired people. The discussions during the preparatory period emphasized three main reasons for having a flat personal income tax rate system: simplicity; fiscal capability and low compliance costs for both taxpayers and tax institutions.

There are several modifications of flat PIT system - a single rate system without any tax allowance; a single tax rate with basic allowance or single rate system with tax credits¹. By Jeffrey Owens, it is misleading to talk in abstract term about “flat taxes” without specifying how the tax is designed (Owens, pp. 149-150). Estonia is using a flat tax system in which the single rate is combined with extensive tax deductions and allowances. That is an Estonian way to implement progressivity into effective tax rates.

The Estonian tax administration and taxpayers were indeed still relatively inexperienced in tax matters and it was necessary to establish a system that would be both efficient functionally and easy to manage. The introduction of a flat rate tax system was therefore primarily justified by its simplicity rather than by considerations of economic efficiency or equality. After Estonia, many states in Eastern and Central Europe, particularly former USSR countries, had adopted analogous taxation system.

The main principles of the country’s “Income Tax Act” are effective since that period, despite various minor amendments has added to the law². Estonian PIT system characterized as a comprehensive income tax system, in which various incomes (labor, rents investments, other) are aggregated and taxed after deductions with the same flat rate. This does not mean that there were no attempts at changing the system. During the period the left-wing parties have proposed to replace the existing flat tax system by a more progressive (graduated rate) system. However, the

¹ That is like PIT system, which became effective in Hungary from 2011

² Here are not considering here principal changes in company taxation, which abolished profit taxation at the source and taxes will be apply only on redistribution of profits.

political situation yielded support to maintain the main principles of this PIT system. The government coalitions were indeed constantly ruled by right-wing parties that declared the flat tax principle as one of the cornerstones of their tax and economic policies.

However, since the early 90-ies, discussions in Estonia over the PIT system efficiency and social outcomes are going on continuously. Clearly, income taxation is a sensitive issue and has many essential aspects - both in personal and public sector level. Main controversial issues are related with PIT fiscal capacity, redistributive amplitude and macroeconomic impact as an automatic stabilizer.

However, there are two principal PIT system components, which have been modified significantly. First, the PIT legislation was constantly amended and more specific regulations are added. As a result, PIT system became more detailed and complex.

Second, PIT system was amended extended by various deductions (e.g. family benefits) and exemptions and also improved some technical procedures for tax reporting.

At the beginning, the combination of a proportional and relatively low tax rate with a broad tax base provided average effective tax rate rather flat. In a meantime, various deductions and exemptions (e.g. general tax deductions; mortgage interest, educational expenses, pension schemes, other) have had increased significantly progressivity of actual tax rates. More specifically impact of tax deductions will be considered above.

Over the first decade, the new PIT almost completely fulfilled the optimists' views formulated upon its introduction. Growth was strong and the Estonian economy recovered rapidly after the decline caused by the Asian and Russian economic crises in 1998-1999. It is beyond the scope of this paper to establish a causal relationship between economic performance and the flat-tax in Estonia. Nevertheless, it is important to stress that this tax system worked quite efficiently in terms of its capacity to collect tax revenues, at least during the first decade in operation. This achievement was not so obvious at the time of introducing the reform. Yet, the flat rate tax system became an integral part of the Estonian economic system and even a trademark of the country's innovative economy. It was flagged as the example that many Eastern and Central European countries subsequently followed.

During the period 1994-1999 the total revenue from the PIT revenues increased constantly in nominal terms but, as a fraction of GDP, they gradually fell. It also fell as a fraction of total government revenues. So, despite the effectiveness, the government actually shifted the overall tax burden away from the flat PIT tax. Those trends have continued during the period 2000-2010.

2. PIT developments during the recent decade

In following sections are considered tax revenue dynamics and distribution of tax burden among taxpayers. Particular interest is to focus on the period 2003-2009, there the tax rates and deductions were introduced and the economy passed boom and a sharp decline. There are analyzed Estonian Tax and Customs Board (ETCB) data about tax declarations. At the beginning is given a short overview of PIT statistics and role in public finances. Personal income magnitude in government sector revenues is summarized in the following Table 1.

Table 1. PIT in public sector revenues

	Total taxes in GDP	PIT in GDP	PIT in total taxes	PIT in the state budget	PIT rate
2000	31.0%	6.8%	22.1%	44.3%	26%
2001	30.3%	6.5%	21.5%	44.5%	26%
2002	31.1%	6.4%	20.6%	44.3%	26%
2003	30.8%	6.5%	21.0%	44.3%	26%
2004	30.4%	6.3%	20.6%	41.7%	24%
2005	30.4%	5.6%	18.3%	34.6%	24%
2006	30.4%	5.6%	18.3%	32.9%	23%
2007	31.6%	5.9%	18.7%	32.7%	22%
2008	31.9%	6.3%	19.7%	27.4%	21%
2009	35.7%	5.7%	15.9%	19.6%	21%

Source: Statistics Estonia <http://www.stat.ee/en>.

There are several trends visible in tax revenues and PIT role.

First, total tax burden correlates very visibly with the GDP cycle. Fast economic growth in the middle of the decade allowed decreases the tax rates and increase various tax deductions. In opposite, economic decline forced to increased relative tax burden and forced government to increase tax rates (particularly consumption taxes). Despite the fact that total tax collection over 2008-2009 didn't change significantly; the sharp decline of GDP resulted as dramatic increase of total tax burden.

Second, PIT importance in GDP has been steadily declining. This is due to decrease of PIT rate and widening of tax deductions and exemptions. During the period, the combination of the PIT rate decline; widening tax deductibility and increase of other taxes rates (consumption and social security contributions) have declined PIT importance in public sector revenues.

Third, the PIT in total taxes has been considerably declining as well is proportion in central government budgets. PIT became mostly the revenue source for local

governments. In 2003 central government received about 44% of collected PIT; in 2009 that share declined less than 20%.

The period 2004 - 2007 was characterized by an exceptionally high economic growth (especially in the construction and retail sectors) and a fast increase in both personal revenue and government expenditures. Significant inflow of foreign investments, easy access to credits and strong labour market induced a real estate and retailing sector boom. An additional major source of economic growth was the loan-based domestic consumption. However, the flip side is that the economy overheated. Indeed, due to the absence of tax brackets, the Estonian PIT system did not feature any significant automatic stabilizing effect.

Thanks to fast economic expansion, the government budget started to display a surplus. The right-wing parties, which were dominating the government coalition, thus decided to actually implement the decrease tax rates.

In 2005, the Income Act deepened this reduction to 23% in 2006, and 22% in 2007 and 21% from 2008. Just as interestingly, the government made these decisions amid the doubts, raised by many international organizations, such as the IMF, which was pointing at the risks of a *pro-cyclical* fiscal policy in Estonia.

The outcome was dismal: the reduction of the PIT tax rate fed directly into inflationary processes and created difficulties for Estonia to adopt the euro. As a consequence, economic resources moved towards domestic consumption instead of investment and innovation. The decline in the PIT rate also meant that the budget revenue shifted further towards indirect consumption taxes.

After obvious overheating of Estonian economy during 2004-2007, a natural correction of economic growth figures was expected. Unfortunately, such a domestic slow-down of economic activities coincided with global financial and economic crises in 2008. Global economic decline has had an immediate and severe impact on the Estonian economy, which saw its growth rate plummeting. At the end of 2008, the Estonian economy entered in recession with a 3.6% GDP decline year on year. In 2009 economic decline was 14.4%.

As one can expect from the above discussion, the economic decline caused sharp public sector deficit that now calls for significant cuts in the state budget.

3. PIT declarations and income

In following will be analyzed more specifically declared income distribution among the taxpayers. Particularly, there are interesting three aspects – distribution of declarations by the income groups; income size and proportion received by each group and distribution of tax burden among taxpayers. Later on will be additionally explained level and structure of tax deductions.

In the Table 2, the distribution the tax declaration by various income groups is given (hereafter used also term *income groups*).

Table 2. Number and distribution of declarations, thousands

EUR	2003	%	2004		2008		2009	%
Less 266	209.9	48.6%	196.9	41.9%	116.8	20.0%	120.6	21.4%
266-532	122.0	28.3%	143.1	30.5%	129.6	22.2%	134.0	23.8%
532-1,065	67.7	15.7%	88.3	18.8%	194.4	33.3%	184.4	32.8%
1,065-1,600	19.3	4.5%	25.2	5.4%	83.5	14.3%	72.9	13.0%
1,600-2,130	7.7	1.8%	10.1	2.1%	30.7	5.3%	26.1	4.6%
2,130-2,670	1.9	0.4%	2.5	0.5%	12.6	2.2%	10.7	1.9%
Over 2,670	2.9	0.7%	3.6	0.8%	16.0	2.7%	13.4	2.4%
Total	431.6	100%	469.7	100%	583.5	100%	562.2	100%

Source: Estonian Tax and Custom Board (ETCB) and author's calculation.

Note: 1. As there is no available detailed data for income group of 523- 2,670 EUR for 2003-2004 (available only total figure), the declarations distribution is approximated on the basis of close related years.

By the Estonian PIT legislation the income declarations may be fulfilled separately or jointly by the married couple. Revenues received by the non-adults are declared by the parents or custodian. Shortly, the number of declarations is less than the number of physical persons covered by them. In average, the number of covered persons is about 15% higher than actually presented number of declarations.

Declarations are divided into the various income brackets (groups) on a monthly³ income basis in euros⁴. Such a standardized distribution of income earners across the income groups is used throughout the text⁵.

As the Table 2 presents, the number of declarations during the period 2003-2008 has increased significantly. However, due to the severe crises and consequent decline of incomes, the number of declarations has turned down in 2009.

Reasons behind increase of tax declarations are manifold. Mainly, the increase of number declarations is related with fast expansion of labor market - increase of working places, decrease the number of discouraged workers and rapidly raising wages – during the 2003-2008. Specific factor is related with retired people's tax obligations. Increase of pension's level made many of them "PIT eligible". That's one of the reasons, why in the low income groups provide significant amount of declarations, however, with rather low total income presented by them.

³ It is a long lasting Estonian tradition to measure personal income in a monthly basis

⁴ As the brackets were initially in Estonian kroons, the conversion to euro made tax brackets „non-rounded“ numbers

⁵ It should be emphasized, that the particular income group includes different number of taxpayers in each year

Another reason, which is supporting increase of tax declarations number, is related with widening various items of tax deductions (e.g. child benefits). To explore those various benefits, which declining tax burden, the taxpayer had to fulfill tax declaration.

Third reason is related with the increase of tax culture and progress of labor relations. Employees have realized that “envelope wages” are very harmful for their future social guarantees and therefore, the income earners have abandoned “black” wage payments.

As presented in the Table 2 figures, Estonian society became clearly richer and declarations “moved” to higher income brackets during the period. In 2003, about half of income receivers earned less than 266 EUR per month. In 2009, a median income earner received more than 523 EUR per month. One third of income earners receive income from 532 to 1065 EUR per month. In 2003 only 16% of declarations announced such an income level.

In following Table 3 declared revenues are distributed by the income groups. The Table shows also the general dynamics of total declared income. During the period 2003-2009 total declared income more than doubled. Severe economic crises year 2009 has cut down earnings and lowered declared income with comparison a year earlier.

Table 3. Declared annual income, million EUR

	2003	%	2004	%	2008	%	2009	%
Less 266	298.5	14.2%	307.6	12.1%	175.0	3.0%	162.3	3.1%
266-532	565.2	26.9%	667.4	26.2%	611.2	10.5%	629.6	12.1%
532-1,065	569.4	27.1%	739.7	29.0%	1802.0	30.9%	1704.0	32.9%
1,065-1,600	316.4	15.1%	411.0	16.1%	1290.1	22.2%	1123.7	21.7%
1,600-2,130	126.5	6.0%	164.4	6.5%	671.7	11.5%	570.9	11.0%
2,130-2,670	42.2	2.0%	54.8	2.2%	355.6	6.1%	304.3	5.9%
Over 2,670	182.2	8.7%	203.7	8.0%	916.9	15.7%	688.7	13.3%
Total	2 100.4	100.0%	2 548.5	100.0%	5 822.6	100.0%	5 183.5	100.0%
Weighted average of declarations	412.2		498.8		1 024.0		938.4	
Average (work) wage ¹	407.3		443.1		825.2		783.8	

Source: ETCB data and author's calculations; 1. Statistics Estonia.

During the period 2003-2008, groups' total incomes have shifted rather significantly towards higher income brackets. In the year of acute crises - in 2009, incomes fell down in total figures and lower income groups' earnings became relatively higher. Such an outcome completely correlates with GDP developments during the

considered years. Most of declared income during the period is concentrating on income bracket from 532 to 1,065 euros.

About 95-97% declared individual incomes during the period are received from wage earnings. Interesting is the fact, that structure of declared incomes continues to shift even more towards wage income (figures are given in ETCB Homepage <http://www.emta.ee/>). It is explained by the specific characteristics of Estonian profit taxation system. If income is earned by the business entity, it is not taxed until that profit is distributed in form of dividends. Therefore, practically all non-wage incomes, over which a taxpayer has an opportunity to define the type of earnings (that is – as personal income or as legal entity revenue), are shifted away from personal income taxation reach⁶. Differently from the personal level incomes, revenues receive on the company level are not automatically taxed with the profit tax. Therefore, such non-neutrality channels incomes from personal to company level.

Table 4 summarizes distribution of declarations and earnings by the income groups cumulatively. As usually, taxpayers share in a particular group is different from the share, which that group earns from the total incomes. However, in 2009 those figures¹ closely corresponded (Table 2 and 3).

Table 4. Distribution of PIT declarations and incomes, %

	PIT declarations, cumulatively				Declared incomes, cumulatively			
	2003	2004	2008	2009	2003	2004	2008	2009
Less 266	48.6%	41.9%	20.0%	21.4%	14.2%	12.1%	3.0%	3.1%
266-532	76.9%	72.4%	42.2%	45.3%	41.1%	38.3%	13.5%	15.3%
532-1,065	92.6%	91.2%	75.6%	78.1%	68.2%	67.3%	44.5%	48.2%
1,065-1,600	97.1%	96.5%	89.9%	91.1%	83.3%	83.4%	66.6%	69.8%
1,600-2,130	98.9%	98.7%	95.1%	95.7%	89.3%	89.9%	78.1%	80.8%
2,130-2,670	99.3%	99.2%	97.3%	97.6%	91.3%	92.0%	84.3%	86.7%
Over 2,670	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: ETCB data and author's calculations.

Comparable cumulative summarizing of tax declarations and incomes quantity demonstrates unsynchronized distribution of taxpayers over income groups and corresponding proportion of total income earned by them. In 2003 about half of declarations fell into first income group or those taxable earnings were less than 266 euros per month. Altogether that group earning were 14.2% of total income. Significant part of low income earners are retired persons, whose pension is increased over general tax free allowance level.

⁶ E.g. individual investments or professional services are pronounced examples of such incomes, which preferably received on legal entity level.

Roughly, more than 1000 euros per months earned 7% of taxpayers. In 2009, lowest income group covered only 21% of all tax declarations and earned only about 3% of total sum. Over 1000 euro earned 22% of taxpayers and they received 51.8% of total incomes.

Therefore, one can say that there is clearly visible taxpayers' shift to the higher income brackets during the period. Does that mean also equalization of incomes in society? Not necessarily. The Table 4 does not allow make reliable conclusions about income disparities trends in society. As was already mentioned above, many (high)incomes has moved away from personal level to the company level earnings. Not taking into consideration such a practice, we cannot make trustworthy conclusions about income disparities or equalization dynamics in the Estonian society.

4. Distribution of PIT burden

In the following Tables 5 and 6 will be assessed tax obligations burden across different income earners groups. The problem with calculating of effective tax burden over various income groups is related with estimating amount specific of deductions for each income group. There is no available detailed data about specific deductions sum for the each particular income group. Therefore, there is calculated average deductible amount for the declaration and that figure is deducted from the declared income. In the next section will be in more detailed way explained deductions dynamics during the period.

Table 5 presents calculated amount PIT "obligation" for the each particular income group and the group's proportion in total PIT payments. The PIT calculations by the income level groups are calculated as net revenue after deductions multiplied by the nominal tax rate, effective on the current year. Therefore, to receive taxable income, the declared incomes are modified with deductible sums.

Table 5. Calculated PIT obligations by income brackets, EUR

	2003	%	2004	%	2008	%	2009	%
Less 266	13.0	3.1%	0.0	0.0%	0.0	0%	0.0	0%
266-532	109.4	26.5%	99.3	23.5%	32.3	3.8%	45.4	5.9%
532-1,065	127.2	30.8%	140.0	33.2%	234.4	27.9%	238.4	31.0%
1,065-1,600	76.3	18.5%	87.9	20.8%	209.1	24.9%	188.7	24.6%
1,600-2,130	30.5	7.4%	35.2	8.3%	118.3	14.1%	103.0	13.4%
2,130-2,670	10.4	2.5%	12.1	2.9%	65.4	7.8%	57.0	7.4%
Over 2,670	46.5	11.2%	47.3	11.2%	180.7	21.5%	135.9	17.7%
Total	413.3	100.0%	421.8	100.0%	840.1	100 %	768.4	100 %

Source: Source: ETCB data and author's calculations.

As the table presents, during the whole period most of PIT amount is burden of the income group, which receives 532-1,065 euros per month. In 2003 that group covered only 15.7% of all presented tax declarations, but in 2009 was it share high as 32.8%. Steadily have increased also other higher income groups calculated tax obligations.

Another clear trend is related with of lower income earners, which shows significant decline of their calculated tax burden. By the calculation less than 266 euros earning taxpayers tax obligations in 2004-2009 are zero! At the same time, that income group presented in those years more than 20% of all tax declarations (Table 2). Significantly has lowered also the second income group (266-532 euros) calculated tax burden. Cumulatively two lowest income groups presented 45% of all taxpayers and 15% of incomes (Table 4), but in accordance to calculations pay only 6% of total tax obligations. As was mentioned earlier, many of low incomes are pensions, which are slightly over tax free exemption income level.

There are three factors, which are influencing such trends. First, the general increase of society's revenues, as was mentioned earlier.

The second reason is an outcome of decreased personal income tax rate. In 2003, the PIT nominal rate was 26% and was steadily lowered down to 21% during the period 2008-2009.

Third, significantly have increased impact of various tax deductions and increase threshold of tax exempted incomes. In 2003 annual standardized tax exemption was 767 EUR, during 2008-2009 the threshold was increased up to 1726 euros annually.

As a result, lower income earners benefitted the most from deductions and their tax obligations decreased significantly or disappeared at all. As table 5 demonstrates, the deductions provided to lowest income nullified their calculated tax obligation at all. Even the standardized tax exemptions were bigger than the groups' total income! In accordance with increase of total revenues the total tax burden has shifted toward higher income earners, as their tax obligations are relatively lesser influenced by the tax deductions. Logical outcome in the such situation is a much higher marginal tax rates in case of lower income level in comparison with higher income earners.

In following is constructed effective personal income tax rate among income groups (Table 6). Based on the tax obligations provided in Table 5 are calculated effective tax rate by the groups⁷. It is not an individual's tax rate schedule, but a group's calculated tax obligation compared with their income declared.

As table 6 presents, effective tax burden has decreased throughout the period 2003-2009. Calculated average tax rate is decline from 19.7% down to 14.8%

⁷ Term "effective tax rate" may be used in different ways. In this case it is calculated as income group tax obligations divided by the tax sum declared.

There are two main reasons behind that – decrease of nominal PIT rate and increase of available tax deductions. Nominal PIT rate has decreased during the period from 26% to 21% Deductible sums has increased almost 3.6 times - from 558 million euro in 2003 up to 1,734 million euros in 2009. Declare income increase about 2.5 during that period.

Certain deductions were cut in 2009, which caused slight increase of average effective PIT rate.

Table 6. Calculated effective average tax burden¹, %

	2003	2004	2005	2006	2007	2008	2009
Less 266	4.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
266-532	19.4%	14.9%	13.0%	10.5%	9.0%	5.3%	7.2%
532-1,065	22.3%	18.9%	17.8%	15.9%	15.2%	13.0%	14.0%
1,065-1,600	24.1%	21.4%	20.6%	19.1%	18.0%	16.2%	16.8%
1,600-2,130	24.1%	21.4%	21.3%	20.2%	19.2%	17.6%	18.0%
2,130-2,670	24.6%	22.0%	22.1%	21.1%	19.8%	18.4%	18.7%
Over 2,670	25.5%	23.2%	23.3%	22.1%	21.0%	19.7%	19.7%
Average	19.7%	16.5%	16.7%	15.9%	15.7%	14.4%	14.8%

Source: ETCB and author's calculation.

To summarize, despite the fact that Estonia is using proportional (flat) rate income tax regime - the effective tax rate by the income groups is rather different. The effective PIT burden is very significantly modified by the various tax deductions, which add progression on effective tax rates. Particularly significant impact is visible on the lower income levels, there tax deductions decline efficient tax rate down to zero.

Shortly, various deductions made effective tax rate rather progressive for lower income earner. There is a broad consensus about the need to give tax schedule some progressivity. The *rationale* for progression stands on fiscal and redistribution needs. However, the progression may be achieved using different instruments - e.g. graduated tax rates, deductions or tax credits. Very often the countries are using mix of those various instruments in designing their tax system

Therefore, it is accurate to make difference in terminology to characterize Estonian tax system – it is not graduated, but effective tax rates are rather progressive.

5. Tax deductions

In following is given overview of tax deductions for Estonian taxpayers (Table 7). Amount of various deductions is about one third of declared incomes.

Table 7. Deductions from the tax base, EUR

	2004	%	2008	%	2009	%
Standardized allowance	587.0	70.6%	1 157.6	48.7%	1 120.3	64.6%
Standardized allowance per person (annual), EUR	1,074		1,726		1,726	
Additional allowance (pension)	120.2	14.5%	337.7	14.2%	374.5	21.6%
Work accident expenditure			2.3	0.1%	2.7	0.2%
Child allowance	17.3	2.1%	401.2	16.9%	140.0	8.1%
Living subsistence			6.1	0.3%	5.7	0.3%
Residential housing interest	50.7	6.1%	225.9	9.5%	153.6	8.9%
Educational expenditure	55.1	6.6%	84.6	3.6%	81.4	4.7%
Educational loan interest	7.2	0.9%	9.0	0.4%	9.5	0.5%
Trade union fee			4.7	0.2%	3.6	0.2%
Donations and gifts			5.0	0.2%	5.5	0.3%
Voluntary retirement insurance contributions (III)	23.1	2.8%	44.2	1.9%	33.3	1.9%
Unemployment insurance contributions	20.1	2.4%	26.9	1.1%	65.1	3.8%
Voluntary retirement insurance contributions (II)	24.2	2.9%	71.5	3.0%	27.7	1.6%
Deductions used	831.6	100.0%	2,058.6	86.6%	1,733.6	100.0%
Non-used deduction, % of total statutory deductions		8.8%		13.4%		14.3%
Percentage of declared revenues	32.6%		35.4%		33.4%	

Source: ETCB and author's calculations.

Tax deductions are defined as a particular sum or expenditure, which reduce taxable income⁸. However, they modify considerably effective tax rate. For instance, even in the circumstances the nominal flat PIT rate; various deductions are adding significant progression to the actual tax rate schedule.

There are two principal kinds of tax deductions. First - standardized amount of tax allowance, which is available for the every person, who is covered by the tax

⁸ Tax exemption defined as particular income item, which is not considered as "taxable income". E.g. in Estonia, interest income, received from the credit institution, is exempted from income tax base

declarations. The main meaning of the tax deductions is to provide a tax burden relief for low income earners. Such an allowance covers broadly more than half of all deductions in Estonia. As Table 7 presents, its percentage in total deductions has fluctuated in rather wide frames – from 49% to 71% of all deductible sums. In 2003 standardized general allowance per taxpayer was 767 EUR annually. Since that allowance has steadily increased and in 2009 the allowance was per person 1,726 EUR annually.

Second, specific kinds of deductions, which lowering tax burden to particular income earners. Such deductions are depending on individual characteristics or specific expenditures made by taxpayers during a year. List of different deductible items is presented on Table 7. Specific deductions are focusing more for supporting certain activities (e.g. personal investments to housing or education) or demographic groups (retired persons). Increase of pensions has forced also the augmented of pensions related deductions. There is usually established an upper limit for specific deductible expenditure items, which in Estonia was 3196 EUR person.

As mentioned earlier, tax deductions shift the tax burden significantly over the earners groups. During the years of fast economic growth also tax deductions tend to increase. A way around, sharp economic crises and budget deficit situation also declined the benefits to the members of society in a form of smaller tax obligations.

Another issue with tax deductions is related with allocation of those benefits among taxpayers with different incomes. If the standardized deductions are available to every single taxpayer, then the itemized deductions are related with actual spending power or incomes earned. Therefore, in the first case the more favorable situation are lower income earners, in a latter case more benefits are received by the higher income groups. In Estonia, the widening the extent of tax deductible items has created a weird situation. In 2009, more than 14% of statutory tax deductions were not used because in many cases actual income was lower than deductions available. Consequently, the benefits from tax deductions are more full scale explored by the higher income taxpayers. Therefore, such an outcome goes to controversy to the main idea of tax deductions – decrease tax burden of low income earners. The deduction system actually provides benefits to those, who actually not necessarily need such a support!

6. Summary

Estonian personal income tax system has maintained its main principles during the two decades. A flat tax rate, combined with basic allowance and other deductions are still characteristics of Estonian PIT system.

However, amendments which define the tax base and changes of the tax rate have modified the system rather significantly. In accordance with the increased incomes, the actual tax burden is shifted to higher income earners. Despite the fact, that PIT system had maintained nominal flat rate to all income earners, the actual effective rates became rather progressive. Various tax deductions, therefore, have deformed

very significantly meaning of proportional PIT system and made efficient PIT rate rather progressive.

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KOKKUVÕTTED

ZUSAMMENFASSUNGEN

SUMMARIES

SUHTELINE HINNATASE BALTI RIIKIDE MAJANDUSTES JA KRIISIKOGEMUSED

Meelis Angerma
Tartu Ülikool

Balti riikide majandusi tabas aastatel 2004-2008 spekulatiivne majanduslik buum. Selle tõttu kallines nende riikide suhteline hinnatase ehk reaalne vahetuskurss. Buumi tekitasid liitumine Euroopa Liiduga ja euro kasutuselevõtu ootus. Kodumaised ja välismaised indiviidid suurendasid nõudlust kohalike varade ja ressursside järele. Näiteks suurenedes tööjõu järele. Levis tulevikuoottus, et Euroopa Liit astumine töstab hinnad kiiresti sealsele tasemele. Esialgu põhjendatud töusutrend muutub spekulatiivsel arenева majandusega riigi finantsturul kiiresti ülekuumenemiseks. Jätkuv majanduslik edukus andis turuosalistele positiivset tagasisidet töusutrendi pikaajalisest jätkumisest. Levis nägemus, et kinnisvara hind saab igal juhul ainult töusta. Kapitaliturgudel suurenedes odava raha pakkumine ja varade hinnad töosid. Uus lühiajaline tasakaal saavutati tasmel, mis eeldas kapitali hoogsa sissevoolu pikaajalist jätkumist. Arenevate turgude töusutrendi ära kasutada püüdvad rahvusvahelised investorid püüdsid sellest hinnaliikumisest osa saada. Järsk väliskapitali sisse liikumine kergitas järsult reaalset vahetuskurssi. Avalik sektor oli samuti valmis kiiresti palku töstmama. Peale buumi lõppu ei vähenenud palgad sugugi nii kiiresti ja tulemuseks oli tööpuudus.

Dresdner Kleinwort Wasserstein globaalstrateeg James Montier kirjutas ülevaate spekulatiivsete aktsiamullide tüüpidest. Neid võib kasutada eeskujudena Balti riikide investorite psühholoogia analüüsimes. Tüübид on:

- **Ratsionaalne mull.** Lootus on leida tulevikus veelgi kõrgema hinna maksja, isegi kui praegu on kaup ülehinnatud.
- **Pärimsmull.** Viimase kiire kasvuga perioodi kasvutempo ekstrapoleeritakse liiga kaugele tulevikku.
- **Hullus.** Ühiskonna surve on mingi suunaga tegevus heaks kiidetud. Uue ja moodsa suuna järgmine on populaarne.
- **Informatsioonilised mullid.** Investorid usuavad, et hinnatõus toetub mingile neile tundmatule infolle, kuid see on nende arvates õige.

Balti riikide majandustes võis kohata kõigi nelja spekulatiivse käitumissuuna jälgvi. Eriti levinud oli viimase aja kiire kasvutempo kauges tulevikus jätkumise prognoosimine ning kinnisvarainvesteeringute üldrahvalik populaarsus. Balti riikide majandusarengus jõuti maania faasi ilmselt 2005. aastal. Tipp saabus ilmselt 2007. aastal. Arenevate turgudega majandused on oma olemuselt spekulatiivsed ja ning varade hinnad võivad lühiajaliselt liikuda ekstreemsetele tasemetele. Väikestel turgudel on varade ja ressursside pakkumine väike ja pakkumise elastsus väiksem. Seetõttu on buumid väikestel ja vähemarenenud turgudel töenäolisemad. Buumiaastatel töusis kinnisvara ja tööjõu hind selleks, et meelitada turule rohkem pakkumist. Kuid nõudlus ei püsinud sellisel ebanormaalselt kõrgel tasmel. Samuti pidid langema hinnad. Kinnisvarahindade ja palkade töus muutus kiiresti tarbijahindade kallinemiseks. Valitsuse maksutulud kasvasid kiiresti, poliitikud olid

rõõmsad ja kergitasid palku avalikus sektoris. Sellega kasvasid valitsuse püsikulud. Buumi lõppemisel ja majanduslanguse saabudes asus valitsus kärpima, kuid mitte niivõrd avaliku sektori töötajate palkade osas. Kuigi buumi ajal oli ülekuumenemine nähtav, ei võetud seda ohumärki eriti tõsiselt. Teada on, et globaliseerunud ja kapitali liikuvusega majanduses on kohandumine eriti märgatava mõjuga reaalmajandusele.

Globaalne majanduskriis algas USA eluasemeturult. Selle varasema pikajalise kasvu muutus languseks keskpanga intressimäärade kergitamine ja rekorditeni tõusnud toorainete hinnad. Sealsed kinnisvarahinnad alustasid langust 2006. aastal ja 2007. aastal algasid juba kahtlused hüponeekidega tagatud völakirjatoodete suhtes. Aastal 2008 läks pankrott nende völakirjadega võimendatud teinguid teinud investeeringispank Lehman Brothers. Pärast seda jõudis reaalsus kiiresti turuosalisteni. USA aktsiaturu närvilisust ja kauplejate hirmu väljendav volatiilsusindeks VIX kerkis 89 protsendini, mis oli kaugelt selle indikaatori ajaloos kõrgeim tase. Kriisist kannatasid enim pangad. Kapitaliturul kukkusid odava hinnataseme ka kvaliteetsete varade hinnad. Uutes tingimustes puudus kauplejatel põlhjus omandada mullistunud hindadega arenevate turgude varasid. Peaprobleemiks kujunes nendest varadest võimalikult kiire vabanemine. Järgnes erakordselt kiire aktsiaturgude langus arenevatel turgudel, eriti Venemaal. Sel hetkel pöördus kapitali sisvevool Balti riikidesse väljavooluks.

Muutusest kannatasid enim need riigid, kus eelnev spekulatiivne mull oli kõige suurem. Ida-Euroopas olid need riigid Balti riigid, eriti Läti. Majandusteeoria põhjoone järgjad tegid kohe järeltuse, et Balti riikide valuutasid ootab devalveerimine, sest vajalik kohandumise ulatus oli niivõrd suur. Poliitiline tahe oli selle vastu ja valiti pikemaajalise kohandumise tee deflatsiooni ja tööpuuduse kasvu kaudu ehk nn. sisemine devalveerimine. Otsustati iga hinna eest devalveerimist vältilda. Mõned teised juba ujuva valuuta vahetuskursiga riigid, nagu Poola ja Venemaa lasid valuutakursil järksult nõrgeneda. Nendes riikides oli lõök mõnevõrra pehmem, kuid seal oli ka eelnev ülekuumenemine väiksem. Alljärgnev tabel kujutab maksimaalseid varahindade või makromajanduslike näitajate langusi kriisi ajal.

Tabeli järgi kogesid Balti riigid sügavaimaid tagasilööke peaaegu kõigis kategooriates. Poola suutis majanduslangust väiksema hoida, kuid see on väljendatud nõrgenendud valuutast.

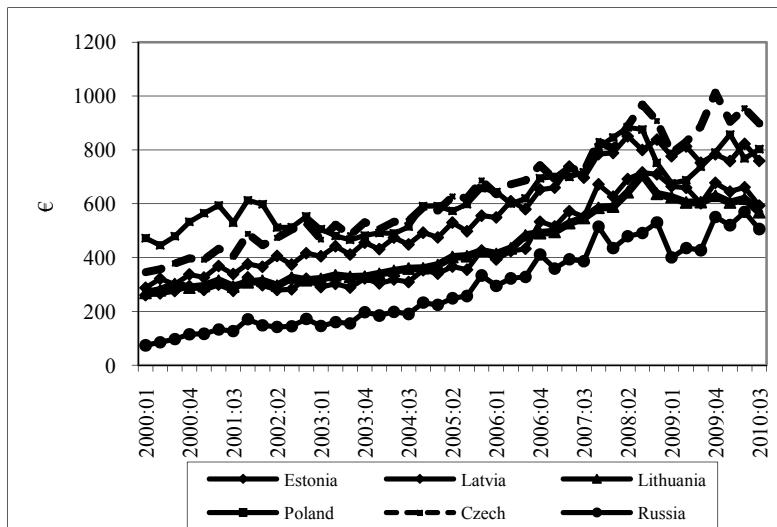
Sisemise devalveerimise temaatikas muutuvad kohe oluliseks tööpuudus ja rahvusvahelises valuutas väljendatud palgataseme muutumine. Rahvusvahelistele ettevõtetele on palgataste vörrelduna naaberriikidega oluline atraktiivsuse näitaja. Halpern (Halpern *et al.* 1997, lk 434-435) kasutas dollaris väljendatud palgataset erinevates riikides kui reaalse vahetuskursi asendajat. Kuigi see näitaja ei arvesta tootlikkuse muutustega, siis üldiselt on tööjoud üle piiride mittekaubeldav kohalik ressurs. Samal ajal määrab palgataste ära otsest kohalike piire ületavalt mittekaubeldavate teenuste ja kaupade hinnad. Alljärgnev Joonis kujutab eurodesse ümberarvatud kohaliku brutopalga muutumist Ida-Euroopa riikides.

Tabel. Maksimaalne langus kriisi ajal

	Aktsiaturu langus	Valuuta nõrgenemine euro vastu	Kinnisvara-hindade langus	SKP vähene-mine	Maksi-maalne tööpuudus
Eesti	-77.48%	0.00%	-62%	-19.23%	19.8%
Läti	-73.50%	-2.07%	-60%	-28.28%	20.4%
Leedu	-73.65%	0.00%	-40%	-19.69%	18.3%
Tšehhi	-68.79%	0.00%	0%	-4.94%	9.7%
Poola	-68.20%	-31.57%	-9%	-2.54%	12.3%
Slovakia	-56.31%	0.00%	-18%	-5.40%	15.1%
Venemaa	-80.28%	-29.00%	-12%	-18.50%	8.6%
Rumeenia	-83.12%	-29.88%	n.a.	-10.35%	8.1%

Allikas: IMF International Statistics Database, Global Property Guide, autorit arvutused.

Joonisel on näha, et palkade kiirem kasv algas maaniafaasi algamisega 2005. aastal. Ujuva kursiga Poola ja Venemaa palgatase eurodes kohandus kriisi alguses kiiresti madalamaks, nagu oli oodata. Eestil on vähenemine toiminud väga aeglaselt, kuid see oli mitte devalveerimise eesmärk. Kokkuvõttes ei ole allapoole korrigeerumised kusagil eriti suured olnud.



Joonis. Ida-Euroopa riikide eurodesse ümberarvutatud nominaalpalgad 2000-2010. Allikas: IMF International Statistics Database, autorit arvutused.

Kitsaskohaks on sisemise devalveerimise puhul korrigeerumise aeglus. Seetõttu võib tööpuudus jäädä kõrgeks ja SKP kasv aeglaseks pikemaks ajaks. Need on tüüpilised ülehinnatud hinnatasemega kaasnevad nähtused. Pessimistliku nägemuse järgi püüdis riiki juhtiv kõrgem ametnikkond ja poliitikud sisemise devalveerimise kasuks otsustades säilitada oma buumi ajal saavutatud sissetulekutaseme tuues ohvriks kõrgema tööpuuduse. Positiivsema nägemuse järgi oli põhjuseks buumi ajal eurodes võetud võlakoorma all ägava rahva maksekoormuse kasvu ärahoidmine. Kuid viimane on ka palgasaajate toetamine ettevõtete arvel, sest madalam europalk oleks andnud ettevõtetele suurema kasumi. Mõlemad valikud olid oma kahjudega.

Lähemas tulevikus tuleb oodata tegeliku tootlikkuse järelejõudmist palkade ja hindade tasemele. Seni püsib tööpuudus kõrge ja nominaalpalga kasvumääär nullilähedane. Nii kaua püsivad nõrk kinnisvaraturg, kõrge halbade laenu osatähtsus, halb kapitali kättesaadavus alustavatele ettevõtetele, pingeline olukord töövõtjatele ja noore tööjõu väljaränne. Tulevikus kujuneb suhtelise hinnataseme ja palgatöus suhteliselt aeglaseks, sest buumiaastatel kasutati kasvuks netoinvesteeringuispositsiooni sügavamasse miinusesse laskmist. Samasugust võla kasvatamist ei saa enam tõenäoliselt korrrata ja tõenäolisem on kapitali tagasisiilikumine välismaale, mis eeldab aeglasemat hinnataseme kasvu.

Peamiste õppetundidena kriisist võib nimetada:

1. Vastutustundetud buumi üleskütnud kinnisvaraspekulandid on kaotanud kapitali. Lagunenud on müüt kinnisvara igikestvast tõusust.
2. Majandusotsuste tegijad peaksid suhtuma ümbrissevasse kriitilisemalt, pead külmana ja mitte jäama uskuma poliitikute omakasupüüdlikke jutte igikestvast tõusust.
3. Majandussubjektid peaksid püüdma hinnata võimaliku spekulatiivse buumi olemasolu majanduses.
4. Ei tohiks alahinnata turujõudude osatähtsust tänapäevases avatud väikeses majanduses. Inimlike emotsiionide ja psühholoogiliste efektide roll on suurem kui majandusteaduse põhivool seda hindab.

Laias vahemikus kõikuvate makromajandusnäitajatega riigis tuleks tõenäoliselt hoida suuremaid rahalisi reserve ja väiksemat finantsvõimendust, kui stabiilsemas majanduses.

Suhtelise hinnataseme kõrvalekalde vähendamiseks oleks kiireim lahendus välisinvestorite huvi taastamine, mis suurendaks kapitali sissevoolu ja kergitaks kohe lühiajalist tasakaalulist reaalkurssi. Kui välisinvestorid tunnetavad endiselt ülehinnatuse olemasolu, siis nad tõenäoliselt ei tule.

Arvestades, et Eesti majanduspoliitika on parempoolne, siis võib läbitud kriisi nimetada buumi ajal tehtud lialduste eest karistuseks. Küsimus on ainult selles, et kas lialdajad ja karistatud on alati samad isikud.

FOCJ-MUDEL EESTI ÜLDHARIDUSE RAHASTAMISEKS

Peter Friedrich, Janno Reiljan
Tartu Ülikool

Hariduse rahastamine, sh üldhariduskoolide rahandusliku jätkusuutlikkuse tagamine on muutunud üha komplitseeritumaks avaliku sektori ülesandeks. Olukorra keerulisuse süvenemist põhjustab maapiirkondades kahanev rahvaarv ja elanikkonna keskmise vanuse kasv. Eestis on hariduse rahastamiseks suunatud SKP osa mõnevõrra väiksem EL keskmisest. Nominaalne hariduskulu õpilase kohta on Eestis aga majanduse madala arengutase tõttu oluliselt allpool EL keskmist. Veelgi enam, hõreda asustustiheduse tõttu on Eestis paljud koolid väikese õpilaste arvuga, mis muudab haridussüsteemi kulud õpilase kohta arvutatuna suure asustustihedusega riikidega võrreldes suuremaks.

Käesoleva artikli eesmärgiks on välja tuua Eesti üldhariduse rahastamiskeemide muutunud olukorraga kohanemise võimalused. Vastuseid otsitakse järgmistele uurimisküsimustele: millised on käesoleval ajal Eesti üldhariduse rahastamise tingimused? Millised on lähenemisviisid vajalikule rahastamisreformile? Kas FOCJ¹-muodeli rakendamine aitaks parandada Eesti üldhariduse rahastamise aluseid?

Artikkel koosneb kolmest osast. Esimeses osas analüüsatakse Eesti üldhariduse rahastamise lähteolukorda. Teises osas esitatakse FOCJ-mudeli teoreetilised alused ja võimalused üldhariduse rahastamise organiseerimisel. Kolmandas osas käsitletakse Eesti institutsionaalseid tingimusi FOCJ-mudeli rakendamise seisukohta.

2005.-2006. aastal kavandatud üldhariduskoolide rahastamise reformiga soovis keskvalitsus parandada nii õpikeskkonna kaasastamiseks vajalike investeeringute kui ka igapäevase õppetöö rahastamist, aga samuti suurendada haridusele suunatud riigieelarveliste eralduste jaotuse selgust ja põhjendatust. Reformi rakendamist takistasid paljud probleemid, paljud kavandatud muudatused olid küsitarvavad ja suurendasid kohalike omavalitsuse kantavaid riske.

Haridusinvesteeringute rahastamisel kavandas keskvalitsus ühelt poolt esinemist ehitusteenuse ja pikaajalise laenu pakkuja rollis riigile kuuluvu kinnisvarafirma RKAS kaudu, et saavutada nii finants- kui ka ehitusturul mastaabisäästu efekt. Teiselt poolt lülitati kohalike omavalitsuste hariduskulude riigieelarvelise sihtfinantseerimise kootseisu õpilase pearaha vormis nn investeeringiskomponent, mis pidi kujunema õpikeskkonna parandamiseks tehtavate investeeringute peamiseks katteallikaks. Seega püstitati eesmärk minna haridusinvesteeringute poliitiliselt (erakondlikul alusel) jaotamiselt üle investeeringumissummade regulatsioonipõhisele jaotamisele lähtudes kohaliku omavalitsuse õpilaste arvust.

¹ *Functional Overlapping Competing Jurisdictions* (ingl. k) – Funktsionaalsed Kattuvad Konkureerivad Haldustüksused.

Reform kavandatud kujul ei teostunud. Eurostat lülitas RKAS-i riigiasutuste hulka, mille laenud lähevad arvesse riigieelarve defitsiidi arvutamisel. Keskvalitsus kaotas seetõttu huvi toetada kohalike omavalitsuste haridusinvesteeringuid RKAS võetud laenude abil ja kooliinvesteeringute programm “Koolid Korda” katkes. Aastatel 2005-2009 ehitati selle programme raames 13 uut ja rekonstrueeriti 19 vana koolihoonet. Investeeringute kogumahuks kujunes 1,1 miljardit EEK-i, millest 0,9 miljardit kasutati kohalikele omavalitsustele kuuluvate koolide ehitamiseks või rekonstrueerimiseks.

Riigieelarvelise investeeringimiskomponendi suurust hariduse sihtfinantseerimisel ei määratud kindlaks pikemaks perioodiks, millega oleks riigibist tulenevaid riske vähendada. Hariduse sihtfinantseerimise investeeringimiskomponendi kasvu oleks pidanud siduma pikemaks perioodiks SKP kasvuga, et see oleks suutnud investeeringutest tuleneva kooli majandamiskulude säastu kõrval aidata kohalikel omavalitsustel teenindada pikajalist investeeringislaenu. Samuti pidanuks investeeringimiskomponendi suuruse määramisel arvestama koolide tegelikku olukorda ja kohalike omavalitsuste finantsvõimekust. Investeeringimiskomponendi idee oli hea, kuid selle suurus oli algusest peale ebapiisav. Majanduskriisi puhkedes kärpis keskvalitsus investeeringimiskomponenti enam kui kolmveerandi võrra ja see stabiliseerus järgmisteks aastateks väga madalal tasemel. Keskvalitsus lõpetas selle sammuga sisuliselt kohalike haridusinvesteeringute toetamise. RKAS kaudu või otse pankadelt haridusinvesteeringuteks laenu võtnud kohalikel omavalitsustel tekkisid seetõttu tõsised raskused laenude teenindamisega.

Igapäevaste õppetöökulude rahastamise 2008. aastast kehtiva regiatsiooni kohaselt kadusid õpilase pearaha korrigeerimise koefitsiidid, mis arvestasid õpilaste arvu omavalitsuse üksuses. Arvestamaks väikeste koolide suhteliselt suuremaid õppetökuluisid (õpilase kohta), võeti rahastamise peamiseks aluseks klasside arv koolis – õpetaja peab õppetöö klassis läbi viima sõltumata õpilaste arvust. Kui õpilaste arv klassis on allpool normtaset, siis arvestatakse täitmata normkohtade eest koolile nn baastasu (75% õpilase pearahast). Uue hariduse rahastamise regulatsiooni eeliseks oli üleminnek omavalitsuspõhiselt rahastamiselt koolipõhisele rahastamisele. Uus regulatsioon võrdsustas mitme kooliga ja ühe kooliga omavalitsustüksuste olukorra. Samas osutusid reformi mõjud maakondade lõikes erinevaks – võitsid sellest Tallinn, Lääne- ja Ida-Virumaa, kaotasid aga Hiiu-, Põlva-, Tartu- ja Võrumaa.

Väga erinev oli uue rahastamiskorra mõju ka koolidele, sest diferentseeriti õpilase pearaha suurus (seda vähendati algharidusel ja suurendati gümnaasiumiharidusel. Haridusrahade keskmiselt 13,7%-lise kasvu tingimustes 2008. aastal kasvas rahastamine enam kui kümnes koolis üle 40%, samal ajal kui enam kui 40 kooli rahastamine vähenes. Peamiselt vähenes väikeste maakoolide rahastamine, millel on paratamatult negatiivne mõju regionaalarengule. Artiklis tuuakse välja uue hariduse rahastamise mudeli eelised ja puudused. Majanduskriis vähendas uue korra eeliseid ja suurendas puudusi. Puuduste kõrvaldamiseks tuleks hariduse rahastamise regulatsiooni muuta üha detailsemaks ja komplitseeritumaks, mis aga vähendaks omavalitsuste autonoomiat kohaliku elu korraldamisel.

FOCJ-mudeli rakendamine võimaldaks üldhariduse rahastamise viia välja omavalitsusüksuste isoleeritud käsitluse ja rahastamise regulatsiooni kompliitseerimise tupikteelt. Haridusteenuse pakkumiseks soovitatakse moodustada funktsionaalsed kattuvad konkureerivad haldusüksused (FOCJ), mis ühendavad optimaalse suurusega koolipiirkonnaks mitmed väikesed omavalitsused või nende elanikud, kaasates hariduse pakkumise korraldamisse vajadusel ka avaliku sektori asutusi ja eraettevõtteid.

Eesti praegustele oludele vastab kõige enam hariduse rahastamise FOCJ-mudel, mille kohaselt on koolipiirkonna vabatahtlikeks liikmeteks kohalikud omavalitsused. Avaliku haridusteenuse pakkumisele spetsialiseerunud haldusüksused konkureerivad kohalike omavalitsuste oma liikmeks saamise nimel. Kohalik omavalitsus saab vabalt valida, kas jäääda haridusteenuse pakkumisel iseseisvaks või osaleda koos teistega haridusteenust efektiivsemalt pakkuvas hariduslikus haldusüksuses. Haridus-FOCJ ülesandeks on teha regionaalarengu seisukohalt optimaalsed haridus-investeeringud ja hallata ühtse koolipiirkonna koole. EL-s on loodud õiguslikud alused ka riigipiire ületava haridusalase koostöö arendamiseks.

Artiklis tuuakse välja kohalike omavalitsuste hariduslikus haldusüksuses osalemise teoreetilised alused. Kohalik omavalitsus eelistab haridus-FOCJ liikmeks astumist iseseisvale tegutsemisele juhul, kui hariduslikus haldusüksuses osalemine võimaldab kohaliku omavalitsusüksuse õpilastele pakkuda samakvaliteedilist haridusteenust väiksema eelarvekuluga võrreldes iseseisvalt tegutsemisega. Teisalt peab haridus-FOCJ oma liikmete nimel ühtse organisatsioonilise üksusena läbirääkimisi keskvalitsusega regionaalarengu seisukohalt vajalikuks tunnistatud koolide õpikeskkonna parandamiseks vajalike investeeringute rahastamiseks.

Loomulikult on keskseks küsimuseks vahendid, millega liikmest kohalik omavalitsusüksus osaleb haridus-FOCJ loomises ja arendamises. Ühel poolt peab panustatavate vahendite maht olema vastuvõetav (tagama säästu võrreldes iseseisvalt tegutsemisega). Vähemtähtis ei ole aga panustatavate vahendite struktuur: maa, hooned, muu infrastruktuur ja finantsvahendid. Koopereerudes haridus-FOCJ liikmetena saavad kohalikud omavalitsused paindlikumalt oma ressurssse kombineerida, neil tekib nõutava panuse suuruse raames omavaheline ressursside vahetuse (asendamise) võimalus. Käesolevas uurimuses eeldatakse, et omavalitsusüksused lähtuvad kasulikkuse maksimeerimise lihtsast autonoomsest strategiast (teised omavalitsused ei reageeri ühe poolt valitud strateegiale).

Lisaks haridus-FOCJ loomise ja arendamise kulude rahastamisele tuleb katta ka selle asutuse jooks vad tegevuskulud. Käesolevas töös eeldatakse, et ka FOCJ jooks vad tegevuskulud kaetakse liikmete osamaksudega, mis on proportsionaalsed FOCJ poolt teenindatud kohaliku omavalitsusüksuse õpilaste arvuga. See ei ole vastuolus praegu Eestis kehtiva regulatsiooniga, mille kohaselt jooks vad õpetamiskulud katab keskvalitsus sihtfinantseerimise vormis. Kohalik omavalitsus astub haridus-FOCJ liikmeks ja kannab vahendid selle käsutusse ainult juhul, kui see on kohalikule omavalitsusüksusele kasulik.

Haridus-FOCJ seisukohalt parima rahastamisvariandi poole püüdlev selle asutuse juhtkond. Käesolevas artiklis vaadeldakse kohaliku omavalitsuse panust erinevate juhtimistüüpide korral. See lähenemisviis võimaldab analüüsida haridus-FOCJ kätumist. Piiranguks on siin kulude tase – osad kohalikud omavalitsusüksused loobuvad liiga kõrgele kulude korral FOCJ teenustest, mis omakorda vähendab FOCJ tegevuse efektiivsust. Järelkult on tagatud teenuse hinna optimaalsel tasemel hoidmine FOCJ poolt, et saavutada mõlemapoole kasulik kokkulepe. Loomulikult on vajalik ka kohalike omavalitsuste esindajatest koosnev FOCJ järelvalvenõukogu, mis jälgib ka läbirääkimisi kohalike omavalitsuste ja FOCJ juhtkonna vahel.

Haridus-FOCJ rakendamine võimaldab parandada Eesti üldhariduse rahastamise süsteemi: hariduse rahastamise planeerimine muutub stabilsemaks, kuivord läbirääkimismehhanismid ei sõltu enam poliitiliste jõujoonte muutumisest parlamentis (Riigikogus); partnerid on sunnitud rahastamise aluskriteeriumites kokkuleppele jõudma; kohalikud omavalitsused ei kaota oma autonoomiat keskvalitsuse suhtes, kuna neid esindab keskvalitsusega suhtlemisel suurema läbirääkimisjõuga FOCJ juhtkond; mitmeid koole ja paljusid peresid esindava FOCJ läbirääkimisjõud on võrrelles üksiku kohaliku omavalitsusega suurem ka pankade ja teiste ettevõtete suhtes; haridus-FOCJ suudab üksikust kohalikust omavalitsusest paremini kaasata kõrge kvalifikatsiooniga spetsialiste ja pakkuda neile paremaid karjäärivõimalusi; üksikust omavalitsusüksusest suurem potentsiaal võimaldab haridus-FOCJ-l kergemini toime tulla regionaalselt vajalike väikekoolide eksistentsi tagamisega; väheneb haridussektori sõltuvus päevapolitiikast.

Haridus-FOCJ on Eesti institutsionaalsetes tingimustes rakendatav, sest sobiv juriidilise isiku vorm on seadustikus määratletud, samuti võib kohata kohalike omavalitsuste soovi haridusteenust omapakkumise asemel sisse osta. KOKS (RT I 17.12.2010, 33) § 35 annab kohalele omavalitsustele õiguse moodustada sihtasutusi ja osaleda nendes põhikirjas fikseeritud eesmärkide saavutamiseks. Sihtasutuste moodustamine on reguleeritud Sihtasutuse seadusega (RT I 17.12.2010, 28). Sihtasutus pakub demokraatliku aluse kohalike omavalitsuste koostööks.

Eestis kasutavad kohalikud omavalitsused sihtasutuse vormi koostöö organiseerimisel veel väga tagasihoidlikult. Põhjuseks on rida probleeme, mis vajavad lahendamist: keskvalitsuse heaksikiit sellele koostöövormile ja valmisolek koostööks haridus-FOCJ-dega; FOCJ positsioon maksustamisobjektina; liikmete poolt aktsepteeritavate hääletus- ja muude võimujagamise mehhanismide kujundamine; avalike teenuste pakkumise võimalus sihtasutuse vahendusel; kohaliku omavalitsuse võimalus panna oma esindajale sihtasutuse juhtorganites siduvaid kohustusi; haridus-FOCJ võlakohustuse seostatus liikmetest omavalitsuste eelarvetega; kohalike omavalitsuste õigus või kohustus garanteerida haridus-FOCJ laene; kohalike omavalitsuse juhtide õigus osaleda sihtasutuse juhtorganites; kohaliku omavalitsuse või keskvalitsuse kinnisvara sihtasutustele üleandmise õiguslikud alused.

Enamik neist probleemidest on lahendatavad sihtasutuse statuudis Sihtasutuse seaduse § 8 alusel. Autorite arvates on õiguslikud alused kohalike omavalitsustele

koostööks avalike teenuste pakkumisel olemas. Esialgu on kohalike omavalitsuste valmidus sellelaseks koostööks tagasihoidlik. Samas võiksid FOCJ-d kujutada endast lahendust Eestis vaidluste objektiks olevale haldusterritoriaalsele reformile. Erinevate avalike teenuste pakkumise optimaalse suurusega piirkonnad on erinevad, mistõttu ei eksisteeri optimaalset omavalitsusüksuse suurust. FOCJ-de loomine kohaliku omavalitsusüksuse territooriumist suurema optimaalse teeninduspiirkonnaga avalike teenuste pakkumiseks võimaldab seega riigi formaalse haldus-territoriaalse jaotuse asemel kujundada riigi sisulise jaotuse erinevate avalike teenuste pakkumise optimaalse suurusega teeninduspiirkondadeks. Enamiku avalike teenuste puhul jäavad optimaalse suurusega teeninduspiirkonnad praeguste omavalitsusüksuse piiresse, suurema optimaalse teeninduspiirkonnaga avalike teenuste pakkumiseks moodustavad omavalitsused aga spetsiaalsed haldusüksused – FOCJ-d.

KONKURENTS INIMESTE KUI TULEVASE MAJANDUSKASVU KÄIVITAJATE JÄRELE: EUROOPLASTE HOIAKUID IMMIGRATSIOONI SUHTES SELGITAVAD TEGURID

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Viimase aastakümne jooksul loodud teooriad väidavad, et rahvusvahelise konkurentsivõime saavutamise ning tagamise võtmeguriks ei ole enam kaupade ja teenuste import ja eksport ega kapitalivoogude liikumine, vaid inimesed (Florida, Tinagli 2004). Kuna majanduskasvu loovad ja toetavad kõrge haridustaseme ja kvalifikatsiooniga loovalt mõtlevad inimesed, on oluline luua keskkond, mis oleks nende jaoks atraktiivne ning aitaks sealäbi luua konkurentsieelise konkurentsia inimeste järele. 3T teoria kohaselt on seejuures kesksele kohale seatud tehnoloogia, tolerantsuse ja talentide vahelised seosed ja nende koostöimed (Florida 2002, 2004). Oluline on luua mitmekülgust soosiv keskkond, mis välistaks majanduskasvu pidurdumise kohaliku elanikkonna vastuseisu tõttu immigrantidele. Selle tulemusena kujunev inimkapitali kontsentratsioon ühte või teise piirkonda toob kaasa suurema *spillover*-efekti, kui see oleks juhul, kui inimkapital paikneks hajusamalt.

Käesolevas töös tuginevad autorid seisukohale, et majanduskasvu ja -arengu strategiaid mõjutab oluliselt erinevate piirkondade suutlikkus töötada välja poliitikameetmeid, mis aitaksid kaasa loovate ja innovaatiliselt mõtlevate inimeste ligimeelitamisele ning immigrantide suhtes ülesnäidatavate hoiaukute tolerantsemaks muutmisele. Autorid uurivad eurooplaste hoiauid immigrantide suhtes Euroopa Sotsiaaluringu (ESS) neljanda vooru andmebaasi põhjal, lähtudes seejuures nii individuaalsetest karakteristikatest kui riigispetsiifilistest näitajatest. Artikli eesmärgiks on välja selgitada tegurid, mis selgitavad Euroopa elanike hoiauid immigratsiooni suhtes. Saadud infot saab kasutada meetmete väljatöötamisel, mis looksid tingimus erineva etnilise tagapõhjaga inimeste paremaks integreerimiseks ning läbi sobiva inimkliima (*peoples' climate*) loomise toetaksid majanduskasvu.

Migratsioon toetab mitmekülgse inimkapitali kujunemist ning loob tingimused majanduskasvu soosiva inimkliima kujunemiseks, kuid seda vaid juhul, kui kohalik elanikkond suhtub mujalt tulnutesse soosivalt. Ometi on inimeste hoiaukud immigrantide suhtes erinevad. Lähtudes kontseptsioonist, mis tugineb faktile, et töökohtade arv on piiratud, toob immigrantide riiki saabumisega seoses asset leidev tööjõupakkumise kasv kaasa tööpuuduse suurenemise antud riigis (Dustmann *et al.* 2005). Teisalt on empiirilist kinnitust leidnud vastupidine fakt – immigrantide saabumine riiki loob ajendi uute töökohtade loomiseks. See omakorda viib tööpuuduse vähenemiseni. (Pope, Withers 1993; Gross 1998; Angrist, Kugler 2001). Viimane toetab muuhulgas 3T teooriat. See, kas migratsiooni mõju migrante

¹ Uurimistöö läbiviimisel oli toeks Eesti Teadusfondi grant (7756), Eesti Teadus- ja Haridusministeeriumi sihtfinantseeritav urimistoetus (SF0180037s08) ning rahvusvahelise võrgustiku NORFACE urimistoetus (project MIDI-REDIE). Artiklis esitatud seisukohtade eest on vastutavad artikli autorid.

vastuvõtvate riikide tööturgudele on positiivne või negatiivne, sõltub sellest, kui tulemuslikult migratsioonivoogusid juhitakse. Oluline on immigrante ja kohalike teadmiste ja oskuste kattuvus/mittekattuvus. Lisaks sellele, on oluline riigi suutlikkus integreerida immigrante kohalikku ühiskonda ning kohalike hoiakud immigrante suhtes.

Teooriad, mis selgitavad immigrante suhtes ülesnäidatavaid hoiakuid kujundavaid komponente, jagunevad kahte suuremasse blokki – individuaalsetele ja kollektiivsetele näitajatele tuginevad teooriad. Neid kahte gruppi eristab n.ö mõõtmistase. Sama teguri põhjal on võimalik kollektiivsete teoriate grupis eristada omakorda kahte alagruppi – regionalsetele ja rahvuslikele näitajatele tuginevad teooriad. Käesolevas artikli empiiriline analüüs käsitleb peamiselt individuaalsetele näitajatele tuginevaid teooriaid, mistöttu tuuakse kollektiivsed teooriad välja vaid ülevaatlikul kujul.

Individuaalsed teooriad seavad vaatluse keskmesse individuaalsed tegurid: indiidi haridustaseme (inimkapitali teoria), isikliku sissetuleku, tööturustaatuse (individuaalsed majanduslikud teooriad), kohalike suutmatusest ennast immigrantidega samastada tingitud kultuurikonfliktid (kultuuriline piirteoria – *cultural marginality theory*), indiidi poliitilise kaasatuse (poliitilise kuuluvuse teoria), indiivididevahelise usalduse (sotsiaalse lõimimise teoria) ning hirmu turvalisuse puudumise ees (ümbruskonna turvalisuse teoria). Kollektiivsed teooriad seavad rõhuasetuse agregeeritud näitajatele: immigrante osakaalule riigi rahvastikust (kontaktiteoria), riigi SKP tasemele, selle kasvule, tööpuuduse määrale, selle kasvule (kollektiivsed majanduslikud teooriad), aga ka näiteks immigrante vastuvõtva riigi välisinvesteeringutele teistesse riikidesse (välisinvesteeringute teoria).

Eelnimetatud individuaalsete teoriate kontrollimiseks kasutavad autorid 23 riigi andmeid. Riigid on seejuures jagatud kahte gruppi - vanad Euroopa Liidu liikmesriigid koos Šveitsi ja Norraga (Belgia, Hispaania, Holland, Kreeka, Portugal, Prantsusmaa, Roots, Saksamaa, Soome, Suurbritannia, Taani, Šveitsi ja Norra) ning Ida-Euroopa riigid (Eesti, Läti, Ungari, Tšehhi, Poola, Rumeenia, Sloveenia, Venemaa ja Ukraina). Valimimaht on 25880 vaatlust, kusjuures neist 65% kuulub esimesse gruppi ja 35% teise. Tervikuna moodustavad naised valimist 50,6% ning mehed 48,4%. Sooline ja vanuseline jaotus on sarnased ka kummaski alagrupsid.

Analüüsitemused on kooskõlas kontaktiteooriaga, kusjuures seda nii individuaalsel kui kollektiivsel tasandil. Hinnatud mudeli kohaselt on inimesed, kes ei ole oma elukohariigis sündinud, tolerantsemate hoiakutega, kui antud riigis sündinud inimesed. Samuti on hoiakud immigrante suhtes positiivsemad inimeste hulgas, kes on ka ise kuulunud diskrimineeritud gruppi või omanud kokkupuuteid immigratsiooniga läbi võõrsil töötamise kogemuse. Ometi sai kinnitust seegi töösiasi, et immigrante osakaalu suurenemisega riigis kaasneb hoiakute muutmine negatiivsemaks. Eeldades aga, et see mõju ei ole lineaarne, lülitati mudelisse ka immigrante osakaalu tähistava muutuja ruutlilje. Selle statistiline olulisus viitab asjaoluline, et hoiakute muutumine negatiivsemaks leib aset vaid teatud punktini.

Sellest edasi toob immigrantide osakaalu suurenemine kaasa hoiakute muutmise immigrante pooldavaks. Võimalik, et seletus seesugusele asjaolule peitub selles, et rikkides, kus immigrantide osakaal on märkimisväärselt suurem, on kontaktid nende ja kohalike vahel personaalsemad, viies seeläbi immigrantide parema mõistmiseni ning nende poolt tekitatava võimaliku ebastabiilsuses väiksema tajumiseni.

Lisaks kontaktiteooriale leidis kinnitust fakt, et suurlinnade elanikud on immigrantide suhtes avatumad kui väiksemates linnades ning maapiirkondades elavad inimesed. Niisiis peab Wirthi väide (1938), mille kohaselt linnade sotsiaalne heterogeensus toetab tolerantuse kujunemist, paika. See omakorda toetab Florida 3T teoriat.

Kinnitust leidsid ka poliitilise kuuluvuse teoria – inimesed, kes usaldavad oma elukoha riigi institutsioone (parlament, õigussüsteem, politsei, poliitikud ja poliitilised erakonnad) on immigrantide suhtes usaldavamad. See tähendab, et läbipaistva ja usaldusväärsse poliitilise süsteemi loomine on oluline mitte üksnes poliitika ja poliitikute usaldusväärsuse tõstmiseks, vaid see toetab ka positiivsemate hoiakute kujunemist teiste eluvaldkondade (sh migratsiooni) suhtes.

Analüüsits kasutatud ESS küsimus „Kas Euroopa Liit peaks jätkuvalt laienema“ võeti vaatluse alla, testimaks Licata ja Kleini (2002) poolt läbiviidud uuringu, milles uuriti 313 Belgia üliõpilase hoiakuid, käigus ilmnenuid paradoksi. Selle kohaselt on ühtse Euroopa identiteedi pooldajad ksenofobilisema suhtumisega kui rahvusrikkide pooldajad. Käesoleva analüüsi tulmused vastanduvad siiski celtoodud paradoksile ning on kooskõlas teoriaga – inimesed, kes pooldavad EL-i edasist laienemist on immigrantide suhtes tolerantsemalt meelesstatud.

Positiivsemad on hoiakud immigrantide suhtes ka nende inimeste hulgas, kes tunnevad vähem muret oma ümbruskonna turvalisuse pärast. Asjaolu, et ümbruskonna ebaturvalisus vitab negatiivsematele hoiakutele immigrantide suhtes, võimaldab arvata, et inimesed seostavad immigrante kuritegevusega. Niisiis võib immigrante pooldavate hoiakute kujunemisele kaasa aidata inimeste turvatunde tõstmine, aga ka kontaktiteooriaast tulenevad sagestasemad personaalsed suhted immigrantide ja kohaliku elanikkonna vahel. Viimaste abil on võimalik tõsta kohalike teadlikkust immigrantidest ning läbi parema mõistmise on võimalik jõuda olukorrani, kui kuritegevuse põhjusena nähkse immigrante töepooltest vaid siis, kui on olnud selleks alust andvaid intsidente.

Majanduslike teooriate poolt väljapakutud teguritest omab hoiakutele suuremat mõju individu tlevane toimetulek ja mitte niivõrd praegune majanduslik seis. Inimkapitali teoria hüpotees, mille kohaselt on kõrgema haridustasemega inimesed tolerantsemad, leidis samuti kinnitust. Statistikiliselt oluline erinevus esineb seejuures aga vaid ISCED 5 ja 6 tasemele vastava haridustasemega inimeste puhul vörreledes neid inimestega, kelle kõrgeim haridustase vastab ISCED-i klassifikatsiooni kohaselt tasemele 0. Religioosse kuuluvuse mõju ei ole statistilikult oluline.

Autorid testisid ka hüpoteesi, mille kohaselt ei ole immigrantide suhtes ülesnäidatavaid hoiakuid kujundavad tegurid erinevates riikide gruppides ühesugused. Selleks kasutati Chow testi. Selle tulemuste kohaselt on mudeliga hinnatud parameetrid vaatlusealustest riikide gruppides statistiliselt olulisel määral erinevad. Oma järgnevates töödes keskenduvadki autorid nende erinevuste analüüsimisele. Tulevikus on oluline hinnata riigispetsiifilisi mudeleid ning viia läbi analüüs iga riigi andmete põhjal eraldi.

Käesoleva uurimuse käigus läbiviidud empiiriline analüüs lubab järel dada, et eurooplaste suhtumine immigrantidesse on üldiselt kooskõlas mitmete seda selgitavate teooriatega. Hoiakutes esinevat varieerumist põhjustavad 1) individudispetsiifilised karakteristikud (kõrgeim haridustase, välismaal töötamise kogemus, rahvuslik kuuluvus, elukoha asustustüüp); 2) riigispetsiifilised karakteristikud (immigrantide osakaal kui riigi rajasõltuvuse näitaja); 3) inimeste usaldus nende elukohariigi institutsioonidesse. Tulemused aitavad paremini mõista Euroopa riikide elanike hoiakuid immigrantide suhtes (nt erinevate hoiakute inimesi iseloomustavad tunnused – vanus, sugu, haridus, religioon jne) ning aitavad kaasa meetmete väljatöötamiseks hoiakute muutmise jaoks.

VALUUTADE JAEKURSSIDE KURSIVAHEDU SÜSTEMAATILISED ERINEVUSED MÖNEDES EUROOPA LIIDU RIIKIDES: PANGAD VERSUS FINANTSINTEGRATSIOON

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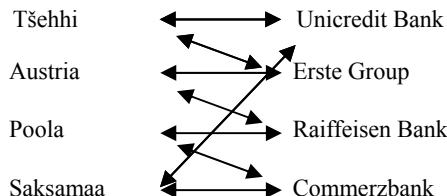
Euroopa Liidu olulisimaks majanduspoliitiliseks eesmärgiks on ühise majandusruumi tekitamine ning varem eraldatud üksikute riikide turgude integratsioon, majanduste konvergents ning sellest tulenev üldine heaolu tõus.

Käesolevas artiklis uuritakse majanduspoliitilise integratsioonieesmärgi saavutust pangandussektoris, mis on üheks finantsintegratsiooni osaks. Kitsamalt fokuseeritakse tähelepanu valuutade jaekursside kursivahede uurimisele panga-gruppides, mille emapangad asuvad endistes Lääne-Euroopa maades ning mille uuringusse haaratud tütarettevõtted paiknevad Ida-Euroopa maades.

Uuringu aluseks on asjaolu, et integreeritud ühtsel turul tegutsevad pangad peaksid pakkuma oma klientidele üksteisele väga lähedaste tingimustega teenuseid, mille omadused ei sõltu oluliselt sellest, millises turu osa klient pangateenust kasutab. Sellest tulenevalt peaksid integreerunud pangandusturu poolt pakutavate valuutavahetustehingute kursivahed olema ühtlustunud. Juhul kui see nii pole ning erinevates riikides tegutsevad pangad pakuvad oluliselt erinevaid tingimusi, on turud endiselt eraldatud. Hinnadiskrimineerimine rahvusvahelistes pangandusgruppides, mille üheks erijuhuks kursivahede süstemaatilised erinevused on, on võimalik ainult sellistes tingimustes.

Võimaliku hinnadiskrimineerimise olemasolu kontrollimise eesmärgil võrreldaks artiklis erinevates riikides üheaegselt tegutsevate pangandusgruppide valuutade jaekursside kursivahesid. Uuringu läbiviimiseks valiti neli Kesk-Euroopa riiki – Poola, Tšehhi, Austria ja Saksamaa, mis oma geograafilise läheduse ja majanduslike sidemete töttu peaks olema võimalikult sarnased ning mille turud peaksid olema integreeritud, kui see üldse praeguses Euroopas aset leiab. Andmete allikaks valiti neli panka – *Unicredit Bank, Erste Group, Raiffeisen Group ja Commerzbank* – millest kahe peakorter asub Saksamaal ja kahe peakorter Austria. Köikidel pankadel on tütarettevõtted kas Poolas või Tšehhimaal. Sellise valikuga on tagatud valimi sümmeetrilisus (joonis 1).

Valimisse kuulub kokku ligikaudu 6950 valuutakursside väärust ajavahemikust jaanuar kuni märts, 2010. Võimalike valuuta mastaabi mõjude kontrollimiseks on valimis nii „suured“ valuutad GBP, USD ja JPY kui ka „väikesed“ valuutad CHF, DKK, SEK ja NOK. Võrdlusbaasina kasutati Euroopa Keskpanga valuutakursse ning kursivahede leiti panga poolt pakutava ja selle vahena. Riikidesiseses võrdluses kasutati ka kohalike keskpankade kursse.



Joonis 1. Valimisse kuuluvad pangad ja riigid (autorite illustratsioon).

Uuringu arvulised põhitulemused on esitatud tabelis 1.

Tabel 1. Päevased keskmised kursivahed ja nende variatsioonikoefitsiendid (sulgudes)

Pank	CHF	DKK	GBP	JPY	NOK	SEK	USD	Keskmine
Poola Raiffeisen	3,152 (16)	3,143 (16)	3,151 (18)	3,156 (18)	3,084 (18)	3,135 (19)	3,176 (16)	(17,4)
Poola Commerzbank	2,942 (11)	2,771 (11)	2,436 (16)	2,84 (18)	2,743 (10)	2,775 (10)	2,488 (16)	(13,0)
Tšehhi Erste	1,796 (19)	1,835 (16)	1,838 (27)	1,729 (51)	1,765 (20)	1,761 (21)	1,749 (36)	(27,2)
Tšehhi Unicredit	1,983 (17)	2,012 (14)	2,014 (25)	1,962 (39)	1,921 (18)	1,938 (19)	1,767 (34)	(23,5)
Austria Erste	0,500 (14)	0,376 (2)	0,314 (55)	0,526 (51)	0,338 (42)	0,359 (37)	0,340 (48)	(35,4)
Austria Raiffeisen	0,186 (88)	0,015 (121)	0,393 (58)	0,629 (68)	0,248 (73)	0,327 (55)	0,430 (57)	(74,34)
Saksamaa Unicredit	0,197 (35)	0,272 (4)	0,299 (65)	0,353 (81)	0,302 (56)	0,275 (64)	0,367 (55)	(51,44)
Saksamaa Commerzbank	0,137 (41)	0,268 (3)	0,205 (72)	0,189 (106)	0,245 (50)	0,227 (47)	0,201 (64)	(54,79)

Allikas: autorite arvutused.

Uurimiseesmärgi täitmiseks võrreldi omavahel:

- 1) Igas riigis tegutsevaid panku riigisiseselt omavahel;
- 2) Erinevates riikides tegutsevaid pangauksusi pangagrupi siseselt omavahel;
- 3) Pankade tegutsemist agregeeritult Ida-Euroopa riikides omavahel;
- 4) Pankade tegutsemist agregeeritult Lääne-Euroopa riikides omavahel;
- 5) Pankade tegutsemist agregeeritult Ida- ja Lääne-Euroopa riikides omavahel.

Tulemuste statistilise olulisuse testimiseks kasutati Studenti t-testi usaldatavusnivooga 95% (tabel 2).

Tabel 2. Kursivahede erinevuste statistiline olulisus (95% nivoo)

	Tšehhi Unicredit- Erste	Austria Raiffeisen- Erste	Poola Commerzbank- Raiffeisen	Saksamaa Commerzbank- Unicredit
CHF	+	+	+	+
DKK	+	+	+	+
GBP	-	+	+	+
JPY	-	-	+	+
NOK	+	+	+	-
SEK	+	-	+	-
USD	-	+	+	+

Allikas: autorite arvutused, Studenti t-test.

Peamised tulemused olid järgmised:

- 1) Riikidesisese võrdluse tulemusel võib väita, et erinevatesse rahvusvahelistesse pangandusgruppidesse kuuluvad pangaüksused käitusid ühe riigi piires suhteliselt sarnaselt. Mõnevõrra erinevad olid tulemused ainult Taani krooni puuhul. Enamuses olid erinevused statistiliselt olulised, kuid siiski mitte kõikidel juhtudel.
- 2) Valuutade jaekursside grupsisesed võrdlused näitasid, et kõikidel juhtudel pakuvad pangagrupid Lääne-Euroopa riikides oma klientidele soodsamaid tingimusi (kursivahed olid suuremad Ida-Euroopa pangaüksustes). Kõikidel juhtudel olid erinevused statistiliselt olulised ning tunduvalt suuremad, kui eelnenuid riigisiseses võrdluse;
- 3) Kursivahede määramine tundub lääne-euroopa üksustes olevat situatsioonikohane ning ida-euroopa üksustes tuginema reeglipärasele otstutamisele. Asjaolu kinnitab kursivahede märgatav volatiilsus, kui vaadelda nende jaotumist üle erinevate valuutade;
- 4) Riikide kaupa agregeeritud andmete võrdlus näitas, et kursivahede erinevused olid väiksemad paarides Ida-Ida ja Lääs-Lääs ning tunduvalt suuremad, kui vörreldi paare Ida-Lääsi.
- 5) Kursivahed Ida- ja Lääne-Euroopa riikides erinevad üksteisest oluliselt. Kõikidel juhtudel selgus, et pangad pakuvad Lääne-Euroopas oma klientidele märksa soodsamaid tingimusi, kui samade pangagruppide Ida-Euroopa üksustes.

Saadud tulemused on olulised teoreetilises plaanis. Valuutakurssidega seotud turu mikrostrukturi alases kirjanduses tehakse harilikult eeldus, et turuosalistel puudub monopoolne võim. Siinsed tulemused väidavad valuuta jaeturu kohta vastupidist ning turgu tuleks modelleerida monopoolse konkurentsi situatsioonina. Siit tuleneb vajadus korriigerida turu mikrostrukturi teooriat valuutade jaeturu osas.

Kõik ülal toodud tulemused viitavad pangagruppide diskrimineerivale käitumisele, mis viitab asjaolule, et vähemalt valuutade jaeturu osas on finantssektor veel kaugel integreerumisest. Üksikud kaasused viitavad pigem asjaolule, et pangad püüavad

turgude lahusust säilitada, sest see on ainus võimalus kursivahede osas jätkuvalt hinnadiskrimineerimist praktiseerida.

Euroopa Liidu integratsioonipoliitikad ei ole selles sektoris vilja kandnud ning pankade sellise käitumise lõpetamiseks tuleks välja töötada spetsiaalsed politikameetmed.

VEOKITE TÄISMASSI REGULATSIOONI MUUTMISE MAJANDUSLIKUD MÖJUD EESTI METSATÖÖSTUSE SEKTORILE

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Transport mängib olulist rolli iga riigi majanduses ning transpordikulude vähendamine võimaldab märkimisväärselt suurendada erinevate tööstusharude konkurentsvõimet. Üheks selliseks tööstusharuks Eesti on metsatööstus, mis moodustab Eesti majandusest ligikaudu viiendiku. Hetkel on Eestis lubatud sõita 44 tonnise täismassiga autorongidel, kuid Soomes ja Rootsis on vastav piirang 60 tonni, kusjuures nimetatud riikides on juba päevakorral vastava piirangu muutmine. Eelnevast tulenevalt on käesoleva artikli eesmärgiks välja selgitada, millised oleksid peamised majanduslikud möjud metsatööstuse (sh. metsamaterjali transport) sektorile, kui täismassipiirang viia Eestis 52 või 60 tonnini. Artiklis käsitletakse ainult otsest majanduslikku möju sektorile ning infrastruktuuri, maksunduse, keskkonna, liiklusohutuse jt aspektidega seotud möjusid ei vaadelda. Seetõttu ei ole läbi viidud ka terviklikku ühiskondlikku tulu-kulu analüysi, mis on järgnevate vastavasisuliste uuringute eesmärgiks. Tervikliku tulu-kulu analüüs läbiviimist raskendab ka asjaolu, et osasid näitajaid on võimalik vaadelda kogu majanduse, mitte sektori kontekstis.

Täismassi muutmise möjusid on urutud erinevates riikides ning kõige põhjalikumad analüüsid on teostatud USA ja Euroopa Liidu kontekstis. 1990. aastate algusest pärinevad mitmed tööd Soome ja Roots'i näitel, mis erinevalt teistest uuringutest vaatlesid sealsete regulatsioonide karmistamise möjusid. Täismassi muutmise möjude kohta on ka palju teadusartikleid, milledest silmapaistvamad on McKinnoni tööd, mida on osaliselt kasutatud ka käesolevas artiklis toodud metodoloogia alusena.

Täismassi regulatsiooni muutmise analüüs on artiklis läbi viidud kahel juhul, milledest esimene käitleb üleminekut 44 t-lt 52 t-le (hiljem märgitud kui 44→52) ning teine 44 t-lt 60 t-le (44→60). Täiendavalt on ära toodud ka kahel eelneval põhinev situatsioon, kus muutus toimub 52 t-lt 60 t-le (52→60) ning muuhulgas on sellise möju äratoodmine vajalik olemasoleva sagedase täismassipiirangu rikkumise tõttu.

Analüüsiks kasutati Eesti Maaülikooli poolt koostatud puiduvedude kaarti, mis seob metsamaterjali hankekohad tarbijatega, kusjuures eraldi on ära toodud need veod, mille puhul täismassipiirangu muutmine möju avaldaks. Informatsioon veokite tehnilise spetsifikatsiooni, kütusekuluga, tööjõukulu ja teiste veondust puudutavate spetsiiflike aspektide kohta pärineb intervjuudest metsaveoettevõtetega. Töös on kasutatud kahte stsenaariumi, millest esimese puhul veetakse aastas 4,6 mln tonni ümarpuitu (stsenaarium 1; 5,75 mln m³) ja teise puhul 6,72 mln tonni ümarpuitu (stsenaarium 2; 8,4 mln m³).

Tabelis 1 on ära toodud veokite poolt läbitav kogukilometraž kahe erineva puidukoguse ning kolme erineva täismassi korral. Tabelites 2 ja 3 on näidatud

eelnevalt nimetatud kilometražiga seotud kogukulud kolme erineva täismassi korral. Tabelid 2 ja 3 viitavad sellele, et täismassipiirangu muutmisel tekib metsavadel oluline kulude kokkuhoid.

Tabel 1. Veokite poolt läbitud kilomeetrid erinevate täismasside korral

Täismassi-piirang	Aastas veokite poolt läbitud kilomeetrid 4,6 mln tonni ümarpuidu puhul	Aastas veokite poolt läbitud kilomeetrid 6,72 mln tonni ümarpuidu puhul
44 t	33 636 604	49 139 886
52 t	24 666 843	36 035 916
60 t	19 473 823	28 449 408

Allikas: autorite koostatud.

Tabel 2. 4,6 mln tonni ümarpuidu transpordikulud (tuh. EUR) ning kogukulu ja transporditava ümarpuidu maksumuse jagatis

Muutuja / Täismassipiirang	44 t	52 t	60 t
Kütusekulud	20 363	15 790	13 148
Töötöökulud	10 867	8 839	7 665
Muud kulud	20 820	20 820	20 820
Kogukulud	52 050	45 449	41 633
Transpordikulude ja ümarpuidu maksumuse suhe	17,7%	15,5%	14,2%

Allikas: autorite koostatud.

Tabel 3. 6,72 mln tonni ümarpuidu transpordikulud (tuh. EUR) ning kogukulu ja transporditava ümarpuidu maksumuse jagatis

Muutuja / Täismassipiirang	44 t	52 t	60 t
Kütusekulud	29 749	23 068	19 208
Töötöökulud	15 875	12 913	11 198
Muud kulud	30 416	30 416	30 416
Kogukulud	76 040	66 397	60 822
Transpordikulude ja ümarpuidu maksumuse suhe	17,7%	15,5%	14,2%

Allikas: autorite koostatud.

Autotranspordi hinna alanemine suurendab puidusektori sisemaist müügivõimet ja ekspordivõimet läbi transpordikulude odavnemise, seejuures võib suureneda autodega veetava puidu maht ka raudtee ja meretranspordi arvelt, kuna viimased muutuvad suhteliselt kallimaks. Samuti muudab transpordikulude alanemine odavamaks ümarpuidu impordi. Kuna ümarpuit on tooraineeks erinevatele puidusektoriga seotud harudele (puidutöötlemine, mööblitööstus, paberitööstus ja energiectika), siis avaldab ümarpuidu hinna langus mõju ka nende tööstusharude

konkurentsivõimele tootmiskulude alanemise kaudu. Kuna puuduvad täpsed andmed erinevates puiduga seotud harudes tarbitava ümparuidu koguse, kvaliteedi ja hinna kohta, siis on raske hinnata, kui suur võib olla ümparuidu hinna muutuse mõju erinevatele töötleva tööstuse harudele. Seetõttu on käesolevas artiklis piirdutud summaarse ümparuidu nõndluse muutuse hindamisega (erinevalt Tabelitest 1-3 kasutatakse puidukoguste hindamiseks alljärgnevalt tihumeetreid, kuna sellistes ühikutes arvestatakse puidu tarbimist ja eksporti rahvusvahelises statistikas).

Mõju on hinnatud eelkirjeldatud kolme lubatava täismassi stsenaariumi lõikes, kuid probleemiks on 44→52 ja 44→60 stsenaariumite puhul eesköige 44 tonni mahupiirangu täidetuse eeldus. Vaatamata sellele, et 44 tonnina täismassi piirang on seadusandluse järgne, selgus autotranspordiettevõtete küsitluse tulemustest, et sageli seda piirangut ei järgita. Konkurentsivõime muutuse hindamise puhul on suureks probleemiks asjaolu, et tegelikult ei ole teada, kui palju veetakse 44, 52 ja 60 tonnise täismassiga koormaid. Arvestades küsitlusest saadud informatsiooni tegelikult veetava täismassi kohta, võib stsenaariumi 52-lt tonnilt 60 tonnille pidada kõige realistikumaks võrreldes 44 tonni eelduse kasutamisega. Samas on oluline märkida, et realistlike andmete olemasolu tegelikult veetavatest täismassidest on kõigi hinnangute kvaliteedi aluseks. Arvestades vea suurust ja suunda võib enamikke alljärgnevalt toodud mõjusid pidada märkimisväärset ülehinnatuteks.

Autotranspordi odavnemisest tingitud mõju arvutati kasutades kirjanduses toodud puidu nõndluse hinnaelastsuste ja puidutranspordi erinevate liikide nõndluse riistelastsuste põhjal. Kokkuvõtlikult olid saadud tulemused järgmised:

- 1) Mõju sisemaisele konkurentsivõimele. Puidu sisemaine tarbimine (arvutatuna närvtarbimise alusel; närvtarbimine = tootmine + import - eksport) võib täismassipiirangu töstmisega 44→52 tonnilt kasvada 0,7–2,8%; 44→60 t puhul võib kasv olla 0,7–4,6% ning 52→60 t puhul 0,2–1,0%. Arvestades eelmises lõigus kirjeldatud asjaolusid, võib esimese stsenaariumi puhul viga ulatuda 100%-ni hinnangust juhul, kui tegelikkuses veetakse 52 täismassiga koormaid; teise stsenaariumi puhul on mõju sisemaisele konkurentsivõimele samuti märkimisväärset üle hinnatud (vea maksimaalset suurust pole võimalik leida); kolmanda stsenaariumi puhul on ka võimaliku vea suunda raske hinnata, kuna pole teada tegelikult veetavate koormate täismasside jaotus. Erinevate täismassipiirangute korral jääb sisemaine tarbimine vahemikku 5,73–5,85; 5,75–5,91 ja 5,71–5,75 milj tm (Stsenaarium 1) või vahemikku 6,51–6,62; 6,62–6,69 ja 6,48–6,53 milj tm (Stsenaarium 2). Ilmselt võib pidada realistikumaks kõige väiksemat mõju hinnangut.
- 2) Mõju ekspordivõimele. Eksport kasvab tulenevalt kasutatud metodikast erinevate stsenaariumite puhul sarnaselt sisemaise tarbimisega, säilivad ka samasuunalised vead hinnangutes (vt eelmine lõik). Stsenaariumi 1 puhul jääb eksport seega 44→52 t puhul vahemikku 2,03–2,07 milj tm, 44→60 t puhul vahemikku 2,03–2,1 milj tm ning 52→60 t puhul vahemikku 2,02–2,04 milj tm ning Stsenaariumi 2 puhul vastavalt 2,7–2,75; 2,71–2,78 ja 2,69–2,71 milj tm. Siangi

võib pidada kõige realistikumaks väikseimat muutuse hinnangut arvestades lähteandmetes esinevaid probleeme.

3) Mõju raudtee- ja meretranspordile. Autotranspordi odavnemine muudab teised transpordiliigid suhteliselt kallimaks. Raudteel veetav ümarpuidu kogus kahaneb seejuures järgmiselt:

- Stsenaariumi 1 puhul kahanevad puiduveod raudteel erinevate lubatavate täismasside korral 11,9–46,2; 16,4–62,6 ja 4,6–18,5 tuhat tm (sellest vastavalt 7,4–28,8; 10,2–39 ja 3–11,5 tuhat tm kodumaise puidu transpordist ning 4,5–17,4; 6,2–23,5 ja 1,8–7 tuhat tm impordist).
- Stsenaariumi 2 puhul kahanevad puiduveod raudteel 12,8–49,5; 17,6–67 ja 5–19,8 tuhat tm (sellest 10,9–42,1; 15,0–57 ja 4,3–16,8 tuhat tm kodumaise puidu transpordist ning 1,9–7,4; 2,6–10 ja 0,8–3 tuhat tm impordist).

Siinkohal võib näha, et muutuse ülempiir ületab 44→52 ja 44→60 täismasside puhul viimaste aastate nii sisemaise raudteetranspordi kui ka importpuidu raudteetranspordi tegelikud mahud, mis näitab, et saadud hinnangud on ebasealistlikult suured (tulemus tuleneb eelkõige nõndluse muutuse ülehindamisest, ristelastsuste koefitsiendi valik mõjutab tulemust maksimaalselt 8,5% ulatuses).

Meretranspordi nõndlus kasvab seoses odavamast hinnast tuleneva eksportnõndluse kasvuga (kasvu määrad on samad, mis eksportdivõime juures, kuid kasvu tm-tes pole võimaik hinnata, kuna Eesti Statistikaameti meritsi veetava puidu eksporti ja ümarpuidu eksporti andmed ei ole ühildatavad). Meretransporti autotranspordiga asendav muutus puudutab käesolevas uuringus ainult ümarpuidu importi ning vastav mõju on marginalne:

- Stsenaariumi 1 juures kahaneb ümarpuidu transport merel 0,86–0,96; 1,2–1,3 ja 0,3–0,4 tuhat tm.
- Stsenaariumi 2 juures mõju praktiliselt puudub, kuna impordi maht on oluliselt väiksem (ja mõju vastavalt 148–165, 208–227 ja 58–64 tm).

Uuringu tulemusel võib öelda, et täismassi muutmine loob Eesti metsatööstuse jaoks olulise kulude kokkuhoiu ning teavana nõndluse suurenemise metsamaterjali järele ja sellest tuleneva täiendava transpordivajaduse. Mõju ulatuse hindamine on problemaatiline arvestades lähteandmete kvaliteeti. Vea suurust on raske hinnata, kuid vea suunda arvestades võib pidada saadud mõju hinnanguid ülehinнатuteks, realistikusks võib pidada kuni 1%-list ümarpuidu nõndluse kasvu. Täismassi piirangu leevendamine maanteel võib kahandada raudteel veetavaid ümarpuidu koguseid (nii sisemaine kui ka importpuit) ca 20 tuhat tm aastas, meretransporti täismassipiirangu suurendamine praktiliselt ei mõjuta. Ühiskondlike mõjude väljaselgitamiseks peaks analüüs kaasama täiendavaid tulu- ja kulukomponente, mis jääb autorite poolt koostatavate järgnevate uuringute eesmärgiks. Käesolevas uuringus toodud tulemusi saab pärast teatavaid modifikatsioone laiendada ka paljudele teistele majandussektoritele, kus olemasolev täismassipiirang on aktuaalne (nt. puiste-, turba-, kütuse-, piima-, ehitusmaterjaliveod).

EESTI VANADUSPENSIONI POLIITIKA MÕJUD PENSIONILEJÄÄMISE AJENDITELE

Mikk Medijainen
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Vananev rahvastik pannud on mitmed arenenud maade pensionisüsteemid tõsisele proovile. Langeva sündimuse ja pikeneva eluea kõrval on oluliseks jätkusuutlikkust ohustavaks teguriks ka varasem pensionilesiirdumine, mis viimaste paari aastakümne jooksul on mitmetes arenenud riikides tavapäraseks saanud. Selle trendi olulisusele viitavad drastiliselt langenud hõivemäärad vanemates vanusegruppides.

Sageli pakuvad pensionisüsteemid võimalust lahkuda tööjõu hulgast juba enne seaduslikku pensioniiga, minnes ennetähtaegsele vanaduspensionile. Sealjuures on pensioni asendusmäärad sageli üsna sarnased neile, mida saadaks, kui pensionileminekuga oodataks seadusliku pensionieani. See tähendab, et edasitöötamine päraste ennetähtaegse pensioniea saabumist on seotud tõsise alternatiivkuluga. Seetõttu on pensionisüsteemide jätkusuutlikkuse taastamise üheks võtmeküsimuseks vanemaaliste tööhõive suurendamine. Tavapärased muutused seaduslikus pensionieas ei pruugi seda tagada, kui jäääb alles võimalus varem pensionile siirduda.

Efektiivsemaks võimaluseks on tagada piisavad rahalised stiimulid töötamise jätkamiseks, vähendades pensione varase ja suurendades edasilükatud pensionilesiirdumise korral piisaval määral. Et igasugune pensionilemineku edasilükkamine on seotud riskiga, et pensioni saamise aeg lüheneb, on vastavates pensioni suuruse kohandustes vaja lisaks tavapärasele raha ajaväärtusele arvestada ka suremuse mõjuga. Seetõttu kasutatakse pensionisüsteemi mõjudest individuile kätumisele rääkides sageli kindlustusmatemaatikaga haakuvaid termineid, sh aktuaarset neutraalsust ning hüvitiste samaväärsust.

Käesoleva töö eesmärgiks on välja töötada ettepanekuid Eesti riikliku vanaduspensionisüsteemi reformiks, sh keskendudes eriti pensioni suuruse kohandustele seoses ennetähtaegse ning edasilükatud vanaduspensioniga ning nende kohanduste võimalikule mõjule individuile tööturukäitumisele.

Esmalt peatutakse aktuaarse neutraalsuse ning hüvitiste samaväärsuse definitsioonidel ning viimastega seotud probleemistikul. Seejärel arvutatakse teoreetilised pensionide kohandusmäärad, mis tagaksid Eesti pensionisüsteemi aktuaarse neutraalsuse ja hüvitiste samaväärsuse. Võrreldes neid teoreetilisi kohandusi seadusandluses kehtestatutega, on võimalik välja tuua praeguse seadusandluse (ja käimasolevate pensionisüsteemi reformide) mõjudid tööturule jäämise või sealт lahkumise ajenditele. Selle tarbeks luuakse mõõdik hindamaks pensionilejäämise ajendite suurust erinevas vanuses ja reformide mõju neile ajenditele. Viimaks võetakse olulised tulemused ja neist tulenevad järeldused lühidalt kokku.

Aktuaarne neutraalsus on isegi akadeemilise kirjanduse osas segadust tekitav termin, kuna selle pealkirja all võidakse kasutada kahte erinevat mõistet. Kirjanduses on eristatud *keskmist aktuaarsel neutraalsust*¹ ning *marginaalset aktuaarsel neutraalsust*. Esimist neist mõistetest kasutatakse ka aktuaarse õigluse nime all, samal ajal kui uuemas kirjanduses on teine mõiste tuntud lihtsalt aktuaarse neutraalsuse nime all. Ka käesolevas töös lähtutakse selle mõiste teisest tähdusest.

Aktuaarne neutraalsus käesoleva töö mõistes tähdab, et oodatav kogupension (pensionivara) pensionit aasta vörra edasi lükates on täpselt võrdne pensionivaraga hetkel, millele on lisatud aasta jooksul kogunenud täiendavad pensioniõigused. Formaalselt:

$$PW_{t|t+1} = PW_{t|t} + \delta \quad (1)$$

kus $PW_{x|y}$ on pensionivara ajahetkel x , eeldusel, et pensionile jäädakse ajahetkel y ja δ on aasta jooksul välja teenitud täiendavad pensioniõigused.

See tähdab, et ajahetkeks t kogutud pensionivara jäääb samaks, vaatamata sellele, millises vanuses tegelikult pensionile jäädakse. Pensionivara defineeritakse pensionimakse ja annuiteediteguri korruutisena. Annuiteeditegur on väljendatav järgnevalt:

$$A_t = \sum_{i=t}^T s_i \left(\frac{1+u}{1+z} \right)^i = \sum_{i=t}^T PVPF_i \quad (2)$$

kus s_i on indiviidi ellujäämisfunktsioon, ehk töenäosus et inimene, kes on annuiteediteguri arvutamise hetkel elus, on elus ka ajahetkel i , u on pensionide reaalne kasvumäär ning z reaalne diskontomääär.

Kuna annuiteeditegur muutub pensionit aasta vörra edasi lükates väiksemaks, peab pensionimakse pensionivara samaks jäämiseks samaväärselt kasvama. Annuiteediteguri vähinemist põhjustavad kolm tegurit.

1. Vara väärthus väheneb diskonteerimise tulemusel, sest pensionit saadakse ühe aasta vörra hiljem².
2. Risk surra selle aasta jooksul, mil pensioni edasi lükatakse.
3. Pensioniloleku oodatav aeg lüheneb, mistöttu pensioni saadakse kokku vähem.

Seda samaväärsel kasvumäära, mis kompenseerib ülalnimetatud kolme teguri mõju, nimetataksegi aktuaarsel neutraalsust tagavaks pensionimakse kohandamise määräks. Formaalselt leitakse see määär järgnevalt:

¹ Keskmise aktuaarne neutraalsus (teisiti ka aktuaarne õiglus) on tagatud, kui indiviidide oodatav pensionimaksete nüüdisväärustuse summa on täpselt võrdne töötamise ajal tehtud pensionikindlustuse maksete nüüdisväärustuse summaga. See tähdab, et keskmiselt saadakse pensionisüsteemist nüüdisväärustuses tagasi sama palju, kui sinna sisse makstakse.

² Sisuliselt kujutab pensionivara edasilükkamine indiviidi jaoks endast riigile laenu andmist. Seetõttu kasutatakse siinkohal diskonteerimismäärama sageli riigivõla intressimäärasid, eeldades et riik maksab kõigilt oma kohustustelt sarnast intressimäära.

$$\alpha = \frac{A_t}{A_{t+1}} \frac{PVPF_t}{PVPF_{t+1}} - 1 \quad (3)$$

Nagu varasemast selgub, ei võta aktuaarset neutraalsust tagavad kohandused arvesse täiendavalt teenitavate pensioniõiguste mõju. Kaasaegsed pensionisüsteemid on aga sageli sellise ülesehitusega, et isegi töötamise viimastel aastatel on võimalik teenida täiendavaid pensioniõigusi³. Seetõttu võib edasi töötamine olla mõttetas isegi siis, kui pensioni edasilükkamise eest ette nähtud pensioni suurendus ei taga aktuaarset neutraalsust. Seetõttu on täiendavate pensioniõiguste teenimise võimalikkuse korral mõistlik vaadelda kohanduste suurust mitte aktuaarse neutraalsuse vaid hoopis hüvitiste samaväärsuse seisukohalt.

Hüvitiste samaväärsus tähendab, et vaatamata pensionilejäämise ajast on oodatav pensionimaksete nüüdisväärtuse kogusumma (ehk teiste sõnadega pensionivara) sama suur. Formaalselt esitatakse hüvitiste samaväärsust tagavaid kohandusmäärasid järgnevalt:

$$\beta = \frac{A_t}{(1+\pi)A_{t+1}} \frac{PVPF_t}{PVPF_{t+1}} - 1 = \frac{(1+\alpha)}{(1+\pi)} - 1$$

kus α on aktuaarselt neutraalne kohandamismäär ning π on aasta jooksul kogunevad täiendavad pensioniõigused.

Seega on hüvitiste samaväärsus üldisem mõiste kui aktuaarne neutraalsus. Need kaks mõistet on samaväärsed juhul, kui täiendavaid pensioniõigusi teenida ei ole võimalik (π on võrdne 0-ga). Kui see nii ei ole, on hüvitiste samaväärsust tagavad kohandusmäärad väiksemad kui aktuaarset neutraalsust tagavad kohandusmäärad.

Eesti riiklik vanaduspensionisüsteem kujutab endast määratud väljamaksega pensioniskeemi, mida rahastatakse sotsiaalmaksetega suuruses 20% brutopalgast juhul kui ei olda liitunud erasektori hallata oleva pensioni teise sambaga ning 16% brutopalgast kui panustatakse ka pensioni teise sambasse. Seaduslik pensioniiga on aastal 2011 meeste jaoks võrdne 63 eluaastaga ning naiste jaoks 61 eluaastaga. Käimasoleva reformi tulemusel võrdsustuvad meeste ja naiste pensioniead jätk-järgult aastaks 2016 tasemele 63 eluaastat. Sellele järgneb järgmine reform, mille käigus pensioniiga tõuseb nii meeste kui ka naiste jaoks jätk-järgult tasemele 65 eluaastat. See reform lõppeb aastal 2026.

Eestis on võimalik jäada ennetähtaegsele vanaduspensionile, mida kasutades vähendatakse pensioni suurust 0,4% võrra iga varem pensionile jäädud kuu võrra. Maksimaalselt on võimalik pensionit varem välja võtta 3 aastat enne seaduslikku pensioniiga. Ennetähtaegset vanaduspensioni ei maksta töötamise korral.

³ Näiteks sellised süsteemid, kus pensioni suuruse määramisel võetakse arvesse töötasu suurus kogu karjääri jooksul. Ka Eestis sõltuvad teenitud pensioniõigused kogu tööea jooksul teenitud töötasu suurusest.

Edasiltukatud vanaduspensionit suurendatakse 0,9% võrra iga edasiltukatud kuu eest. Edasiltükamisel vanuse ülempiiri ei ole.

Käesolevas töös on arvutuste teostamisel kasutatud suremusnäitajaid, mis vastavad Eurostati uusimale rahvastikuprognosile Europop 2008. Majanduskasvu osas on lühiajalises perioodis (2011-2014) kasutatud Rahandusministeeriumi 2010. aasta suvist majandusprognosi, pikaajalises prognoosis kasutatakse Euroopa komisjoni pikaajalisi prognoose. Diskontomääräks on baasstsenaariumis võetud reaalne 3% intressimääär, mille osas viidi läbi ka tundlikkusanalüüs.

Aktuaarse neutraalsuse tagamiseks tuleks 2011. aastal pensioniikka (61) jõudvate naiste pensionimakset suurendada 8,8 protsendi võrra, et nende pensionivara jäääks samaks, kui nad pensionit ühe aasta võrra edasi lükkavad. Samas vanuses meeste puhul on sama näitaja 12,3 protsentti, mis näitab meeste suuremat suremust vanades vanuserühmades. Aktuaarselt neutraalsed kohandused kasvavad vanuse kasvades eksponentsiailsest, mistöttu seadusandluses kehtestatud konstantne kohanduse määär ei saa olla aktuaarselt neutraalne kõigi vanusegruppide jaoks. Tundlikkusanalüüs näitab oodatult, et suurem diskontomääär tähendab ka suuremaid kohandusi aktuaarse neutraalsuse tagamiseks. Mida heldemalt pensione indekseeritakse, seda väiksemad on aktuaarse neutraalsuse tagamiseks vajaminevad kohandused.

Hüvitiste samaväärsuse uurimine pakub Eesti oludes isegi rohkem huvi, kui aktuaarne neutraalsus, sest Eesti pensionistüsteemis on tõenäoline, et ka kõrges vanuses töötades teenitakse täiendavaid pensioniõigusi. Seetõttu on individuaalne käitumine pigem mõjutatud sellest, kuivõrd erinevad on seadusandluses sätestatud pensioni kohandamise määrad nendest kohandusmääradest, mis tagavad hüvitiste samaväärsuse. Käesolevas töös on hüvitiste samaväärsust tagavad kohandused arvutatud eraldi meeste ja naiste jaoks ning lisaks tänase olukorra (2011) kajastamisele on arvesse võetud ka pensioniea reformide seisukohalt olulised daatumid – 2016. ja 2026. aasta. Tulemused on toodud tabelis 1.

Nagu võis eeldada positiivse π korral, on tabelis 1 toodud kohandused väiksemad, kui aktuaarse neutraalsuse tagamiseks vajalikud kohandused. Tabelist tuleb selgelt välja väheneva suremuse mõju pensionikohandustele. Aastal 2026 on pensionikohandused samasse vanusegruppi kuuluvatele meestele ja naistele oluliselt madalamad, kui need on aastal 2011. Meeste puhul on see mõju tugevam, sest meeste suremus langeb prognooside kohaselt lähiastatel naistest kiiremini. Samuti võib öelda, et pensioniea reformide mõjust jäab väheseks, et tasakaalustada langevat suremust. Nii meeste kui naiste puhul on pensionikohandused ametliku pensioniea saabudes aastal 2026 (mis on naiste ja meeste jaoks 65. eluaastal vastavalt 5,5 ja 8,5 protsendi) väiksemad kui nad on ametliku pensioniea saabudes aastal 2011 (vastavalt 7,3 protsendi naistele 61. eluaastal ja 11,9 protsendi meestele 63. eluaastal).

Tabel 1. Hüvitiste samaväärsust tagavad pensioni suurendamise määrad soo, vanuse ja pensionireformi astme lõikes

vanus	2011		2016		2026	
	naised	mehed	naised	mehed	naised	mehed
58	6.5	-	-	-	-	-
59	6.7	-	-	-	-	-
60	7.0	10.5	4.9	7.9	-	-
61	7.3	10.8	5.2	8.2	-	-
62	7.6	11.3	5.5	8.6	4.7	7.1
63	8.0	11.9	5.7	9.2	4.9	7.6
64	8.3	12.5	6.0	9.7	5.1	8.0
65	8.8	13.1	6.4	10.2	5.5	8.5
66	9.3	13.8	6.9	10.9	5.9	9.0
67	9.7	14.6	7.3	11.6	6.3	9.7
68	10.2	15.4	7.8	12.3	6.7	10.3
69	10.9	16.4	8.4	13.2	7.1	11.0
70	11.5	17.4	9.0	14.2	7.7	11.8
71	12.3	18.5	9.7	15.1	8.3	12.6
72	13.1	19.7	10.3	16.2	8.8	13.6
73	14.0	21.0	11.1	17.4	9.5	14.6
74	15.0	22.5	12.0	18.6	10.2	15.6
75	16.2	24.2	13.0	20.2	11.1	17.0

Allikas: Autori arvutused.

Seetõttu võib eeldada, et kõik uuringud, mis eeldavad tegeliku pensionilemineku ea töusu täpselt vastavalt ametliku pensioniea töusule, alahindavad hüvitiste samaväärsust mittetetagavate pensionikohanduste mõjusid pensionilemineku ajenditele. Sellega seoses võib olla alahinnatud oodatav keskmne tegelik pensionilemineku iga, oodatavad asendusmäärad ning sellega seoses ka pensionisüsteemi üldised kulud.

Võrreldes teoreetilisi hüvitiste samaväärsust tagavaid pensionikohandusi seadusandluses sätestatutega (0,4% kuus varasema ja 0,9% kuus edasilükatud pensionilemineku puhul), selgub et seadusandluses sätestatud kohandused ei taga hüvitiste samaväärsust kummagi puhul.

Ennetähtaegse pensioni puhul peaksid kohandused enamasti olema suuremad ning vahe teoreetiliste ja seadusandluses sätestatud kohustuste vahel tekitab surve varasemaks pensionilejäämiseks. Samas leevendavad seda survet teised tegurid, millest kõige olulisem on nõue ennetähtaegse vanaduspensioni saamise ajaks tööst loobuda. Seetõttu võib eeldada, et ennetähtaegset vanaduspensioni kasutavad pigem väheste töölenaasmise väljavaadetega individuid. Varasemad empiirilised uuringud

seda ka kinnitavad, leides et ennetähtaegse pensioni saajate hulgas enamik ei ole vahetult enne pensionile jäämist saanud töötasu.

Edasilükatud vanaduspensioni puhul on aga praeguses seadusandluses kehtestatud pensionisuurendused suuremad, kui oleks vaja hüvitiste samaväärsuse tagamiseks. Uuringu baasstsenariumi kohaselt on keskmisel inimesel ajend lükata 2016. aastal vanaduspensionile jäämist edasi 70. eluaastani ja 2026. aastal 72. eluaastani. Selline areng viiks ka asendusmäärad oluliselt kõrgemaks, kui need oleks siis, kui reaalne ja ametlik pensioniiga langeks kokku, mis tähendaks kogu süsteemi jaoks suuremaid kulusid.

Järeldused

Eesti riikliku vanaduspensionisüsteemi mõjud pensionilejäämise ajenditele on uuringu baasstsenariumi kohaselt pigem vastupidised teiste arenenud riikide pensionisüsteemide mõjudele. Kui mujal on probleemiks liiga varane pensionile jäamine, siis Eesti seadusandluses ette nähtud pensionide suurendus nende edasilükkamise puhul annab pigem ajendi oodata pensionile jäamisega liiga kaua. Et kauem töötamist premeeritakse liiga heldelt, siis võib see viia pensionisüsteemi pakutavad asendusmäärad ning süsteemi üldised kulud oodatust suuremaks. Vanaduspensionisüsteemi kulude sisukohast oleks mõistlik selliseid kõrvalekaldeid vältida. Samas on see üheks võimaluseks pensionisüsteemiväliste probleemide (nt võimalik tööjõupuudus) lahendamiseks. Et aga vanaduspensionisüsteemi täiendavaid kulusid õigustada, peaksid heaoluvõidud mujal olema suuremad.

Ennetähtaegselt pensionile siirdumise puhul seadusandluses ette nähtud pensioni vähendused on väiksemad, kui oleks vaja hüvitiste samaväärsuse tagamiseks. Selle kõrvalekalde käitumuslik mõju on pigem tagasisihoidlik, sest on muid ning olulisema mõjuga tegureid, mis vähendavad ennetähtaegse pensioni populaarsust, millega kõige olulisem on nõue ennetähtaegse vanaduspensioni saamise ajaks tööst loobuda. Samuti vähendavad ennetähtaegse vanaduspensioni väiksemad vähendused võrreldes hüvitiste samaväärsust tagavate kohandustega teiste sotsiaalkindlustusprogrammide (eeskätt töötuskindlustus ja invalidsus pensionid) ja sotsiaalabi (toimetulekutoetus) kulusid. Seetõttu võib ennetähtaegse vanaduspensioni osas olla tähtsamaid kaalutusi kui hüviste samasuse tagamine.

WIRTSCHAFTLICHE AUSWIRKUNGEN DER INTERNATIONALEN ARBEITSMIGRATION

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Migrationwellen in Europa im vergangenen Jahrhundert hatten viele verschiedene Ursachen gehabt, aber momentan vorherrschenden Zwecke für die Migration haben wirtschaftlichen Ursachen und sind mit den Bewegungen der Arbeitskräfte verbunden. Internationale Arbeitsmigration ist in erster Linie von wirtschaftlichen Interessen gefördert (höhere Reallöhne erhalten, höherer Lebensstandard) und somit einige Ökonomen nennen es als "Wirtschaftsmigration". Dieses Manuskript stellt zusammen relevante Fakten in Bezug auf die Arbeitsmigration und liefert eine Erklärung über ihre Auswirkungen auf die makro- und mikroökonomischen Ebenen. Verständnis der breiteren Migrationmuster und Identifizierung der wichtigsten Determinanten der Migration beschrieben in diesem Skript ermöglicht die Auswertung der angewandten Migrationspolitik und Bestimmung der makro- und mikroökonomischen Vorteile und Kosten der internationalen Arbeitsmigration.

Während Barrieren im internationalen Handel und die Mobilität des Kapitals in einem großen Teil entfernt worden sind, bleiben internationale Migrationströme in vielerlei Hinsicht eingeschränkt. Boeri und van Ours (2008) legen nahe, dass Gewinne aus der Liberalisierung der Arbeiterbewegung zwischen den einzelnen Ländern sind enorm (aufgrund hoher Einkommen Unterschiede zwischen den Ländern) und könnte größer sein als von der Liberalisierung in den Bereichen Waren- und Kapitalverkehr. Die Realität ist, dass die europäische Migrationspolitik wird strenger, weil Europa zieht immer mehr Migranten. Es ist wichtig, nicht nur die Kontrolle der Größenordnung von Migration kontrollieren, sondern auch zu versuchen, ihre Zusammensetzung nach aktuellen Bedürfnissen des Arbeitsmarktes beeinflussen. Aber viele Mitgliedstaaten der Europäischen Union finden es schwierig, öffentliche Feindseligkeit gegenüber Einwanderung mit der Notwendigkeit hochqualifizierter Migranten ausbalancieren(OADBS, 2005). Die ökonomische Erklärung Boeri und van Ours (2008), warum die Migration so stark eingeschränkt ist, sagt dass die Migrationspolitiken im Wesentlichen ein Distributionsmittel sind, die darauf abzielen, negative Auswirkungen der Migration auf Löhne und Arbeitslosigkeit unter Einheimischen zu reduzieren und sie unterstreichen auch die graduellen Tendenzen der Migration und wie Migration Einschränkungen angebotsseitige Schocks, die sich negativ im Einkommen oder Arbeitsplätze von einigen spezifischen Gruppen auswirken können. Nach ihnen Migrationspolitik sind durch Mindestlohn Gesetzgebung, die Stärke der Gewerkschaften, Familienpolitik und Arbeitslosengeld betroffen, weil Lohnverdichtung und Einkommens-Minimum die Qualifizierungs-Verteilung beeinflussen. Einschränkungen der illegalen Migration in Europa sind in vielen Fällen nicht sehr effizient durchgesetzt worden und dies führt zu einem erheblichen Anstieg der illegalen Zuwanderung.

Boeri und van Ours (2008) behaupten, dass bis zu 40% der Migration nach Europa möglicherweise illegal ist, nach anderen könnte die Zahl sogar noch höher sein. Sie erwähnen eine Reihe von Einschränkungen der Bewegungsfreiheit von Menschen, die Einwanderungspolitik umfasst. Die verbreitetste Art der Migrationspolitik sind Quoten, die nur eine begrenzte Zahl von Arbeits- und Aufenthaltsgenehmigungen für ausländische Migranten innerhalb einer bestimmten Frist geben (bis zu ihrer Erschöpfung). Ein flexibleres System, das derzeit von immer mehr Ländern übernommen wird präsentiert das Punktesystem, in denen bestimmte ausdrücklich gegebenen Fähigkeiten (Beruf, Ausbildung, Berufserfahrung, Sprachkenntnisse usw.) bewertet werden. Sonstige Maßnahmen der Migrationspolitik greifen zur Implementierung von verschiedenen administrativen Hindernissen im Zulassungsverfahren. Die bürokratischen Hürden sind weniger sichtbar, aber immer noch sehr effektiv. Die maximale Länge des Aufenthalts stellt eine weitere Möglichkeit zu einer zurückhaltenden Steuerung der Migrationsströme. Eine weniger restriktive Haltung des Landes gegenüber der internationalen Migration ist charakteristisch auch durch ein einfacher Staatsbürgerschaftsantrag, (nachdem nur wenige Jahre im Gastland), wo dann der Prozess mit weiteren Assimilationspolitik verstärkt werden kann. Schlösser (2004) unterscheidet zwischen drei Arten von Gründen für die Migrationspolitikstörungen: Faktoren, die aus der sozialen Dynamik des Migrationsprozesses erstehen, Faktoren im Zusammenhang mit Globalisierung und Faktoren von politischen Systemen. Er schlussfolgert, dass die Migrationspolitik könnten erfolgreicher sein, wenn sie sich explizit auf langfristige politische Agenden mit Handel, Entwicklung und Konfliktprävention verknüpft sind. Abbau von Ungleichheiten ist dann eigentlich der Schlüssel zur effektiven Steuerung der Migration.

Die Arbeitsmärkte in vielen europäischen Ländern sind besonders abhängig von Wanderarbeitern. Von der geographischen Sicht kann Luxemburg als Beispiel verwendet werden. Dieses kleine Land befindet sich in unmittelbarer Nachbarschaft von Frankreich, Deutschland und Belgien, die dieses Land in vielerlei Hinsicht beeinflussen. Es zeigt den höchsten Anteil der ausländischen Arbeitskräfte in der EU (2/3 der Erwerbsbevölkerung insgesamt) und einen Anteil der Ausländer (rund um 40%). Ein weiteres geographisches Thema, das erhebliche Bedenken von vielen betroffenen Ländern aufwirft, ist die Gefahr der illegalen Migration in den Mittelmeerländern und an der neuen östlichen Außengrenzen der Europäischen Union nach ihrer letzten "Big-Erweiterung" in 2004 und 2007. Illegale Einwanderung stellt in erster Linie ein logistisches Problem für die Nachbarländer dar und zwar in Bezug auf die Registrierung, Unterbringung, Verpflegung und andere Faktoren, die in der Regel sehr kostspielig sind. Außerdem, Spanien und Italien, die die wichtigsten Zielländer sind haben somit die Aufgabe, soziale Unterstützung für die Einwanderer nach dem europäischen sozialen Standards zu gewähren. Und viele Fragen aufwerfen auch die Sicherheitsfragen.

Die Geburtenrate sank und die gestiegene Lebenserwartung in den europäischen Ländern in den letzten Jahrzehnten führte zu negativen Veränderungen in der demografischen Struktur der Bevölkerung, die nicht über in naher Zukunft ändern werden. Die OADBS Quelle (2005) zitiert, dass die EU-Bevölkerung im

erwerbsfähigen Alter im Jahre 2030 wird um etwa 20 Millionen zurückgehen und diese Aussicht auf eine schrumpfende und alternde Arbeitskraft hat auch eine stärkere Konzentration auf Einwanderung aufgefordert. Die Erhaltung der derzeitigen europäischen Wohlfahrtsstaats ist als teilweise abhängig auch über die künftige Zuwanderung. Einige der NMC (neue Mitgliedsländer) der Europäischen Union hatten viel zu tun mit einer bedeutender Auswanderungswelle während eines langen und schmerzhaften Zeit des wirtschaftlichen Übergangs von der Planwirtschaft zu einer voll funktionierenden Marktwirtschaft der westlichen Typs (Rumänien, Polen oder Estland). Und die negative demographische Entwicklung wurde durch eine sehr niedrige Geburtenrate während des Übergangs intensiviert, z.B. in Estland. Diese drei oben genannten Ländern berichteten negativen Einwanderungssalden. Dies bedeutet, dass die Auswanderungsraten wesentlich höher als die Einwanderungsraten lagen. Gründe hierfür können in den Prosperitätsunterschieden zwischen etablierten und neuen Mitgliedsländern der Europäischen Union gefunden werden.

Ein weiterer Teil der Zunahme der Migration in Europa spiegelt die Auswirkungen der Zuwanderung (von NMC zu westeuropäischen Ländern) im Anschluss an die Erweiterung der Europäischen Union im Jahr 2004. Am 1. Mai 2004 eröffneten die ersten Länder (Großbritannien, Irland und Schweden) ihren Arbeitsmarkt für acht NMC. Viele ex-ante-ökonomischen Studien haben behauptet, dass Ängste vor Masseneinwanderung aus mittel- und osteuropäischen Ländern stark übertrieben sind und erklärten, dass im Hinblick auf den Rückgang der EU-Bevölkerung und die Alterung der Gesellschaft, die erwarteten Ost-West-Migration Potentiale wird eher positive Auswirkungen, generieren, z.B. Straubhaar (2002). Die Auswirkungen der EU-Erweiterung über die Migrationsströme in den Jahren vor der Osterweiterung waren auch von der IOM (1998), Bauer, Zimmermann (1999), Boeri, Brücker (2000), Fertig (2001), Dustman et al. (2003), Breitenfeller et al. (2008) behandelt. Trotz dieser Erkenntnisse die anderen 12 EU-Mitgliedsstaaten haben sich beschlossen die Einschränkungen zu halten. Von NMC wurden nur die Arbeitnehmer aus Zypern und Malta nicht mit Beschränkungen konfrontiert. Dann von dem 1. Mai 2006, Finnland, Griechenland, Spanien und Portugal eröffneten ihre Märkte für ausländische Arbeitnehmer aus acht NMC. Und den 1. Mai 2011 wurde eine letzte Frist zur Arbeit Einschränkungen für alle Mitglieder entfernt.

Bereits 2004 erreichte die Nettozuwanderung in Großbritannien den Wert rund 300.000 und im folgenden Jahr stieg die rasch auf rund 470.000. Seitdem Polen in die EU trat viele Polen wurden ein Teil des britischen Arbeitsmarktes und haben signifikant den Anteil der ausländischen Arbeitskräfte auf dem britischen Arbeitsmarkt erhöht. Eine starke Abwanderung wurde auch aus Polen nach Deutschland beobachtet, während Zuwanderer aus Rumänien, Italien und Spanien bevorzugt (vor allem aus sprachlichen Gründen, da sie ein Teil der gleichen Sprachgruppe der romanischen Sprachen sind). Tschechische Republik, Estland und andere NMC mussten den Verlust seiner erwerbstätigen Bevölkerung, insbesondere im Gesundheitswesen, aber auch in anderen wichtigen Bereichen der Wirtschaft trotzen. Im Hinblick auf die Migration, stellt die Größe der Wirtschaft einen wichtigen Faktor. In relativ kleinen Ländern der Europäischen Union, wie Malta,

Luxemburg und Estland können hohe Einwanderungsraten die Frage nach der Bewahrung der nationalen Identitäten aufwecken weil der schnell wachsende Anteil der Ausländer zu erhöhen, kann im Endeffekt einem höheren Anteil von Personen mit ausländischer Staatsangehörigkeit als der Anteil der einheimischen Bürger verursachen.

Zuwanderung kann den Bedarf sowohl für hoch und niedrig kualifizierte Arbeitnehmer auf den Arbeitsmärkten der Aufnahmeländer zu befriedigen. Ein Teil der Zuwanderung kann den Bedarf von niedrigem Niveau Arbeitnehmer befriedigen, z.B. in der Landwirtschaft, Gastronomie oder im Bausektor und anderen Berufe wo die lokale Arbeitskraft nicht interessiert ist. Die einheimischen Arbeitnehmer erreichen dann höhere Positionen, und niedrigere Positionen werden von Einwanderern übernommen. Auf der anderen Seite leiden die Auswanderungsländer von einem Mangel an Arbeitskräften und die Zuwanderung von Staatsangehörigen dritter Staaten kann gebraucht werden um ihre nationalen Bedürfnisse zu befriedigen.

Rumänien und Polen suchen Arbeiter für bestimmte Branchen, die nicht mehr attraktiv für einheimische Arbeitskräfte aufgrund der schlechten Belohnung im Vergleich zu den anderen EU-Mitgliedstaaten. Auf diese Weise sind Prosperitätsunterschiede allmählich vom Zentrum zur Peripherie geschoben. Ein weiterer Teil der Migrationsströme erfüllt den Bedarf an gut ausgebildeten Arbeitnehmern im Zielland. Während Aufnahmeländer können aus der qualifizierten Arbeitskräfte aus dem Ausland profitieren, ohne sich mit Kosten des Bildungssystems und der beruflichen Bildung beschäftigen zu müssen den Ländern, von denen die Arbeiter kommen entstehen Mängel an hoch qualifizierten Arbeitskräften, die oft als "brain drain" beschrieben werden. Viele hoch entwickelte Länder, die eine reibungslose Migration von hoch qualifizierten Arbeitskräften unterstützen, haben gleichzeitig eine Gesetzgebung, die Hindernisse für die Zuwanderung von gering qualifizierten Arbeitnehmern und als Ergebnis dieser ungleichen Situation die Unterschiedslücke in der Humankapital-Ebene zwischen fortgeschrittenen und Entwicklungsländer wird immer größer.

Der steigende Umfang der Arbeitsmigration in den letzten Jahren macht die Diskussion über die wirtschaftlichen Vorteile und sozialen Kosten der Migration von Arbeitskräften ein hochaktuelles Thema unter Ökonomen und Politikern. Eine Erhöhung der Nettoeinwanderung kann erhebliche Auswirkungen auf die Arbeitsmärkte der Aufnahmeländer und Herkunftsänder und weitere gesamtwirtschaftliche Effekte an Wirtschaftswachstum oder Arbeitslosigkeit haben. Immigration hat wirtschaftliche Vorteile für das Aufnahmeland weil Einwanderer sind in der Regel mehr erwerbstätig als die einheimische Bevölkerung, sind bereit zu unerwünschten Jobs, arbeiten für niedrigere Belohnung oder unter schlechteren Arbeitsbedingungen. Dies könnte einen wertvollen Beitrag zur Steigerung der Produktivität, Unternehmertum und wirtschaftliches Wachstum zu stellen. Die tatsächlichen wirtschaftlichen Auswirkungen der Einwanderung hängt nicht nur von wirtschaftlichen Lage im Empfängerland und ihre aktuellen Bedürfnisse für Arbeitskräfte, sondern auch über den rechtlichen Rahmen der Einwanderung und

auch kulturelle und persönliche Merkmale der Einwanderer selbst und ihre Fähigkeit und Bereitschaft zu arbeiten und zu leben im Gastland und sich integrieren die Gesellschaft.

Der Zustrom von ausländischen Arbeitskräften in der Wirtschaft steigt das Arbeitsangebot im Gastland. Die Unternehmen verfügen über breitere Möglichkeiten bei der Auswahl neuer Mitarbeiter, sie können aus einem breiteren Spektrum von Arbeitskräften wählen. Berufe und Branchen der Volkswirtschaft, die Engpässe haben (Landwirtschaft, Bau, IT usw.) herbeiziehen qualifizierte Migranten, die zur Linderung dieser Engpässe beitragen. Eine Erhöhung des Arbeitsangebots durch Migration wird auch inflationäre Tendenzen der Löhne zurückhalten oder sogar zu einem Rückgang der Löhne führen weil die expandierende Arbeitsmarkts-Angebotsseite ist leicht in der Lage, die Bedürfnisse der Unternehmen in Bezug auf die Nachfrage nach Arbeitskräften zu befriedigen. Ein weiterer Grund für einen verminderten Druck auf die Löhne ist die Tatsache, dass die Migranten kommen meist aus weniger entwickelten Ländern und sind bereit, niedrigere Löhne als die meisten einheimischen Angestellten zu akzeptieren. Dieser geringe Lohndruck und niedrige preis-inflationären Tendenzen präsentieren in der Regel geeignete wirtschaftliche Rahmenbedingungen für niedrige Zinspolitiken der Zentralbanken, die Investitionen und Wachstum fördern. Das alles präsentiert positive Kostenveränderungen für die Unternehmen in einem kurzfristigen Zeitraum.

Mögliche Auswirkungen von Migration auf die soziale Ausgrenzung wurden durch Fevre (1998) behandelt. Er argumentiert, dass es viele Gründe gibt, warum die Freizügigkeit wünschenswert ist, aber eines der überzeugendsten Argumente liegt in der Möglichkeit, soziale Ausgrenzung, indem die Lieferungen von Arbeitskräften in den Orten, wo eine Nachfrage nach Arbeitskräften besteht zu bekämpfen. Aber dann fügt er hinzu, dass in der Tat, es gibt sehr wenig empirische Evidenz, dass der Abbau der internen Hindernisse für die Migration innerhalb der Europäischen Union auf diese Weise funktionieren würde. Jedenfalls eine gewisse Rolle der Migration in Besserung der sozialen Ausgrenzungsprobleme ist denkbar.

Aus demografischer Sicht ist es offensichtlich, dass der Migrationszustrom die Gesamtbevölkerung erhöhen was sofort die gesamtwirtschaftliche Nachfrage im Gastland erhöhen kann. So kann eine Zunahme der Bevölkerung von Migration das Wirtschaftswachstum in der kurzen Frist erhöhen und wirtschaftliche Nutzen aus der Migration können auch in dem langfristigen Wachstum sichtbar sein. Höheres Wirtschaftswachstum steigert Steuereinnahmen und ermöglicht eine reibungslose Umsetzung der Wirtschaftspolitik, inkl. Migrationspolitik. Die meisten Migranten sind junge Menschen, die im Allgemeinen flexibler sind und können an neue Bedingungen anpassen als ältere Arbeitnehmer. Zugeben von talentierte hochqualifizierten Migranten tragen der wirtschaftlichen und technologischen Weiterentwicklung des Gastlandes bei. Außerdem sind junge Menschen auch weniger Risiko gefürchtet, die kommen können, was sich in einer höheren unternehmerischen Tätigkeit auswirken kann und zu anderen potenziellen Gewinne für die Angebotsseite der Wirtschaft hinzufügen kann.

Der Wachsende Zustrom von Arbeitnehmern wirft eine berechtigte Frage zu den Kosten der internationalen Migration für das Empfängerland auf. Kritiker der Arbeitsmigration gehen davon aus, dass ein Zufluss von gering qualifizierten Arbeitsmigranten, dass das Arbeitskräfteangebot in den niedrig qualifizierten Segment des Arbeitsmarktes erhöhen wird, wird dann auch den Durchschnittslohn der lokalen gering qualifizierte Arbeitnehmer erniedrigen. Weitere Bedenken ergeben sich über das Risiko einer höheren Arbeitslosigkeit unter den Migranten, wenn die Qualifikationen der Migranten nicht übereinstimmen mit aktuellem Bedarf der Unternehmen auf dem Arbeitsmarkt. Gering qualifizierte Migranten sind auch eher arbeitslos zu sein oder nicht erwerbstätig, was die Zweifel an tatsächliche Produktivität Wirkungen hervorruft. Diese Situationen können einen erhöhten Druck auf den Wohlfahrtsstaat produzieren mit höheren staatlichen Ausgaben für notwendige Infrastruktur bei Arbeitslosigkeit und andere soziale Leistungen, wobei höhere Kosten für Bildung, Gesundheitswesen usw. entstehen können. Um einige dieser Risiken zu reduzieren werden in vielen Ländern selektiven Einwanderungspolitiken angewandt mit Gewährleistung dass das Migranten Qualifikationsprofil entspricht den Anforderungen des Arbeitsmarktes. Ausländische Arbeiter in der Regel migrieren in einem größeren Ausmaß nach bestimmte Gebieten des Landes und der zunehmende Migration Zustrom kann einen Einfluss auf Immobilienmarkt in diesem Gebiet haben. Die Erhöhung der Nachfrage nach Wohnraum treibt die Lebenshaltungskosten höher und die führen zu höheren Lohn Bedürfnisse der Mitarbeiter und einer potenziellen Erhöhung der Lohninflation. Dieses letzte Beispiel zeigt, dass die Folgen der Masseneinwanderung viel breiter sind und sich nicht nur auf Wachstum und Produktivität Probleme reduziert werden können, sondern müssen auch im weiteren wirtschaftlichen und soziokulturellen Kontext betrachtet werden.

In Bezug auf den praktischen Teil des Artikels das Teilziel war es, Zusammenhänge zwischen der Migration und die Arbeitslosigkeit in den Ländern der Visegradgruppe mit adäquaten quantitativen Methoden zu bewerten. Parameter einer Regressionsfunktion wurden mit Hilfe von Methoden der Regressions- und Korrelationsanalyse (einschließlich Prüfung der statistischen Signifikanz) festgelegt. Es wurden Parameter einer linearen, quadratischen und kubischen Regression Funktionen in dem gegebenen Bezugszeitraum berechnet. Die Existenz der Korrelation ist offensichtlich zwischen dem benutzten Indikator der Migration und der Arbeitslosigkeit in der Tschechischen Republik, wo Korrelationsindexe statistisch hoch signifikante Ergebnisse erreichen bereits mit einem Polynom des ersten Grades. In Ungarn hat die Verwendung eines Polynoms des ersten Grades nicht statistisch signifikante Ergebnisse gebracht. Aber die Verwendung eines Polynoms des höheren Grades verbessert wesentlich den ungarischen Korrelationsindex.

Während oben genannten Länder erreichten hochsignifikante Ergebnisse, in Polen und der Slowakei nicht einmal die Änderung eines Polynoms zu einem höheren Grad zeigt Zeichen der statistischen Signifikanz. Die Erklärung kann in einer Bewertung der gesamten Arbeitslosenquote unter den untersuchten Ländern gefunden werden. Trotz des starken Rückgangs in der Arbeitslosigkeit in Polen und

der Slowakei in den letzten Jahren vor der globalen Finanz- und Wirtschaftskrise die Arbeitslosigkeit blieb weiterhin auf einem relativ hohen Niveau. Somit ist die untersuchte Beziehung zwischen Migration und Arbeitslosigkeit viel schwächer als in Ländern mit relativ niedriger Arbeitslosigkeit. Verständnis der breiteren Migrationsmuster und Identifizierung der wichtigsten Determinanten der Migration die in diesem Artikel beschrieben werden, ermöglicht dann die Bewertung der Migrationspolitik und der Bestimmung der makro- und mikroökonomischen Vorteile und Kosten der internationalen Arbeitsmigration.

MAJANDUSKRIIS JA MAJANDUSPOLIITIKA EESTIS 2007-2010

Olev Rahu
Tartu Ülikool

Kriisi ulatus

2007 aastal algas Eestis tema ajaloo suurim majanduskriis. Majanduskriisi sügavust iseloomustatakse kahe põhilise karakteristikuga: tema kestvuse ja sügavusega. Majanduskriisi Eestis iseloomustavad ja tema võrdlust teiste EL liikmesriikidega võimaldavad andmed on toodud tabelis 1.

Tabel 1. Majanduskriisi ulatust iseloomustavad näitajad Eestis 2007-2010 (%-des võrreldes eelneva perioodiga)

Periood	2007				2008			
	I	II	III	I	I	II	III	IV
SKP	9,8	7,6	6,4	4,5	0,4	-1,4	-3,3	-9,9
Maksutulud	27,6	28,4	18,6	18,2	10,2	5,7	7,1	-2,8
Keskmine palk	20,1	21,2	12,9	20,2	19,5	15,2	14,4	6,9
Tööpuudus (%)	4	3,9	4,1	4,1	16,2	16,2	16,2	16,2
Periood	2009				2010			
	I	II	III	IV	I	II	III	IV
SKP	-15,1	-16,5	-15,6	-9,7	-2,4	1,7	3,1	6,2
Maksutulud	-10,1	-12,1	-13,6	-10,9	5,7	-2,2	-1,0	2,2
Keskmine palk	-1,5	-4,4	-5,9	-4,9	-2,3	-1,7	-0,7	
Tööpuudus (%)	16,2	16,2	16,2	16,2	16,2	16,2	16,2	16,2

Majanduslangus jt negatiivsed ilmingud Eestis osutuvad suurteks, ületades tublisti EL keskmisi. Eestist (2008 -5,1%, 2009 -13,9% ja 2010 I kvartal veel -2,6%) suurem oli SKP langus vaid Lätis, veidi väiksem Leedus. Teistes riikides on langus olnud juba märksa väiksem (neist suurim Iiri 2008 -3,5% ja 2009 -7,6%). Mõnes riigis, eelkõige Kreekas (2008 +1,3%, 2009 -2,3% ja 2010 prognoos -3,0%), aga ka Rumeenias ja Bulgaarias, see veel kestab, kuid vaevalt summa ületab Eestit. EL keskmine langus (-4,2%) aga oli Eestist palju väiksem; parimad riigid, nagu näiteks Poola, on aga kogu aeg olnud plussis.

Teiseks kriisi suurust iseloomustavaks üldtunnustatud näitajaks on tööpuudus. Suurima tööpuudusega riigid oktoobris 2009 ja juulis 2010 (hilisemad andmed on mittetäielikud) olid Läti 19,9%, Hispaania 19,0%, Leedu 15,9%, Sloveenia 13,8%, Iiri 13,0%. Siis tuleb suurem vahe (EL keskmine oktoobris 2009 oli EL 9,4%). Juuni 2010 oli EL keskmine 9,6%, must nimekirja: Hispaania 20,2%, Läti 19,4%, Eesti 18,6%, Leedu 18%, Slovaki 14,4% ja Iiri 13,7%. Mõnes riigis, nagu Saksamaal, tööpuuduse krisisperioodil ei suurenenudki.

Kriisi sügavust iseloomustab ka majanduslanguse kestvus, mis osutuks pikaks. Tänase seisuga võime väita, et SKP kasvutempo oli miinusmärgiga Eestis 9 kvartalit, enamikus EL riikides 4-6 kvartalit. Meid „lõöb“ selle näitajaga ära Lät, kus 2010a. II kvartal oli veel miinuses (III esialgseil andmeil plussis) ning ilmselt ka Kreeka, kus langus algas hiljem, aga tõusu pole veel näha; võimalik et ka Iiri ja Rumeenia, kus ka langus jätkub. Mis aga puutub kriisieelse taseme saavutamisse, siis SKP osas kulub selleks Eestis ilmselt kuskil 4-5 aastat, hõive osas ilmselt kuem. Igatahes pole ükski tõsiselt võetav allikas julgenud viimast arvu pakkuda.

Eestit tabanud majanduskriisi sügavust iseloomustab hästi ka põhinäitajate võrdlus varasemate kriisidega, eriti maailma rängima majanduskriisi, 1929-1932 aasta Suure Depressiooniga. Selle aja statistika Eestis oli teistsugune kui praegune, ka oli majandussituatsioon erinev. Seetõttu ei tahaks nende andmete võrdlust küll absolutiseerida, kuid vahed on nii suured, et räägivad siiski selget keelt. Neil aastatel vähenes Eesti SKP 5%. Pöllumajandustoodang, mis oli sel ajal ülioolliline, aga isegi kasvas. Vahe SKP viimaste aastate summaarse miinusega üle 23% on suur. Maksimaalseks töötute arvuks pakuti sel perioodil 16 000 (Mitte 160 000 N B.!) Võrreldes praeguse arvuga, millele tuleks lisada veel need kümned tuhanded, kes otsivad tööd välismaalt, on vahe igatahes suur. Isegi kui arvestada talumajanduse dominanti sel perioodil, ei ole pilt mitte praeguse kriisi kasuks. Ka kriisi kestus (langus kestis alla 1,5 aasta) oli lühem. Eeltoodu näitab viimase majanduskriisi sügavust Eestis.

Majanduspoliitika kriisperioodil

Riikide poolt kriisiperioodidel kasutusele võetavaid abinösid võib rühmitada kaheks: majanduse elavdamine ja riigi enda finantssuutlikkuse tagamine. Abinöude efektiivsus on seda suurem, mida õigeaegsemalt nad on kasutusele võetud ja mida täpsemalt nad on suunatud just antud majanduskriisi tekkepõhjuse ületamisele.

Eestit on 2007 aasta märtsist kuni 2011 aasta märtsini juhtinud sisuliselt üks ja sama valitsus. Valitsuse majanduspoliitilised seisukohad on kõige selgemalt ära toodud iga aasta II kvartalis avaldatavas Riigi eelarvestrateegias. (Vt tabel 2). 2007a eelarvestrateegia on otseselt eelmiste aastate ülikiire majanduskasvu (SKP kasv 2005 10,5%, 2006 11,4%) eufooriat lähtuv ja realses elus juba 2006 aastast eksisteerivate ohumärkide täieliku ignoreerimise vaimus. Püstitatakse ülesanne jätkata majanduse ülikiiret kasvu kogu vaadeldaval perioodil keskmiselt 7,5% aastas, vähendada maksukoormust, hoida tööpuudus 4,4% tasemel. Eriti ülioottimistlik on riigieelarve tulude prognoos – aastaks 2010 juba 109,2 miljardit krooni. (Tegelik oli 84,5 miljardit, sellest maksud 63,4 miljardit krooni). SKP, mis pidi 2010 jooksevhindades joudma 216,6 miljardi kroonini, oli tegelikult 142,5 miljardit krooni. Sellise ülioottimismi baasil loodetakse iseenesliku kiire arengu jätkumisele ja strateegia majanduspoliitika osa on üldsonnaline.

Loodetakse, et kõrge tööhõive säilib iseenesest. Eelarve tulude poolel kavandatakse äärmiselt lihtsa maksusüsteemi säilitamist, tööjõu ja kapitalimaksude vähendamist ning tarbimis- ja keskkonnamaksude tõstmist.. Sellest realiseerus tegelikult vaid

tarbimis- ja keskkonnamaksude tõus; tööjõumaksud seoses töötuskindlustuse suurendamisega vähenemise asemel hoopis kasvasid. 2010 aastaks oli sotsiaalmaksu osakaal riigieelarve maksutuludes kasvanud 2006 aasta 39,4%lt 42,0%ni., oluliselt olevat kasvanud ka töötuskindlustuse maksed.

Tabel 2. Valitsuse majandusstrateegia alusprognoosid ja nende võrdlus tegelikuga 2007-2012

	2007	2008	2009	2010	2011	2012
GDP kasv						
Prognoos 2007	9,2	8,3	7,7	7,5	7,4	-
Prognoos 2008	-	3,7	6,4	6,8	6,5	6,3
Prognoos 2009	-	-	-8,1	-3,5	2,9	5,4
Prognoos 2010	-	-	-	1,0	4,0	4,2
Tegelik	6,9	-5,1	-13,9	2,4	-	-
Tööpuudus (%)						
Prognoos 2007	4,8	4,3	4,4	4,4	4,4	-
Prognoos 2008	-	4,3	5,1	5,5	5,5	5,3
Prognoos 2009	-	-	12,2	15,6	15,4	13,5
Prognoos 2010	-	-	-	15,5	13,9	11,9
Tegelik	4,7	5,5	13,8	17,2	-	-
Inflatsioon (THI)						
Prognoos 2007	4,9	5,2	4,4	3,6	3,3	-
Prognoos 2008	-	9,0	5,3	3,6	3,5	3,4
Prognoos 2009	-	-	0,4	-0,6	1,3	2,2
Prognoos 2010	-	-	-	1,1	2,0	2,4
Tegelik	6,7	10,6	0,2	0,7	-	-

Valitsuse järgmine majandusstrateegia avaldati 2008 aasta mais. Siin on eesköige veidi vähendatud konkreetseid arve seoses juba toimiva majanduskriisiiga. (SKP kasvutempo oli sel perioodil tegelikult juba miinusmärgiga). Sellises situatsioonis on valitsuse poolt 2009 aastaks prognoositud arvud (SKP +6,4, tööpuudus 5,1%) ülioptimistlikud ja lähtuvad ilmselt tekkiva kriisi ulatuse mittetajumisest. Seetõttu sisuliselt puuduvad ka kriisivastased abinõud; majanduspoliitiline programm kordab suures osas eelmise aasta oma. Kuid lisandunud on üks: üleminek eurole. Selleks vajalikest 5 tingimustest oli Eestil kindlalt täidetud 2 – valuuta stabiilsus (valuutakomitee süsteem tagas selle) ning madal riigivõla tase. Inflatsiooni vähinemine kriisiperiodil tööpuuduse suure kasvu ja palkade kärpimise tingimustes oli prognoositav. Pikaajalise krediidi intresse arvutatakse riigi võlakirjade alusel. Nende tase Eestis ületas Maastrichti kokkuleppes nõutut. Mis puutub eelarve tasakaalu, mis sel ajal oli juba suur probleem (sama aasta suvel oli valitsus sunnitud tegema negatiivse lisaelarve), siis majandusstrateegilistes kavades maikuus räägitakse isegi eelarve ülejäägist 1% ulatuses. Mingeid erakorralisi abinõusid eelarve tasakaalustamiseks strateegias ei kavandata.

2009 aasta maikuus esitatud valitsuse majandusstrateegia on loomulikult teises laidis. 2008 aasta lõppes vaatamata negatiivsele lisaelarvele konsolideeritud

eelarve puudujäägiga 7,3 miljardit krooni; SKP oli miinustes alates 2008 aasta II kvartalist. SKP kasvu miinus oli jõudnud 2009 aasta I kvartalis juba 15,1%ni. Sellistes tingimustes ei olnud loomulikult võimalik jätkata majandusstrateegiat eelmiste aastate stilis. Kuna riigis jätkas sama valitsus, oli tal võimalik valida kahe variandi vahel – tunnistada 2 viimase aasta prognooside ekslikust ja ülioottimismi majanduspoliitilistes prognoosides või juhtida tähelepanu mujale. Lähenevate valimiste tingimuses valis valitsus teise tee. Põhieesmärgiks kuulutati üleminek eurole ning kogu majanduspoliitika allutatakse sellele. Nagu juba eespool toodud, oli Eestil raskusi kahe kriteeriumi täitmisega.. Seda kuskil kirja panemata – abinõu ei kajastu ei strateegias ega riigieelarve seletuskirjas – kasutas valitsus asjaolu, et riigi võlakirju oli väga vähe ja ostis need välja. Seega õnnestus see kriteerium, vähemalt formaalselt, täita. Isesei, kuidas selline rahamassi vähendamine majanduskriisi haripunktis mõjus makromajanduslikult. Eelarve tasakaalu kriteeriumi täitmiseks püstitati loosung – eelarve deftsiit ei tohi olla suurem kui 2,9% SKPst. Selle elluviiimiseks kõigepealt kärbiti riigi kulutusi (peatati ajutiselt juurdemaksed pensionifondidesse, vähendati omavalitsuste eelarveid, kärbiti palku jne). Nii 2008 kui 2009 tehti aasta keskel negatiivsed lisaelarved. Maksupoliitikas mindi maksude suurendamisele: käibemaksu soodusmäär tõsteti 5%lt 9%le, vähendati nii maksustatud kaupade loetelu ning suurendati VAT tavamääri 18%lt 20%le. Suurendati oluliselt aktsiise ja vähendati tulumaksusoodustusi.

Suurte pingutuste hinnaga eelarve deftsiit hoiti allpool 3% SKP ning Eesti liitus euroga 01.01.2011. Küsimus on aga selles, milline oli nende abinõude makromajanduslik mõju. Maksude olulise suurendamise kriisi haripunktil mõju süvaanalüüs ei mahu käesoleva kirjutise raamidesse; küll aga üritame alljärgnevalt vaadelda lähemalt negatiivsete lisaelarvete mõju. Kuna ka see on väga keeruline ja mitmetahuline probleem, siis piirdume nende mõjuga eelarve järgneva perioodi laekumistele.

Majanduskriis ja eelarve

Oluline on kriisi korral vaadelda tema mõju riigieelarvel. Sõltuvad ju riigieelarve suurusest, struktuurist jt karakteristikatest oluliselt riigi võimalused sekkuda majanduskriisi (vähendada makse, suurendada riigi kulutusi jne). Eesti puhul on majanduskriisi tugev mõju eelarvele seotud kõigepealt Eesti riigieelarve tulude struktuuri omapäraga kus domineerivad tarbimismaksud ja tööjõumaksud. Need annavad kahepeale kokku pea 90% eelarve tuludest. Sellise struktuuriga eelarve laekub hästi majanduse tõusu aastatel ja halvasti majanduslanguse ning tööpuuduse kasvu perioodidel.

Nagu juba toodud, seadis valitsus endale eesmärgiks eurole üleminekuks vajalike kriteeriumite tätmise. Selleks tuli tagada eelarve deftsiit mitte üle 3% SKP-st. Kuna eelarved lähtusid ülioottimistlikeks majandusprognoosides, siis jäid laekumiste mahud oluliselt alla kavandatule. Nii oli 2008 eelarve algsest 79,4 miljardit krooni, täitmine 70,4, 2009 aasta eelarve kava 77,2 ja täitmine 63,8 miljardit krooni. Sellises olukorras tagas valitsus eelarve tasakaalu negatiivsete lisaelarvetega.

Negatiivsete lisaeelarvete mõjud

Vaatleme alljärgnevalt Eestis vastu võetud kolme negatiivse lisaeelarve mõju eelarve järgnevate perioodide laekumistele. Eestis võeti vastu esimene negatiivne lisaeelarve 2008 aastal mahus tulud -6,1 miljardit krooni ja kulud -3,2 miljardit kroon. 2009 aasta I vähendas tulused 9,6 miljardit krooni ja kulusid 6,6 miljardit krooni. 2009 II lisaeelarve vähendas tulused 3,9 miljardit krooni ja kulusid 2,6 miljardit krooni.

Selleks, et analüüsida, palju selline kärbe vähendab tulevaste perioodide laekumisi, tuleb need kulud jagada mitmeks. Maksete vähendamine EL eelarvesse või siis relvastuse ost välismaalt mõjutavad praktiliselt ei mõjuta Eesti riigieelarve tulude edasisi laekumisi; samal ajal kui kõige vaesematele makstud lisarahade kärpimine, mis läheks ruttu esmatarbekaupade ostuks, oleks andnud eelarvesse käibemaksu, aktsiiside jne näol kiiret tagasilaekumist. Analüüsiks jagasin eelarve kulude kärped algsest neljaks.

Esiteks. 0i lähedase otsese tagasilaekumisega summad (maksed EL eelarvesse, relvade jne ostud välismaalt jms).

Teiseks. Investeeringud jms, mis annavad riigieelarvesse küll tagasilaekumise, kuid kaudselt. Investeeringud, need on millegi ostud, aga ka töötasud nende ostude töökorda saamiseks (ehitaja palgad, montaažikulud jne). Siit tulevad tagasilaekumised käibemaksuna ka aktsiiside ja tollimaksudena) ostudelt, sotsiaalmaksuna palkadelt ning käibemaksu ja aktsiisidena väljamakstud töötasude kasutamisel.

Kolmandaks tulusiirded. Need on eriilmelised. Põhiliselt lähevad nad omavalitsustele, kus neid kasutatakse väga erinevateks väljamakseteks, millede hulgas domineerivad tegelikult järgmise, 4 gruvi, maksed.

Neljandaks. Otsesed väljamaksed majapidamistele. Siin domineerivad need maksed, millest saadud raha inimesed kulutavad dominantselt sisetarbitimises (pensionid jms). Siit tulevad tagasilaekumised sotsiaalmaksudena (selle maksuga maksustatavalalt osalt väljamaksetest), eelkõige aga käibemaksu ja aktsiisidena väljamakstud raha kulutamiselt.

Vaatamata teatud tinglikkusele kulude jaotumises 4ks ning möödapääsmatult ligikaudsetele iga gruvi tagasilaekumise koefitsientidele on allpool saadud tulemus nii ühene, et ka maksimaalselt võimalik viga ei saa anda vastupidist tulemust. Pealegi on tagasilaekumise koefitsiendid mudeli kalibreerimisel pigem ala- kui ülehinnatud.

Tabel 3. Eesti riigieelarve lisaelarve kulude vähendamine 2008-2009 (miljonites)

Kulu suunitlus	2008	2009 I	2009II
I grupp (tagasilaekumise koefitsient 0)	492,6	993,9	187,4
II grupp (tagasilaekumise koefitsient 0,4)	832,5	980,2	321,9
III grupp (tagasilaekumise koefitsient 0,5)	497,8	1643,0	628,1
IV grupp (tagasilaekumise koefitsient 0,3)	1387,4	2957,7	1658,1
Kokku	3210,3	6575,8	2563,5

Lihtne aritmeetika näitab, et II grupid laekuks 2008 aastal tagasi 333 miljonit krooni, III grupid 249 miljonit krooni, ja IV grupid 416 miljonit krooni, seega kokku 998 miljonit krooni. Arvestades raha liikumise keskmist kiirust oleks võimalik seda raha samal aastal välja maksta 2,2 korda. Kui lugeda, et see makstakse välja samas proportsioonis kui seda on negatiivne lisaelarve, s.t tagastatakse seda neile kuludele, võime lugeda, et kärped tekitasid uute laekumiste vähendamisega 2008 aastal täiendava „augu“ eesti riigieelarvesse 2195 miljonit krooni. Analoogiline arvutus 2009 aasta suhtes näitab, et I negatiivse lisaelarve raha oleks tagasi laekunud 3,9 korda ja II negatiivse lisaelarve raha 2,3 korda, seega vähenesid laekumised 2009 aastal tänu negatiivsele I lisaelarvelle $(392+822+887) \times 3,9 = 8429$ miljonit krooni ja tänu teisele negatiivsele lisaelarvelle $(129+314+497) \times 2,3 = 2163$ miljonit krooni. Kokku vähemalt 10,5 miljardit krooni. Selle summa ulatuses jäid järelkult tegemata ka avaliku sektori kulutused.

Järeldused

1. 2007-2010 aasta majanduskriis (SKP langus kokku üle 23%, tööpuuduse kasv pea 20%ni jne) oli Eestis sügav; sügavam kui pea köögis teistes EL liikmesriikides; samuti märksa rängem kui 1929-1932 aasta Suur Depressioon.
2. Eesti valitsus hilines kriisisituatsioonile hinnangu andmisega. Kriisi vastase võitllemise asemel kuuluti eesmärgiks nr 1 üleminek eurole. Maksude tõstmine ja eelarve oluline kärpimine kriisi haripunktis võimaldasid küll täita eurole ülemineku kriteeriumid, kuid ei aidanud kaasa kriisi ületamisele.
3. Eesti eelarve vähenemine kriisi ajal oli suur seoses tarbimis- ja tööjõumaksude suure osakaaluga eelarve tuludes. Sellises olukorras tegi valitsus 3 negatiivset eelarvet üldsummas 19,6 miljardit krooni. Need võimaldasid küll eelarvet tasakaalustada, kuid vähenendasid tulevaste perioodide laekumisi eelarvesse vähemalt 13,3 miljardit krooni.

MÕNED KRIITILISED MÄRKUSED EESTI MAJANDUSPOLIITIKA VIIMASTELE ARENGUTELE

Matti Raudjärv
Tartu Ülikool

Sissejuhatus

Majanduskriis, mida võib ajaperiodiga 2008-2010 piiritleda (põhiraskusega küll aastal 2009) ning millest taastumine algas 2010. aastal, vajab ilmselt edaspidi kui saab ka selle kriisi kestuse täpsemalt fikseerida, põhjalikku ja detailset analüüsni nii põhjuste kui tagajärgede väljatoomisel (põhiseisukohad on küll üldjuhul teada). Samas on juba praegu vaja kõikjal nii tegutseda, et järgmised sammud majanduskriisist väljatulemisel ja arengu saavutamisel oleks nii majanduspoliitiliste abinõude valiku kui tegevussuundade osas ratsionaalsed, ega viiks riikide majandusi peatsetele tagasislöökidele või ebaõnnestunud (valedele) suundadele. See on täna aktuaalne ka tuleviku seisukohast.

Artikli eesmärgiks on anda osaline lühitülevaade Eesti majanduse arengutest lähiminevikus,¹ majanduspoliitilisest käitumisest majanduskriisi ületamisel ja sellest väljumisel ning edasistest suundadest ja probleemidest (sageli on need olnud põhjusteks majanduskriisi võimendumisel) rahvamajanduse arendamisel Euroopa Liidu liikmena.

1. Majanduskriis, majanduse üldolukord, töötus ja hindade tõus

Majanduskriis jättis teiste riikide kõrval ka Eesti majandusse sügava jälje ja töi languse kaasa. Samas tuleb nentida, et näiteks töötus oli 2010.aastal rekordiliselt kõrge, nimelt 16,9%. Töötuse tipp oli ametlikult 2010.aasta esimeses kvartalis, ulatudes 19,8%-ni. Eestis on lubamatult palju töötuid, erinevatel hinnangutel oli 2009-2010.aastal Eestis töötuid kokku ca 125-130 tuhat inimest², ehk ca 20% Eesti tööjõust. Seejuures osa inimesi on nõ töötute arvestusest väljas (st ühe aasta mõõdudes kui inimene ei ole tööle asunud, langeb ta registreeritud töötute registrist välja; hulk inimesi ei ole end kunagi töötuna arvele võtnud kuigi on aastaid tööta). Selline olukord ei iseloomustata riigi majanduspoliitikat positiivsest küljest. Kui Euroopa Parlamenti töö- ja sotsiaalküsimuste volinik László Andor kohtus 11. märtsil 2011 Brüsselis ajakirjanikega ning suure tööpuuduse pärast eeskätt Eestile ja Hispaaniale osutas, ütles ta muuhulgas et „kõrge tööpuudus viatab valitsuse majanduspoliitika läbikukkumisele“. Sellega tuleb ilmselt nõustuda.

¹ Siinkohal juhib autor lugeja tähelepanu asjaolule, et artikkel on lõpetatud aprillis 2011, seega ajal kui mingeid lõplikke seisukohti majanduskriisist väljumisele, euro kasutamisele ega majanduse arenguperspektiviidlele anda ei saanud.

² Eestis oli 2010. aastal oli 15.-74. aastaseid tööjõulisi inimesi Eesti Statistikaameti andmetel 686,9 tuhat.

Kuna 2010.aastal oli tegemist aastaga, kus selleks, et 1.jaanuarist 2011 saaks Eestis euro kasutusele võtta, tuli täita vastavad Maastrichti kriteeriumid. Samas väideti avalikkusele kiivalt ja järjekindlalt pea kogu 2010.aasta kui ka 2011. aasta alguses, et euro ei tösta hindu. Kahtlematult, euro ei töstnud Eestis hindu, vaid kasuahned inimesed (eeskätt ettevõtjad ja kaupmehed) tegelesid hindade töstmisega. Ja seda juba alates 2010. aasta maikuust alates. Hindade töstmise toimus üldjuhul juba enne 2010.aasta lõppu, seega võis 1.jaanuarist töepooltest jätta hinnad töstmata. Kuigi hindade aeglane töusutrend jätkus osaliselt ka jaanuaris-veebruaris 2011. Kindlasti jätkub see ka edaspidi (kuigi viidatakse eeskätt maailmaturu hindade kasvule jms).

Siinkohal on sobilik tuua esile Eesti Panga informatsioon: „Eesti peamiste kaubanduspartnerite inflatsioon on viimasel ajal samuti kirenenud. Eesti toiduainete hinnad sõltuvad väliskaubanduspartnerite turul toimuvast ning on seetõttu viimase aastaga märkimisväärselt tõusnud. Eesti toiduainetööstus on hinnatõusust tulisti tulu lõiganud, saades 2010.aasta neljandas kvartalis läbi aegade suurima kasumi. See on koguni kuuendiku võrra suurem kui 2008.aastal saavutatud rekordtase. ... Juurdehindluse suur kõikumine (M.R. – kaupmeeste kasumiahnus) on tuntav ka toiduainete tarbijahindades ja seepärast on Eesti inflatsioon olnud teiste riikide omaga võrreldes märksa heitlikum. ... Samas ei saa välismaiste tegurite kaela ajada jaekaubanduse juurdehindluse kasvu, mis kerkis 2010.aastal taas rekordiliselle tasemele.“

Võib nõustuda sellega, et osaliselt on Eestis hinnatõusu teguriks tooraine hindade tõus maailmaturul, kuid teiselt poolt on kindlasti põhjuseks lihtsalt euro kasutuselevõtmise ärakasutamine ettevõtjate ja kaupmeeste poolt.

Ilmselt on Eestis sageli olnud tegemist demagoogilise jutuga avaliku elu tegelaste (sh mitmete erialaliitude esindajate) poolt, et tootjad ja kaupmehed hindu ei tösta ning ettevõtjate (sh kaupmeeste) poolse juba eelpool nimetatud kasumiahnusega.

2. Euro kasutuselevõtmine ja hindade dünaamika Eestis

Eurole üleminek (mida sageli on peetud oluliseks eesmärgiks majanduse elavdamisel ja majanduskasvu saavutamisel, olles aga artikli autori arvates pigem siiski vaid üks rahapolitiiline vahend, mille kasutamise tegelik efektiivsus selgub alles mõne aasta pärast või veelgi hiljem) oli Eestis seotud paljude tegevustega: eelarvekärped, euro kasutamise kriteeriumide täitmine; majanduskriisi leeendumine ja kriisist väljatulek; paljud teised edasised eelnevast tulenevad majanduspoliitilised otsustused ja käitumised.

Praegune hinnang – kas eurole üleminek sellise rahvamajandusliku seisundi hinnaga nagu Eestis (kõrge tööpuudus, paljude inimeste ja nende perekondade, sh laste äärmiselt madal elukvaliteet ning paljud teised sotsiaalsed ja muud probleemid) oli õigeaegne ja väikeriigi arengut tagav tegevus. Võib-olla tegutseti liialt kiirustades? Ehk olid siin esiplaanil parteipoliitilised huvid, mitte elanikkonna stabiilse heaolu kasv, inimeste elukvaliteedi töstmise ja majanduse arengu saavutamine?

Huvitav on siin vaadata leibkonna eelarve uuringut Eestis, mida korraldavad statistikaorganisatsioonid harmoniseeritud metoodika alusel kõigis Euroopa Liidu riikides. Selle üldjäreltus on äärmiselt kurb ning näitab Eesti elanike elukvaliteedi langust (sissetulekud vähenesid, hinnad tõusid, sundkulutused suurenedesid): leibkonnaliige kulutas Eestis 2010.aastal vähem kui 2007.aastal, samas suurenedes leibkonna eelarves sundkulutuste osatähtsus (vt lähemalt täisartiklist).

Huvitav on ka Tarbijakaitseameti andmetele tuginev informatsioon, et peale eurole üleminekut on ettevõtted jätkanud hindade kohandamist, muutes neid turustamise seisukohalt atraktiivsemaks. Näiteks jaanuaris 2011 esines üheksaga lõppevald hindu pisut enam kui 10% juhtudest, kuid märtsis 2011 oli neid juhtumeid juba üle 20%. Ka see tegevus on toonud kaasa hindade mõningase tõusu.

Äärmiselt halvasti on Eesti majandusele mõjunud tööviljakuse ja palga kasvu vahekorra pikajaline eiramine. Vastupidiselt Eestile, on näiteks kõrge arengutasemega riikides valitsenud elementaarne majandusteaduslik seisukoht, et tööviljakuse kasv peab ületama keskmise palga kasvu. Ja sellest on püütud ka kinni pidada. Eesti Statistikaameti väitel ei ole Eesti majandusel ja Eesti Vabariigi Valitsusel nende näitajate vastu erilist huvi ehk teisisi – pole nõudlust. Nii ongi Eestis viimase kahekümne taasiseseisvuse aasta jooksul üldjuhul keskmise palga kasv olnud kiirem kui tööviljakuse kasv ning selle vahekorra rikkumisest ei ole aastaid (eriti kiire majandustõusu aastatel) räägitud ega sellele tähelepanu juhitud. Alles majanduskriisi tingimustes pöörati sellele Eesti meedias aegajalt tähelepanu. Nii mõnigi kord meenutab Valitsuse tegevust Eestis Nõukogude Liidu aegu, kus hoolega valiti välja sobilikke majandusnäitajaid, millega riigi arengut eeskätt positiivselt küljest iseloomustati.

3. Euro ootuses kehtinud majanduspoliitika, selle taust – ennast kiitmast me ei väsi!?

Püüdes Eesti majanduspoliitikale süsteemset ja kompleksset hinnangut anda, võib teha üldistuse – poliitilised erakonnad on Eestis pikemat aega majanduse arengut takistanud, kuna nende omavaheline läbisaamine on halb. Ühe erakonna poolt esitatud arukaitud mõtteid sageli teised erakonnad ei toeta, vaid kritiseerivad sageli põhjendamatult ja demagoogiliselt. Üks tüüpilisemaid näiteid on siin regionalpoliitilise ja haldusterritoriaalse reformi temaatika. Samas jätabad hinnangud Eesti majandusele mõnede rahvusvaheliste institutsioonide poolt aegajalt kummalise mulje. See viitab sellele, et ilmselt ei tunta Eesti olukorra tegelikkust ning „lahmitakse“ nõ igaks juhuks või lihtsalt viisakusest.

Näiteks, rahvusvaheline majandusväljaanne Emerging Markets nimetas Eesti rahandusminister Jürgen Ligi areneva Euroopa 2010. aasta parimaks rahandusministriks. Ka Financial Timesi gruppi kuuluv rahvusvaheline majandusajakiri The Banker valis Jürgen Ligi Euroopa aasta parimaks rahandusministriks. Hr. Ligi arvas seepeale, et *meil on eurosooni liikmena*

Euroopas oluline sõnum öelda (M.R. röhutus).³ Samas on mööda vaadatud tõsiasjadest, et Eestis valitseb väga suur tööpuudus, suhteliselt suur vaesus, maaelu ebapiisav areng ja äremaastumine, järjest suuremas tempes kasvab lõhe suuremate ja väiksemate sissetulekutega inimeste vahel, üldine elukvaliteet võrreldes arenenud Euroopa Liidu riikidega on madal. Siinjuures on ühed kõige madalamad Euroopa Liidus ka Eestis makstavad töötute abirahad ja mitmesugused sotsiaalsed toetused abivajajatele.

Arvestades Eesti majanduse olukorda ja probleeme paljudes valdkondades, millega piisavalt ei tegeleta (näiteks maareformi lõpuleviimise venimine, regionalpoliitika tasakaalustamatus, suur tööpuudus ja tööhõive vastuolulised probleemid, rahvusliku investeerimise ja tööstuse madal tase jpm). Toimub massiline (iga 4.-5. tööeline) siirdumine tööl väljapoole Eestit (näiteks Soomes elab juba 28 500 eestlast; lisaks need, kes seal pidevalt tööl käivad) jmt olulised küsimused, sh ülim liberaalsus ehk pealtvaatamine ja mittesekkumine paljudes seda vajavates majandus- ja sotsiaalküsimustes. Üpris küsิตava väärtsusega on ka need hinnangud, mida aeg-ajalt Eesti majanduse ja Valitsuse tegevuse kohta välisekspertide poolt antakse. Nimelt pidi Eesti Vabariigi Valitsuse tegevus Eesti peaministri hinnangul oma edukuselt Luksemburgi ja Rootsi valitsuse tegevuse järel Euroopa Liidus kolmandal kohal olema. Kui nii, siis peaks küll Euroopa Liidu riikide valitsuste tegevus ja nende majanduse seis vägagi kehv olema. Tegelikult see nii siiski kõikjal ei ole. Seda kinnitab peaegu ükskõik milliste majandusnäitajate võrdlus Euroopa Liidu riikide vahel (vt lähemalt täisartiklist).

Sageli on Eesti poliitikud ja valitsustegelased varasematel aastatel toonud eeskujuks Iirimaa. Samas, Iirimaa liberaalne majanduspoliitika (millega on Eestis ilmselt kahjuks eeskju vörtud) on viinud riigi majanduse aga krahhini, kuigi aastaid Iirimaa majandust kiideti kui suurepärasest näidet kiirest edust. Tahaks väga loota, et Eesti majandusega nii ei lähe, kindlust positiivseteks arenguteks aga paraku ka ei ole.

4. Lõpetuseks: Riigikogu valimised ja Eesti edasise arengu vajadused

Seoses Eestis 6. märtsil 2011 toimunud Riigikogu valimistega (ka varasematega) on tekkinud hulk küsimusi. Näiteks küsimus: „Kui valijale ei sobi ükski tema elukohajärgses valimisingonnas üles seatud kandidaat ja ta soovib valida teises ringonnas esitatud kandidaati, siis kas ta võib seda teha?“ Ametlikuks vastuseks on: „Ei, häälletada on valijal võimalik vaid elukohajärgse valimisringkonna kandidaadi poolt, ka siis kui valija häälatab väljaspool elukohajärgset valimisjaoskonda või elektrooniliselt.“ Samas, eelhäälletamise (sh väljaspool elukohajärgset valimisjaoskonda või elektrooniliselt) ajal on valimisreklaam lubatud, valimispäeval mitte? Elektroonilisel häälletamisel võib uuesti mitmeid kordi häälletada (st võib

³ Jääb arusaamtuks, milline oluline sõnum on Eestil Euroopale ütelda, arvestades meie majanduse tegelikku suhteliselt madalat sotsiaal-majanduslikku taset ja tagasihoidlikku olukorda. Selleni on viinud Eestis viljeletud üiliberaalne ja saamatu majanduspoliitika paljudes valdkondades, mille tulemusel elukvaliteet käesoleval ajal langeb.

valitavat kandidaati ja hääleandmist muuta uuel järjekordsel elektroonilisel hääletamisel, mille kaudu eelnev hääle andmine automaatselt tühistatakse), valimispäeval ei saa seda aga teha. Pealegi mitte kõik valitud kandidaadid ei lähe Riigikogusse tööle, vaid jäavad endisesse ametisse (näiteks Euroopa Liidu institutsioonidesse ja mujale), olles erakonna juhtliikmete hulgas seega vaid nn häältepüüjad, pettes seeläbi oma valijaid. Eelnev viitab selgelt madalale vastutusele. Kindlasti vajab rakendamist võimalus saadikuid valijate poolt tagasi kutsuda, sest seni on osa saadikuid küll oma ülesandeid Riigikogus kindlasti ebapiisavalt täitnud.

Siin on sisulised vastuolud, probleemid ja mõtlemapanevad järeldused. Nimelt, tegelikult on kodaniku (valija) eest vallikud juba varem poliitiliste erakondade poolt tehtud ning valija (tegelikult hääletaja) asi on vaid anda oma hääl etteantud ja piiratud hulga kandidaatide seas. Seega on valija mõneti sunnismaine ja seotud oma valimisringkonnaga, sellega kus ta elab ja on rahvastikuregistris, ta saab hääletada, mitte aga vabalt valida (ega see pärisorjust ei meenuta? Kuna kodanikud on üldjuhul olukorraga vaikivalt rahul, siis on siin tegemist ehk väga tõsise orjameelse käitumisega?!). Samas, kandidaadid võivad aga vabalt poliitiliste erakondade paremal äranägemisel iga valimise eel justkui „jalutada“ suvalisse valimisringkonda ja seal kandideerida. Samas pole nad sageli kuidagi seotud ei selle elukoha ega rahvastikuregistriga kus ta kandideerib. See tähendab, et valija ja kandidaat on ebavõrdses olukorras, st nad ei ole võrdselt vabad. Siit võib järeldada, et Eestis toimuvad valimised ei ole piisavalt vabad ja demokraatlikud, tegemist on osaliselt demagoogiaga, mistõttu olemasolev valimissüsteem vajaks põhjalikku muutmist ning vabaduse ja demokratia vaimus täiendamist.

Eelist professionaalsust pole alati märgata ka avaliku teenistuse ametikohtadele nimetamisel-valimisel ja Valitsuskabineti moodustamisel võimuerakondade poolt (ministrid, Riigikogu ametnikud)⁴

Eesti majanduse arengus ei ole järgneva nelja aasta jooksul (2015. aasta kevad-talvel on järgmised Riigikoguvalimised) ilmselt oodata rahva elukvaliteedi tõusu. Pigem

⁴ Üks autori hea tuttav, pikajalise majandus- ja tootmispraktikaga suure rahvusvahelise tööstusettevõtte Eesti ja Baltikumi haru üks tegevjuhte, saatis pärast 2011. aasta Eesti Riigikogu valimisi Reformierakonna ning Isamaa ja Res Publica Liidu valitsemisprogrammi-koalitsioonileppe (ehk võimulekke) avalikustamise, kavandatud Riigikogu ameti- ja Valitsuse ministrikohtade teatavaks tegemise järel järgmise e-maili, mis annab päris tabavalt humoorika kuid sügavmõttelise ja süvenevat mõlemist vääriva hinangu võimuerakondade tegevusele nn „Eesti asjade ajamisel“, mõlemist nii valijatele kui erakondade liikmetele, eriti aga erakondade nn juhtfiguuridele:

„Vaadates kuidas meil siin ministriks saab, piisab meie ministritele erialase hariduse omandaniseks vaid kolme raamatu (mis on küll päris paksud) lugemisest: „Jah härra minister“; „Jah härra peaminister“ ning „Vahva sõduri Švejki juhumised maailmasõja päeval“. See viimane on küll natuke raskem kirjandus kui eelmised kaks, aga kui lugeda maksimaalselt 1-2 lehte päevas, siis ei tohiks ka selle raamatuga raskusi tekkida. Küll on siis oht, et raamatu 30-ndale lehele jõudes on algus meeles läinud, aga ei hullu, julgesti algusest peale, ehk läheb iga korraga kergemaks!“

võidavad edaspidi kõige enam need, kelle sissetulekud on kogu aeg kõrged olnud. Seda kinnitab ka kahe koalitsioonis oleva Eesti erakonna valitsemisprogramm, mida just sellises võtmes on iseloomustanud nii ekspерdid kui meedia. Kahjuks!

Eestis jäab puudu sotsiaalsusest ja õiglusest, kõneldakse küll inimestest kuid tegelikkuses on sageli raha olulisem kui inimene. Teisiti öeldes – eirates neid (ja paljusid teisi) valdkondi, millele artikli autor on siin Eesti majanduspoliitikat käsitlettes viidanud, võib Eesti ühiskonda lähema kümne aasta jooksul 2008-2010. aasta majanduskriisiga võrreldes vähemalt sama tösised sotsiaal-majanduslikud katsumused ees oodata. Põhiline viga on selles, et Eestis ei soovita ega osata majanduspoliitikat käsitleda ja ellu viia kompleksse süsteemina, vaid valitakse vajalikust tegevusest välja vähem ebamugavad ja hetke seisukohalt kasulikumad tegevused. Puudub pikaajaline visioon mis arvestaks võimalikult täielikult kogu väiksearvulise Eesti elanikkonna heaolu suurendamise vajadusi. Uurides Eesti valitsuserakondade tulevikunägemusi, süveneb arusaam, et röhuasetus on pandud eelseisvatele aastatele kuni järgmiste Riigikogu valimisteni, edasine arengukujutlus on aga pea olematu ning ähmane. Kindlasti on Eestis veel pikk tee siinjuures ka kodanikuühiskonnani jöudmiseks, sest sageli on määrapavaks ametlike suvaline käitumine ja mõnigi kord isegi omavoli. Näiteid selle kohta on igapäevases elus palju.

KONKURENTSIPOLIITIKA INFRASTRUKTUURSETES ERANDVALDKONDADES EESTI NÄITEL: LOOMULIKU MONOPOLI JA UNIVERSAALTEENUSE PÖIMUMINE

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Konkurentsipoliitika spetsiifiliseks objektiks on need majandustegevuse valdkonnad, kus majanduslikel või poliitilistel põhjustel ei peeta võimalikuks konkurentsi kui kontrolli- ja juhtimismehhanismi kasutamist. Nendes erandvaldkondades asendab turu nähtamatut kätt bürokraadi nähtav käsi. Kirjanduses (vt. Eickhoff 1990; Schmidt 1990: 38) eristub erandvaldkondade analüüsimesil kaks käsitslust:

1. Normatiivne reguleerimisteooria püüab selgitada, miks mõnes valdkonnas on konkurent vältimatu või ebasoovitav ning millised juhtimismehhanismid oleksid seal eelistatavad.
2. Positivistlik reguleerimisteooria püüab seevastu uurida erandvaldkondade kehtestamise poliitökonomilisi põhjusi ning mittekonkurentsete juhtimismehhanismide kasutamise tagajärgi.

Käesolevas artiklis jäädakse normatiivse reguleerimisteooria raamidesse, keskendudes turutõrgete leevedamise võimalustele (vt ülevaadet Sepp 2010: 16-42). Artigli eesmärgiks on süsteemiseerida ja hinnata erandvaldkondade reguleerimise majanduspoliitilisi meetmeid Eestis kõrvutades eri valdkondade lahendusi nii omavahel kui ka normatiivse teoria tunnustatud seisukohtadega. Põhiline tähelepanu on seejuures pööratud loomulike monopolide ja universaalteenuse põimumisele infrastruktuurisektorites. Uudseks võib pidada universaalteenuse käsitlemist avaliku hüvisena, mistõttu vastav politika eristub reguleerimistru (Stigler 1971) poliitökonomilistest lahendustest. Probleemiks on siin teatav vastuolu politika eesmärkide vahel. Kui loomulik monopol vajab riiklikku järelevalvet tulude piiramise näol, siis universalteenuse pakkumine eeldab omakorda selle täiendava rahastamise korraldamist võrreldes turulahendusega. Töös on otseselt vaatluse alla kompromisslahendused energieetikas, telekommunikatsioonis, transpordis ning postindustries.

Erandvaldkondade riikliku reguleerimise olulisemateks põhjendusteks on kirjanduses toodud efektiivsuse ja õigluse printsipi. Artiklis räägitakse kahest põhilisest turutõrkest, millega on infrastruktuursetes sektorites sageli tegemist – loomulikest monopolidest ja avalikest hüvistest. Nii universalteenuse, sh geograafilise ühetaolisuse kui ka varustuskindluse ja infoühiskonnale ligipääsu tagamine on poliitilised eesmärgid ehk avalikud hüvised, mida turg ei garanteeri. Nende tagamine on võimalik vaid kollektiivse otsustusprotsessi kaudu spetsiaalsete majanduspoliitiliste meetmete, sh finantsmeetmete, abil.

Suuruseeliste ja kulutuste pöördumatusega seotud meetmed peavad tuginema konkreetsele analüüsile. Vastasel korral ähvardab regulatsiooniga üledoseerimine. Eriti ettevaatlik peab olema turutõkete kehtestamisega, sest neile kipub järgnema

regulatsiooni ahelreaktsioon. Kord juba kehtestatud regulatsiooni on äärmiselt raske tagasi võtta. Tähtis on ka loomuliku monopoliriigi vältimine.

Poliitiliste erandvaldkondade puhul on esiplaanil mitmesugused metaeesmärgid, mille saavutamist konkurents ei garanteeri. Viimaseid võib vaadelda kui avalikke hüviseid.

- Jaotusõiglus vajadustele vastavuse mõttes. Klassikaliste ümberjaotusinstrumentide (maksud ja subsiidiumid) kõrval on kasutatud ka administratiivseid hindu (näiteks lastekaupadele).
- Poliitiliselt soovitav majandusstruktuur. Põhjuseks võivad siin olla nii kvaliteedi kindlustamine (standardid), varustuskindlus energiateenustes, kriisiprofiliaktika (baastööstusharud, põllumajandus, infrastruktuur), tööstuse moderniseerimine jm.
- Nõudluse korrigeerimine, kui avalikkuse ja poliitikute arvates ei ole eranõudlus ratsionaalne (koolikohustus, narkootikumide keeld).

Poliitiliste erandvaldkondade erijuhtumiks, millele käesolevas töös pööratakse põhitähelepanu, on ka nn universaalteenused, mis peavad mõõduka ja ühtse hinna eest olema kättesaadavad kõigile elanikele. Siin osutuvad vajalikuks turule sisenemise tökked ja/või miinimumhinnad, sest võib tekkida "rosinanokkimise" või "mandi võtmise" oht. Turul teenindatakse vaid tasuvaid segmente, vähemtasuvad jäavad teenindamata. Majanduspoliitika teoria pakub siin kahte lahendust:

- 1) ühtede segmentide ristsubsideerimine teiste arvel, mis eeldab muidugi nn rosinanokkimise või kooreriisumise tõkestamist lokaalsete monopolide loomise ja neile eriõiguste väljaandmisega;
- 2) kui ristsubsideerimine ei suuda tagada piisavalt laia juurdepääsu teenusele, siis tuleb lisada selle doteerimine, kas avalikest vahenditest või teiste turuosaliste siirdena.

Kui loomulike monopolide puhul räägitakse eriõiguste väljaandmisel enampakkumise rakendamisest monopoolse kasumi koondamiseks *ex ante* ühiskonna kätte koos selle hilisema kasutamisega näiteks riskigruppide kaitseks, siis universaalteenuse puhul on pigem levinud nn vähempakkumine. Konkursiga selgitatakse, missugune ettevõte oleks valmis piirduma teenuse kokkulepitud taseme pakkumisel minimaalse dotatsiooniga. Mõlemal juhul asendatakse konkurents turul konkurentsiga turu pärast.

Üldised raamid erandvaldkondade reguleerimisele kujundab Eestis konkurentsiseaduse IV peatükk. § 14 ja 15 defineerivad vastavalt eri- ja ainuõigusega ettevõtja ja olulist vahendit, sh. loomulikku monopoliriigi omava ettevõtja. Vastu on võetud ka rida eriseadusi, mitmed neist seejuures juba mitmendas versioonis. Kütuse- ja energiamajandust reguleeriv elektrituru seadus ning raudtee seadus kehtivad 2003. aasta versioonis. Kaabellevi (1999) ja telekommunikatsiooni seaduse (2000) asemel kehtestati 2005.a. elektroonilise side seadus. Viimane postiseadus jõustus 2006.a.

Konkurentsiseaduses vaadeldakse loomulikku monopolii kui turguvalitseva seisundi alust. Loomulik monopol on seotud käitusõigusega minge võrgustiku või infrastruktuuri suhtes, mida ei ole võimalik või otstarbekas dubleerida, kuid millele juurdepääsuta pole võimalik turul tegutseda. Valitsusel ja kohalikel omavalitsusel on sel puhul hinnakontrolli õigus, "et nende ettevõtjate kaupade ostjad või nendele ettevõtjatele kaupade müüjad ei satuks oluliselt halvemasse seisu, kui nad oleksid siis, kui antud valdkonnas toimiks vaba konkurents" (§ 17). Seega toimub konkurentsi nähtamatu käe asendamine riigi nähtava käega. Seadus sõnastab ka monopolistide põhikohustused (§ 18):

- ligipääsu tagamine võrgustikele ja infrastruktuurile mõistlikel ja mittediskrimineerivatel tingimustel kaupadega varustamise või müügi otstarbel;
- läbipaistvuse kindlustamine raamatupidamises.

Konkurentsiseadus röhutab ka teist loomulike monopolide mõju neutraliseerivat mehanismi: asendada konkurents turul konkurentsiga turu pärast. Selleks tuleks monopol välja anda avatud pakkumise korras vastavalt riigihangete seadusele (RT I 1995, 54, 883; 1996, 49, 953). Idee on põhimõtteliselt õige, kuid seda ei saa pidada ka imerohuks. Pöördumatud investeeringud annavad eelise vanadele turul olijatele, kes ei pea enam muretsema oma investeeringute tasuvuse üle ning saavad teha üldjuhul soodsamaid hinnapakkumisi

Erandvaldkondade iseloomustamiseks üritasime neid süsteemiseerida põhiliste eristumistunnuste järgi (tabel 1).

Loomulikud monopolid võivad olla täielikud või osalised. Esimesel juhul mõtleme elektri- ja raudteevõrkudele, kus *ex ante* regulatsioon on alaline. Sama kehtib ka gaasi-, vee- ja soojamajanduse võrkude (torustike) suhtes. Osaliseks monopoliks võib pidada elektroonilise side ettevõtjaid, keda võidakse reguleerida konkurentsiameti erianalüüs jaotsuse alusel. Teatud suuruseelistest võib rääkida ka posti ja bussistransporti osas, mistõttu on eraldi reguleeritud ligipääs Eesti Posti postivõrgule.¹ Loomulikud monopolid jagunevad ka vertikaalselt integreeritud ja integreerimata ettevõtjateks. Eesti Raudtee esindab esimest ja Elering teist tüüpi. Vastavalt on erinev ka regulatsiooni intensiivsus ja vorm. Elering teeb otsuse oma vahendusteenuse osutamiseks elektri tootjatele ja tarbijatele iseseisvalt regulatsionides ette nähtud korras. ERV Infra eest teeb raudtee läbilaskevõime jaotuse ära riiklik institutsioon - Konkurentsiamet.

Politiilised erandvaldkonnad on eelkõige seotud universaalteenuse osutamisega. Tegemist on füüsiliselt (geograafiliselt) ja majanduslikult tarbijatele kättesaadava teenusega. Seejuures on just kättesaadavus see hüvis, mida turg ei hüvita ning mis seetõttu on käsitletav avaliku hüvisena. Näideteks on siin taksofoni- ja lihtkirjateenused vastavalt elektronilise side ja posti sektorites, aga ka reisijatele mõeldud bussi- ja rongiliiklus. Teatud analoogia on siin ka energiectikas tähtsustatava

¹ http://www.post.ee/failid/Juurdep__s_Eesti_Posti_postiv_rgule.pdf

varustuskindlusega, mida ei saa pakkuda eraldi üksikutele klientidele. Siingi on tegemist välistamatu ja seega avaliku hüvisega. Kokkuvõttes puutume me universalteenusega kokku praktiliselt kõigis infrastrukturite sektorites, mis on selle valdkonna spetsiifkat arvestades ka igati mõistetav.

Tabel 1. Loomuliku monopolija universaalteenuse vahekord ning reguleerimine Eesti infrastruktuursetes sektorites

Tunnus	Elektri-, gaasi-, vee-, soojusvõrk	Raudtee		Elektrooniline side		Post: lihtkirjad ja -pakid	Kohalik bussiliiklus
		Infra- struktuur	Reisijate vedu	Võrk	Takso- fonid		
Loomulik monopol	+	+		?		?	?
Vertikaalselt integreeritud	+/-	+		+			
Universalteenus	+		+	+	+	+	+
monopoliga subsidiidumiga	+						+
• eelarvest	+ ²	+	+				+
• siiretest				+	+	+	

Allikas: Autorite koostatud.

Samas võib avaliku hüvise pakkumise korraldus eri valdkondades oluliselt varieeruda. Posti- ja telekommunikatsiooni turul tagatakse see siiretega (kompensatsiooniga) oma konkurentidelt. Tösi küll, vaid juhul kui avaliku hüvise pakkumisega kaasnevad erilised kulud. Enamasti on siinsed ettevõtjad niivõrd laia sortimendiga, et suudavad tagasihoidlikku universalteenust pakkuda ka ilma erilise kompensatsioonita. Reisijateveol rongi- ja bussitranspordiga on universalteenuse osutajateks just infrastrukturi operatorid, kellele universalteenus on põhittegevuseks. Siin rahastatakse avalikku hüvit otse riigieelarvest. Piletiraha võib pidada erahüvise katteks. Kohalike bussiliinide korral tuleb lisaks allikana arvesse ka ristsubsideerimine, mis nõubab piirkondlike monopolide kasutamist. Elektriturul on võrguettevõjal Elering vastava teenuse osutamise ainuõigus, mille baasil peaks kujunema ka selline tulu, mis ei vaja täiendavaid subsideerimismehhanisme.

² Liitumistasude osas toetatakse tarbijaid.

KAS PSÜHHOLOGIILISE TÖÖVÄGIVALLA LEVIK ON MAJANDUSSEKTORITES ERINEV: OLUKORD EESTIS?

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Sissejuhatus

Psühholoogilise töövägivalla levikut, põhjuseid ja mõju ei ole Eestis tervikuna seni uuritud, samal ajal kui demokraatlike traditsioonidega riikides on töökiusamine olnud viimasel paarikünnel aastal tööuringute üheks osaks. Käesolev uuring keskendub psühholoogilise töövägivalla leviku uurimisele Eestis tervikuna ning majandussektorite kaupa. Teades, millistes sektorites on töötajad enam psühholoogilise töövägivalla ohvrid, on võimalik paremini ja efektiivsemalt suunata ennetustegevusi, et vältida töövägivalla levikut.

Psühholoogiline töövägivald avaldab negatiivset mõju ohvriile, kuid lisaks ka kogu organisatsioonile ja ühiskonnale. Töövägivald põhjustab kogu ühiskonnale märkimisväärseid majandulikke kahjusid: suurenened kulutused tervishoiule, kulud töötajate enneaegse pensionile jäämisega, teenuste ja toodete kvaliteedi langus tulenevalt töötajate motivatsiooni ja produktiivsuse langusest. Nimetatud kahjud avaldavad mõju kogu riigi sisemisele koguproduktile. Eesti organisatsioonid on läbi teinud väga kiired muutused viimasel kahel aastakünnel: restruktureerimine ja uue majandusmudeli omaksvõtmine, samuti majanduslangusega toimetulek. Varasemate uuringute tulemused näitavad, et psühholoogiline töövägivald avaldub majandussektorites erinevalt. Kõige suurem risk kogeda psühholoogilist töövägivalda on avalikus sektoris: tervishoius, hariduses, avalikus halduses. Antud artikli eesmärgiks on esimese psühholoogilise töövägaivalla uuringu analüüs tulemuste esitamine Eesti kohta majandussektorite lõikes tuues välja majanduspoliitilised soovitused töövägivalla ennetamiseks.

Teoreetiline ülevaade

Psühholoogiline vägivald töökohal on vaenulik ja ebaeetiline käitumine, mis on süsteemataline ja pikajaline ning on suunatud ühe või mitme inimese vastu, kes on selle tõttu abitus ja kaitsetus positsioonis. See on emotsionaalse kahju tekitamine, väärkohtlemine, mis mõjutab ohvri vaimset ja füüsilist tervist. Negatiivsed tegvused ilmnevad vähemalt kord nädalas ja pika perioodi vältel, vähemalt kuus kuud. riikides, kuivõrd teadlikkusega sellest, mis on psühholoogiline töövägivald; mõjutavad ka kultuuride erinevused, kultuuritraditsioonid.

ehituses, kõige rohkem esineb aga hariduses ja tervishoiuvaldkonnas ning avalikus sektoris.

Psiühholoogilise töövägivalla tegevused jagunevad kaheks: isikuga ja tööga seotud. Isikuga seotud tegevused on näiteks solvavad märkused, kuulujuttude levitamine, alandamine, hirmutamine, kriitika isiku aadressil, ignoreerimine, karjumine jt. Tööga seotud tegevused on ebamõistlikud tähtajad ja töökoormus, ülemääranne kontrollimine, tööks olulise informatsiooni varjamine, arvamuste ignoreerimine jt. Võimalikud töövägivalla tagajärgedeks organisatsioonile on ettevõtte sisekliima halvenemine, töötajate motivatsiooni ja töö efektiivsuse alanemine, haiguskulude kasv, surenenud personali voolavus, uute töötajate koolituskulud, konkurentsivõime langus. Võimalikud tagajärjed ühiskonnale on surenenud tervishoiukulud, mis on tingitud enneaegselt pensionile jäämisest, töövõimetusest, töötuabirahadest.

Psiühholoogilise töövägivalla põhjuseid on väga erinevaid. Esiteks, kõik uurijad on ühel meelegel selles, et töövägivald saab tekkida ja levida keskkonnas, kus seda sallitakse. Teiseks, psiühholoogilise töövägivalla levik on tõenäolisem närvilises tööhakkonnas ja olukordades, kus vahetu juht ei sekku. Kolmandaks, põhjused töövägivalla tekkimiseks on tihealt seotud ka organisatsiooni töökeskkonnaga ja juhtimisstiiliga. Halvasti määratletud tööülesanded ning organiseerimata töö tekitab segadust ja on konfliktide allikaks; ebatolerantne ja diskrimineeriv juhtimisstiil loob hirmuõhkkonna, ja organisatsioonis tekib liigne võistlemine. Neljandaks, organisatsiooni suurus ja tegevusvaldkond võib samuti olla seotud psühholoogilise töövägivalla levikuga. Psiühholoogilise töövägivalla ohvrite tööd iseloomustab sagedamini keskmise või kõrge töö keerukuse aste, kuid neil puudub kontroll oma töö aja üle. Seetõttu on ohvreid rohkem avalikus halduses, tervishoius, hariduses ja kontoritoötajate hulgas ja vähem tööstustööliste seas, kelle töö on madalamana keerukusega. Viwendaks, psiühholoogilist töövägivalda esineb rohkem organisatsionides, kus töötajad on sunnitud tegema omavahel koostööd. Näiteks, kollektiivne lisatasustamise süsteem võib tekitada pingeid töötajate vahel.

Toetudes eelnevatele uuringutulemustele, on käesolevas uurimuses püstitatud järgmised väited:

1. Organisatsioonilised tegurid omavad mõju psühholoogilise töövägivalla levikul
2. Psiühholoogilise töövägivalla levik on kõrgem avalikus sektoris
3. Psphholoogiline töövägivalla levik on kõrgem suuremates organisatsionides
4. Erasektoris on psiühholoogiline töövägivald kõrgem teenindus- ja müügi-organisatsioonide hulgas.

Käesolev uuring selgitab nimetatud väidete kehtivust.

Uuringu tulemused

Uuringus osales 1941 vastajat 59 organisatsionist üle Eesti. Uuring viidi läbi jaanuar-oktoober 2010.a. Uuringumeetodina kasutasime rahvusvahelist psühholoogilise töövägivalla küsimustikku *Negative Acts Questionnaire Revised*

(NAQ-R), mis koosneb 22 negatiivset tegevust iseloomustavast väitest. Psühholoogilise töövägivalla ohvriks loetakse vastanuid, kellel ilmnevad negatiivsed tegevused sagedusega vähemalt kord nädalas 6 kuu jooksul. Samuti küsisime, kas vastajad peavad ennast tööl kiusatuks vastavalt etteantud töövägivalla definitsioonile.

Vähemalt üks negatiivne tegevus kord nädalas 6 kuu jooksul esines 23,44% vastanutest ja 2 negatiivset tegevust nädalas 10,46% vastanutest. Etteantud definitsiooni järgi määratlesid ennast ise psühholoogilise töövägivalla ohvriks regulaarselt 0,87% vastanutest (vähemalt kord nädalas) ja sagedusega „vahetevahel“ 8%. Kõige rohkem esines töövägivalda reisi- ja hotelliettevõtetes (36%) ja toitlustuses (33%). Järgnesid energiatööstus (32%) ja mud tööstused (31,9%). Väga kõrge oli töövägivalla levik ka avalikus halduses ja vabatahtlikes organisatsioonides (31%). Psühholoogilise töövägivalla ohvreid oli nii era- kui avalikus sektoris peaaegu võrdsest: avalikus sektoris 24,6% ja erasektoris 22,6%.

Kõige sagedamini esinenud negatiivsed tegevused on kõik seotud töoga ja tööülesannete täitmisega:

1. Te olete kaitsetu ülemäärse töökoormuse tõttu (8,4%);
2. Teile ei anta tööks vajalikku informatsiooni (7,4%);
3. Teie tööd kontrollitakse liigselt (5,8%);
4. Teile antud ülesanded on ebamõistliku või võimatu eesmärgiga või tähtajaga (4,5%).

Järeldused

Uuringu tulemused näitavad, et psühholoogiline töövägivald on Eestis tõsine probleem. Kõige rohkem esineb ohvritel töoga seotud negatiivseid tegevusi ja vähem isikuga: ülemäärane töökoormus, liigne kontrollimine, tööks vajaliku informatsiooni varjamine, ebakorrektsed tööülesanded. Vastuolulised nõuded ja ootused tööülesannete osas võivad tekitada konflikte ja pettumust, mis võib viia psühholoogilise töövägivallani. Seega, uuringu tulemused näitavad, et psühholoogiline töövägivald on otseselt seotud organisatsiooniliste teguritega.

Vastavalt rahvusvahelistele kriteeriumitele loetakse psühholoogilise töövägivalla ohvriks töötajat, kellel esineb negatiivseid tegevusi tööl sagedusega vähemalt kord nädalas 6 kuu vältel. Selle kriteeriumi alusel on Eestis psühholoogilise töövägivalla levik väga kõrge – 23,44% vastajatest on töövägivalla ohvrid. Samal ajal ise ennast töövägivalla ohvriks tunnistavad vaid 0,87% vastajatest regulaarselt ja 8% vahetevahel. Erinevus tulemustes on seletatav ühelt poolt kasutatud meetodiga: kaudsed ja otsesed mõõtmistulemused erinevad oluliselt kõikides rahvusvahelistes uuringutes. Teisalt on tulemuste erinevus seletatav väheste või puuduvate eelnevate teadmistega psühholoogilisest töövägivallast Eestis ning ka soovimatusega tunnistada ohvri staatust.

Psühholoogiline töövägivald on kõige suuremaks probleemiks teeninduses: hotelli- ja reisiettevõtetes ja toitlustusettevõtetes. Teenindussektoris on ka teistes riikides tunnistada ohvri staatust.

kõrgem töövägivalla tase, kus autokraatlik juhtimisstiil ja ebasõbralik õhkkond töötajate vahel on sagedasemad. Üheks põhjuseks loetkase ka graafikujärgset töökorraldust, mis on väga jäik ja ei anna töötajatele vabadust tööülesannete täitmisel. Psühholoogiline töövägivall on uuringu tulemuste kohaselt Eestis väga kõrge ka tööstuses, kus kõige sagedasemad probleemid on ebapiisav informatsioon ja suur töökoormus. See viitab organisatsiooni töökorralduse ja töökeskkonna probleemidele suurtes tööstusettevõtetes.

Töövägivalla ohvreid on avalikus sektoris rohkem, kuid ka erasektoris väga palju. Avalik sektor on bürokratlikum ja töötajad saavad vähem kontrollida oma tööaega (avalik haldus), kuid erasektoris on tihti töötajad sunnitud tegema omavahel koostööd, et saada lisatasusid (müügiettevõtted). Töövägivalla leviku põhjused on avalikus ja erasektoris erinevad.

Kõige rohkem on töövägivalla ohvreid organisatsioonides, kus töötab 101-500 töötajat. Kõige sagedamini esinevad negatiivsed tegevused nendes organisatsioonides on ülemäärase töökoormus ja informatsiooni probleemid, mis on seotud organisatsiooni struktuuri ja töökorraldusega. Samal ajal on töövägivall ka tõsine probleem väikestes, alla 25 töötajaga organisatsioonides ning peamiseks negatiivseks tegevuseks on informatsiooni varjamine. Seega, ei sõltu töövägivall organisatsiooni suurusest.

Töövägivall võib avaldada negatiivset mõju toodete ja teenuste kvaliteedile. Uuringu tulemuste põhjal võivad kliendid kannatada kõige enam teeninduse kvaliteedi tõttu hotelli- ja reisiettevõtetes, samuti toitlustuses. Teeninduskvaliteedi languse põhjuseks on organisatsioonides kõrge töövägivalla tase, mis mõjutab negatiivselt töötajate motivatsiooni ja produktivsust.

Töös püstitatud väited leidsid kinnitust järgmiselt.

1. Organisatsioonilised tegurid omavad mõju psühholoogilise töövägivalla levikul. Väide leidis täielikult kinnitust: sagedamini esinenud negatiivsed tegevused olid kõik seotud organisatsiooniliste teguritega.
2. Psühholoogilise töövägivalla levik on kõrgem avalikus sektoris. Väide leidis osaliselt kinnitust: psühholoogilise töövägivalla levik on küll kõrgem avalikus sektoris, kuid erinevus erasektoriga ei ole märkimisväärne.
3. Psühholoogilise töövägivalla levik on kõrgem suuremates organisatsioonides. Väide ei leidnud kinnitust: töövägivalla levik ei sõltu organisatsiooni suurusest.
4. Erasektoris on psühholoogiline töövägivall kõrgem teenindus- ja müügiorganisatsioonide hulgas. Väide leidis täielikult kinnitust: erasektoris on psühholoogilise töövägivall kõige kõrgem teeninduses.

Uuringu tulemustele toetudes esitame kokkuvõttes mõned poliitilised soovitused edasisteks tegevusteks töövägivallaga toimetulekuks Eestis. Esiteks, seadusandluse täiustamine, et tagada kaitse töövägivalla ohvritele ja tõsta töövägivalla toimepamijate juriidilist vastutust. Teiseks, üleriigiline kommunikatsiooni kampaania korraldamine, mille eesmärgiks oleks informeerida psühholoogilise töövägivalla olemusest, selle ennetuse ja toimtuleku viisidest. Töötajate suurem teadlikkus

võimaldab neil kergemini ära tunda negatiivseid tegevusi ja neist hoiduda. Kolmandaks on oluline personalijuhtide koolitus, et tagada positiivsete muudatustega elluviimine organisatsiooni tasandil. Ja lõpetuseks, kindlasti on vajalik jätkata psühholoogilise töövägivalla alaseid uuringuid, selgitada välja sügavamat põhjused ning töövägivallast tingitud kulud kogu majandusele ja koostada Eesti jaoks sobiv pikaajaline ennetuspoliitika.

FÜÜSILISE ISIKU TULUMAKS – KELLE KOOREM?

Viktor Trasberg
Tartu Ülikool

Indiviidi tulude maksustamine on jätkuvalt aktuaalne ja tundlik teema enamuses kaasaegse maailma riikides. Artikkel keskendub füüsiliste isiku tulumaksu (PIT) arengule Eestis viimasel kümnendil. Eelkõige käsitletakse efektiivse maksukoormuse jaotumisele erinevate tulusaajate rühmades lõikes ning nende maksukoormust mõjutavate tegurite dünaamikat.

Tavapäraselt on füüsilise isiku tulumaksusüsteemid riigiti üsna erinevad. Harjumuslikult jaotatakse siiski PIT süsteeme kui progresseeruva või proporsionaalse maksumääraga tulumaksusüsteemideks. Esimesel juhul tulude suurenedes suureneb astmeliselt ka maksumääri; teisel juhul nominaalne maksumääri tulude suurenedes ei muudu. Siinkohal on oluline märkida, et efektiivse maksumäära progresseeruvust peetakse väga oluliseks maksusüsteemi osaks (Messere; Veermend; Owens, teised). Sellest lähtudes tekib kaks olulist küsimusteringu – kuidas jaotada tegelikku maksukoormust erinevate tulusaajate vahel ning missuguste instrumentide abil saavutada tõhus efektiivse maksumäära progressioon. Käsitleme siinkohal efektiivse maksumääranana kui tegeliku maksukohustuse suhet maksustatava tulusse.

Esimesel juhul on tegemist PIT süsteemi ümberjaotamisfunktsooni määratlemisega, mis võimaldab peamiselt konkreetse riigi ühiskondlikest valikutest. Lihtsustatult öeldes, iga ühiskond valib endale vastuvõetava maksukoormuse jaotuse erinevate tulutasemetega (tulu)sajate lõikes. Siinjuures on aga samuti oluline ka tulumaksusüsteemi stabiliseeriv roll ehk majandustükli mõjutamine läbi maksukoormuse muutustesse.

Teine küsimuste ring on seotud erinevate maksusüsteemi instrumentidega, mis võimaldavad saavutada ühiskonna seisukohast lähtudes maksusüsteemi efektiivse progresseeruvuse. Peamiselt on siinjuures kasutusel kolm instrumenti – maksumäärade astmelisus, erinevad mahaarvamised ja erandid ning maksukrediit.

Põhimõtteliselt võimaldavad nimetatud instrumendid saavutada samaväärse tulemuse efektiivse tulumaksumäära seisukohalt lähtudes. Seega pole korrektne rääkida astmelistest maksumääradest kui ainsast instrumendist, mis mõjutab efektiivse maksumäära progresseeruvust. Ka proporsionaalse maksumääraga tulumaksusüsteem võib olla väga progresseeruva efektiivse maksumääraga erinevate tulutasemetega suhtes.

Eestis võeti proporsionaalse maksumääraga tulumaksusüsteem kasutusele 1994 aastal. Sel ajaperioodil oli see kahtlematult eripärate seni Euroopas kasutusel olevates progresseeruva (astmelise) tulumaksusüsteemidega võrreldes. Hilisemal perioodil on Eestiga sarnast tulumaksusüsteemi hakatud kasutama ka Ida- ja Keskkonnapoliitika ja Euroopa ning endistes NL vabariikides.

Proportsionaalse tulumaksusüsteemi rakendamise peamiseks põhjuseks on efektiivsema maksuhalduse eesmärgi saavutamist vörreledes astmelise maksumaksusüsteemiga. Just madal maksude administreerimise võimekus on peapõhjus ka proportsionaalse tulumaksu rakendamisel paljudes KIE maades. Aga ka hilisemal perioodil, isegi maksuadministreerimise võimekuse suurenedes, pole eksisteerivast PIT loobutud, kuigi oluliselt on muudetud muid tulumaksu taset mõjutavaid elemente nagu maksumäärasid ja maksumaksusüsteemi järeltulud. Samal ajal on makstavast tulust mahaarvamised efektiivse maksumäära progresseeruvust oluliselt suurendanud.

Alljärgnevalt üldistame mõningaid tendentse Eesti tulumaksusüsteemi arengus. Olukorra analüüsimal on kasutatud Maksu- ja Tolliameti ülevaateid esitatud makstavast tulust mahaarvamised efektiivse maksumäära progresseeruvust oluliselt suurendanud.

Tabel 1 (4; sulgedes tabeli number tekstis) peegeldab esitatud deklaratsioonide ja neis esitatud tulude jaotumist tulurühmade lõikes kumulatiivselt summeerituna.

Tabel 1. Tulude deklaratsioonide jaotus ja tulusumma tulurühmade lõikes kumulatiivselt, %

	Tulude deklaratsioonide arv				Deklareeritud tulude summa			
	2003	2004	2008	2009	2003	2004	2008	2009
Tulu kuus eurodes								
Vähem kui 266	48.6%	41.9%	20.0%	21.4%	14.2%	12.1%	3.0%	3.1%
266-532	76.9%	72.4%	42.2%	45.3%	41.1%	38.3%	13.5%	15.3%
532-1,065	92.6%	91.2%	75.6%	78.1%	68.2%	67.3%	44.5%	48.2%
1,065-1,600	97.1%	96.5%	89.9%	91.1%	83.3%	83.4%	66.6%	69.8%
1,600-2,130	98.9%	98.7%	95.1%	95.7%	89.3%	89.9%	78.1%	80.8%
2,130-2,670	99.3%	99.2%	97.3%	97.6%	91.3%	92.0%	84.3%	86.7%
Rohkem kui 2,670	100%	100%	100%	100%	100%	100%	100%	100%

Allikas: EMTA ja autori arvutused.

Tabelis toodud arvud peegeldavad üsnagi ootuspärast tulemust, mille puhul esitatud tulude deklaratsioonide (maksumaksjate) hulk ei ole sünkroonis nende poolt teenitud kogutuludega. Suur osakaal madalamates tulurühmades esitatud deklaratsioonidest on täidetud pensioni maksumaksjate poolt, mis suurendab deklaratsioonide arvu, aga nende poolt deklareeritud tulud on suhteliselt madalad.

Samuti peegeldab tabel tulude nihkumist körgematele tulutasemetele, mis korreleerub kiire majanduskavu ja kasvavate sissetulekuteega vaatlusalusel perioodil.

Alljärgnev Tabel 2 (6) peegeldab efektiivset maksumäära toodud tulurühmade lõikes.

Tabel 2. Arvestuslik efektiivne maksumääär tulurühmade lõikes, %

Tulu kuus eurodes	2003	2004	2005	2006	2007	2008	2009
Vähem kui 266	4.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
266-532	19.4%	14.9%	13.0%	10.5%	9.0%	5.3%	7.2%
532-1,065	22.3%	18.9%	17.8%	15.9%	15.2%	13.0%	14.0%
1,065-1,600	24.1%	21.4%	20.6%	19.1%	18.0%	16.2%	16.8%
1,600-2,130	24.1%	21.4%	21.3%	20.2%	19.2%	17.6%	18.0%
2,130-2,670	24.6%	22.0%	22.1%	21.1%	19.8%	18.4%	18.7%
Rohkem kui 2,670	25.5%	23.2%	23.3%	22.1%	21.0%	19.7%	19.7%
Keskmine	19.7%	16.5%	16.7%	15.9%	15.7%	14.4%	14.8%

Allikas: EMTA ja autori arvutused.

Tabeli andmetes nähtub, et maksumääär on perioodi vältel alanenud kõikide tulurühmade lõikes. Selle põhjuseks on tulumaksumära alanemine 26% kuni 21% perioodi vältel. Teine efektiivse maksukoormuse alanemist mõjutavaks teguriks on maksuvabastuste (mahaarvamiste) suurenemine. See on tekitanud olukorra mille puuhul madalamate tulurühmade maksukohustust perioodil 2008-2009 sisuliselt ei tekkinud. Neis rühmades on tegemist paljuski pensionil olevate tulusaajate tuludega (pensioniga), kelle võimalikud mahaarvamised on suuremad kui nende poolt deklareeritud tulud.

Artiklis toodud arvutused näitavad, et tänu nominaalsele maksumäärä alanemisele ja maksuvabastuste suurenemisele on efektiivne PIT määr üsna progresseeruv erinevate tulutasemete lõikes. Seega vaatamata ühetaoliselle maksumäärale tekib mahaarvamiste kogumahd efektiivse maksumäära erinevuse ja progresseeruvuse. Loogiline on arvata, et eriti madalamate tulurühmade puhul on piirmaksumääär oluliselt kõrgem kui suuremates tulude puhul.

Alljärgnevad vaatleme tabelis 3 (7) üldistatult tulumaksubaasist mahaarvamiste mahtu ja dünaamikat vaatlusalusel perioodil. Mahaarvamiste summa on perioodil 2003 kuni 2009 suurenenud 3.6 korda, kusjuures deklareeritud tulus suurennesid sel ajavahemikul 2.5 korda.

Tabel 3. Mahaarvamised tulubaasist, EUR

	2004	%	2008	%	2009	%
Maksuvaba miinimum	587.0	70.6%	1 157.6	48.7%	1 120.3	64.6%
Täiendav maksuvaba tulu pensioni korral	120.2	14.5%	337.7	14.2%	374.5	21.6%
Eluasemelaenu intressid	50.7	6.1%	225.9	9.5%	153.6	8.9%
Hariduskulud	55.1	6.6%	84.6	3.6%	81.4	4.7%
Muud	18.6	2.2%	252.8	12.3%	3.8	0.2%
Mahaarvamised kokku	831.6	100.0%	2,058.6	86.6%	1,733.6	100.0%
Rakendamata jäänud mahaarvamised vörreldes deklareeritud mahaarvamistega		8.8%		13.4%		14.3%
Deklareeritud mahaarvamised vörreldes kogutuludega	32.6%		35.4%		33.4%	

Allikas: EMTA ja autori arvutused.

Mahaarvamiste mõjul on efektiivne maksumääär muutunud ka olulisel määral progresseeruvamaks. Seega on nende kaudu ka suurel määral deformeeritud proporsionaalse tulumaksusüsteemi mõtet ning lisانud maksusüsteemile administratiivset keerukust.

KROONIKA

CHRONIK

CHRONICLE

PROFESSOR ERIK LINNAKS (1926 – 2001), MAJANDUSARVESTUSE TIPPEOREETIK



Erik Augusti p. Linnaks sündis 27. oktoobril 1926. a Tallinnas käsitöölise (rätsepa) perekonnas. 1930. a asus Linnaksite pere elama Harjumaale, Peningi valda, kus 7 ha suuruses käsitöölistalus möödus Erikul lapsepõlv. Järgnesid esimesed õpinguaastad:

- **1934 – 1938** Pikavere algkoolis 1.-4. klass;
- **1938 – 1942** Tallinna I Poeglaste Progümnaasiumis;
- **1942 – 1945** Tallinna Poeglaste Kommertsgümnaasiumis (mis alates 1944. a nimetati ümber Tallinna Majandustehnikumiks).

Keskhariduse omandanud, jätkus Erik haridustee **1945**. a Tallinna Polütehnilise Instituudi (TPI) Majandusteaduskonnas, mille ta lõpetas 1950. a kaubandus-ökonomika erialal.

Paralleelselt õpingutega TPI-s töötas Erik Linnaks alates **1948**. aastast NSV Liidu Statistika Keskkvalitsuse (SKV) Eesti Õppekombinaadis statistika, raamatupidamise ja majandusanalüüsiga õpetajana. Seal jätkas ta ka pärast TPI lõpetamist.

1953. a täiendas Erik Linnaks oma teadmisi uute raamatupidamismeetodite osas Leningradis Üleliidulise Finantsarvestuse Instituudi juures moodustatud tööstusettevõtete raamatupidamise õpetajate kursustel. Õpingute põhiteema oli raamatupidamisarvestuse zurnaalorderi süsteemi tutvustamine. Saadud teadmisi rakendas Erik Linnaks nii NSV Liidu SKV Õppekombinaadis õppetöös kui ka vahetult Eesti tööstusettevõtete pea- ja vanemraamatupidajate konsulterimisel. Ajavahemikus 1954–1958 oli tema juhendada raamatupidamisarvestuse korraldamine ca kolmekümnes juhtivas tööstusettevõttes nagu Eesti Põlevkivikaevandused, Kiviõli Keemikombinaat, Järvakandi tehased, Tallinna Lihakombinaat, Tartu Masinatehas Võit jt. Erik Linnaks kujunes raamatupidamise zurnaalorderite süsteemi tundmisse hinnatud spetsialistikks nii teoreetilisel kui ka praktilisel tasandil. NSV Liidu SKV poolt tunnustati Erik Linnaksi tööd uue, üleliidulise raamatupidamisarvestuse süsteemi juurutamisel aunimetusega: „Eesti NSV sotsalistliku arvestuse eesrindlane“.

1956–1958 täitis Erik Linnaks Eesti NSV SKV Õppekombinaadis direktori asetäitja ülesandeid õppealal. 1956–1960 aastani töötas ta paralleelselt põhitöökohaga

statistika õppejõuna ka NSV Liidu Üleliidulise Kaugõpp Finantsinstituudi Tallinna Filialis.

1958. a novembris sooritas Erik Linnaks sisseastumiseksamid Eesti NSV Teaduste Akadeemia Majanduse Instituudi statsionaarsesse aspirantuuri. 1961. a asus ta samas tööle nooremteadurina.

Eelnev aktiivne töö uue raamatupidamisarvestuse süsteemi teoreetilisel ja praktilisel õpetamisel oli võimaldanud E. Linnaksil põhjalikult süveneda selle süsteemi peensustesse ja seostesse. Talletatud materjal vajas põhjalikku teoreetilist läbitöötamist, üldistamist ja süsteemset täiendamist. Majandusteaduste kandidaadi dissertatsiooni teemaks sai „**Eesti NSV tööstuse käibevahendid**“, juhendajaks Moskva Plehanovi nim. Rahvamajanduse Instituudi teadusprorektor, prof. A. Birman, kes sel ajal oli NSV Liidu juhtiv teadlane käibevahendite ökonomika küsimustes. Aspiranturiaeg mõödus põhiliselt Moskvas NSV Liidu Riikliku Plaanikomitee Normatiivide Instituudis; Plehanovi nim. Rahvamajanduse Instituudis; Plaanikomitee Finantsosakonnas; Riigipangas jm., kus uurimistöö laiendas silmaringi ja avardas teadmisi. Samal ajal määräti Erik Linnaksi juhendaja, prof. A. Birman, NSV Liidu ettevõtete käibevahendite normeerimise määrustiku väljatöötamise riikliku komisjoni esimeheks. Sellega avanes ka aspirandil võimalus osa võtta NSV Liidu Riiklikus Plaanikomitees toimuvaltest probleemkomisjonide istungitest. See osutus väga huvitavaks ja õpetlikuks ning tagas edaspidiseks tööperioodiks rikkaliku kogemustepagasi. Erik Linnaksi valmiv dissertatsioon lüliti selle komisjoni tööplaani ning lisaks tuli tal välja töötada põlevkivikaevanduste käibevahendite normeerimise instruktsiooni projekt. Selle põhjal ilmus 1963. a NSV Liidu Riikliku Plaanikomitee ja NSV Liidu Rahandusministeeriumi poolt kinnitatud juhend, mis kehtis kogu NSV Liidu põlevkivikaevandustes mitu aastakümmet.

1962. aastal kaitses Erik Linnaks Moskvas Plehanovi nim. Rahvamajanduse Instituudis oma dissertatsiooni ning novembris omistati talle **majandusteaduste kandidaadi teaduslik kraad**.

Aspiranturi ajal Moskvas oli Erik Linnaksil olnud võimalus tutvuda tolle aja esimeste teaduslike väljaannetega ökonomeetrias ning rahvamajanduse maatriksbilansside küsimustes (autorid: NSV Liidi akad. V. Nemtsinov, USA prof. W. Leontijev, Poola akad. A. Lange jt.). Uus rahvamajanduse analüüs ja planeerimise majandusküberneetiline suund tundus Erik Linnaksile väga perspektiivne ning pakkus suurt huvi. 1962. a juunis asutati Eesti NSV Rahvamajanduse Nõukogu Elektrotehnika Instituudis Ökonomika osakond, kus üheks temade grupiks kinnitati Eesti NSV rahvamajanduse maatriksbilansilased uurimused. Selle uurimissuuna teaduslikuks juhendajaks sai uuel töökohal Majandusmatemaatiliste meetodite laboratooriumi juhatajana Erik Linnaks. Järgnes huvitav ja viljakas töö mitmel suunal:

- uurimused Eesti NSV rahvamajanduse maatriksbilansi valdkonnas;

- uurijate kaadri väljaõpe ja komplekteerimine, kuna vastava ettevalmistusega ökonomiste tol ajal ei olnud;
- Eesti NSV rahvamajanduse esimese aruandelise maatriksbilansi koostamine koostöös NSV Liidu Majandusmatemaatika Keskinstituudi (УЭМИ) ja Eesti NSV TA Majandusinstituudiga.

See töö valmis 1963. a suvel ning tulemused kanti ette NSV Liidu Teaduste Akadeemia ja NSV Liidu Plaanikomitee Tootlike Jõudude Arendamise Nõukogu istungil, kus see sai kiitva hinnangu ning Erik Linnaks valiti sama probleemnõukogu liikmeks. Koostöö samas uurimisvaldkonnas jätkus. 1964. aastal koostati Erik Linnaksi eestvedamisel esimene Eesti NSV rahvamajanduse plaaniline maatriksbilanss (1970. aasta tarbeks). Loodud metodikat kasutas Eesti NSV SKV **aruandeliste maatriksbilansside** koostamisel paar aastakümmet. Erik Linnaksi uurimus ja selle rakendus pälvis Üleliidulise Rahvamajandussaavutuste Näituse hõbemedali.

1965. aastal tuli Erik Linnaksil tervislikel põhjustel vahetada töökohta. Temast sai TPI Majandusteaduskonna Statistika ja Raamatupidamise katedri vanemõpetaja. **1966–1976** jätkas ta samas dotsendi ametikohal. Sel perioodil õpetas Erik Linnaks järgmisi õppaineid: sissejuhatus raamatupidamise erialasse; raamatupidamise teoria; raamatupidamine; kulude arvestus; omahinna kalkuleerimine; bilansiteooria. TPIl algas Erik Linnaksil ulatuslik omandatud teoreetiliste teadmiste ja praktiliste töökogemuste läbitötamine ja materjali vormistamine õpplevahenditena.

1968. aastal valmis Erik Linnaksil uus uurimistöö **raamatupidamisalgoritmide süsteemi** koostamisel. Suureks takistuseks selle juurutamisel sai elektronarvutite tolleaegne suhteliselt algeline tase ja vähene operatiivsus.

Aastatel **1969–1973**, ilmusid Erik Linnaksi sulest TPI rotaprindis õpplevahendid-brošüürid:

- Raamatupidamisalgoritmide koostamisest;
- Kapitaalmahutuste arvestus;
- Tööstusraamatupidamine I, Tööstusraamatupidamise teoria ;
- Bilansiteooria ;
- Kalkulatsiooniteooria.

Lisaks rida ülesannetekogusid raamatupidamise praktikumide tarbeks. Need tööd olid ettevalmistavaks etapiks järgneva kogukama raamatu ilmumiseks.

1974. a see ilmuski pealkirjaga „Tööstusraamatupidamine“. Autorite kollektiivne töö, mille 13-st peatükist olid kuus Erik Linnaksi sulest (ptk-d 1,2,3,4,9 ja 12), kaasautoriteks A. Ruuvet, J. Sarapik, E. Soonik. See raamat võeti praktikute poolt vaimustusega vastu kui käsiraamat. Ta kandis vaieldamatult tolleaegse riigi- ja raamatupidamiskorralduse pitserit, kuid tänu Erik Linnaksi korduvatele välisreisidele Kanadasse ning tutvumist välisõppekirjandusega, sisaldasid tema juhisid võimaluste piires progressiivset teaduslikku sõnumit ning soovitusi.

1974–1975 tegeles Erik Linnaks uurimistööga, mille peaprobleemiks oli luua regulaarselt toimiv informatsioonisüsteem ettevõtetes, mis tagaks arvestuseks vajalike andmete püsiva kogumise koondmaatriksbilansside koostamiseks.

1975. a kaitses Erik Linnaks Eesti NSV TA Majanduse Instituudi erialanõukogus edukalt **majandusteaduste doktori** väitekirja teemal: „**Raamatupidamise arvestus ja aruandelise informatsiooni formeerimine tootmisharude seostest, materiaalsetest ja töökuludest**“. Väitekirja eesmärk oli unifitseerida ja sünkroniseerida raamatupidamisbilansside ja rahvamajandusharude maatrikabilansside koostamise teoreetilisi ja praktilisi küsimusi. Doktoritöö temaatikat oli ta eelneval perioodil käsitlenud ca 21 teaduslikus artiklis.

1976. a kinnitati NSV Liidu VAK-i poolt Erik Linnaksile ökonoomikadoktori teaduslik kraad. TPI-s kinnitati ja Raamatupidamise kateedri professoriks.

1977. a kinnitas NSV Liidu VAK **Erik Linnaksi professorikutse**.

Paralleelselt õppetöoga tegi prof. Erik Linnaks ulatuslikku organisatsioonilisimetoodilist töö järgmistes valdkondades:

- **1966.** a TPI Majandusteaduskonna Nõukogu liige ja raamatupidamise kateedri erialaseminari juhataja;
- **1975.** a TPI Majandusteaduskonna metoodikakomisjoni esimees;
- **1976.** a ENSV Rahandusministeeriumi arvestuse ja analüüsi metoodikanõukogu esimees; ENSV Teaduste Akadeemia Majanduse Instituudi erialanõukogu liige; NSV Liidu Kõrgema- ja Kesk-erihariduse Ministeeriumi raamatupidamise metoodikakomisjoni liige;
- **1977.** a TPI Nõukogu liige; TPI majandusteaduskonna konkursikomisjoni liige; ENSV Statistika Keskkvalitsuse ekspertnõukogu liige;
- **1978.** a TPI metoodikanõukogu liige;
- **1978.** a ENSV Statistika Keskkvalitsuse metoodikanõukogu liige.

Jätkus ka Erik Linnaksi teaduslik uurimistöö teemadel:

- Tootmiskulude arvestuse metoodiline täiustamine põlevkivikaevandustes ja kütusetööstuses;
- Normatiivse kuluarvestuse üldprintsipiide formeerimine;
- Tootmiskulude arvestuse teoreetilised probleemid;
- Raamatupidamistööde mehhaneerimine;
- Teenindussüsteemi omahinna kalkuleerimise metoodika;
- Normatiivse arvestuse juhtimise probleeme;
- Normatiivse kontrolli tõhustamine tootmises;
- Esmasdokumenteerimise täiustamise probleeme;
- Majandusliku juhtimisinfo formeerimise üldprobleemid raamatupidamises;
- Normatiivne kultureziim ja selle kehtestamise probleemid;
- Maatrikskontseptsiooni rakendusi multidimensionaalsetes arvestussüsteemides;

Eesti Vabariigi taaskehtestamise järgselt oli prof. E. Linnaksil tähtis osa uute raamatupidamist puudutava seadusandluse ja juhendmaterjalide koostamisel ning õpetamisel. Peaaegu iga probleemse arrestuslõigu ilmnemisele järgnesid prof. E. Linnaksi metoodilised raamatud, mis ei puudunud ühegi raamatupidaja töölaualt.

1991. a 26. augustil seoses professori töökohale valimise tähtaaja lõppemisega TPI-s palus Erik Linnaks end põhitöökoha kohustustest vabastada põhjendades avaldust pensionile jäämisega. Siiski töötas ta veel 1992. aastal poole koormusega TPI emeriitprofessorina.

Kõigile meile on eluks kaasa antud teatud kogus tervist. Tema viimastel eluaastatel järgnes infarkt infarktile. Nendel põhjustel pidi ta arstide ettekirjutusel mitmel semestril põhitöölt ülikoolis puuduma. Kirjutamisest ei loobunud ta aga koduski. Tänu sellele saame me rääkida tema, veel tänagi aktuaalsetest, metoodilis-temaatilistest käsiraamatutest meie juhtiva raamatupidamiskaadri ja üliõpilaste töölaudadel.

Prof. Erik Linnaksi tähtsamad tööd:

1. Bilansiteooria. Tallinn, 1983. 64 lk.
2. Ettevõtte raamatupidamine: Eesti raamatupidamisseaduse rakendusi. Tallinn, 1994. 174 lk.
4. Füüsilisest isikust ettevõtja raamatupidamine: Eesti raamatupidamisseaduse rakendusi. Tallinn, 1996. 104 lk.
5. Füüsilisest isikust ettevõtja raamatupidamine: Eesti raamatupidamisseaduse rakendusi. 2. trükk. Tallinn, Külim, 2001.88 lk.
6. Kalkulatsiooniteorio. Õppevahend. Tallinn, TPI, 1972. 152 lk.
7. Kapitaalmahutuste arvestus. Õppevahend raamatupidamise eriala üliõpilastele. Tallinn, TPI, 1969. 72 lk.
8. Kapitaalmahutuste arvestus. Tallinn, Valgus,1977. 55lk.
9. Kontserni raamatupidamine. Tallinn, Külim,1996. 20 lk.
10. Mittetulundusorganisatsioonide ja sihtasutuste raamatupidamine. Tallinn, Eesti Mittetulundusühingute ja Sihtasutuste Liit, 2000. 29 lk.
11. Raamatupidamisalgoritmide koostamisest: Metoodiline juhend kaugõppele. Tallinn, TPI, 1968. 24 lk.
12. Raamatupidamise kontoplaan. Kontoplaani kasutamise juhend. Eesti raamatupidamisseaduse rakendusi. Tallinn, Külim, 1995. 171 lk.
13. Raamatupidamise teooria praktikumi ülesanded. Tallinn, 1976.70 lk.
14. Raamatupidamise teooria praktikumi ülesanded. Tallinn, TPI, 1968. 52.lk.
15. Raamatupidamise teooria. Tallinn, Valgus, 1983. 280 lk.
16. Raamatupidamise ülesanded. Tallinn, TPI, 1969. 76 lk.
17. Rendiарvestus. Rahvusvaheline raamatupidamispraktika. Tallinn, Eesti Majandusjuhtide Instituut, 1992. 59 lk.
18. Täisühingu ja usaldusühingu raamatupidamine. Tallinn, Külim, 1998. 61 lk.
19. Tööstusraamatupidamine I. Tööstusraamatupidamise teoria. Tallinn, TPI, 1970. 98 lk.
20. Tööstusraamatupidamine. Tallinn, Valgus, 1974. 565 lk.
21. Tööstusraamatupidamine. 2. täiend. tr. Tallinn, Valgus, 1984. 580 lk.

Haiguste ring aga laienes ja süvenes kuni selle viimase, otsustavani. Prof. Erik Linnaks suri 30. juunil 2001. aastal. Suureks kaotuseks oli Erik Linnaksi surm kõigile majandusarvestuse töötajatele. Väike Eesti rahvas võib õigustatult uhkust tunda meie endi seast võrsunud majandusteaduste tippteoreetiku ja metoodiku, prof. Erik Linnaksi üle.

Inga Lõokene
(Tallinna Tehnikaülikool)

PROFESSOR ERIK LINNAKS (1926 – 2001), SPITZENTHEORETIKER DES RECHNUNGSEWESENS

In diesem Schreiben werden das Lebenslauf, Ausbildung und die wissenschaftlichen Tätigkeiten des ausgezeichneten estnischen Wirtschaftswissenschaftlers Professor Erik Linnaks (1926 – 2001) vorgestellt.

Während der schwierigen Okupationsperiode in Estland unter UdSSR nahm Erik Linnaks sich die Rolle des Vermittlers vom Rechnungswesen zwischen den estnischen Rechnungswesenspezialisten und dem von der Zentralmacht der UdSSR verlangten Methodik für Rechnungsführung und -Regelung. Es geht um die Einführung des unionsweiten Zurnalordnersystems für Buchhaltung in Estland. Nach seinen Möglichkeiten versuchte er diese entsprechend der spezifischen Bedürfnisse Estland in Moskau umzugestalten. Zudem nahm er zum großen Teil das Lehren des neuen Systems für estnische Buchhalter auf sich. Die von ihm geschriebenen Bücher wurden für die Wirtschaftsfachleute die wichtigsten methodischen Handbücher.

Im Jahre 1962 hat E. Linnaks in Moskau an Plehhanov-Institut der Volkswirtschaft seine Kandidatendissertation verteidigt. Im selben Jahr wurde ihm der Grad des Kandidaten der Wirtschaftswissenschaften verliehen.

Er beschäftigte sich erfolgreich mit der Forschung, Ausarbeitung und Einführung der planmäßigen Matrixbilanz der Volkswirtschaft der ESSR. Im Statistikzentralamt der Estnischen SSR wurde der Matrixbilanz für Rechnungswesen fast 20 Jahre benutzt. Für diese Arbeit wurde E. Linnaks mit der Silbermedaille der Volkswirtschaftsausstellung der UdSSR ausgezeichnet. Höchste Atestierungskommission der UdSSR (sog. VAK) verlieh ihm den Beruf des älteren wissenschaftlichen Mitarbeiter in Planung der Volkswirtschaft.

Ab 1965 arbeitete er in den Fakultät für Wirtschaft an der Polytechnischen Institut Tallinn als Oberlehrer im Lehrstuhl für Statistik und Buchhaltung. Als Hauptproblem beschäftigte er sich in der Periode mit der Erzeugung eines **Systems** der Buchführungsalgorithmen, um die in der Rechnung nötigen Computerprogramme anwenden zu können. Um 1975 verteidigte E. Linnaks im Fachkollegium des Institutes für Wirtschaft der Wissenschaftsakademie der ESSR erfolgreich den wissenschaftlichen Grad des Ökonomiedoktors. 1977 bestätigte VAK sein Professorberuf.

Nach der erneuten Unabhängigkeit von Estnischen Republik nahm er teil an der Verfassung des Buchführungstatus und des neuen Gesetzes. Die Basis dieser Dokumente beruhte auf die Geschichte des Rechnungswesens in der Estnischen Republik und die Buchführungserfahrungen in der Welt, vor allem in Deutschland, Finnland, Schweden, Dänemark und der USA. Als Ergebnis entstand eine neue einzigartige Buchhaltungsmethodik, die Prof. Erik Linnaks in Form von seiner neuen Büchern zu den Rechnungswesenfachleuten und Studenten brachte. Als Professor der Technischen Universität Tallinn und später in der Estnischen Institut

Wirtschaftsleiter wurde er geschätzt für seine inhaltsvolle, genaue und gut illustrierte Vorlesungen.

Der wichtigste Wohltat für das estnische Volk von Prof. Erik Linnaks in der Strukturierung des Rechnungswesens war die Erschaffung der estnischsprachigen methodischen Literatur in einer Situation, in der es in den Bedingungen des Übergangs in die Marktwirtschaft fehlte. Als Wirtschaftswissenschaftler hatte er dafür die meisten Voraussetzungen und Wissen. Mit dem Tod von Erik Linnaks am 30. Juni 2001 haben die Wirtschaftswissenschaftler von Estland einen geschätzten Spezialisten für Rechnungswesen verloren.

Inga Lõokene
(Technische Universität Tallinn)

PROFESSOR ERIK LINNAKS (1926 – 2001), LEADING THEORETICIAN IN ACCOUNTING

This paper gives a brief overview of the life, studies and work of a distinguished Estonian scientist of economics, professor Erik Linnaks (1926 – 2001).

During Estonia's difficult occupation era in the Soviet Union, Erik Linnaks assumed the role of a mediator of accounting principles between Estonian accounting specialists and the accounting methods required by the central authority of the Soviet Union. This comprised the implementation of all-Soviet journal report accounting system in Estonia. He tried to modify this system in Moscow in line with Estonia's specific needs as much as possible and taught the new system to Estonian accountants. His books became the principal methodological handbooks for accounting specialists.

In 1962 E. Linnaks defended his candidates' dissertation in Plekhanov's Institute for Public Economy in Moscow and received the confirmation about having been granted the scientific degree of a Candidate of Economics the same year. He was successful in studying, creating and implementing the planned matrix accounts of public economy of the ESSR. The matrix accounts were used in the Central Statistics Bureau of the ESSR for 20 years. Erik Linnaks was awarded a silver medal at the Supranational Exhibition of Public Economy Achievements for this work. The Higher Attestation Committee of the USSR granted him the vocation of senior scientist in public economy planning. In 1965 he became the senior lector in the Department of Statistics and Accounting in the Faculty of Economics in Tallinn Technical University. During that period his main ambition was the creation of algorithm system of accounting to enable the use of accounting software. In 1975 E. Linnaks successfully defended the scientific degree of Doctor of Economics before the specialist panel of Institute of Economics of Academy of Science of ESSR. In 1977 the Higher Attestation Committee granted the professor's vocation to E. Linnaks.

After the re-establishment of Estonian Republic E. Linnaks participated in composing the new Accounting Act and other principal legal acts for accounting. These documents were based on the history of accounting in Estonian Republic as well as on the accounting practices in Germany, Finland, Sweden, Denmark and the USA. The novel accounting methodology was distinct and professor Erik Linnaks brought it to the teachers and students of accounting via his books. As a Professor in Tallinn Technical University and later also in the Estonian Management Institute, he was valued for his content-rich, precise and well-illustrated lectures.

The principal contribution of Professor Erik Linnaks in organising the accounting in Estonia is the creation of methodological literature in Estonian language when there was none during Estonia's transition to market economy. As a leading scientist of economics, he had the most knowledge to do that. With the death of Erik Linnaks on 30 June 2001 Estonian economists have lost a distinguished specialist.

Inga Lõokene
(Tallinn University of Technology)

VIIS AASTAT „EESTI MAJANDUSPOLIITILISED VÄITLUSED“ JÄRJEPIDEVAST ILMUMISEST

2011. aastal ilmunud majanduspoliitika teemadel kirjutajate artikleid on ülal pealkirjas toodud nimetusega teadusajakirjas/kogumikus (näiteks USA-s, EBSCO poolt on see publikatsioon fikseeritud kui *academical journal*) avaldatud Eestis juba viiendat aastat. Arvestades ka varasemaid majanduspoliitika alaseid publikatsioone, mis olid vahetult seotud Eestis Tartus-Värskas toimunud majanduspoliitika teadus- ja koolituskonverentsidega, on 2011. aasta juba üheksateistkümnnes kord kui Eestis majanduspoliitika valdkonna kirjutised järjekindlalt igal aastal ilmuvad¹. Kuni neljateistkümnenda konverentsini (seega kuni aastani 2006 kaasa arvatud), olid konverentsid ja ilmunud kogumikud vahetult seotud. Alates 2007. aastast ilmuv „Eesti majanduspoliitilised vätlused / Estnische Gespräche über Wirtschaftspolitik / Discussions on Estonian Economic Policy“ on omaette, konverentsist eraldi seisev nähtus, kus hulk artiklite autoreid osaleb küll ka traditsioonilisel nn Värskas majanduspoliitika teaduskonverentsil, kuid rida ajakirjas avaldatud artiklite autoreid konverentsil ei osale (või ei tee ettekannet) ja kirjutavadki vaid avaldamiseks.

Kõne all olev ajakiri ja artiklid olid seni esindatud kahes rahvusvahelises andmebaasis – EBSCO (keskusega USA-s Massachusetts) ja ECONIS² (seotud Saksamaa Liitvabariigis Kielis asuva ja majandusteadlaste hulgaga maailmas tuntud Kieli Ülikooli Maailmamajanduse Instituudiga). Alates käesoleva 2011. aasta juulist, on esindatus lisaks ka andmebaasis SSRN (Social Science Research Network, USAs). Kavas on seda levikut veel mõnesse andmebaasi laiendada. Lisaks Eesti raamatukogudele on publikatsioon esindatud paljude välisriikide ülikoolide raamatukogudes (eeskätt Saksamaal), aga ka näiteks USA-s Washingtonis Kongressi raamatukogus (The Library of Congress).

Asjaolul, et 2011. aastal Eestis juba üheksateistkümnendat korda (aastakäiku) majanduspoliitika temaatika alane publikatsioon ilmub, on suuresti rahvusvaheline tähendus ning kokkuvõtvalt Eesti ja eeskätt Saksamaa mitmete kõrgkoolide kolleegide koostöö tulemus. Siinjuures tuleb eriliselt esile tösta Kieli Rakendusülikooli tänase emeriitprofessori, majandusdoktor Manfred O. E. Henniesi igakülgset tegevust ja toetust nii artiklite avaldamisel kui rahvusvaheliste majanduspoliitika-alaste teaduskonverentside korraldamisel Värskas. Tema teineid Tartu Ülikooli ees (ühltasi ka laiemalt Eestis) tunnustati 2010. aastal Värskas toimunud majanduspoliitika-alasel 18. teaduskonverentsil kui talle Tartu Ülikooli majandusteaduskonna dekaami Toomas Haldma poolt ülikooli rektori auaadress ning

¹ Esimene majanduspoliitika probleematiikaga seotud artiklite kogumik ilmus 1984. aastal ning alates 1994. aastast juba igal aastal kuni aastani 2006 (sel aastal ilmus majanduspoliitika konverentsiga vahetult seotud artiklite kogumik viimast korda). Ilmselt võib 2011. aastal ilmuvat teadusajakirja „Eesti majanduspoliitilised vätlused/ Estnische Gespräche über Wirtschaftspolitik/ Discussions on Estonian Economic Policy“ käsitleda kui üheksateistkümnendat aastakäiku ilmuvat publikatsiooni.

² Sellega seondub 2010. aastal rakendunud EconBiz – majandusteaduse virtuaalne erialane raamatukogu.

Tartu Ülikooli Pärnu Kolledži direktori Henn Vallimäe poolt kolledži kuldmark üle anti.

Siinjuures on hea märkida, et koostöö Manfred O. E. Hennies'iga algas juba 1989. aasta novembris³ ja avardus just Tallinna Tehnikaülikooli (TTÜ) kollegidega oluliselt 1990.-1991. aastal⁴ kui siinkirjutaja oli TTÜ majandusteaduskonna arendusprodekaan. Lisada võib, et kõne all olevale ajakirjale nime panemisel-väljamõttlemisel oli Manfred O. E. Hennies osaliselt ka nö „ristiisa“ rollis. Manfred O. E. Hennies oli ka üks nendest paljudest inimestest, kes finantseerisid Pärnus 2004. aasta septembris avatud Tartu Ülikooli Pärnus asumist⁵ tähistava pääkesekella teostust ja paigaldust (autoriks eesti skulptor Hannes Starkopf). Samuti oli Manfred O. E. Hennies ka see mees, kelle initsiativil sai teoks tänaseni kestev viljakas koostöö saksa teaduskirjastusega Berliner Wissenschafts-Verlag (endine – Arno Spitz Verlag).

Äamiselt suurt rolli omas varasemate artiklite publitseerimisele kaasa aitamisel ka Kieli Rakendustülikooli ettevõttmajanduse professor, majandusdoktor Toni Schulz (17.07.1948 – 06.05.2005), seda just paljude artiklite toimetamisel koos oma abikaasa Anu Schulz'iga.⁶

Kõnesoleva ajakirja/kogumiku kujunemisele on oluliselt kaasa aidanud ka Greifswaldi Ülikooli professor, majandusdoktor Armin Rohde koos oma mitmete doktorantidega. Armin Rohde'ga on koostöös tehtud (sealhulgas artiklite avaldamised koos oma doktorantide-assistentidega) juba kaheteistkünnne aasta jooksul, alates aastast 1999.

Märkimisväärne osa on ajakirja kujunemisel olnud Müncheni Bundeswehri Ülikooli emeriitprofessoril, majandusteaduse doktoril Peter Joachim Friedrich'il,⁷ kes on

³ Matti Raudjärv oli sel ajal kolmekuulisel stažeerimisel Kieli Ülikoolis ja Frankfurdi (Main) Ülikoolis.

⁴ 1990. aasta septembris külendas TTÜ majandusteaduskonda Kieli Rakendustülikooli majandusvaldkonna delegatsioon (kahekso õppejõudu ja kolm üliõpilast). Seejärel, 1991. aasta jaanuaris-veebbruaris, pidasid sügisel Tallinnas viibinud õppejõududest professor Manfred O.E. Hennies ja professor T. Schulz mitmete nädalate jooksul TTÜ majandusteaduskonnas loenguid mahukate loengutsüklite raames (lisaks viibis Manfred O. E. Hennies paaril päeval loenguid pidades ka Tartu Ülikooli majandusteaduskonnas). Hulk saksa üliõpilasi viibis järgnevatele aastatel kuni kuuajalistel majanduspraktikatel paljudes erinevates Eesti ettevõtetes.

⁵ Tartu Ülikool asus aastatel 1699-1710 Pärnus. Algelt taheti sinna asumise puhul kohe pääkesekell paigutada, kuid rahapuudusel jäi see siis paraku tegemata. Nüüd on see tehtud.

⁶ Koostöö nii Manfred Hennies'i kui Toni Schulz'iga artiklite publitseerimisel (nad olid mõlemad ka artiklite autorid) algas juba 1995. aastal, meeldiv koostöö Anu Schulz'iga kestab tänaseni. Mitmetel majanduspoliitika konverentsidel on Anu Schulz olnud tegev ka tölgina.

⁷ Pärast emeriteerumist 2005. aastal Münchenis, elab emeriitprofessor Peter Joachim Friedrich Eestis, oli aastatel 2005-2008 Tartu Ülikooli majandusteaduskonna avaliku sektori ökonoomika erakorraline professor, seejärel sama teaduskonna avaliku sektori ökonoomika vanemteadur ja juulist 2011 samas riigirahanduse vanemteadur. 2011. aastal osales ta autorina juba kuuendat korda publikatsiooni ilmumiselle kaasa aitamisel (olles ka ise alati artikli autor või kaasautor), olles nüüd ka toimetuskollegiumi liige.

alates 2006.aastast publikatsioonide ilmumisele nii autorina kui ajalike nõuannetega artiklite retsensemisele kaasa aidanud.

Seni on nimetatud publikatsioon (ajakiri/kogumik „Eesti majanduspoliitilised väitlused“) ilmunud üks kord aastas. Käesolevast, 2011. aastast ilmub see aastas aga kaks korda (üheksateistkümnnes aastakäik, numbrid 1/2011 ja 2/2011). Üheks edaspidiseks eesmärgiks võiks näiteks olla, et üks number hõlmaks rahvamajanduse ja teine ettevõttemajanduse alaseid artikleid.⁸ See on aga vaid siis võimalik kui edasiselt on piisavalt heatasemelisi ja majanduspoliitikaga seotud ettevõttemajanduse alaseid artikleid. Seni ei ole see (seotus majanduspoliitikaga) ettevõttemajanduse alaste artiklite autoritel eriti õnnestunud ning need artiklid on jäänud meie poolt publitseerimata. Esialgu on aga nii, et mõlemas numbris on eeskätt tegemist rahvamajanduse valdkonna artiklitega ning nende kõrval on esindatud ka üksikud ettevõttemajanduse alased ning majanduspoliitikaga seotud artiklid. Aeg näitab, millisena kõne all olev ajakiri/kogumik edaspidi välja näeb ning paljuski sõltub see autoritest! Muutusi ja arenguid edasise stabiilsuse saavutamiseks tuleb aga kindlasti, nii nagu see ka kõigil varasematel aastatel aset on leidnud.

Artiklite avaldamine käesolevas ajakirjas/kogumikus on paljudele Eesti kõrgkoolide doktorandidele olnud üheks võimaluseks oma väitekirjas läbitöötatud mõtete ja uuringute publitseerimisel (sageli koostöös oma juhendajaga). Aktiivselt on seda kasutanud ka nii mõnegi Saksamaa LV ülikooli doktorandid (näiteks, doktorandid Tartu Ülikooli koostööpartneri Greifswaldi Ülikoolist, Müncheni Bundeswehri Ülikoolist jm).

Tänuväärne koostöö artiklite publitseerimisel on viimasel viiel aastal olnud ka ajakirja toimetuskolleegiumi liikmetega, samuti paljude retsensentidega nii välisriikides kui Eestis. Väärtusliku nõu ja jõuga on artiklite publitseerimise ettevalmistamisele toimetatudena (olles ka ise artiklite autorid) kaasa aidanud Tallinna Tehnikaülikooli kohaliku omavalitsuse ja regionaalpoliitika professor Sulev Mältsemees ja Tartu Ülikooli välismajanduse professor Janno Reiljan.⁹

Käesoleva ajakirja/ kogumiku toimetuskolleegium on rahvusvaheline ning koosneb oma valdkonda hästi tundvatest asjatundjatest. Artiklite eelretsenseerimine on korraldatud üldjuhul kahe, kohati ka enam kordset. See tähendab, et üks või rohkem kordi loetakse artikkel kriitiliselt läbi Eestis ja vajadusel antakse autoritele soovitused artikli täiendamiseks. Seejärel saadetakse artikkel lõppretsenseerimiseks vastavale välisriigi, mõnel juhul ka Eesti eksperdile (või ekspertidele). Toimub nn pimeretsenseerimine, kus retsensent ei tea, kes on artikli autor ja autor ei tea, kes oli retsensent (välja arvatud peatoimetaja ja osaliselt ka toimetajad)¹⁰. Retsentsentideks

⁸ Publikatsiooni üldnimetus oleks sel juhul mõlema numbri puhul endine ja sama – „Eesti majanduspoliitilised väitlused“.

⁹ Kuni 2006. aastani oli nn konverentsikogumike puhul nii autorina kui üldtoimetajana tegev ka Tartu Ülikooli majanduspoliitika professor Jüri Sepp.

¹⁰ Pärast kõigi märkustega tutvumist ja vajalike paranduste-täiendustele tegemist autoriga poolt, lähevad artiklid üldtoimetamisele ning trüki koja (sh CD) versiooni tegemiseks. Mõnikord

on viimasel viiel aastal olnud näiteks järgmised professorid ja teadusdoktorid (tähestiku järjekorras):

1. Claus Dieter Classen (Ernst-Moritz-Arndti Greifswaldi Ülikool)*
2. Jörg Dötsch (Budapesti Andrassy Ülikool)*
3. Raul Eamets (Tartu Ülikool)*
4. Martina Eckardt (Budapesti Andrassy Ülikool)*
5. Üllas Ehrlich (Tallinna Tehnikaülikool)*
6. Eckhard Freyer (Merseburgi Kõrgkool)
7. Peter Joachim Friedrich (*emeritus*, Müncheni Bundeswehri Ülikool; Tartu Ülikool; toimetuskolleegiumi liige¹¹)
8. Lothar Funk (Düsseldorfi Rakendusülikool)*
9. Ulrich Hampicke (Ernst-Moritz-Arndti Greifswaldi Ülikool)
10. Manfred O. E. Hennies (*emeritus*, Kieli Rakendusülikool; toimetuskolleegiumi liige)
11. Peter Hoss (*emeritus*, Berliin-Prieros)
12. Claus-Friedrich Laaser (Kieli Maailmamajanduse Instituut, Kieli Ülikool)*
13. Enno Langfeldt (Kieli Rakendusülikool; toimetuskolleegiumi liige)
14. Dietmar Meyer (Budapesti Andrassy Ülikool)*
15. Sulev Mältsemees (Tallinna Tehnikaülikool; toimetaja¹²)
16. Stefan Okruch (Budapesti Andrassy Ülikool; toimetuskolleegiumi liige)*
17. Tiiu Paas (Tartu Ülikool)*
18. Matti Raudjärv (Tartu Ülikool; peatoimetaja)
19. Janno Reiljan (Tartu Ülikool; toimetaja)
20. Armin Rohde (Ernst-Moritz-Arndti Greifswaldi Ülikool; toimetuskolleegiumi liige)
21. Andreas Thiemer (Kieli Rakendusülikool)
22. Harry W. Trummer (Wolfgang Goethe Frankfurdi Ülikool /Main/)
23. Klaus Schrader (Kieli Maailmamajanduse Instituut, Kieli Ülikool)*
24. Günter Steinmann (*emeritus*, Halle-Wittenbergi Martin-Luther-Ülikool; Budapesti Andrassy Ülikool)*
25. Jüri Sepp (Tartu Ülikool)*
26. Mart Sõrg (*emeritus*, Tartu Ülikool; toimetuskolleegiumi liige)
27. Urmas Varblane (Tartu Ülikool)*
28. Harald Zschiedrich (Berliini Tehnika- ja Majanduse Kõrgkool)*

Siinkohal täنان kõiki eelnimetatuid inimesi, aga samuti käesoleva ajakirja/kogumiku ilmumisele mitmel viisil kaasaaitajaid-toetajaid Tartu Ülikoolist (Toomas Haldma, Heili Kase, Ülle Maidla, Ingra Paltser), Tartu Ülikooli Raamatukogust (Ruth Tammeorg), Tartu Ülikooli Pärnu Kolledžist (Ragnar Kolga, Henn Vallimäe), Tallinna Tehnikaülikoolist (Üllas Ehrlich, Merli Reidolf, Sirje Vilba), Berliini

saadetakse täiendustega artiklid enne üldtoimetamist veelkord retsensendile tutvumiseks ja seisukoha võtmiseks.

¹¹ „toimetuskolleegiumi liige“ – siin ja edaspidi käesoleva ajakirja (kogumiku) toimetuskolleegiumi liige

¹² „toimetaja“ – siin ja edaspidi käesoleva ajakirja (kogumiku) toimetaja

* retsenseeritud üksikuid artikleid

Teaduskirjastusest (Claudia Delfs, Volker Schwarz jmt) ja tõlke-tõlkijaid (Meeli Kuura, Anu Schulz, Juta Voogla jmt).

Kindlasti on kõnesolev publikatsioon ka edaspidi arenev ning oluline koht on siin jätkuvalt ilmuvalt artiklite kvaliteedil ja teaduslikkusel. Järgmisel, 2012.aastal ilmub majanduspoliitika-alane publikatsioon „Eesti majanduspoliitilised vätlused / Estnische Gespräche über Wirtschaftspolitik / Discussions on Estonian Economic Policy“ selle nimetusega kuuendat aastat (üldse 20. aastakäiku). Lisaks loodame selle kõrval ka 20. korda majanduspoliitika teaduskonverentsi Värskas ajavahemikul 28-30. juuni 2012 korraldada.

Siinjuures veelkord südamlikud tänud kõigile, sh nii publikatsiooniga kui ka nn „Värska konverentsiga“ seotuile ja teistele toetajatele, aga samuti lugejatele! Allakirjutanu on ka edaspidi lootusrikas kõigiga viljaka koostöö tegemisel!

Matti Raudjärv, peatoimetaja
November-detsember 2010 (Kiel; Warder – Saksamaa LV);
Jaanuar-august 2011 (Tallinn / Piritä-Kose; Pärnu; Lääne-Virumaa / Tapa vald,
Karkuse küla, Kaasiku talu – Eesti Vabariik)

DIE PUBLIKATION „ESTNISCHE GESPRÄCHE ÜBER WIRTSCHAFTSPOLITIK“ ERSCHEINT SCHON DAS FÜNfte JAHR IN FOLGE

2011 erscheint die fünfte Ausgabe der Publikationsreihe „Estnische Gespräche über Wirtschaftspolitik“. Auf diese Weise wird Autoren, die zu wirtschaftspolitischen Themen schreiben, eine Plattform geboten, ihre Beiträge zu veröffentlichen, und es sei betont – das geschieht nunmehr das fünfte Jahr in Folge. Die Publikationsreihe kann man auch als Wissenschaftsjournal bezeichnen, wie zum Beispiel in den USA, wo sie von EBSCO als *academical journal* aufgeführt wird. Wenn wir die früheren wirtschaftspolitischen Aufsätze mitrechnen, die anlässlich der in Tartu und Värska / Estland stattgefundenen wirtschaftspolitischen Wissenschafts- und Weiterbildungskonferenzen publiziert wurden, ist es schon das neunzehnte Mal, dass in Estland wirtschaftspolitische Schriften als Sammelband kontinuierlich jedes Jahr erscheinen.¹ Bis zur vierzehnten Konferenz (bis einschließlich 2006) hingen die Konferenzen und Sammelbände unmittelbar zusammen. Seit 2007 erscheinen „Eesti majanduspoliitilised väitlused / Estnische Gespräche über Wirtschaftspolitik / Discussions on Estonian Economic Policy“ ohne direkten Bezug auf die oben genannten Konferenzen. Zwar nimmt eine Reihe von Autoren persönlich an der traditionellen wirtschaftspolitischen Konferenz in Värska teil, aber viele Autoren gehören nicht zum Referenten- oder Teilnehmerkreis der Konferenz, sie publizieren lediglich ihren Beitrag im Sammelband.

„Die estnischen Gespräche über Wirtschaftspolitik“ und ihre Beiträge sind bis jetzt in zwei internationalen Datenbanken registriert: In EBSCO (Zentrale in Massachusetts / USA), und ECONIS² (bei dem renommierten Institut für Weltwirtschaft an der Universität Kiel). Ab dem Juli 2011 ist die Publikationsreihe auch in der Datenbank SSRN (Social Science Research Network, USA) zu finden. Es ist geplant, die Publikationsreihe noch in einige weitere Datenbanken einzuspeisen. Zusätzlich zu den estnischen Bibliotheken gehört sie zu Beständen mehrerer ausländischer Universitätsbibliotheken (vor allem in Deutschland), aber auch zum Beispiel der Kongressbibliothek in Washington / USA (The Library of Congress).

Die Tatsache, dass wir 2011 in Estland schon den 19. Jahrgang der Publikationsreihe präsentieren können, ist das Ergebnis einer regen Kooperation zwischen Kollegen aus estnischen und vor allen aus deutschen Hochschulen und hat auf dieser Weise eine internationale Bedeutung. Dabei ist besonders das Engagement von Prof. Dr.

¹ Der erste Sammelband zur wirtschaftspolitischen Thematik erschien 1984, seit 1994 erschien er regelmäßig jährlich bis 2006 (in diesem Jahr hatte der Band das letzte Mal einen direkten Bezug zur Konferenz). Auf diesem Hintergrund scheint es uns richtig, das Wissenschaftsjournal „Eesti majanduspoliitilised väitlused / Estnische Gespräche über Wirtschaftspolitik / Discussions on Estonian Economic Policy“, das 2011 erscheinen wird, als eine Publikation zu betrachten, die schon 19 Jahrgänge vorzuweisen hat.

² Damit hängt die im Jahre gestartete EconBiz (Virtuelle Fachbibliothek Wirtschaftswissenschaften) zusammen.

Manfred O. E. Hennies, der bis 2010 an der Fachhochschule Kiel tätig war, hervorzuheben. Seit mehreren Jahren unterstützt er nach Kräften die Publikationsvorhaben und die Durchführung der wirtschaftspolitischen Wissenschaftskonferenzen in Värska. Seine Verdienste um die Zusammenarbeit mit der Universität Tartu und auch mit anderen estnischen Institutionen wurden 2010 während der 18. Värska-Konferenz gewürdigt: Toomas Haldma, der Dekan der Wirtschaftswissenschaftlichen Fakultät der Universität Tartu, überreichte ihm eine Ehrenurkunde des Rektors, und aus den Händen von Henn Vallimäe, dem Direktor des Pärnuer College der Universität Tartu, erhielt er ein goldenes Collegeabzeichen.

Wir erinnern uns gerne zurück bis in den November des Jahres 1989, als die Zusammenarbeit mit Prof. Dr. Hennies begann³. Diese Zusammenarbeit mit Kollegen der Technischen Universität Tallinn wurde in den Jahren 1990-1991⁴ immer mehr ausgebaut, also in der Zeit, als der Verfasser dieser Zeilen als Prodekan für Entwicklung an der Wirtschaftsfakultät der Technischen Universität mitwirken durfte. Es sei hinzugefügt, dass Prof. Dr. Hennies bei der Namensgebung des Wissenschaftsjournals maßgebend als „Taufpate“ fungierte. Er gehörte auch zu den vielen Spendern, die 2004 in Pärnu die Fertigstellung und Aufstellung einer Sonnenuhr mitfinanzierte. Die vom estnischen Bildhauer Hannes Starkopf geschaffene Sonnenuhr erinnert uns daran, dass die heutige Universität Tartu einst ihren Standort in Pärnu hatte⁵. Es muss genauso betont werden, dass dank der Initiative von Prof. Dr. Hennies schon seit Jahren eine enge Zusammenarbeit mit dem Berliner Wissenschafts-Verlag (früher Arno Spitz Verlag) besteht.

Eine besonders große Rolle spielte beim Publizieren der früheren Artikel Dr. Toni Schulz, Professor für Rechnungswesen an der FH Kiel (17.07.1948 – 06.05.2005). Beim Übersetzen und Redigieren der Beiträge ist oft auch seine Ehefrau Anu Schulz⁶ behilflich gewesen.

³ Matti Raudjärv war zu dieser Zeit zu einem dreimonatigen Forschungsaufenthalt an der Universität Kiel und der Universität Frankfurt am Main.

⁴ Im September 1990 war eine Delegation des Fachbereichs Wirtschaft der FH Kiel zu Besuch bei der Wirtschaftsfakultät der Technischen Universität Tallinn. Zur Delegation gehörten acht Lehrkräfte und drei Studenten. Anschließend hielten zwei der Delegationsmitglieder, Prof. Dr. Manfred O.E. Hennies und Prof. Dr. Toni Schulz, im Januar-Februar 1991 eine umfangreiche Vortragsreihe an der Wirtschaftsfakultät der Tallinner Technischen Universität; Prof. Hennies hielt zusätzlich an ein paar Tagen Vorlesungen an der Universität Tartu. In den darauffolgenden Jahren absolvierte eine Reihe von deutschen Studenten ein einmonatiges Wirtschaftspraktikum an verschiedenen estnischen Betrieben.

⁵ 1699-1710 hatte die Tartuer Universität ihren Standort in Pärnu. Ursprünglich war es geplant, aus diesem Anlass gleich eine Sonnenuhr aufzustellen, aber aus Geldmangel musste man davon absehen. Jetzt hat aber die Sonnenuhr ihren Platz vor dem Pärnuer College der Universität Tartu gefunden.

⁶ Die Zusammenarbeit mit Prof. Hennies und mit Prof. Schulz sowohl als Autoren als auch als Mitwirkende bei der Herausgabe begann schon 1995. Anu Schulz ist noch heute als Übersetzerin von Beiträgen aktiv.

Bei der Gestaltung der Publikationsreihe haben maßgebend Dr. Armin Rohde, Professor an der Universität Greifswald, und seine Doktoranden mitgewirkt. Die Zusammenarbeit mit Prof. Armin Rohde (unter anderem auch gemeinsame Publikationen mit seinen Doktoranden und Assistenten) begann 1999 und währt somit schon zwölf Jahre.

Einen festen Platz bei der Herausgabe der Publikationsreihe hat Dr. Peter Joachim Friedrich⁷, Professor Emeritus der Universität der Bundeswehr München, eingenommen. Durch seine seit 2006 währende Autoren- und Rezäsententätigkeit hat er sich unverzichtbar gemacht.

Bis jetzt ist die Publikationsreihe „Estnische Gespräche über Wirtschaftspolitik“ einmal jährlich erschienen. Ab dem aktuellen Jahr 2011 gibt es zwei Ausgaben jährlich (19. Jahrgang, Bände 1/2011 und 2/2011). Es wäre wünschenswert, wenn zukünftig eine Ausgabe betriebswirtschaftliche Beiträge beinhalten würde und die zweite Ausgabe für volkswirtschaftliche Thematik reserviert wäre.⁸ Das ist aber nur möglich, falls genug betriebswirtschaftliche Beiträge mit wirtschaftspolitischem Bezug und auf erforderlichem wissenschaftlichen Niveau eingereicht werden. Leider ist es mehreren Autoren nicht im erforderlichen Maße gelungen, den wirtschaftspolitischen Bezug herzustellen, und diese Beiträge sind unveröffentlicht geblieben. Aus diesem Grunde bleibt es vorerst so, dass in beiden Ausgaben die volkswirtschaftliche Thematik im Vordergrund steht, ergänzt durch betriebswirtschaftliche Beiträge mit wirtschaftspolitischem Bezug. Die Zeit wird es zeigen, wie sich das neue Wissenschaftsjournal gestaltet, vor allem wird das wohl von unseren Autoren abhängen! Um Stabilität beim Erscheinen des Journals zu gewährleisten, sind wir für Veränderungen und neue Entwicklungen stets offen, genauso wie es bis jetzt der Fall gewesen ist.

Die Veröffentlichung ihrer Beiträge in unserem Sammelband / Journal ist für zahlreiche Doktoranden der estnischen Hochschulen (oft in Zusammenarbeit mit ihren wissenschaftlichen Betreuern) eine willkommene Gelegenheit gewesen, die Ergebnisse ihrer Promotionsschrift einem breiteren Fachpublikum vorzustellen. Auch Doktoranwärter aus deutschen Hochschulen (z. B. aus der Universität Greifswald, der Universität der Bundeswehr München u.a.) haben diese Möglichkeit genutzt.

⁷ Nach seiner Emeritierung 2005 in München hat Prof. Peter Joachim Friedrich seinen Wohnsitz nach Estland verlegt und seitdem lehrt und forscht er an der Universität Tartu. 2005-2008 war er außerordentlicher Professor für Ökonomik des öffentlichen Sektors an der Wirtschaftsfakultät, danach leitender wissenschaftlicher Mitarbeiter für das genannte Fach und ab Juli 2001 hat er sein Forschungsgebiet auf Staatfinanzenwesen verlegt. 2011 wirkte Prof. Friedrich schon das sechste Mal bei der Herausgabe der Publikationsreihe mit, immer tritt er gleichzeitig als Autor oder Coautor auf, und derzeit fungiert er zusätzlich als Mitglied des Redaktionskollegiums.

⁸ Die beiden Ausgaben würden auch in diesem Fall den gleichen, schon bewährten Titel tragen: „Estnische Gespräche über Wirtschaftspolitik“.

Die letzten fünf Jahre zeichnen sich durch eine fließende Zusammenarbeit mit den Mitgliedern des Redaktionskollegiums und den vielen Rezessenten sowohl im Ausland als auch in Estland aus. An dieser Stelle sei ein besonderer Dank an Sulev Mältsemees, dem Professor für Kommunal- und Regionalpolitik an der Technischen Universität Tallinn, und an Janno Reiljan⁹, dem Professor für Außenwirtschaft der Universität Tartu, auszusprechen. Beide Professoren haben sich mit ihren wertvollen Ratschlägen und ihrer tatkräftiger Mithilfe beim Rezensieren stark gemacht.

Das Redaktionskollegium des vorliegenden Journals / Sammelbandes ist international zusammengesetzt und besteht aus renommierten Fachleuten. Die eingereichten Beiträge werden meistens zweimal vorrezensiert, bei Bedarf wiederholt sich das Rezensieren noch ein weiteres Mal. Das ist so zu verstehen, dass jeder Beitrag von der estnischen Seite einmal oder mehrmals kritisch durchgesehen wird, und bei Bedarf bekommen die Autoren Überarbeitungsvorschläge. Danach wird der Aufsatz zum endgültigen Rezensieren an einen entsprechenden ausländischen Experten, in manchen Fällen auch einen estnischen Experten (oder mehreren) verschickt. Das Rezensieren geschieht durch ein anonymes Verfahren (das sogenannte Blindrezensieren): Der Rezessent kennt den Autor nicht und dem Autor wiederum bleibt der Rezessent unbekannt. Die Identität der Akteure ist nur dem Chefredakteur (teils auch den Redakteuren) bekannt¹⁰. In den letzten fünf Jahren zählten zu den Rezessenten folgende Professoren oder Doktoren der Wirtschaftswissenschaften (in der alphabetischen Reihenfolge):

1. Claus Dieter Classen (Ernst-Moritz-Arndt-Universität Greifswald)*
2. Jörg Dötsch (Andrássy Universität Budapest)*
3. Raul Eamets (Universität Tartu)*
4. Martina Eckardt (Andrássy Universität Budapest)*
5. Üllas Ehrlich (Technische Universität Tallinn)*
6. Eckhard Freyer (Hochschule Merseburg)
7. Peter Joachim Friedrich (Professor Emeritus, Universität der Bundeswehr München; Universität Tartu; Mitglied des Redaktionskollegiums¹¹)
8. Lothar Funk (Fachhochschule Düsseldorf)*
9. Ulrich Hampicke (Ernst-Moritz-Arndt-Universität Greifswald)
10. Manfred O. E. Hennies (bis 2010 Professor an der Fachhochschule Kiel; Mitglied des Redaktionskollegiums)
11. Peter Hoss (Professor emeritus, Berlin-Prieros)
12. Claus-Friedrich Laaser (Institut für Weltwirtschaft an der Universität Kiel)*

⁹ Bis 2006 wirkte Jüri Sepp, Professor für Wirtschaftspolitik an der Universität Tartu, bei den „Konferenzsammelbänden“ als Autor mit und war gleichzeitig für allgemeine Redaktionsfragen zuständig.

¹⁰ Wenn der Autor alle Bemerkungen zur Kenntnis genommen und die notwendigen Veränderungen vorgenommen hat, werden die Beiträge der abschließenden Redaktion unterzogen. Danach wird das Layout für die Druck- und die CD-Version erstellt. In manchen Fällen werden die verbesserten Beiträge vor der abschließenden Redaktion nochmals an den Rezessenten zur Kenntnis- und Stellungnahme gesandt.

¹¹ „Mitglied des Redaktionskollegiums“ – hier und weiterhin Mitglied des Redaktionskollegiums des vorliegenden Journals / Sammelbandes

13. Enno Langfeldt (Fachhochschule Kiel; Mitglied des Redaktionskollegiums)
14. Dietmar Meyer (Andrássy Universität Budapest)*
15. Sulev Mältsemees (Technische Universität Tallinn, Redakteur¹²⁾)
16. Stefan Okruch (Andrássy Universität Budapest; Mitglied des Redaktionskollegiums)*
17. Tiiu Paas (Universität Tartu)*
18. Matti Raudjärv (Universität Tartu; Chefredakteur)
19. Janno Reiljan (Universität Tartu; Redakteur)
20. Armin Rohde (Ernst-Moritz-Arndt-Universität Greifswald; Mitglied des Redaktionskollegiums)
21. Andreas Thiemer (Fachhochschule Kiel)
22. Harry W. Trummer (Wolfgang Goethe-Universität Frankfurt am Main)
23. Klaus Schrader (Institut für Weltwirtschaft an der Universität Kiel)*
24. Günter Steinmann (Professor Emeritus, Martin-Luther-Universität Halle-Wittenberg; Andrásy Universität Budapest)*
25. Jüri Sepp (Universität Tartu)*
26. Mart Sörg (Professor Emeritus, Universität Tartu; Mitglied des Redaktionskollegiums)
27. Urmas Varblane (Universität Tartu)*
28. Harald Zschiedrich (Hochschule für Technik und Wirtschaft Berlin)*

An dieser Stelle möchte ich mich bei allen oben genannten Kolleginnen und Kollegen bedanken. Mit dankenden Worten wende ich mich auch an Toomas Haldma, Heili Kase, Ülle Maidla und Ingra Paltser aus der Universität Tartu (Fakultät für Wirtschaftswissenschaften), an Ruth Tammeorg aus der Tartuer Universitätsbibliothek, an Ragnar Kolga und Henn Vallimäe aus dem Pärnuer College der Universität Tartu, an Üllas Ehrlich, Merli Reidolf und Sirje Vilba aus der Technischen Universität Tallinn, an Claudia Delfs und Volker Schwarz u.a. aus dem Berliner Wissenschafts-Verlag und an die Dolmetscherinnen und Übersetzerinnen Meeli Kuura, Anu Schulz, Juta Voogla u.a., die alle auf verschiedene Weise zum Erscheinen des vorliegenden Journals / Sammelbandes beigetragen haben.

Sicherlich steht die vorliegende Publikationsreihe für alle Entwicklungen und Veränderungen offen, wobei die Qualität und die Wissenschaftlichkeit der zu publizierenden Beiträge immer Vorrang haben. Im nächsten Jahr, also 2012, erscheint die wirtschaftspolitische Publikationsreihe „Eesti majanduspoliitilised väitlused / Estnische Gespräche über Wirtschaftspolitik / Discussions on Estonian Economic Policy“ unter diesem Titel schon das sechste Jahr in Folge (Das wird dann der 20. Jahrgang sein). Darüber hinaus haben wir schon die Weichen für die Vorbereitungen hinsichtlich der 20. wirtschaftspolitischen Wissenschaftskonferenz vom 28.-30. Juni 2012 in Värska gestellt.

¹² „Redakteur“ – hier und weiterhin Redakteur des vorliegenden Journals / Sammelbandes

* Der Rezensent hat nur einzelne Beiträge rezensiert

Ein weiteres Mal ein herzliches Dankeschön an alle, die sowohl die Publikationsreihe als auch die Värksa-Konferenz nach Kräften unterstützen! Und *at last but not least*: Wir hoffen, dass unsere Leserinnen und Leser uns treu bleiben, ihr Interesse an unserem Journal wollen wir immer im Auge behalten.

Eine fruchtbringende und andauernde Zusammenarbeit erhofft.

Matti Raudjärv, Chefredakteur
November-Dezember 2010 (Kiel, Warder – Deutschland);
Januar-August 2011 (Tallinn / Pirit-Kose; Pärnu; Lääne-Virumaa / Gemeinde Tapa,
Dorf Karkuse, Hof Kaasiku – Estland)

FIVE SUCCESSIVE YEARS OF PUBLICATION OF “DISCUSSIONS ON ESTONIAN ECONOMIC POLICY”

Papers of authors who have written on the topics of economic policy in 2011 have been published already for the fifth year in Estonia in the scientific journal / collection (e.g. EBSCO in the USA lists this publication as an academic journal) which bears the title mentioned in the heading above. Considering also the earlier publications on economic policy, which were directly related to the scientific and educational conferences on economic policy which were held in Tartu / Värska, Estonia, 2011 is already the 19th year of continuous annual publication of papers on economic policy in Estonia¹. Until the 14th conference (i.e. up to 2006, incl.), the conferences were directly related to the publication of the collections. “Eesti majanduspoliitilised väitlused / Estnische Gespräche über Wirtschaftspolitik / Discussions on Estonian Economic Policy” which has been published since 2007 is a phenomenon which is separate from the conference. While a number of the authors of papers also participate in the traditional Värska Conference on economic policy, some of the authors of the papers published in the journal do not participate in the conference (or do not make presentations) and only write for publication.

Until now, the journal concerned and the papers were represented in two international databases – EBSCO (with the main office in Massachusetts, USA) and ECONIS² (related to the Institute for World Economy of the University of Kiel in the German Federal Republic, well known among the economists of the world). Since July 2011 it is additionally represented in the SSRN (Social Science Research Network, USA) database. We are planning to include it in some other databases as well. In addition to Estonian libraries, the publication is represented in libraries of many universities of foreign countries (above all in Germany) but also, for instance, in the Library of Congress in Washington, USA.

The fact that a publication on the topic of economic policy is appearing in Estonia in 2011 for the 19th year (annual volume) already, has mostly international importance and it is for the most part the result of cooperation between colleagues from several Estonian and above all German institutions of higher education. Here we should point out particularly the comprehensive activities and support from Doctor of Economics, by now Professor Emeritus Manfred O. E. Hennies from the Kiel University of Applied Sciences both in the publishing of the papers and organisation of international scientific conferences on economic policy in Värska. His merits in activities related with the University of Tartu (also more broadly in Estonia) were

¹ The first collection of articles related to the issues of economic policy was published in 1984 and from 1994 it was published annually until 2006 (when the last collection of articles directly related to the conference on economic policy was published). The scientific journal “Eesti majanduspoliitilised väitlused / Estnische Gespräche über Wirtschaftspolitik / Discussions on Estonian Economic Policy” published in 2011 can probably be regarded as the 19th annual volume of this publication.

² This is related to EconBiz – the Virtual Library for Economics and Business Studies, opened in 2010.

recognised in 2010 at the 18th Scientific Conference on Economic Policy held in Värska where the Dean of the Faculty of Economics and Business Administration of the University of Tartu Toomas Haldma delivered the Citation of Honour from the Rector of the University and the Director of the Pärnu College of the University of Tartu Henn Vallimäe granted the Golden Badge of the College to him.

We are glad to mention here that the cooperation with Manfred O. E. Hennies started already in November 1989³ and became considerably more extensive particularly with colleagues from the Tallinn University of Technology in 1990–1991⁴ when the undersigned was the Vice-Dean for Development at the Faculty of Economics and Business Administration of the Tallinn University of Technology. We can add that Manfred O. E. Hennies partly also had the role of the “godfather” in finding the name for the journal. Manfred O. E. Hennies was also one of the many people who financed the creation and installation of the sundial in Pärnu in September 2004 to mark the period of operation of the University of Tartu in Pärnu⁵ (the author is the Estonian sculptor Hannes Starkopf). Manfred O. E. Hennies was also the man on whose initiative the currently fruitful cooperation with the German publisher of research literature Berliner Wissenschafts-Verlag (the former Arno Spitz Verlag) was started.

Also Professor of Business Administration of the Kiel University of Applied Sciences, Doctor of Economics Toni Schulz (17.07.1948–06.05.2005) had a very important role in assisting in the publishing of papers in the earlier years, particularly in editing many papers together with his spouse Anu Schulz.⁶

Also Professor of the Greifswald University, Doctor of Economics Armin Rohde together with several of his doctoral students has made an important contribution to the development of this journal / collection. Cooperation with Armin Rohde

³ Matti Raudjärv was participating in a 3 month fellowship programme at that time in the Kiel University and the Frankfurt am Main University.

⁴ In September 1990, a delegation (eight members of the academic staff and three students) of the field of economics of the Kiel University of Applied Sciences visited the Faculty of Economics and Business Administration of the Tallinn University of Technology. After that, in January-February 1991, Professor Manfred O.E. Hennies and Professor T. Schulz who had visited Tallinn in autumn, delivered lectures in the Faculty of Economics and Business Administration of the Tallinn University of Technology for several weeks as a part of longer cycles of lectures (in addition, Manfred O. E. Hennies delivered lectures for a few days also at the Faculty of Economics and Business Administration of the University of Tartu). In the next years, a number of German students had practical business training of up to one month in many different Estonian companies.

⁵ The University of Tartu was based in Pärnu in 1699–1710. It was intended to install a sundial there to mark the relocation to Pärnu already then but it was not done then due to the lack of funds. It has been done now.

⁶ Cooperation with both Manfred Hennies and Toni Schulz in publishing the papers (they were both also authors of papers) started already in 1995, the pleasant cooperation with Anu Schulz is still continuing. Anu Schulz has also been an interpreter at several conferences on economic policy.

(including publishing of papers together with his doctoral students / assistants) has continued for already twelve years, since 1999.

Professor Emeritus of the Bundeswehr University Munich, Doctor of Economics Peter Joachim Friedrich⁷ who has contributed to the publications since 2006 both as an author and with useful advice in the peer review of papers has had a significant role in the development of the journal.

Until now, the publication (journal / collection “Discussions on Estonian Economic Policy”) has appeared once a year. Starting from this year, 2011, it will be published twice a year, however (19th annual volume, issues 1/2011 and 2/2011). One of the further objectives could be, for instance, to publish papers of national economy in one issue and papers on business administration in the other.⁸ This will, however, be possible only if there are a sufficient number of high-quality papers on business administration related to economic policy. Until now the authors of papers on business administration have not particularly succeeded to achieve this (relation to economic policy) and such articles have not been published here. But for the time being, both issues contain above all papers on national economy and next to them also a few papers on business administration and papers related to economic policy. Time will show what the journal / collection will look like in the future and it will largely depend on the authors! But there will certainly be changes and developments for the achievement of further stability, just like it has been in all earlier years.

Publishing papers in this journal / collection has been one of the opportunities for many doctoral students of Estonian institutions of higher education for publishing their ideas and research results of their thesis (often in cooperation with their supervisor). Also doctoral students of quite a few universities of the Federal Republic of Germany have actively used it (e.g. doctoral students of the Greifswald University which is a cooperation partner of the University of Tartu, doctoral students of the Bundeswehr University Munich, etc.).

In the course of the last five years we have had valuable cooperation also with members of the Editorial Board of the journal and with many peer reviewers from foreign countries and Estonia. Professor of Local Self-government and Regional Policy Sulev Mältsemees of the Tallinn University of Technology and Professor of International Economy Janno Reiljan of the University of Tartu have contributed to

⁷ After becoming Professor Emeritus in Munich in 2005, Prof. em. Peter Joachim Friedrich has lived in Estonia, he was the Extraordinary Professor of Public Sector Economics of the Faculty of Economics and Business Administration of the University of Tartu in 2005–2008, after that Senior Researcher of Public Sector Economics of the same faculty and since 2011 Senior Researcher of Public Finance at the same faculty. In 2011 he participated in the publication as an author already for the sixth year (being always also an author or co-author of a paper) and is now also a member of the Editorial Board.

⁸ The general title of the publication would then be the same as before and similar for both issues – “Discussions on Estonian Economic Policy”.

preparations for the publishing the papers with their valuable advice and efforts as editors (being also authors of papers themselves).⁹

The Editorial Board of this journal / collection is international and consists of experts of their field. Peer review of papers has been arranged generally by two but sometimes even more persons. This means that a paper is critically reviewed once or for more times in Estonia and recommendations will be issued to authors for improving their paper, if appropriate. Then the paper will be sent for final peer review to an expert (or experts) of the respective field in a foreign country, in some cases also in Estonia. The so-called “double-blind peer review” policy is followed – the reviewer does not know who is the author of the paper and the author does not know who was the reviewer (except the Chief Editor and partly also editors)¹⁰. For instance, the following professors and doctors (in alphabetic order) have been the peer reviewers in the last five years:

1. Claus Dieter Classen (Ernst-Moritz-Arndt University of Greifswald)*
2. Jörg Dötsch (Andrássy University Budapest)*
3. Raul Eamets (University of Tartu)*
4. Martina Eckardt (Andrássy University Budapest)*
5. Üllas Ehrlich (Tallinn University of Technology)*
6. Eckhard Freyer (Merseburg University of Applied Sciences)
7. Peter Joachim Friedrich (*emeritus*, Bundeswehr University Munich; University of Tartu; member of the Editorial Board¹¹)
8. Lothar Funk (Düsseldorf University of Applied Sciences)*
9. Ulrich Hampicke (Ernst-Moritz-Arndt University of Greifswald)
10. Manfred O. E. Hennies (*emeritus*, Kiel University of Applied Sciences; member of the Editorial Board)
11. Peter Hoss (*emeritus*, Berlin-Prieros)
12. Claus-Friedrich Laaser (Institute for World Economy of the University of Kiel)*
13. Enno Langfeldt (Kiel University of Applied Sciences; member of the Editorial Board)
14. Dietmar Meyer (Andrássy University Budapest)*
15. Sulev Mältsemees (Tallinn University of Technology; editor¹²)
16. Stefan Okruch (Andrássy University Budapest; member of the Editorial Board)*
17. Tiiu Paas (University of Tartu)*
18. Matti Raudjärv (University of Tartu; Chief Editor)

⁹ Until 2006, also Professor of Economic Policy Jüri Sepp of the University of Tartu was both an author and the editor for the conference collections.

¹⁰ After reading all comments and making the required corrections / additions by the author, the papers undergo general editing and the printer's (incl. CD) versions are prepared. Sometimes papers with corrections / additions are sent back to reviewers before general editing for another review and expressing the opinion.

¹¹ “member of the Editorial Board” – here and below: member of the Editorial Board of this journal (collection)

¹² “editor” – here and below: the editor of this journal (collection)

* has peer reviewed a few papers

19. Janno Reiljan (University of Tartu; editor)
20. Armin Rohde (Ernst-Moritz-Arndt University of Greifswald; member of the Editorial Board)
21. Andreas Thiemer (Kiel University of Applied Sciences)
22. Harry W. Trummer (Wolfgang Goethe University Frankfurt am Main)
23. Klaus Schrader (Institute for World Economy of the University of Kiel)*
24. Günter Steinmann (*emeritus*, Martin-Luther University of Halle-Wittenberg; Andrassy University Budapest)*
25. Jüri Sepp (University of Tartu)*
26. Mart Sörg (*emeritus*, University of Tartu; member of the Editorial Board)
27. Urmas Varblane (University of Tartu)*
28. Harald Zschiedrich (Berlin University of Applied Sciences)*

Many thanks to all persons listed above and also to persons from the University of Tartu (Toomas Haldma, Heili Kase, Ülle Maidla, Ingra Paltser), Library of the University of Tartu (Ruth Tammeorg), Pärnu College of the University of Tartu (Ragnar Kolga, Henn Vallimäe), Tallinn University of Technology (Üllas Ehrlich, Merli Reidolf, Sirje Vilba), Berlin Wissenschafts-Verlag (Claudia Delfs, Volker Schwarz and several others) and interpreters / translators (Meeli Kuura, Anu Schulz, Juta Voogla and several others) who have contributed to / supported the publishing of this journal / collection in different ways.

The development of this publication will surely continue and the quality and scientific level of the papers published will always have an important role. Next year, in 2012, the publication on economic policy “Eesti majanduspoliitilised väitlused / Estnische Gespräche über Wirtschaftspolitik / Discussions on Estonian Economic Policy” will be published for the 6th year under this name (20th annual volume in total). In parallel, we are planning to organise also for the 20th time the scientific conference on economic policy in Värska on 28–30 June 2012.

Again, our cordial thanks to everybody who have been involved with this publication or with the Värska Conference and to other supporters but also to our readers! The undersigned is looking forward to fruitful cooperation with all of you!

Matti Raudjärv, Chief Editor
November-December 2010 (Kiel; Warder – Federal Republic of Germany);
January-August 2011 (Tallinn / Pirita-Kose; Pärnu; Lääne-Virumaa / Tapa Rural
Municipality, Karkuse Village, Kaasiku Farm – Republic of Estonia)

MAJANDUSPOLIITIKA TEADUSKONVERENTSID EESTIS (1984-2011)

WISSENSCHAFTLICHE KONFERENZEN ÜBER WIRTSCHAFTSPOLITIK IN ESTLAND (1984-2011)

SCIENTIFIC CONFERENCES ON ECONOMIC POLICY IN ESTONIA (1984-2011)

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|------|------|--|
| I | 1984 | Ühiskondliku tootmise intensiivistamise probleemid Eesti NSV-s |
| II | 1994 | Majandusteadus ja majanduspoliitika Eesti Vabariigis |
| III | 1995 | Majanduspoliitika teoria ja praktika Eesti Vabariigis |
| IV | 1996 | Aktuaalsed majanduspoliitika küsimused Euroopa Liidu riikides ja Eesti Vabariigis /I ja II/
Aktuelle wirtschaftspolitische Fragen in den Ländern der Europäischen Union und in der Republik Estland /I und II/
Topical Problems of the Economic Policy in the Member States of the European Union and the Republic of Estonia /I and II/ |
| V | 1997 | Eesti Vabariigi majanduspoliitika ja integreerumine Euroopa Liiduga
Die Wirtschaftspolitik der Republik Estland und die Integration mit der Europäischen Union
Economic Policy of the Republic of Estonia and Integration with the European Union |
| VI | 1998 | Eesti Vabariigi integreerumine Euroopa Liiduga – majanduspoliitika eesmärgid ja abinõud
Die Integration der Republik Estland mit der Europäischen Union – Ziele und Mittel der Wirtschaftspolitik
Integration of the Republic of Estonia into the European Union – Goals and Instruments of Economic Policy |
| VII | 1999 | Eesti Vabariigi majanduspoliitika ja Euroopa Liit
Wirtschaftspolitik der Republik Estland und die Europäische Union
Economic Policy of the Republic of Estonia and the European Union |
| VIII | 2000 | Eesti Vabariigi majanduspoliitika tulemuslikkus ja Euroopa Liit
Wirksamkeit der Wirtschaftspolitik der Republik Estland und die Europäische Union
Effectiveness of the Economic Policy of the Republic of Estonia and the European Union |
| IX | 2001 | Harmoniseerimine ja vabadus Eesti Vabariigi majanduspoliitikas integreerumisel Euroopa Liiduga
Harmonisierung und Freiheit der Wirtschaftspolitik Estlands in EU-Integrationsprozess
Harmonisation and Freedom in the Economic Policy of Estonia integrating with the European Union |
| X | 2002 | Euroopa Liiduga liitumise mõju Eesti majanduspoliitikale
Die Integration der Europäischen Union und ihre Wirkungen auf die Wirtschaftspolitik Estlands |

		Effect of Accession to the European Union on the Economic Policy of Estonia
XI	2003	Eesti majanduspoliitika teel Euroopa Liitu Die Wirtschaftspolitik Estlands auf dem Weg in die Europäische Union
XII	2004	Estonian Economic Policy on the way towards the European Union
XIII	2005	Eesti majanduspoliitilised perspektiivid Euroopa Liidus Wirtschaftspolitische Perspektiven Estlands als Mitglied der Europäischen Union
XIV	2006	Economic Policy Perspectives of Estonia in the European Union
XV	2007	XIII majanduspoliitika teaduskonverents Die XIII wirtschaftspolitische Konferenz 13 th Scientific Conference on Economic Policy
XVI	2008	XIV majanduspoliitika teaduskonverents Die XIV wirtschaftspolitische Konferenz 14 th Scientific Conference on Economic Policy
XVII	2009	Eesti majanduspoliitika – kolm aastat Euroopa Liidus Die Wirtschaftspolitik Estlands – drei Jahre in der Europäischen Union
XVIII	2010	Economic Policy of Estonia – three Years in the European Union
XIX	2011	Majanduspoliitika Euroopa Liidu riikides – aasta 2008 Die Wirtschaftspolitik in den EU-Mitgliedsstaaten – 2008 Economic Policy in the EU Member States – 2008
		Majanduspoliitika Euroopa Liidu riikides – aasta 2009 Die Wirtschaftspolitik in den EU-Mitgliedsstaaten – 2009 Economic Policy in the EU Member States – 2009
		Majanduspoliitika Euroopa Liidu riikides – aasta 2010 Die Wirtschaftspolitik in den EU-Mitgliedsstaaten – 2010 Economic Policy in the EU Member States – 2010
		Majanduspoliitika Euroopa Liidu riikides – aasta 2011 Die Wirtschaftspolitik in den EU-Mitgliedsstaaten – 2011 Economic Policy in the EU Member States – 2011

NB! Järgmine majanduspoliitika teaduskonverents toimub / Die nächste wirtschaftspolitische Konferenz findet start / The next scientific conference on economic policy will be held:

XX	28.-30.06.2012 (Värska, Eesti-Estland-Estonia)
	Majanduspoliitika Euroopa Liidu riikides – aasta 2012
	Die Wirtschaftspolitik in den EU-Mitgliedsstaaten – 2012
	Economic Policy in the EU Member States – 2012