

**Executive summary**  
**CERGE-EI GDN program project No. GRCII+34, 2002**

**INSTITUTIONAL DETERMINANTS OF CONVERGENCE: CONCEPTUAL  
FRAMEWORKS AND EMPIRICAL STUDIES OF ESTONIAN INSTITUTIONAL  
HARMONISATION AND SOCIO-ECONOMIC CONVERGENCE WITH THE EU**

Our main policy implication findings in the three parts of the Project are as follows:

**Part One by Teet Rajasalu: Indicators of Economic Freedom and Economic Structure as Determinants of Growth and Convergence in Enlarging EU and priorities for Estonia** can be summarised as follows:

1. General indicators of institutional development like education, health of population and labour force, political rights and civil liberties cannot explain cross-country differences in growth rates within the enlarging EU well enough. Institutional determinants that have been proved to be statistically significant determinants of growth rates by many authors in worldwide sample countries or in various samples of transition economies do not perform so well in EU member states and candidate countries where the harmonisation process has induced a rather high similarity in general institutional development. More closely economy related indicators of economic freedom were better correlated with the growth differentials and convergence within the enlarging EU. The findings confirm Estonia's rather good prospects for further growth and convergence with the EU as its economic freedom ranking is high and initial income level low.
2. Besides economic freedom indices, some structural indicators of the economy deserve attention in the evaluation of economic growth and convergence prospects. It happened that regressions augmented by structural indicators explained growth rates better. However, these regressions failed to prove long run income convergence in enlarging EU.
3. Additionally to overall indicators of economic freedom and sub-indices of fiscal burden, foreign capital movement regulations and monetary stability, structural indicators like the percentage share of gross capital formation in GDP and share of high technology exports in total manufacturing exports deserve special attention. However, high shares of the aforementioned structural indicators can be also interpreted as results of advancements in building up institutions that promote high investment ratios and high technological level of exports. These policy relevant findings were helpful in targeting Estonia's institution design.

**Part Two by Alar Kein: Estonian Institutional Harmonisation and Socio-Economic Convergence with the EU: the Aspects of Development, Credibility and Consistency of Estonian Capital Markets**

1. The securities market development in Estonia has reached a new phase – international integration stage, which is characterised by the strengthening of links with foreign markets and market participants. Although this process should be viewed generally as a positive one from the point of view of securities market development, there could be also several unwanted developments that might accompany this process. Our primary concern is that the strengthening of integration with foreign markets and market participants may also

lead to increasing transmission of instability from foreign markets to the domestic market. Such potential danger calls for policies that are aimed at reduction of transmission of instability from international markets.

2. The transformation from a pay-as-you-go pension system to a funded pension system, which was launched in Estonia in 2001, opens up new prospects for the securities market development. With the expected annual flows of hundreds of millions of Estonian kroons into pension funds already in the near future it clearly enhances (triggers) the demand for securities and can potentially serve as a catalyst for securities market development. Given the current state and structure of primary market as well as the predominantly small-scale nature of the corporate sector (i.e. lack of qualified potential corporate issuers) there is great concern that this increase in demand would not be adequately met by the domestic supply of new securities. As a result, larger outflow of domestically accumulated funds than desirable from the point of view of domestic economy would occur. The supply constraints could be eased by privatisation of major large-scale state-owned infrastructure enterprises (such as Estonian Energy) or by issuing Government (or its agencies') securities (bonds). Other ways to alleviate the problem could be assets securitisation and financial innovation in general in the domestic market.
3. In 2002 the new Securities Markets Act, which strengthened the investor protection, became effective and unified supervision over financial sector began operating. As a result of these major changes the Estonian securities market has "potentially" undergone remarkable improvements from the point of view of its credibility and consistency with internationally recognised general principles. We emphasise "potentially" since such evaluation is conditional that supervisory authority will also enforce the principles laid down in the regulations and prove its effectiveness. At least the preconditions for this have been established by regulatory and organisational changes, although the increasing international integration with foreign markets and its participants calls also for more extensive co-operation with international supervisory authorities.
4. Considering the adjustment processes that have already occurred in the regulatory framework, the EU membership would affect the development of Estonian securities market primarily via its impact on the real economy. The prospects opened up (or closed) for the Estonian corporate sector by the EU membership are definitely another critical (underlying) factor that determines the development of Estonian securities market. Considering this, it is highly important to adopt or negotiate policies that increase the competitiveness of the Estonian corporate sector.

### **Part Three by Ülo Ennuste: A LP Analysis of Economic Sector Institutional Structure**

1. Many changes take place in institutional structures of economic sectors in the transition and accession countries. Contrary to the popular policy beliefs that these changes of separate institutions are not significantly interconnected and should not be carefully synchronised, the more rigorous modelling analysis of this problem verifies the economic importance of considering and co-ordinating the compatibility and complementarities aspects of changes in the institutional structures. Surprisingly little research has been done in this field. What distinguishes our work here is that we consider a planner who is implementing an optimal institutional structure in the economic sector, which will in its turn design an optimal market allocation situation.
2. The linear planning model synthesised in the project for institutional design analyses of the national economic sector should help to arrange and systematise the lines of reasoning in this field and help to quantify the mysterious interconnection effects of institutional

arrangements. The model may be a useful complementary tool in the design analysis of national industrial institutional structures.

3. Decomposition analysis of this type of institutional macro-models combined with the modern implementation theory will help to deduce micro-economic “political agents market games” or normative considerations for national mechanisms and rules for social institutional design implementations.

The rules of these games demonstrate that for the implementation of social institutional choices it is necessary A) to introduce the informational side-payments systems for the designing agents to induce their truth-telling and B) for co-ordination of agents’ policy choices to introduce some kind of national institutional shadow price system.

4. We give some Estonian case model specification illustrations mainly to demonstrate the broad spectre of issues that may be involved in this analysis. The results of this paper also suggest that for the quantification of the institutional design data the inelegant engineering like data calibration methods may come as most convenient.
5. With the help of the model we are now in the position to pursue several further directions in this field. One direction is to explore the use of this model in the case studies as a simple planning tool. In this case the experts have to submit the perspective institutional input-output data to the social institutional planner and institutional side-payments for the truth-telling should be applied.

There are several other directions. On the basis of decomposition analysis of the model it is fairly easy to show a shadow-price and side-payment co-ordination mechanism and rules for the decentralised solution of the model by individual institutional design agents and its application in the national economy.