

## Summary

### Optimal Allocation of Limited Resources Between Investigation and Realization of Enforcement for Tax Evasion

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This paper studies the optimal tax authority resource allocation between two functions: the investigation and imposing penalty of the tax evasion. For this purpose the dynamic control model of the tax evasion environment is built. It has three phase coordinates: total amount of income for non-investigated tax evasion cases, amount for investigated ones for which penalty is not imposed yet and amount of funds returned into state budget as a result as a result of investigation and penalty of tax evasion. Based on theoretical plausible hypothesizes about tendency of taxpayers to the tax evasion and efficiency of tax authority's work the set of differential equations is presented.

The task for finding minimum of the total amount of non-investigated and not yet fined evasions is set and resolved on the basis of Pontryagin's Maximum Principle. The question of the practical realization of solutions based on deterministic approximation is considered.

### Knowledge Rich Industries and Balanced Growth for Transitional Economies

P. Luksha

The issue of economic growth in the past few years has become a top agenda issue for most if not all so-called transitional economies. It is however a critical issue what specifically may become a source of long-term growth. Transition economies (especially former SU republics) are richly endowed with natural resources, stock of physical capital, and well-educated population. For such countries, a wide variety of options exists: to focus on export of natural resources, or on consumer good manufacturing, or on provision of technological services, etc.

There are several rationales that make it advantageous to choose a growth through knowledge rich industries for countries in transition. First, human factors (R&D and education) are the particularly important in the process of economy transition.

Second, there is an evidence from a comparative factor compensation. The trend provides the evidence that rate of compensation for the knowledge factor is growing for developed countries. Furthermore, in empirical testing of growth models, output dynamics can only be with a 'total productivity' factor (accounting roughly for one third to one half of GDP growth), associated with technological developments and externalities arising thereby. Since transitional countries target for per capita income comparable to European, this level of income may only be achieved if knowledge 'value lever' is employed.

Third rationale is the availability of intellectual rent in economies in transition: unique technologies developed and substantial human capital created during a period of intellectual competition with Western countries. Utilization of this intellectual potential was very poor during the period of 90s, and it also has been substantially depreciated (with finance for R&D and education reduce manifold, and almost no developments made but in few industries). However, it can still be used, and with minor investment it could be brought to the up-to-date level.

These three rationales bring forth the idea that knowledge-rich industries must be the preferred way for long-term growth in transitional economies.

A problem of economic growth can be considered through a multi-industry model with varying factor productivity. A simple model of this kind is a two industry model (aggregated extractive industry, and aggregated processing industry), considering intellectual resources (R&D and human capital) as a productive factor. Analysis and simulations carried out for a proposed two industry model, that have revealed five possible scenarios of dynamics in the model. A model allowed to demonstrate that it is beneficial for a country to maintain certain proportions of investment into industries and factors, that is, to achieve balanced growth. Solution for these proportions has been proposed for the presented formal model.

Government plays a key role if development through knowledge-rich industries is targeted. In a case existing structure of investment flows is found inefficient (e.g. decline of processing sector due to rich endowment with natural resources), it is possible to arrange its re-distribution through a system of taxes (in extractive sector) and subsidies (in processing sector); formal model has been suggested to estimate necessary re-distribution measures. A government is able to build up and maintain a country's 'institutional capital' (associated with value productivity of basic institutes for intellectual property rights, R&D etc) that would increase value-added of the processing sector; consideration of 'institutional capital' alters investment flow structure.

Policies should also be applied to enhance R&D sector and to make it market-oriented, through a smooth inter-dependent work of all spheres of R&D and human capital development may help to maintain the intellectual potential in the long-run. Utilization of intellectual potential is therefore conditional upon the multi-directional governmental policies, implying the critical role of state for shaping the process of long-term economic growth via growth acceleration in knowledge-rich industries.

### **Evaluation of Power of Groups and Fractions in the Russian Parliament (1994–2003)**

**F. Aleskerov, N. Blagoveschensky, G. Satarov, A. Sokolova, V. Yakuba**

The problem of evaluation and the analysis of distribution of power is considered in the State Duma of the Russian Federation for 1994–2003. Banzhaf power index is used to evaluate the power of fractions and groups in the Russian Parliament for the simple and constitutional majority decision making and under different assumptions about admissible coalitions. It is analyzed how the index is changed under different changes in structure of fractions and groups and under different scenarios of coalition formation. The dependence in the changes of index values is compared with respect to political events during this period.

## **Institutional Balance of Power in the European Council of the Enlarged European Union**

**V. Yakuba**

The challenges of the institutional balance of power in the European Council due to the future admission of the twelve new candidate countries to the European Union are studied. Changes in the voting procedures in the European Council of the enlarged European Union are analyzed. Banzhaf index re-defined according to the new procedures accepted on the Nice Summit in December 2000 is used to estimate the balance of power among member countries.

## **Regional Asymmetry in Russian Federation: Estimation and Approaches to its Reduction**

**B. Lavrovski**

Up to the end of 90<sup>th</sup>, as numerous searches show, territorial consequences of crisis and the falls of manufacture were practically always connected to strengthening of regional disproportions. The following basic issues are discussed in the article: an estimation of territorial differentiation in connection with modern economic growth and transfer system as respect to its reduction.

## **Taxation Theory**

**V. Zanadvorov**

Russian taxation system is cumbersome, complicated and inefficient. It is quite a challenge to the economic development of Russia. The discussions on that subject have been very lively in recent years but one can see the lack of theoretical background in those discussions.

This course allows students to look at taxation from the viewpoint of economic theory (with special attention to microeconomic models): economic fundamentals of taxation, basic types of taxes and basic problems of taxation. Students would be able to observe the effects of income and substitution through the analysis of influence of taxes on the investment policies of firms and on the economic behavior of households. During the examination of problems of tax policy special emphasis is placed on the costs of tax administration process.

This taxation theory course is particularly essential for students specializing in public finance and public administration.