

2002.11.04.

Peter Csillik:
INSTITUTIONAL HISTORY OF HUNGARIAN INFRASTRUCTURE
(QUASI PUBLIC GOODS), 1968-1998

**(AN ANALYSIS OF INSTITUTIONAL PATTERNS EXPECTED TO BE INVARIANT
TO ACCESSION TO THE EUROPEAN UNION)**

The dissertation analyzes the maturity of Hungarian society upon its accession to the EU by studying behavior patterns which appear in the course of decision making processes. The hypothesis is that every society has specific values and arguments which are more deeply embedded than the institutions defined by the current legal system. The action and reaction patterns arise over centuries and members of political communities learn how to treat external shocks according to the local habits, so they learn what are the socially accepted and unaccepted avenues for interest assertion.

It is well known that at the beginning of the 21st century the constitutional forms of the US, Germany, Japan and India are formally quite similar, but in reality the social actors play absolutely different games against the same backdrop.

Behavior patterns – by which Hungary has been characterized for the last decades – will persist beyond accession to the EU. Without discovering the real content of the concepts, it would not be right to put such labels on countries as *competition* versus *bargaining oriented* or *individuum* versus *relatum based* society (as a group of Japanese sociologists used to describe circumstances in Japan).

This dissertation is aiming to present what kind of behavior patterns will remain the same even after Hungary's accession to the EU, because the values of a society – that have been evolved for some thousand of years – will be not changed too much due to external legal frameworks.

In the dissertation I am analyzing the details of the decision making process in Hungary in the case of three (+1) types of public goods and will try to show the similar characters of different times. The basic situation is unchanged for the last 120 year period: there were no, and there are no competing pressure groups that have enough economic power to influence the political processes significantly. That is why a special way of negotiations evolved - practically the same in all areas - negotiations are continued until even the groups being ousted from power feel that some of their considerations were taken in account, and it is time to finish the endless negotiations.

We may call it “negotiation imitating consensual settlement”; however, it may be better to reverse our approach: when one of the pressure groups deviated from negotiation rules, then paid a price with its legitimacy weakening and the group itself fell into oblivion.

This dissertation is presenting such an institutional history of Hungarian infrastructure for the last three decades, where each kind of goods represents a class of goods, that is the history of public

education , the monetary policy of the National Bank, and the network supply of infrastructure can be interpreted in several aspects.

First we had to construct the set of concepts and terms which are suitable to describe those basic types of goods, then specify the framework of regulation so that it should be applicable for all of the three decades that were qualitatively very different and finally describe those forms of regulation in somewhat “simplified” terms.

While working on these tasks, I realized that there was a serious problem in the available data of national accounts in Hungary when analyzing the Hungarian economic history of the 20th century. For that reason, I had to reconstruct the course of Hungarian economic development for the period of 1880-1990.

After that I analyzed the regulation of quasi public goods for the indicated three decades. The basic task of my research was to give a unified picture of the institutional history of the last three decades. Diverse methodologies were used in different chapters -- document analysis, construction of mathematical models, and creation of new concepts on the one hand, and oral history through interviews on the other.

The main hypotheses and conclusions of the dissertation in the order of the chapters:

V The main hypothesis of the first chapter is that the hidden assumption of institutional economics is that it is possible to arrange goods and institutions in a way that – in optimal case – will allow the economy to follow a path of sustainable growth.

V In the second chapter there is an attempt to reconstruct the data concerning the Hungarian economy for the last 100 years. We also raised the possibility of Kondratyeff’s cycle with shortening wave length and we pointed out its hypothetical relation to the growing access to infrastructure.

V In the third chapter the simple model-like statement that “production of private goods by non-market institutions will cause efficiency loss” has been analyzed step by step, by describing a micro-economic process in detail, presenting the interests and the opportunities of the economic actors. The deep structure of the institutions can only be found out by dynamic description.

V The fourth chapter describes the regulation of public education (conceptualized as a type of common pool goods) in detail. Despite widespread belief – according to reports by the institutions and time series analyses – the basic problems of local governments’ financing in the 1980s were not due to the lack of resources and there are still problems that remained unsolved.

V Chapter 5 shows that issuing high powered money (type of public goods) can cause economic problems when the principles of constitutionalist economics are excluded from the ways of solution in public choice, in other words when monetary policy becomes a tool subordinated to the political cycle.

V The sixth chapter deals with domestic regulation of traditional and modern forms of services such as water- and gas supply, telecommunication and transportation (i.e. infrastructure services) and describes problems regarding the privatization and price regulation of domestic telecommunication.

Theoretical introduction.

Almost half of the GDP is produced in the infrastructure, two-thirds of all investments flow into the infrastructure, and the production of the rest of the GDP is also determined by its development.

By classifying goods along a 2x2 matrix, we will find that :

- A) there are goods that can be consumed at the same time by several consumers (non-rival consumption A/a), in other cases goods are rivals (A/b).
- B) There are goods for which it is worth excluding the non-payers (B/a) and there are goods for which it is not possible (B/b).

The market works as a coordinator for pure private goods (A/b, B/a). In the case of pure public goods (A/a, B/b) like defense, justice, the market plays almost no part in determining expenditures; in this case they are determined by using some mechanism according to the theory of public choice. For common pool goods (A/b, B/b) like the environment, or fishes in the sea, the solution is to sell property rights. Finally (A/a and B/a) infrastructure (network supply) falls under so-called toll-paying goods (like highways, railways, water, gas, electricity supply).

A characteristic of the 20th century is that the share of government expenditures in the GDP has grown from 3-5% to 40-50%. The share of welfare expenditures in the GDP in the early 1990s for OECD countries was 28%: transfers for elderly people 9%, transfers for others 8%, education 6%, health expenditures 5%. (Welfare expenditures are 20% in the “liberal” US, and 48% in social democratic Sweden, the difference is due to the transfers for non-aged people). The causes of the growth of government expenditures in the 20th century are multiple, one of them is urbanization as help from family and local communities had decreased or even ceased. Another is the increasing income level, as the expected lifetime increased with it and more and more aged people ask for and get more subsidies even if there are not strong old age lobbies.

Briefly, through economic growth and development of political democracy more demand has arisen and there is a larger need of non-market institutions for efficient satisfaction of these demands.

In the institutional typology of E. Savas there are three basic functions: organizing, providing and financing services. Actors include the state (S), enterprises (E) (private economy), and households (H). Privatization in this context is a process of moving from more state to less state. This theoretical frame is convenient for analyzing problems in Hungary.

Corrected time series of the Hungarian GDP between 1890-2000.

I made an attempt to restore time series of Hungarian economic growth between 1890 and 2000 by correcting data for 1946-1968 (the years ranging from the currency stabilization of 1946 with distorted relative prices to the end of the direct command economy in 1968) by using a constant growth rate. My starting point was Hungary's per capita GDP compared to the US's as was determined by E. Erlich for three years: 21,1% in 1937, 21,1% in 1960 and 31,7% in 1980.

As the growth rate for the US is well documented, there is no problem determining Hungary's rate as well. Using estimations made by Varga – Matolcsy and data from KSH (Central Statistical Office) A. Bródy made such a time series for the period of 1926-1991, which does not fit with Erlich's data, because during socialism, data were showing higher growth rate than true in reality, but the internal changes in the growth rates can be used. According to I. Berend – Gy. Ránki Hungarian yearly average growth rate for the period of 1890-1915 was 2,3%.

Now the task was to discount A. Bródy's time series – for the given period – in a way that it would fit with E. Erlich's three cross-section data, and would not be higher than the trend-line starting from 1890. As we shall see later, if we discount every year's data by the respective power of 1.0315 for the period of 1946-1968 (from the first issuing of Forint to the economic reform) then we gain data fitting with Erlich's data.

I found a 2.3% yearly average growth rate for the period of 1880-1998 and assumed that following 2000, the Hungarian economic growth rate would be 4-5% per year for the next 10-15 years, until it attains its own trend-line. Then the average rate will be again only 2.3%.

PUBLIC EDUCATION AS PRODUCTION OF COMMON POOL GOODS IN THE 1970S AND 1980S

As F. Jánossy would say, public education produces common pool goods. Public education is contributing to the accumulation of human capital. How has local government planning been working for a long time, who were the participants of the negotiations, what were their motivations and capabilities like? Preparation of the 5 year plans for investments of local governments took 4-5 years. The Central Planning Office started to work out the part concerning local governments of the sixth 5 year plan in 1977, and the approval of the plans submitted by the local governments took place in summer 1981. The Department of Economics of the Central Planning Office gave a single figure to the Regional Department. This figure was the total amount of all the investment resources the local governments had access to for the 5 year period.

The Regional Department outlined two principles of the allocation of the resources: a.) the principle of equal tensions, b.) the principle of relative proportions. The principle of equal tensions means that planning must be based on a survey of need; and resources for investments must be allocated in such a way that after the investments being implemented, the proportion of satisfied needs per total needs should be the same for each county. (A simple illustrative example might be:: the number of kindergarten places per hundred kindergarten age children should be 60 in all counties.) The principle of relative proportions (which can be seen as the way the planners concretized the principle of rationality) says that if total investment resources are 100%, then the part used to construct new housing units should be x%, and that of social institutions y%. These two principles are not enough to make investment/development plans, so the main sectors must be broken down to sub-sectors, for example kindergarten development resources, primary school

development resources, secondary school development resources, skilled workers' training, cultural institutes (all sub-sectors of the cultural sector). It is either the Ministry of Culture or the Central Planning Office itself that can make the calculations and allocate the resources according to sub-sector. After separating 20 sub-sectors, it is necessary to break them down by county, but first a needs assessment is carried out, in other words adequate indicators of satisfaction of needs must be chosen. On the basis of the principle of equal tensions (and estimation of investment expenditures per institution) it is possible to allocate the investment resources by counties. When the 20 counties x 20 sub-sectors matrix is filled out then the resources are aggregated on the county level, and the county is notified of the amount (with break-downs for the 20 sub-sectors).

The counties then allocate the resources to about 100 subordinated local governments on the basis of the principle of equal tensions -- taking into account such regulations, as the one for example concerning dentist chairs, saying that they can only be set up in cities and villages having a population size over a certain minimum. So filling out the 20x100 matrix, the counties inform the local governments about the amount and allocation of their investment resources by sub-sectors.

Here we arrive at the critical point of the planning system. There are two possible cases. One is that the local government will agree with the allocation determined. What happens in this case? The Central Planning Office originally believed, that regarding all households, there is twice as large need for primary schools as for public libraries. When allocating the resources (on the basis of the principle of equal tensions) they decided about the number of classrooms and the amount to spend on libraries to invest on that basis.

However, those proportions do not meet necessarily the demand of the given city and village inhabitants. Many factors affect the individual needs of a village (for instance just think of age-group structure, traditions, careers, number of working sites, distance from the city in the case of villages and so on) which can not be taken into account in central planning.

In other words rationality, justice and democracy (the three principles of planning) are in contradiction when trying to achieve them at the same time in the system of local government planning.

It is frequently said that it is not worth spending so much time on planning, because the results are invariably far from the forecasts. Based on the data presented on the dissertation we are trying to refute this statement.

It can happen of course, that following the long planning process (negotiations between the counties and the ministries) the negotiated sectoral proportions would not be carried out by the counties (for example, in the period of the fifth 5 year plan counties used the money intended for school development for cultural developments instead).

It can also happen that income differences between villages and cities are larger than has been forecast in the counties' plans. It also happened, that local governments' investments were cyclical, but the relative ranking of counties has not changed much. It seems that the basic function of planning is to make the counties accept their relative position.

MONETARY POLICY IN THE FIRST HALF OF THE 1990S

High powered money (or the central bank's interest rate) is a public good, because it is the order of the monetary authorities and through the solvency of financial institutions regulates the economy, and stimulates or weakens the business cycle (alleviates depression). Presenting the 1990-1994 monetary policy can be informative as it depicts the learning process of the central bank using its new tools, that is, how it acquired the new techniques.

Regarding the main economic indicators, their actual value was better in 1990 than planned, the same in 1991, a little bit worse in 1992, and much worse in 1993. The real instrument of monetary policy was interest rate policy, it was its use in a right or a wrong way that regulated the economy. The two extreme cases are: rapid decrease of GDP in 1991 together with a large external surplus, and stimulation of consumption and investments in 1993 with slight slowing down of inflation and abandonment of goals in external equilibrium. The monetary policy decisions were tardy as for interest rate modifications in 1994, causing big troubles in equilibrium.

REGULATION OF INFRASTRUCTURE IN THE MIDDLE OF THE 1990S

About 30-40 companies of energy production, telecommunication, chemical industry, insurance, transportation, aluminum works, water supply companies, and financial institutions were involved in the privatization process in 1995. The total assets of the State Property Agency were about 42 billion USD in 1990 and decreased to 3 billion USD by 1997; 10 billion USD were either transferred to other property agencies (4 billion USD) or sold (6 billion USD). What happened to two-thirds of state (national) property, or 28 billion USD? What originally look liked 2-3 thousand billion HUF value of assets only was worth it with given external markets and production structure before the collapse of that production structure and external markets. The collapse – in accounting terms – appeared in the devaluation of the companies' assets, which was paid partly by banking consolidation through the general government budget, and partly by ten years of stagnation before the economy could get back to the former level but on a new growth path.

There are two main forms of regulation in this area: traditional, through prices and modern, through control of assets. Traditional regulation means that to prevent monopolies from taking advantage of their situation and supplying to few at a high price (maximize their profit) authorities must set such prices which stimulate monopolies to higher output.

I present Hungarian regulation in the 1990s and also mention its problems. Modern regulation in the EU and US recognizes that using price regulation is only simulation of competition. For that reason, nowadays they are using real stimulation of competition, forcing owners of networks to lease their assets out on a cost based price to their competitors (without assets) in order to make possible for them to supply the utilities.

Regulators of "services of general economic interest" do not want to keep assets of network suppliers in state property – and those assets are sold – nor do they believe it desirable for the state to supply infrastructure services directly. *The state retires from its function as owner.* In the case of network suppliers working as a monopoly, regulators do not apply market simulation methods,

but rather they lay down rules which are able to generate real competition, even in this special field. The task of remaining operational regulation on the other hand is transferred to independent regulatory authorities. I present the regulatory framework in the EU and mention the possible direction of changes needed for Hungary.