

## Economic costs of domestic instability in one country

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*Assuring a viable defense system as well as developing a prosper economic environment in Central Europe and in the Balkans represents important factors to maintain actual social and political order in this geographical space. Eliminating regional wars and social conflicts in these countries are outlining factors in the creation of a prosper European space, viable to economic competition with adjacent zones. This part of the paper presents the most important characteristics of these zone minorities. The models of analyzing instability costs in the zone are also described.*

**Keywords:** military expenditure, education budgetary expenditure.

### Introduction<sup>1,2</sup>

**1** The integration of former socialist countries in economic and military structures of Western Europe are certain premises of keeping the democracies in these countries. NATO and EU integration are stability and prosperity sources for the countries in the zone. Among major arguments of candidate countries integration, no matter of economic cost of army adapting to western standards, the arguments developed in this part of the paper, we mention: i) the wars taking place in the world after the second world war have been with few exceptions interethnic wars and not military conflicts among countries. The wars of the last ten years are situated at the periphery of great world economic powers. "Associating public and private actors and mainly guiding their violence against the civilians, they are accompanied, according to a scheme almost reverse than *classical* wars aiming at building a state, deliberate destruction of their economic and political background (production and import decline, right and security disappearance, war signals etc.)".<sup>3</sup> ii) on the background of worsening the economic environment, taking into account that this geographical space comprises lots of na-

tional minorities, ultra-national forces of each country can encourage interethnic wars; iii) NATO countries did not suffer changes of borders along time; iv) for European developed countries, renouncing this space can accentuate some interethnic tensions felt by them as negative externality at economic, military level etc. v) western powers renouncing this space can favor the development of terrorism in this zone, having consequences on their higher security costs.

### 2. Few bibliographic observations over the analysis of political, regional and economic instability and economic growth

A few observations are presented on the models of economic growth taking into account the political instability. Azam [1995] presents a qualitative approach of political instability involvement in econometric environment for African countries.

Alesina & Perotti [1994], by means of main components build up a composite index to measure political instability. The authors of the study settled that for democratic countries, inequity among persons is an important factor to assure the economic growth, while for non-democratic countries and weakly developed countries, redistribution represents a main factor to assure instability. Alesina paper [1992] as well as Calipel & Donsimoni [1994] using various steps estimate, by means of an

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<sup>3</sup> Genevieve Schmeder, La défense au cœur de la régulation économique, Problèmes économiques, N° 2733/2000, p. 26.

econometric model, the probity factors which influence the apparition of a domestic instability. This estimated probability is used as an exogenous variable in the model of economic growth. At the same time, Varoudakis [1995] pointed out the type of political regime has directly influenced the economic growth, choosing certain functions for an optimal allocation of the resources in the society.

Azam [1995] defines a theoretic model of instability in African countries. In order to build up the model, the following variables are defined: i)  $R$  is the variable quantifying the effort made by domestic forces to cause instability in the country or in a certain geographical space; ii)  $r$  is the variable quantifying the effort of the government to prevent and remove the instability; iii) probability that domestic forces to remove the government promoting instability is described by means of the function

$$q(R/r), \frac{\partial(q(R/r))}{\partial(R/r)} > 0, \text{ while } r \text{ is de-}$$

defined by means of the equity  $q'(r) = q(r)/r$ ; iv)  $P$  represents government forecast in the economy, while  $G$  represents the part which the government redistributed to the population, as expenditure for public goods or transfers. The variables  $P, G, r$  are variables controlled by the government; v)  $g$  represents the cost estimated by the government for each domestic instability situation. In order to settle  $R$  values it is defined the optimization issue:

$$\begin{cases} \max_R q(R/r)(P-G) - gR \\ R \geq 0 \end{cases} \quad [1]$$

The first term of objective function  $q(R/r)(P-G)$ , represents the cost of the government to keep domestic order, while the second term  $gR$ , is the cost when it appears the instability situation in the country.

If  $R=0$ , the objective function defined above is negative, if  $R \geq r \cdot r$  it is obtained the optimality condition of first order  $q'(R^*/r) = g/(P-G)$ . If it is noted

$r = -q''R/q'r$ ,  $q'' < 0$  to assure  $R^* > 0$ , it is obtained the instability function:

$$d \log R^* = (l-1/h)d \log r + \frac{l}{h}d \log(P-G) \quad [2]$$

The above equation points out a direct dependence between instability and level of government forecast in the economy, as well as a reverse dependence between instability and redistribution level.

### 3. Adapting the model Azam for Eastern European countries

The model [1] has several disadvantages if it is applied in case of Eastern European countries. Among the most important ones, we mention a few:

i) Different factors competing in the conflicts. Thus, while for African countries, force movements of each country represent an important factor in sudden changes of governments, for European zone, one of the main factors which can directly contribute to conflicts is represented by diversity and particularities of ethnic minorities in each country. That is why, in order to redefine the function objective [8] a set of variables will be introduced to quantify the number of minorities in each country and factors competing to accentuate interethnic tensions;

ii) Eastern European countries, even after half of century of communism, have a democratic tradition of governing;

iii) These countries have a significant contribution to the world trade. Foreign capital has increased in Eastern European zone in the last period;

iv) For these regions, human factor has a high level of schooling, while labor force is performing.

In order to define a model of economic growth including the influence of governmental costs to keep domestic stability and the risk of a conflict in this zone, we start from the model of economic growth described by Barro [1992], theoretic model presented by Azam [1995], as well as from the following observations: i) taking in account democratic political regimes governing these countries, the army cannot inter-

to settle domestic order, only under the well defined conditions. The army role is to assure each country security against an external attack and not to repress domestic movements of social protest. That is why, a variable will be introduced into the model to quantify the government allocations for domestic public order ( $r_1$ ) besides those meant for national defense ( $r_2$ ). These two variables are used, besides others, to quantify a non-noticeable or latent variable which quantifies the potential level of domestic conflict in the zone; ii) Considering the active participation of these countries in the international trade, a variable is included in the model to measure the country participation in the world trade. This variable is  $WT$  and is calculated as an arithmetic average of import and export weight in GDP for each country. It is a variable quantifying the country capacity to take part in the world changes of values; iii) because in this zone, drawing over foreign investment and promoting investment represent definite factors to create domestic stability and in the zone, the model will include the weight of investment in GDP ( $I/Y$ ). The model will also include a variable to quantify the volume of foreign investment in each country of

this zone. Under these conditions, the effects of economic stability of one country are measured by their economic growth.

Starting from the above observations, the economic growth model is defined as follows:

$$g^Y = f(X_1, X_2, X_3) \quad [3]$$

where  $X_1$  are economic variables competing to keep a positive growth rate (inflation rate, unemployment rate, investment volume in economy, import and export volume, foreign capital in economy etc.),  $X_2$  consists of all variables quantifying the labor force quality (schooling primary rate, schooling secondary rate, dependency rate etc.).  $X_3$  includes all characteristics competing to keep economic stability (level of budgetary expenditure for defense and public order, interethnic and religious tensions for the country or region, regional conflicts etc.). While  $X_1$  and  $X_2$  characteristics are easily quantified, for the group of variables  $X_3$  occur obvious difficulties to be quantified and to constitute data series necessary for the parameters estimation.

To quantify the econometric equation of growth rate in GDP, we have the following formula:

$$g_t^Y = a_0 + a_1(Y/L)_t^* + a_2WT_t + a_3SP_t + a_4SS_t + a_5(I/Y)_t + a_6prob(R)_t + e_t \quad [4]$$

This model has used the following variables: i)  $R$  quantifies the level of internal and external actions for instability of a country in the zone, and  $prob(R)$  is the possibility that forces actions for instability to be situated at a certain level. Variable  $R$  cannot be noticed, being defined in the model by means of a set of noticed variables defining domestic stability and in the zone. To estimate it, econometric techniques are to be used for qualitative variables. This variable characteristics can be quantified by means of economic, social, political, demographic variables, etc. which are noticed. The probability is evaluated in terms of efforts done by the

government to keep the order in the country, materialized by the quantum of defense and public order expenditure, by economic variables measuring economic prosperity in the zone, by political variables, which quantify interethnic tensions of certain regions etc. Variable  $R$  quantifies the insecurity situation in the region or zone. There can be used factors grouped into two classes: factors quantifying domestic insecurity coming from an unstable and precarious economic environment, of a precarious democracy, major discrepancies between rich and poor, interethnic tensions, hidden economy control by mafia or terrorist groups; external vulnerability

coming from the existence of conflict neighboring zones, interethnic tensions fed by pressure groups of neighboring countries, fragile domestic financial system against external factors etc. For Eastern European countries, the importance of factors generating interethnic differences and prosperity are main elements to prevent conflicts and to keep stability in the country; ii) to quantify the population training, two variables  $SP$  are defined – primary schooling rate and  $SS$  – secondary schooling rate; iii)  $(Y/L)^*$  is GDP/capita after removing the cyclic and random variables (it can be calculated applying a mobile average of initial series).

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