THE LINK BETWEEN INSTITUTIONS AND SUSTAINABLE DEVELOPEMENT. A CASE STUDY FOR ROMANIA

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Abstract: The sentence with emblematic value for institutional economy, according to which "institutions matter in the growth process", mainly aims towards a reference point and stable rule through which institutions establish the balance and social - economic order. This paper aims at analyzing the link between institutions and sustainable development in Romania.
The first part of the paper will mainly focus on the most important aspects regarding sustainable development, an issue that requires not only strong formal rules, but also supportive informal institutions. The evidence over the years has shown us that not the increasing number of institutions matter, but their quality. Seeking the salvation through "bad" institutions will lead us to a controversial debate about inefficiency which is far from finished.
Such explanations are illustrative for the real Romanian context and in finding the necessary measures and directions towards the progress desired.

Keywords: institutions, rules, sustainable development, policy, Romania

Introduction

One of the key questions of the economy of growth and development is why disparities between income and development in countries are major and persistent. Despite decades of research, this question is still left unanswered, although the difference is mostly covered by differences in productivity. It is widely acknowledged that the key conduct of economic growth and the increase of productivity lie in the innovation that brings new goods and services in the economy, as well as new production methods for goods and services that already exist. However, historical evolution led to the formation of major inequalities, making almost ¾ of the population worldwide live in developing countries and a fifth below the poverty threshold. The long-term impact of industrialisation, exploitation and damage caused to the environment in the past cannot be eliminated without determined action. It is only fair for economic development in this century to consider more its long-term effects.

Thus, we are speaking about sustainable development for the purpose of ensuring a prosper and sustainable future. To obtain it, we need to consider three directions of action: *the first* is environmental protection by preserving natural resources and reducing pollution (see Chiriac, Rusu, 2011); *the second* is based on improving the standard of living in both rich countries and developing ones (see Charbit, 2009 and Arrow, etc., 2010); the last direction focuses on the equity between generations, or put differently, "*sustainable development is the one which serves present generations and does not threaten those of future generations*" (WCED, 1987). This definition suggests the need to balance the two elements, one pertaining to the present or intra-generational needs, and the other to the future or inter-generational needs. Reaching this balance requires the elimination of negative externalities responsible for the depletion of human resources and environmental degradation. This fact also needs the

assurance of the goods required by long-term economic development such as perfectly operational systems, a healthy environment and a highly cohesive society. Moreover, sustainable development emphasizes the importance of maintaining a flexibility degree which should allow an answer to future shocks, even though probability, size and localisation of effects cannot be accurately predicted.

**Sustainable economic development: major principles and basic equations**

The discrepancy between the level of incomes in countries worldwide led scientists tackle more thoroughly the conditions of a nation's wealth and their maintenance for as long as possible.

The first significant result was obtained by Harrod-Domar's model based on the changes on the main economic parameter that influence economic growth – investment rate. By acquiring a better understanding of the influence of human capital, technology and demographic growth on economic growth, the task of attaining an optimal growth was grasped by Solow and Solow-Swan's model that used the Cobb-Douglas functions. Developments in technology and population growth are also introduced in this model. These factors influence the main parameter of economic growth and, consequently the rate of economic growth. Later on, the economic growth models proposed by Ramsey, Braun, and P. Romer, the models of technological development, and Schumpeter's model of endogenous growth were developed. With the help of these models, scientists studied factors that influence economic growth, human and physical capital, technological developments and their dissemination, migration and demographic growth, environmental pollution included (Chistilin Dmitry, 2010).

Almost all these approaches, being formulated by mathematic models of economic growth could not be quantitatively applied to the economies of developing countries and subsequently, in the late 1980s-1990s, to the analysis of the economic behaviour of countries with transition economies.

We should focus our attention on investments in clean, eco-efficient technologies that are meant to complement, not substitute the traditional political measures that stimulate the demand which suits the upsurge phase, thus keeping the cohesion with the principles of sustainability? Are economic systems based on property rights and the rule of law humankind's best hope nowadays to be left as legacy for the humanity of tomorrow? Would it be true to say that economic underdevelopment may be explained by insufficient mutual trust? When asking these questions, we tend to agree that modern economic architecture should consist of *two parts: the former* is the coordination of technical, ecological and social resources so as to afford the obtaining of that development which meets the needs of current generations and does not threaten those of the following generations; *the latter* pertains to a stable institutional environment meant to reduce insecurity and which serves as means to acquire a certain level of development. Figure I.1 comes to support our argument that institutions, irrespective of the shape they take, influence the results of economic development. The figure shows us that development results (D) can be attributed to a single institution (A).

By going through the data above, we can see that D mainly depends on the complex interaction between: the individuals' behaviour, institutional results, institutions themselves and external factors.
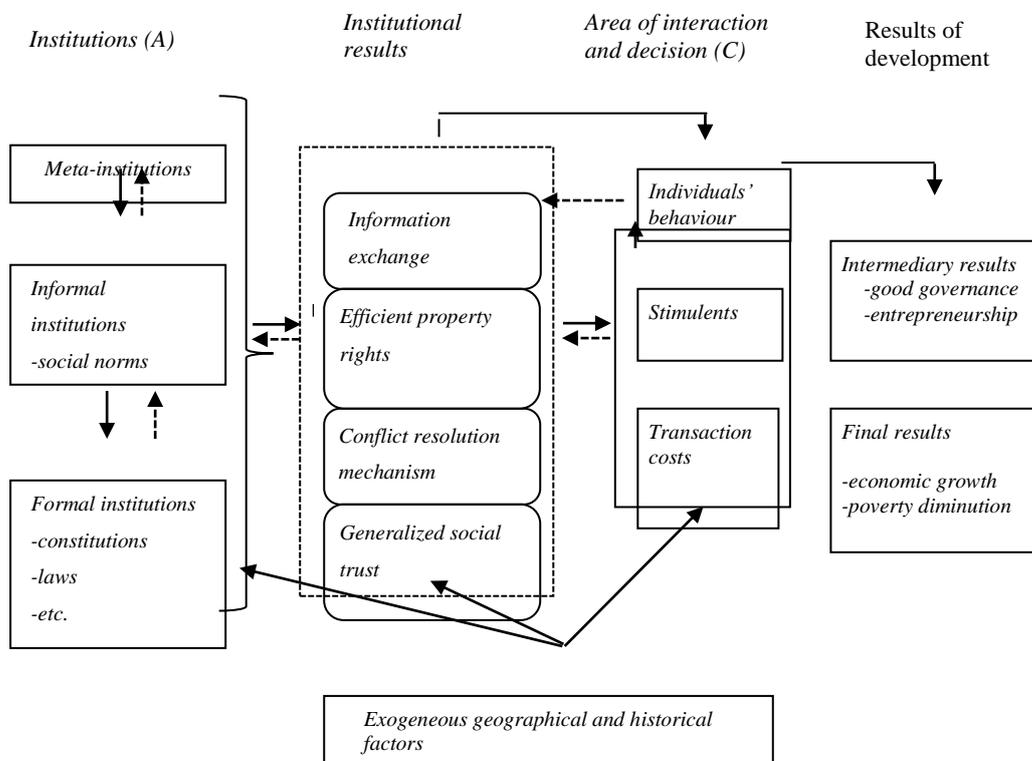
Figura 0.1 *Results of economic development*
Source: Soysa Indra de, Jütting Johannes, Informal Institutions and Development:Think Local, Act Global?, OECD Development Centre and Development Assistance Committee – Network on Governance, 2006

Based on the data above, we can argue that the attempt to achieve "high quality institutions" such as *"good governance"*, *"mechanisms of conflict control"* and *"efficient property rights"* are a difficult task and results mostly depend on contextual or external factors. As Rodrik and others argue, "*desirable institutional arrangements are rather contextually specific, as a result of the differences between historical events, geographical position and the evolution of political economy or other initial conditions* (…)". (Rodrik, Subramanian, Trebbi, 2002, p.24) Therefore, the fruits of progress do not only pertain to the mechanisms of stimulation and imposition of institutions, but also the environment in which they act. The institutional environment should consist of powerful, efficient, flexible institutions that are able to face the new changes. In essence, the institutions that favour development also encourage freedom, technical progress, social capital accumulation, etc.

Error! Reference source not found. illustrates a simplified framework destined to contribute to a better understanding of the way in which institutions influence the results of economic development.

As a result, new research leads to the idea that institutions are as important as traditional factors associated to growth and development. This idea is supported by subsequent studies conducted by Easterly and Levine, analyses which proved that institutions are important in explaining the differences at the level of variables that can be considered further determinants of economic growth such as investment rates and growth-oriented policies.

Sustainable development in Romania

Sustainable development also underlines the importance of using a long-term perspective on the consequences of current activities, as well as the cooperation between countries at a global level to reach viable solutions. These elements turned sustainable development into a key objective in formulating national and regional policies, as well as for the international relations between countries in the 21st century. Progress towards sustainable development requires changes at both the national and international level. At the national level, it needs an adequate combination of market-based instruments having the role of implementing them in an open and responsible manner.

Sustainable development is to make progress in all three dimensions: *economic growth, social development,* and *environmental protection*. According to Nath et al., the idea of sustainability is "*socially desirable, economically viable and ecologically sustainable*" (Nath et al., 1996, 98). In agreement with this perspective and using different indicators (gross domestic product, unemployment rate, salary earnings, etc.) (Table 1) to assess *economic growth*, human development indicator (Table 2) for *social development* and performance index of the environment (Table 3) to measure *environmental protection*, we aim at analysing the three dimensions of sustainable development in Romania.

Table 1. Evolution of main macroeconomic Romanian indicators

Macroeconomic indicator	2013	2014 estimations	2015 estimations	2016 estimations	2017 estimations
GROSS DOMESTIC PRODUCT -current prices – mld. lei	625.6	628.6	692.2	730.3	771.6
-real growth, %	2.2	2.2	2.5	3.0	3.3
Current account– mil euro	-1.480	-1.910	-2.525	-3.125	-4.100
- % of GDP	-1.0	-1.3	-1.6	-1.9	-2.3
Increase of consumption prices, %	2.0	3.0	2.5	2.3	2.2

- End of the year - Annual average	4.1	2.4	2.8	2.5	2.3
Average exchange rate – lei/euro	4.42	4.45	4.40	4.40	4.37
Average gross monthly salary – lei	2.185	2.298	2.401	2.492	2.582
Average net monthly salary – lei	1.594	1.676	1.750	1.815	1.879
Real salary earning %	1.6	2.6	1.6	1.2	1.2
Number of unemployed at the end of the year, thousands of people	438	435	420	415	410
- Rate of recorded unemployment, %	4.9	4.8	4.6	4,5	4.4

Source: Ministry of Public Finance

The GDP for current prices recorded 625.6 mld lei in 2013, and in 2014, its value is assessed to 628.6 mld lei, hence an expected growth of 3.0 mld for this year. According to sectors, the highest contribution to the formation of the gross domestic product lies in services, i.e. 45.4%, followed by 26.3% in industry, 9.8% in construction and 6.5% agriculture, forestry and fishing. The final effective consumption of population households recorded a value of approximately 470239 million lei.

As far as the rest of indicators in the table above are concerned, we may notice that the current account deficit is expected to gradually appreciate after 2014, from 1.3 to 2.3% in 2017. An improvement of the workforce is also estimated, by reducing the number of recorded unemployed and a possible growth of work productivity. Moreover, the tendencies for the year to come show us a reduction of inflation; in nominal terms, this can be rendered by a decrease of the inflation rate from 2.8 in 2015 to 2.3 in 2017, which may owe to the diminution of food prices. The average gross salary was of 2185 lei in 2013, 9.4% more than in 2010, and the average net salary was of 1594, by 3.8% higher than in 2010. For the following years, a constant growth of salary earnings is estimated to reach a possible value of 2582 in 2017.

To be able to measure the second dimension, a frequently used indicator is *Human Development Index* (*HDI*)[1]. There are three essential components of HDI: health, education and revenue. For the three components and HDI, standardized indexes on $0 - 1$ interval, by

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[1] Human Development Indicator.

reporting the values of a country to the maximum and the minimum worldwide, respectively, but certain limits were also imposed for these two values.

Table. 1 Human development index for various countries and periods

HDI	2008	2011	2012
Bulgaria	0.765	0.771	0.782
Finland	0.883	0.882	0.892
France	0.879	0.884	0.893
Germany	0.902	0.905	0.920
Italy	0.871	0.874	0.881
The Netherlands	0.904	0.91	0.921
Poland	0.804	0.813	0.821
Romania	**0.778**	**0.781**	**0.786**
Spain	0.871	0.878	0.885

Source: Human Development Report, 2008 - 2014

The comparative analysis of the Human Development Index in European Countries shows that the values recorded in Romania lead to the country's ranking below countries such as Finland, France, Germany, Italy, The Netherlands, Poland, Spain, etc. According to the latest data available, the Human Development Index records a value of 0.78 points for Romania. An analysis divided into three main chapters shows us that our country's position is below the average as far as the enrolment in the three education cycles and life expectancy are concerned. Despite its modest position, the value recorded by Romania's HDI points to a positive dynamics. If in the 1990s, its value was rather low, afterwards an increasing trend could be noticed. Thus, the index's values send our country on place 69 (2002), 64 (2003) and finally 50 (2011) and 56 (2012), respectively. (Țigănaş C. *et.al.* 2014)

To measure the third dimension, we use *The Environmental Performance Index (EPI)* as indicator.

The Environmental Performance Index (EPI) is "constructed through the calculation and aggregation of 20 indicators reflecting national-level environmental data. These indicators are combined into nine issue categories, each of which fit under one of the two overarching objectives: Environmental Health and Ecosystem Vitality. Environmental Health measures the protection of human health from environmental harm. Ecosystem Vitality measures ecosystem protection and resource management".[2]

This indicator ranks our country the 86th one of the 178 countries analysed. Countries such as Switzerland (87.67), Luxemburg (83.29), Australia (82.40), Singapore (81.78) and The Czech Republic (81.78) are on top, whereas Haiti (19.01), Mali (18.43) and Somalia (15.47) come last.

Table 3. Values recorded by Environmental Performance Index (EPI) , 2014

Rank	Country	Score	10-year %	Rank	Country	Score	10-year change %

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[2] http://epi.yale.edu/our-methods

			change				
	Switzerland	87.67	0.8	20	Estonia	74.66	15.91
	Luxembourg	83.29	3.02	21	Slovakia	74.45	2.66
	Czech Republic	81.47	3.47	28	Hungary	70.28	4.1
	Germany	80.47	1.89	30	Poland	69.53	2.67
	Spain	79.79	1.82	86	**Romania**	**50.52**	**10.91**

Source: http://epi.yale.edu/our-methods

The table below contains the values recorded by the aggregated indicator - Environmental Performance Index (EPI) and the nine component categories in 2014 Romania.

Table 4. Values recorded by Environmental Performance Index (EPI) per component categories, Romania, 2014

INDICATOR	SCORE	RANK	10 YEAR CHANGE
Overall Score	50.52	86	10.91%
Health Impacts	85.36	59	11.17%
Air Quality	68.88	140	16.73%
Water and Sanitation	31.32	114	5.38
Water Resources	13.05	78	
Agriculture	72.13	75	57.8%
Forests	45.05	44	
Fisheries	0	98	0%
Biodiversity and Habitat	63.51	85	18.73%
Climate and Energy	62.82	30	

Source: http://epi.yale.edu/our-methods, 2014

The aim of this field is to reverse the tendency for the depletion of environmental resources until 2015, as well as the development of intermediate aims in the water, soil, energy and biodiversity sectors[3]. The concrete actions are the following:

- within the world Summit of Johannesburg, the launch of an initiative on the sustainable management of water resources;
- the launch of an initiative for cooperation in the sector of energy and development;

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[3] ***, Global Partnership for sustainable development, Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions - Towards a global partnership for sustainable development, 2007,
http://europa.eu/legislation_summaries/external_trade/l28015_ro.htm

- promoting the application of international environmental agreements;
- partial reconstruction of the environmental global Fund;
- partial reconstruction of an action plan to deal with illegal deforestation;
- investing in sustainable transportation means;
- promoting sustainable fishing;
- natural disaster prevention;
- extending the global monitoring system for environment and security (GMSES) in developing countries.

All these aspects mentioned above show us that Romania is on the path of sustainable development. Despite all these, maintenance of economic growth and the rise of the standard of living, not to mention environmental protection still remain important challenges for our country.

Conclusions

Sustainable development emphasizes the importance of using a long-term perspective on the consequences of current activities and the cooperation between countries at a global level to reach viable solutions. These elements made sustainable development a key objective in formulating national and regional policies, as well as for international relations between countries in the 21st century. Progress towards sustainable development requires changes both at the national and international level. At the national level, it requires an adequate combination of market-based instruments with a regulating role and technological policies and institutions able to implement them openly and responsibly.

Sustainable development means to make progress in all three dimensions: economic growth, social development and environmental protection. Using different indicators (gross domestic product, human development index, environmental performance index, etc.) to measure the three dimensions, we were able to assess Romania's sustainable development. Despite all these, the maintenance of economic growth, the rise of the standard of living and environmental protection still remain challenges for our country.

However, to obtain sustainable development, along the standard factors that generate growth and economic development, above all, our country should give importance to the institutional matrix. In the absence of appropriate institutions, institutional matrix is formed of weak inefficient institutions that spread mistrust and dissatisfaction among citizens, thus leading to underdevelopment. It is actually what Amin (1998) calls *institutional sclerosis*. The institutional environment becomes either dominated by elites instead of adjusting the rules of the game to institutional changes, adapts the game to favourite rules of certain groups or depends on weak institutions that do not facilitate economic development.

Acknowledgement

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