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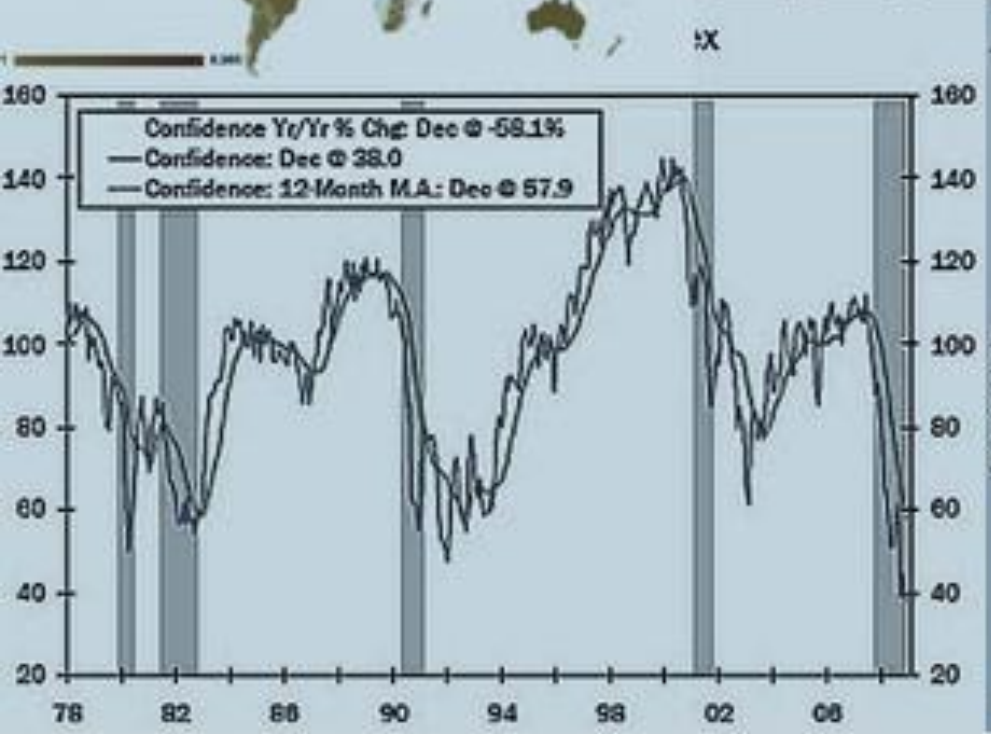

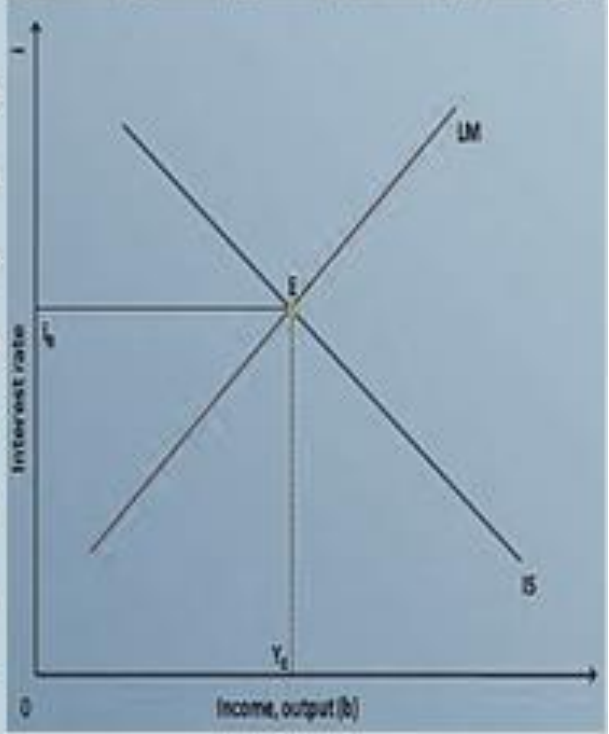

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QUANTIFICATION OF THE IMPACT OF CORRUPTION ON THE EXTENT OF TAX EVASION IN ROMANIA

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Abstract: *The target of this paper is to highlight the interaction between fiscal policy, tax evasion and corruption in the context of a corrupt economic and social environment. Having these considerations in view, we have assumed that the probability that a corrupt official in the tax administration is properly controlled and sanctioned by the workers of the anti-corruption division is minimal (tends to zero), so it can be considered negligible. This encourages the increase in the number of corrupt officials and the proliferation of tax evasion, which makes the possibility for a tax escapist to be checked and discovered by a corrupted officer in the control apparatus to be very high*

Keywords: corruption, economic development, tax evasion.

JEL Clasification: E26

Corruption is delaying economic development, hampering democratic processes, and seriously affecting justice and the rule of law. None of the European states is protected from the effects of this phenomenon.

According to Transparency International, the Corruption Perceptions Index (CPI) is a global aggregate index of up to 12 different sources that captures the perceptions of business people and country experts about the level of corruption in the public sector. Country scores reflect the perceived level of corruption: 100 points means not corrupted at all while 0 points account for a very corrupted state.

In Romania, CPI was first calculated in 1997 to be included in the National Anticorruption Strategy in 2012 as a performance indicator. Romania set a goal for 2015 to score 63 points - equal to the EU average.

IPC 2015 ranks Romania 58th in the top of the world, with a score of 46 points, compared to an average of 65.36 points in the European Union. Although progress is not substantial compared to last year, Romania's sustained efforts in the fight against corruption are beginning to be visible in the evolution of country indices.

In 2014, Romania earned only 43 points and was ranked only 69th among the world's states, so this year there will be a 9 place rise in the ranking. It is also worth mentioning that in 2015 it is the first time in the last years when the Index for Romania is in an ascending trend.

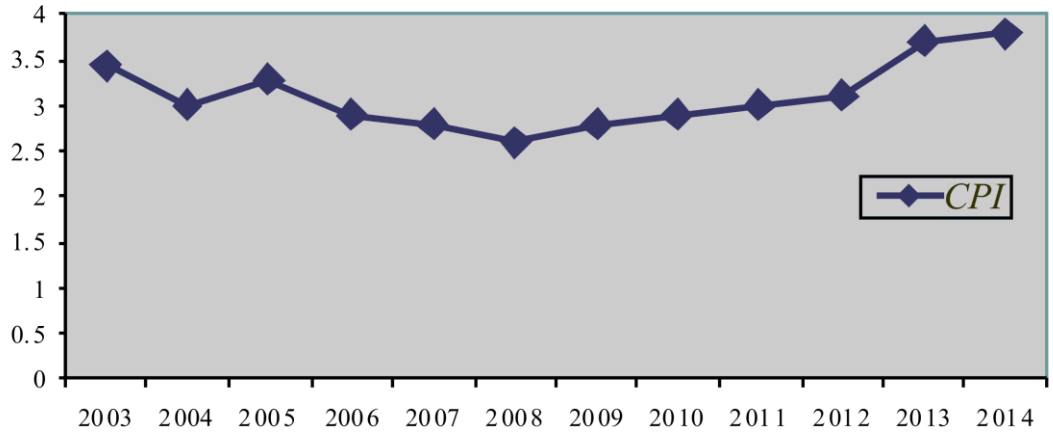
The level of corruption is symptomatic of general economic, political and social development, and its manifestation is detrimental to public ethics and morals and undermines public confidence in the rule of law.

In Romania, we witness an infiltration of corruption in areas that should support the country's economic development. Firms in more and more spheres of activity are pushed into the underground economy. The immediate effect of this situation is reflected in a vicious circle where endemic corruption leads to a fall in public revenues and investment and weakens the credibility of the rule of law. It also generates negative changes in economic development through inefficient, slow and sometimes unreasonable transactions, altering capital accumulation and productivity, government revenue, and the quality of public infrastructure.

In our country, anti-corruption measures emerge when there is a violation of legal norms, but the resulting consequences are not very serious, but rather have the potential to generate corruption, rather than to constitute acts of corruption per se. This category includes administrative inspections, audit work, control bodies, etc. Penalties occur when the acts of corruption have already occurred, the consequences have been ascertained, the only possible interference that may be taken is the criminal sanctioning of the culprits in order to avoid the perpetuation of these facts and to form a pattern of specific consequences situations, for the rest of society[1].

The proliferation of corruption offenses and the lack of real sanctions is strongly felt by the ordinary citizen, as evidenced by the evolution of the Corruption Perceptions Index lately.

Figure 1 – Evolution of the Corruption Perception Index in Romania (2003 - 2014)



Source: Transparency International Romania - National Report on Corruption 2015

The target we are now setting is to highlight the interaction between fiscal policy, tax evasion and corruption in the context of a corrupt economic and social environment. In view of the above considerations, we have assumed that the probability that a corrupt official in the tax administration is properly controlled and sanctioned by the workers of the anti-corruption division is minimal (tends to zero), so it can be considered negligible. This encourages the increase in the number of corrupt officials and the proliferation of tax evasion, which makes the possibility for a tax evasionist to be checked and discovered by a corrupt officer in the control apparatus to be very large.

[1] Transparency International România – National Report on Corruption 2014.

In order to determine the probability of detecting tax evasion, we reported the number of checks made to the number of potential taxpayers. We considered potential contributors to the entire busy population, on the assumption that the individuals who are a part of it must contribute, one way or another, to the formation of the state's tax revenues.

Taking into account the elements outlined in the previous chapter, we have identified the situations in which a taxpayer with a neutral risk aversion, unaware of the source (legal or illegal) of the income obtained, can be found. In the case of a taxable average income (V) and a single tax rate (i), the taxpayer who builds a circumvention strategy has the following options:

1. performs tax evasion, but is not discovered, situation characterized by probability (1-p). In this case, the taxpayer's earnings are X = V (1-p);

2. performs tax evasion and is discovered by an honest official, a situation characterized by probability (pq). In this case, the taxpayer's earnings are X = pq [V - iV (a + 1)], where q - the probability of the official being honest, i - the tax rate and a - the penalty rate;

3. Makes tax evasion and is discovered by a corrupt clerk, to whom he pays a bribe (m), calculated as a percentage of the amount of tax and penalties owed, a situation characterized by the probability [p (1-q)].

In this case, the taxpayer's earnings are X = p (1-q) [V - miV (a + 1)];

As a result, the winning escaping outcome will be:

$$X = V(1-p) + pq[V – iV(a+1)] + p(1-q)[V – miV(a+1)]$$

Including the premise that there will always be corrupt officials in Romania who are interested in obtaining undue benefits, and that the likelihood of meeting such an official is very high, I will attribute to q (the probability of the official being honest) 0. In these circumstances, the taxpayer's earnings resulting from the avoidance strategy will be:

$$X = V(1-p) + p[V – miV(a+1)]$$

For a fairly approximate estimation of the Romanian taxpayer's earnings as a follower of the avoidance strategies, we will use the data presented in Table 1 for the period 2008-2013.

Assuming a single income tax rate of i = 16% (single rate of income adopted in 2005) for the entire period considered and a bribe amount equal to a certain percentage of the amount of tax and penalties due under normal and fair compliance of the taxpayer , the average earnings resulting from the avoidance strategy compared to the safety income (the average taxable income minus the tax due) is shown in Table 1 and Figure 2.

Table 1: The probability of detecting tax evasion, the sanction rate and the average taxable income of a taxpayer between 2008 and 2013

Indicators / Years	Number of checks	Potential taxpayers (thousands persons)	Probability to detect tax evasion	Average taxable income of a taxpayer 2003 = 100 (thousand lei)	Rate of sanctioning identified evasion tax
2008	446822	9223	0.048	198.77	2.2590
2009	273020	9158	0.030	271.45	2.0202
2010	286903	9147	0.031	262.38	0.6513
2011	252719	9313	0.027	267.44	1.5975
2012	276853	9353	0.030	294.21	1.6625
2013	287280	9369	0.031	282.04	1.4475

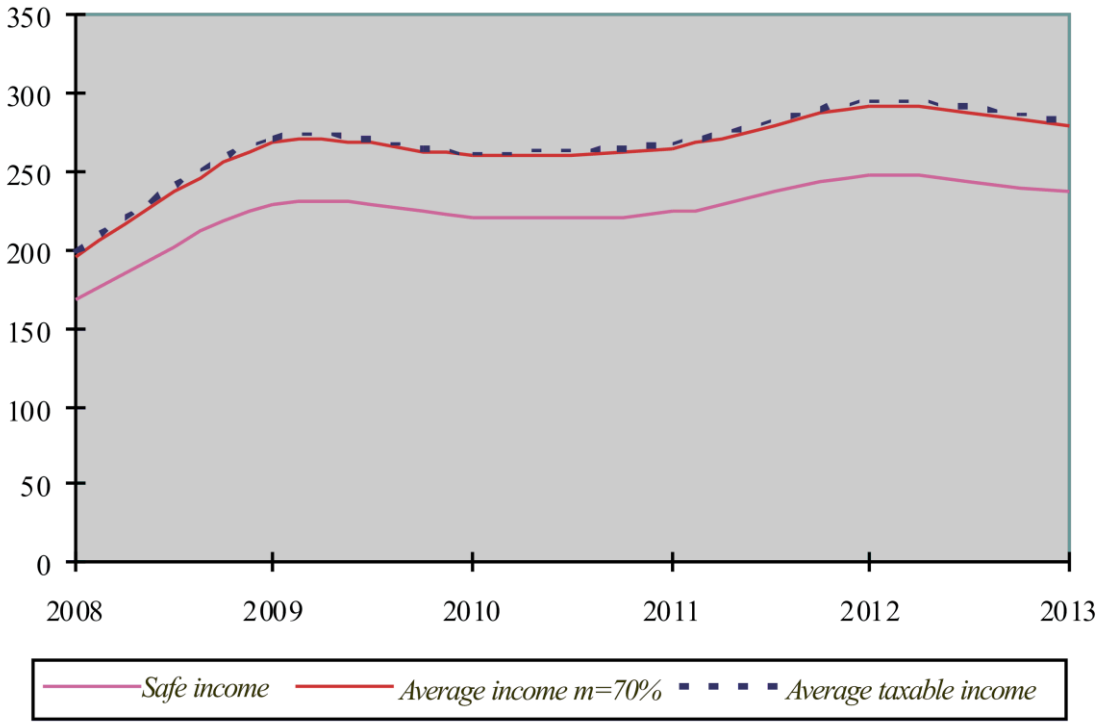
Source: National Institute of Statistics - Statistical Yearbooks; National Agency for Fiscal Administration (NAFA) - Information on the results of the control bodies regarding the identification and combating of tax evasion and own calculations.

Table 2: Average earnings resulting from the avoidance strategy

Indicators / Years	Average taxable income of a taxpayer 2003 = 100 (thousand lei)	Safety income 2003 = 100 (thousand lei)	Average income resulted from the avoidance strategy 2003 = 100 (mii lei) m=30%	Average income resulted from the avoidance strategy 2003 = 100 (mii lei) m=50%	Average income resulted from the avoidance strategy 2003 = 100 (mii lei) m=70%
2008	198.77	166.97	197.27	196.26	195.26
2009	271.45	228.02	270.27	269.49	268.71
2010	262.38	220.40	261.73	261.29	260.86
2011	267.44	224.65	266.54	265.93	265.33
2012	294.21	247.14	293.10	292.36	291.61
2013	282.04	236.91	281.02	280.35	279.67

Source: own calculations

Figure 2 – Avoidance strategy – Comparative evolution of incomes



In conclusion, the average earnings resulting from an eluding strategy is close to the average level of the pre-tax income obtained by the Romanian taxpayer.

By generalizing the rationale at the level of all potential taxpayers, we estimated the influence of corruption on the process of identifying tax evasion. In this respect, we determined the weight of tax evasion identified as a result of controls in the general gains resulting from the avoidance strategy (Table 3).

Table 3: The share of tax evasion unidentified in the total tax evasion

Indicators / **Year**	**Identified tax evvasion 2003 = 100 (thousand lei)**	**Average revenue of populaton due to avoidance strategy 2003 = 100 (thousand lei) m=50%**	**Share of identified tax evasion in earnings resulted from avoidance strategy (%)**	**Tax evasion protected by corruption (%)**
2008	798900.00	1794014.73	44.53	55.47
2009	982350.00	2455330.00	40.01	59.99
2010	1511951.52	2382997.24	63.45	36.55
2011	1167519.35	2466029.20	47.34	52.66
2012	1275399.44	2721471.30	46.86	53.14
2013	2389026.10	2614392.10	91.38	8.62
Average value during 2008- 2013				**44.40**

Source: own calculations

According to the calculations, more than half of the value of the tax evasion is discovered, the rest (44.4% of the earnings resulting from the avoidance strategy) being in the shelter provided by the corruption of state officials.

Of course, the model presented is subjective, very approximate and involves a whole range of prerequisites and conditions. However, the conclusion that can be drawn is that in a corrupted environment, the avoidance decision is dependent on the likelihood of detection, the penalty rate and the bribe rate, in a ratio inversely proportional to the volume of tax evasion, and the identified level of the latter is inferior to its real level, which is impossible to determine due to corruption. Each monetary unit paid in the sphere of corruption implies its recovery accompanied by an illicit advantage, superior to the revenues that could be obtained legally. As a result, corruption is one of the causes of the proliferation of the underground economy, exerting a multiplier effect on the level of fraud.

Starting from the supposition that the private sector plays a key role in shaping the way in which society responds to the phenomenon of corruption, and that a clean, integral and transparent business environment can contribute decisively to Romania's development, TI-Romania's immediate response to the CPI outcome is launching the Corporate Integrity Certification Program. The program is based on the commitment recently assumed by the Chamber of Commerce and Industry of Romania, and involves a three-step conjugal effort, which starts from the formulation of a commitment to values and principles adapted to the organizational culture of each company. At the second level, the program continues with the construction of the operational framework for the implementation of the ethics and compliance management system, so that the company's investment in assuring integrity on its distribution and supply chain is at the bottom. A fourth transversal component is the development of the verification system, self-assessment and mitigation of the risks of lack of integrity. Under this program, TI-Romania will provide companies with technical assistance for the three steps, at the end of which they will publicly certify the existence of the internal mechanisms necessary to prevent the occurrence of integrity incidents. At the same time, consistent with its commitment to an honest Romania without corruption, Transparency International Romania aims to devote its expertise and energy during the following five years to:

→ Guide people's attitude and mentality towards the development of a social culture of integrity - through anti-corruption legal training and counseling programs for victims, witnesses and integrity alerts

→ Develop ethics and anti-corruption programs for the business environment, promoting integrity standards in line with international and European best practices

→ Develop sustainable programs for strengthening the anticorruption capacity of public institutions by making use of existing expertise at their level and multiplying good practices validated by the Romanian public administration

→ Strengthen Romania's position in the region and at international level as a source of good practice on efforts and determination to combat corruption through judicial means, and judicial corruption itself.

Conclusions

Recourse to tax evasion practices is based on the taxpayer's system of values, beliefs and morals, but also on the conduct and the economic and social environment to which he belongs. The possibilities of circumvention differ from one social category to another

depending on the nature or provenance of the wealth subject to taxation, the way in which the taxable material is determined, the way in which control is organized, etc. The level of corruption may be symptomatic for general economic, political and social development. All forms of corruption also harm public ethics and morals and undermine the trust of the population in the rule of law. An obstacle in the way of social and economic development, corruption deepens poverty, prevents proper provision of basic public services and undermines democracy. The competition based on price, demand and supply is replaced by a competitive bribery process, damaging to all countries, which have to cope with the extraordinary challenge of strategies to reduce corruption and diminish state seizure.

References

1. Belev Boyan (2003): The Subteran Economy in the EU Accession Countries. Size, Scope, Trends and Challenges to the Process of EU Enlargement, Center for the Study of Democracy, Sofia;
2. Bişa Cristian, I. Costea, M. Capotă, B. Dăncău (2005): Utilizarea paradisurilor fiscale între evaziune fiscală legală şi fraudă fiscală, Ed. BMT Publishing House, Bucureşti;
3. Iacob Bogdan (2008): Evaziune fiscală legală vs. Fraudă fiscală, în Săptămâna financiară, ediţia on-line din 11.04.2008;
4. Sandmo A. (1981): Income Tax Evasion, Labour Supply and the Equity – Efficiency Tradeoff, Journal of Public Economics, December 16(3);
5. Tanzi Vito (1998): Corruption around the world: Causes, consequences, scope and cures, IMF Working Paper, 63;
6. *** Transparency International România – Raportul Naţional asupra Corupţiei 2008-2015

THE ROLE OF HUMAN CAPITAL IN THE KNOWLEDGE SOCIETY

Adriana STURZOIU, PhD

Abstract: *Economic development depends on the ability of nations to understand, interpret, select, adapt, use, transmit, diffuse, produce and market scientific information and technological knowledge in line with national culture and development goals. The main factors that the impact depends on are: status and level of education; requesting information from the private sector; public policy to orient the institutional structure of the state towards competence; quality and development state of functional market mechanisms in order to enable information to be manifested as a production factor by incorporating in products and their marketing.*

The need for individuals to use information technology becomes an active requirement for their professional education by affecting financially, intellectually and psychologically, requiring them to have additional qualities that can only be acquired on the basis of their expenditure (private expenditure on education) or from the collectivities (public expenditure directed towards education). The ability to use information technology is an intrinsic requirement for every job, the way individuals are educated for both existing jobs and new jobs must be adapted.

Keywords: human capital, the knowledge society

The knowledge society assumes the use and efficient exploitation of all types of knowledge in all kinds of economic activities. This can not take place without a major transformation in the human capital, the way of education and development at society level.

Both the concept of the knowledge society and the human capital know a multitude of approaches, which require an examination of the main theories.

In his book "The Age of Discontinuity" in 1968, P. Druker introduced for the first time this concept of the knowledge society, and in literature we find it used alternatively and as the digital society or the knowledge economy. Noteworthy is that a number of different terms are used in the literature but they suggest a conceptual similarity. Thus, in 2003, the World Bank considered that "Knowledge Economy refers primarily to the use of ideas at the expense of physical abilities and the application of technologies to the detriment of raw material transformation or cheap labor exploitation. It is an economy in which knowledge is created, acquired, transmitted and used more efficiently by individuals, businesses, organizations and communities to promote economic and social development. A. Schleicher, 2006, considers that the modern knowledge economy reflects a broad transition from the land, labor and capital economy to the one where the main components of production are information and knowledge. Lundvall (2006) defines the current society as a learning society, that is, the society in which the ability to acquire new skills is essential for individual success.

It can be argued that the industrial revolution has led to a strong increase in the use of knowledge in practical activities thus laying the foundations for structural and qualitative changes in the world's economies and boosting competition between countries and changing

some competitive advantages. Globalization and the implementation of the knowledge society have led to the strengthening of the role of human capital in the economic development of countries and regions, increased exports and competitiveness.

A major challenge to the knowledge society is the ability to measure by means of specific indicators the level reached by a country on the road to building the knowledge society. The first measurement trials date back to 1996 in the OECD when the first set of four pillar indicators was developed in 2001 and later expanded to five pillars: a stable economic environment open to efficient market functioning; ICT, innovation and technological diffusion; human capital; entrepreneurship and business creation.

In terms of defining human capital, literature also offers a multitude of definitions. It is regarded as the set of knowledge, qualifications, skills and other qualities that contribute to the production (Good, 1959). In the article "Investing in human capital," Th.W.Schultz believes that the result of investing in human capital through education and training is much greater than investing in physical capital: "consider all human abilities as native or acquired. Attributes ... which are valuable and can be developed by proper investment are called human capital. By investing in themselves, people broaden their range of options."[2] From Schultz's perspective (1979), it is the sum of the entrepreneurial skills that are valuable and rare to be amplified through education, training and experience, and in Mincer 1981's approach, human capital is viewed from the perspective of purchasing capacity either through formal or informal education at school and at home, through training, experience and labor mobility.

It can be seen that in the center of the human capital theories there is the idea of investment in education seen as a way to increase human capital and labor productivity. According to human capital theory, the increase in knowledge or human capital increases productivity in the market sector of the economy where money is produced and in the non-market sector where goods are recorded as a function of utility. To realize the productivity potential, the individual should be encouraged to invest in formal education as well as in training for work. The most important motivation to invest in education is related to the accumulation of a stock of human capital, materialized in knowledge and skills, leading to an increase in productivity and implicitly the potential gains the individual hopes to achieve (expressed in monetary and non-monetary terms).

Economic studies of investment in education have highlighted a *generally* positive correlation between human capital stock / education and the level of economic development.

The notion of human capital and investment in education has had a strong influence on analyzes of labor markets, wage formation and other economic themes such as economic growth, health spending, or migration studies. Given that investment in education contributes to the formation of individuals' earning capacity and thereby increases the income they earn over their lives, it is accepted that they also represent investment in human capital[3].

The analysis by PE Petrakis and D. Stamatakis in "Growth and educational levels: a comparative analysis"[4] shows that economies with a significant human capital have a higher

[2] Th.W.Schultz –Reflection on Investment in Man, The Journal of political Economy, Vol.70, No.5, Part 2

[3]Woodhall, M. (1997), "Human capital concepts", în Halsey, A.H., Lauder, H., Brown, P., Wells, A. (eds.), *Education: Culture, Economy, Society*, Oxford University Press

[4]P.EPetrakis, D. Stamatakis , Growth and educational levels: a comparative analysis, Economics of Education Review 21 (2002)

growth rate, and the 2000 US Global Education Database (GED) indicates a positive correlation between the level of economic development (using as an indicator: gross national product per capita) and the level of education (using as an indicator: the enrollment rate in the secondary and tertiary cycles of the population of school age, the school age being defined according to the legislation internal). World Bank[5] in 2002 also highlights that education and investment in training are some of the strongest known tools through which poverty and inequality can be reduced to lay the foundations for sustainable development, sound governance and effective institutions.

In order for the effects of education on the development of human capital and economic development to be positive, certain criteria should be met, namely:

• Both the quality and the quantity of education measured in years of study, the percentage of GDP allocated to education, the results obtained, the school attendance rate, the school performance to be high and the educational offer to correspond to the present and future requirements of the labor market;

• there is a stable socio-economic and political environment as well as an accelerated economic growth;

• Differences between individual earnings, salaries must correspond to the level of education of the individual.

Work training differs from one individual to another, from one stage to another, and is directly related to the short, medium, or long-term production strategies of various economic agents. In this respect, the European Commission has developed a European framework of professional qualifications and lifelong learning for a better correlation of education and training with the needs of the labor market.

However, the polarization effect due to the risk of insufficient number of jobs offered for certain sectors of activity, the risk caused by a structural imbalance between the needs of the economy and the outcomes of the educational system, can not be overlooked. Robert B. Reich (1997) develops the idea of polarization[6], where *"the rich become richer, and the poorer and poorer."* His analysis shows that low-skilled workers fall within a relatively satisfactory degree of security, because in a globalized market, they are strongly compelled by cheap labor from underdeveloped countries. Neither from the point of view of the highly qualified worker, one can not speak of a high degree of security as most trades are disqualified because the old occupational categories have to be redefined according to the new technologies but also because of the inability to cope with requalification upon request .

In order to identify educational inconsistencies emerging on the labor market (skills shortage and inconsistency of qualifications), a solution should be found for the quick adaptation of the education and training system to labor market transformations in each country by investigating employer's views on the relationship between the performance of the educational system training and labor market requirements. It is possible to analyze the different categories of imbalances / inconsistencies that arise between the level or type of education /

[5]World Bank, 2002, *Achieving Education for All bz 2015: Simulation Result for 47 Low-Income Countries*, Washinton, D.C: World Bank http://www.worldbank.org/education/pdf/EducationBrochure.pdf - Hannum şi Buchmann, 2003, p. 1)

[6] Robert B. Reich, Education and the next economy, 1988

training of persons and the specific job requirements and assessed their impact on the efficient functioning of the labor market.

One of the most complex problems in the analysis of economic activity is represented by the competitiveness theme, which has been caused by the increase during the last decades of competition at local and global level. At the same time, the world economy is deeply marked by the phenomenon of internationalization of business, increasing interdependence between states, economic integration at regional, European or even world level. It is natural that developed economies have high research capabilities and competitive strategies are based on innovations that enable specialization in high added value products and services.

A number of international bodies focus their efforts for measuring and identifying indicators that highlight the state of development of countries from the perspective of competitiveness, human capital and the knowledge society. Noteworthy is that measurement indicators, regardless of how they are aggregated, have overlapping areas, which leads to the idea of links, at least in terms of indicators and factors influencing the development of the knowledge society, human capital and competitiveness .

Conclusions

In general, human capital studies have shown that countries that invest more in human capital (education, research, health) are those with the most significant economic performance. The most eloquent is the economic boom in the second half of the last century in some Southeast Asian states, namely South Korea, Hong Kong, Singapore, Taiwan, which massively invested in education. We can therefore say that long-term economic development cannot be conceived without a solid investment in human resources, thus emphasizing the crucial importance of human capital.

Implementing information technology-specific elements means increasing the capacity to achieve and drive a competitive market. In an information-based economic system as an active presence, economic agents can capture and analyze complex, complete and real-time information, so they have free access to the market; those who participate in a business are chosen on the basis of their competence, unnecessary transaction costs are cut, the bureaucratic phenomenon will no longer be obscure, limiting to the strict necessity, the bureaucratic act becomes simple, thus it will be natural and transparent; not the complexity of the operations involved by a business is contrary to the individual manager's reasoning requirements but a synoptic graph of their deployment with multiple returns and intersections which makes the act of communication extremely difficult.

References

1. Robert B. Reich, Education and the next economy, 1988;
2. Woodhall, M. (1997), “Human capital concepts”, în Halsey, A.H., Lauder, H., Brown, P., Wells, A. (eds.), *Education: Culture, Economy, Society*, Oxford University Pres;
3. P.EPetrakis, D. Stamatakis , Growth and educational levels: a comparative analysis, Economics of Education Review 21 (2002);

4. World Bank, 2002, *Achieving Education for All bz 2015: Simulation Result for 47 Low-Income Countries*, Washinton, D.C: World Bank http://www.worldbank.org/education/pdf/EducationBrochure.pdf - Hannum şi Buchmann, 2003);
5. Th.W.Schultz –Reflection on Investment in Man, The Journal of political Economy, Vol.70, No.5, Part 2.