

Economic liberalization and its impact on human development: A Comparative analysis of Turkey and Azerbaijan

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ABSTRACT

The aim of the article is to study the nature of liberalization as a specific economic process, which is formed and developed under the influence of the changing conditions of the globalization and integration processes in the society, as well as to identify the characteristic differences in the processes of liberalization of Turkey and Azerbaijan economies (using the method of comparative analysis of these countries' development indices). The objectives of this study: the characterization of the liberalization process as a specific economic process; a comparative analysis of the Turkey and Azerbaijan economic development conditions; the improvement of the theoretical justification of influence the process of economic liberalization on the development of society. The article presents the comparative analysis of the Turkey and Azerbaijan economic development conditions by using new research method as index of leftness (rightness) of economy. It was revealed that the Azerbaijan economy compared with the economy of Turkey is using more "right" methods of economy regulation. The Turkish economy is more prone to fluctuations in the studied parameters, at the same time, a main way of Turkish economy development is the direction towards increased liberalization, while the simultaneous growth of indicators of the human development. In this context, the Azerbaijani economy is more liberalized and less regulated.

KEYWORDS

Index of Leftness (Rightness) of economy, Human development index, liberalization, state intervention, Comparative analysis, Market relations, Economic freedom

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Introduction

Intervention by public institutions in economy is a topic discussed in political economy for hundreds of years (Cohen, 2010; Abdymanapov et al., 2016). Virtually all major economy scholars, ranging from mercantilists to neo-Keynesians, somehow addressed cross-cutting issues of public institutions operation and economic systems. Globalization context specifically keeps up to date the conflicting issues of integration in global economy and national economy protection as well as brings public intervention aspects back to the agenda.

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Liberalization is considered by a number of researchers as a prerequisite to the processes development progress in the society, the growth of its productive forces (Bumann, Hermes & Lensink, 2013; Carrieri, Chaieb & Errunza, 2013). At the same time, it contributes in some extent to the effective functioning of the national economy, raising its security, and is of particular interest to the scientific economic analysis. Because liberalization creates conditions for a normal and extensive market processes development, in which materializes itself. This feature of the liberalization impact on the national economy has a very important character, in connection with which it acts as an invisible productive force (Hill, 2010). Therefore, the illusion of liberalization having no economic price is created, that it is a process with zero economic benefit.

An important research objective is to study of the converse assertion – the real proof of the liberalization impact on the society development on the practical example, especially – on the human capital development. It determines the contribution of the scientific articles in the world of science, determines the choice of the theme and the objectives of the scientific work.

The practical value of this article is in presenting of a visual and convenient instrumentation based on the practice of dependence between the liberalization dynamic and the social development indicators (for example, a comparison of indicators of Azerbaijan and Turkey).

Literature Review

The problem of the liberalization process effectiveness in the scientific economic literature began to develop from the very beginning of formation and development of economic theory (Acemoglu & Robinson, 2013; Ahmed, Greenleaf & Sacks, 2014). However, its research carried out primarily in the context of the formation, the development of so-called capitalist economies of mixed and pure type (Schaefer & Schaefer, 2014).

Only in recent years, the domestic economic literature actively began to explore the processes of the transition economies liberalization (Sally, 2013; Based upon "Doing Business", 2014). Nevertheless, such a study is carried out on the very abstract level, or only on the basis of purely practical or practical-empirical position.

In this article, we put the tasks associated with the study of the problem of the liberalization processes effectiveness:

- at the level of establishment, formation and development of the general theory of economic systems that would set the aim to explore the general principles of functioning and development of the economic systems of any type (Bumann, Hermes & Lensink, 2013);

- at the level of economic systems of specific countries (State Statistical Committee, 2008; Carrieri, Chaieb & Errunza, 2013).

Herewith, the researchers note that the effect of the liberalization on social and economic development can be different – from negative to positive, what was the practical (empirical) basis for the allocation in the scientific literature of three interpretations of liberalization processes.

In the scientific literature, the liberalization evaluation from the position of macroeconomic was firstly performed by Karl Marx (Co-convener of "Neoliberalism and Democracy beyond the Economic Crisis", 2015) and other members of the Marxist political economy, and in the modern economic literature – by J. Keynes and modern neo-Keynesians (Cohen, 2010; Cohen & Centeno, 2006; Swaminathan et. al., 2014). In Marxist literature liberalization is evaluated negatively and it is generally considered not conducive in increase of productivity of the national economy (Greenwald, 1989; Hidalgo, 2014), violating its safety.

The liberal literature (classical or modern neo-classical school of political economy) it is, on the contrary, evaluated positively and is seen as an economic process that leads to the formation of a new productive force, increases the efficiency of the functioning of certain economic systems (Hill, 2010), Increases its strength and stability.

In modern Neo-Keynesian literature, liberalization is seen as an economic process that impact on the economic activity both positive and negative.

The author of this article first of all comes from a position of neo-Keynesianism, highlighting the possibility of both positive and negative liberalization impact on the development of society. At the same time, an analysis of the literature has shown the need of further research of the nature of liberalization as a specific economic process, and to identify the specific differences in the liberalization processes of certain economies, which could be the basis for the formation of the typology of liberalization processes, justified by real calculations and theoretical-empirical researches.

Aim of the Study

The aim of this article is to study the nature of modelcreated liberalization as a specific economic process, which is formed and developed under the influence of changing conditions of globalization and integration processes in the society, as well as to identify the characteristic differences in the processes of liberalization of Turkey and Azerbaijan economies (using the method of comparative analysis of the development indicators of these countries).

Research questions

What is the characteristic of modelcreated liberalization as a specific economic process?

Methods

The methodological basis of the article are the methods of general and special economic systems theories, general and special economic metrology, comparative macroeconomic analysis, the concept of flexibleness, economic-mathematical methods, graphical methods, and others.

The theoretical basis of the research consists of the classical, neoclassical, modern concepts of the economic systems liberalization, the works of domestic and foreign scientists in the field of social development, human capital

development and its assessment of liberalization, the effectiveness of economic processes, economics metrology and econometric science in general.

The empirical basis of the study – the experience of the processes of model created liberalization development in the transition economy and developed types, historical experience of the transition economic systems and developed types evolution, the experience of evaluation and measurement of the economic processes of liberalization and economic parameters of the human capital and social development effectiveness.

Data, Analysis, and Results

The aim of this article is to study the nature of liberalization as a specific economic process, which is formed and developed under the influence of changing conditions of globalization and integration processes in the society, as well as to identify the characteristic differences in the processes of liberalization of Turkey and Azerbaijan economies (using the method of comparative analysis of the development indicators of these countries). The objectives of this study:

- The characteristic of modelcreated liberalization process as a specific economic process;
- A comparative analysis of the conditions of economic development of Turkey and Azerbaijan;
- The improvement of a theoretical justification of influence of the economic liberalization process on the society development.

Liberalization is a partial or complete reduction of administrative-economic pressure on the subjects of a certain economic activity. Its impact on the economy appears in the increase (or in some cases – reducing) of the economic effectiveness of the economic system functioning and amplification of its security level.

In this regard, the general liberalization function reflects the functional relationship between the liberalization and the economic effectiveness or the liberalization effect.

According to scientists, liberalization is not only an economic power and has a certain economic value, but it is also a social force, namely, it has some social value (Heath & Mobarak, 2014). Therefore, the analysis of liberalization processes should be carried out from the position of its impact not only on the economic, but also on the social sphere of certain economic systems and the economy as a whole (McCartney, 2015).

The economic theory (especially in the scientists' researches regarding the economies of transitional phase of development) excessively focuses on the positive aspects of liberalization processes and significantly less on the presence of their negative impact on the economy (Musumba & Rajorshi, 2013). To notice the fact of the negative liberalization effects formation, it is necessary to analyze them in terms of the macroeconomic level (at the micro level, they may be unseen for the research) (Müzəffərli, 2014), as well as to make an attempt to "look" in the long-term development of various systems, and not to stand on the positions of the pure functional analysis.

The modern Western economic scientists of the liberal school, who say that the liberalization has only a positive effect on economic development, according to the author, are on anti-state (they are not able to evaluate this process from the attitude of macroeconomic level of the economy) and anti- dynamic (liberalization is estimated with static attitude) positions.

At the same time, it should proceed from the fact that the economic liberalization implies economy going out of the control by the government. Administrative regulation of economic categories, in particular supply and demand, and pricing severely impedes market relations development. Soviet economic system is a vivid example of fully public controlled economy. Public possession of production factors and means of production as well as businesses strongly restricted objective regularities-driven market development, but also was struggling to manage economy in administrative ways. Non-operability of Soviet system and full public administration of the entire economy proved to be uncompetitive as compared to liberal business management in due course. All Soviet-style economies finally decided to move towards economic liberalization.

Economic liberalization and modelcreated public intervention

Economic liberalization is definitely not confined with internal application of decontrol schemes. Foreign economic relations should be addressed as well. However, it should be pointed out that liberalization of foreign economic relations is supposed to accelerate market reforms internally and boost integration of the country's economy into global one. On the other hand, foreign economic relations liberalization should occur in the way that would protect domestic production and market. It happens liberalization of foreign economic relations and domestic market protection are as tied as conflicting issues.

Although public intervention and economic liberalization have been issues of much controversy for many years, the measure and optimum rate of intervention are still on agenda of scientific research. To put it more correctly, present day economic theory does not make quantity measurement of the reasonable public intervention into economy. Yet measurability and identification of optimum rate of public intervention bear scientific and practical importance.

The concept of "public intervention in economy" is perceived in different ways by experts. For instance, by "economic freedom" Heritage Foundation considers 4 key components available under government control and impacting economic environment, namely rule of law, government size, regulatory efficiency and market openness. Rule of law, in turn, includes components of "property rights" and "freedom from corruption" which are evaluated in line with Heritage Foundation-designed methodology. Government size component reports on assessment of "fiscal freedom" and "government spending". As for regulatory efficiency component, it comprises three factors like "business freedom", "labor freedom" and "monetary freedom". The latter component- market openness- addresses comparative evaluation of three liberties- "trade freedom", "investment freedom" and "financial freedom".

In an attempt of promotion of comparative evaluation of above-stated factors, Heritage Foundation designed a specific methodology which in fact simply expresses comparative analysis of liberalization rates in selected areas of economy. In this context, economic liberalization does not automatically imply limitations of public intervention. Noteworthy, Heritage Foundation-proposed component of "rule of law" is likely to be unachievable without proper public intervention. Rule of law implementation stands in need for public intervention, moreover, it stipulates for enforcement of public involvement in rule of law protection.

The World Bank-designed "Doing Business" ratings represent limited aspects of comparative evaluation and public intervention in economy. "Doing Business" ranking encompasses 11 indicators, such as "starting a business", "dealing with construction permits", "getting electricity", "registering property", "getting credit", "protecting minority investors", "paying taxes", "trading across borders", "enforcing contracts", "resolving insolvency" and "labor market regulation". Since these indicators only cover a minor area of business activities the calculated comparative data prevent us from proper evaluation of public intervention rate in its entirety.

Global Competitiveness Index measured according methodology by the World Social Forum strives to assess the extent of the "strength" of the countries in provision of sustainable economic growth. Annually published the Global Competitiveness Report reaches most of countries worldwide and the key conclusions are mainly associated with the fact that highly competitive countries also provide higher welfare for their citizens. In theory, the overall purpose of these reports lies in pushing governments to removing barriers that hinder economic development thanks to finding their position globally in economic development and competitiveness ranking and making necessary comparisons.

So, what extent should public intervention reach to in order to protect economic safety of the country and to provide full involvement of the country in global labor division at the same time?

"Strength of public institutions" and "influence area of public institutions"

Francis Fukuyama discerned "strength of public institutions" and "influence area of public institutions". By "influence area of public institutions" he understands the functions fulfilled by the state and by "strength of public institutions" efficiency of the functions respectively. State functions are grouped in three categories in his theory-minimal functions, intermediate functions and activist functions. In classification by Fukuyama, minimal functions include defence, law and order, property rights protection, macroeconomic regulation, public health and improving social protection. As regards as intermediate functions, Fukuyama mentions addressing externalities, education and environment protection, regulating monopolies, insurance, financial regulation and social insurance. Activist functions, in turn, include industrial policy and wealth redistribution. Of course, Fukuyama's classification of the state functions is of general nature. The most intriguing

point is, however, Fukuyama's suggestion to reduce the number of functions but to increase their productivity.

Fukuyama believes that the world countries differ by "state functions" (statehood) and "strength of public institutions" (productivity). In certain countries, like the USSR, state functions are huge as compared to the USA yet public institutions productivity was much lower. Fukuyama says present day Russia retains less functions than the USSR but productivity is low as well. Hence, Fukuyama's classification distributes countries across four different quadrants and strives to ground the "drift" of countries with less state functions and higher efficiency and more productive activities.

"Leftness" and "Rightness" of economy

In sharp contrast to Fukuyama, another economic scholar Nazim Muzaffarli prefers exclusively assessing the forms of public intervention that would lead to political discussions and struggle rather than addressing all forms of intervention in their entirety. Muzaffarli proposes "index of leftness (rightness) of economy" (IL(R)E) which goes beyond simple elaboration of the idea by Fukuyama on eventual correlation between state functions and economic development and allows to reveal a measurable relation between economic activities and core essence of political decisions. The fundamental difference of Muzaffarli-suggested assessment methodology with the model by Fukuyama lies in separation of legal and political functions that "enable the state to intervene" followed by adequate quantitative assessment. On the other hand, aforementioned assessment methodology brings ample opportunities for correct measurement of macroeconomic effect of certain state functions in economic fields.

Nazim Muzaffarli suggests comparative analysis through identification of public intervention in economy as rate of implementation of "leftist" or "rightist" ideas respectively. By "public intervention in economy" Muzaffarli generally deems activities by "public institutions". Precise public institutions do not operate for their own sake but rather have to comply with enforced legislation. Hence, ideological persuasions by decision makers around precise economic challenges resolution are specified in the core essence of the decisions made. For example, if leftist parties constitute majority at the Parliament of any country, leftist ideas will underlie decision making process. And the other way round, rightist ideology will gain the upper hand in decisions made provided the legislation is adopted by the rightist majority. It happens that leftist or rightist insight of decision makers shapes the economic system within a given time. To put it more correctly, "it is precisely politics that constrains or expands public intervention in economy" (Müzəffərli, 2014).

In Muzaffarli's view, "...Leftness and Rightness are issues of political and economic system. ... the key aspect that distinguishes these two insights lies in different views around evaluation of essential and satisfactory rate of public intervention in social life and, in particular, in economy: as compared to the rightists, the leftists promote more extensive and strict intervention" (Müzəffərli, 2014). Indeed, bearers of leftist or rightist ideas contribute to

emerging fundamentally new system of economic relations pursuant to their political and economic ideologies. For instance, the Bolshevik coup in Russia provoked drastic changes in real economic relations through private property ban, large-scale expropriation and collectivization policies.

Nazim Muzaffarli discerns precise forms of public intervention in economy and grounds measurability of different forms of intervention. He asserts that a certain set of indicators will enable us to make rather valid conclusions on prevalence of Leftness or Rightness of economy based upon relevant analysis of the above-mentioned set and to provide grounded country-by-country comparison of public intervention rates. The suggested assessment should specify concrete political and ideological forms of public intervention in economy. Among them one might mention the following: 1) public property and public property-based entrepreneurship percentage; 2) redistribution of income through taxation; 3) social programs implementation; 4) price regulation; 5) planning of economy; 6) foreign trade regulation; 7) arrangement of favorable conditions for business activities.

"Index of leftness (rightness) of economy" - IL(R)E

In contrast to the methods reviewed hereabove, Muzaffarli-proposed "index of leftness (rightness) of economy" only encompasses assessment of intervention of the government in its capacity of regulatory institution in the fields of real economy. As distinct from similar indices, the suggested indicator enables to evaluate correlation between the current economic system and actual political environment. On the other hand, by keeping track of IL(R)E you can elicit development trends in political and economic outlook in any given country. This method also provides opportunities for revelation of the optimum rate of economic development-oriented public intervention.

The index of leftness (rightness) of economy includes seven sub-indices hereunder required for its calculation:

1. Public funding sub-index denotes income tax-based redistribution rate and, in turn, is split at two sub-indices of lower rank as follows:

– Sub-index of tax burden of enterprises (VY) and budget expenditures sub-index (BX). Public funding sub-index is equal to arithmetic mean value of these two sub-indices: $DM_i = (VY_i + BX_i)/2$.

– Sub-index of tax burden of enterprises is calculated by indexing relative value of correlation between taxes paid by a modelled private company per annum and annual profit of the modelled company while budget expenditures sub-index is calculated by indexing budget allocations as percentage of GDP.

2. Social expenditures sub-index depicts Leftness or Rightness of economy and calculated as a proportion between different budget articles of expenditures. As zero level of social expenditures is impossible in any state budget no government can fall under extreme rightist values. This sub-index is calculated as a share of social expenditures (SoX) in total budget allocations: $SX_i = SoX_i / BX_i$.

3. Price regulation sub-index expresses the extent of pricing decontrol (rightist position) and, at the same time, state intervention in price setting

(leftist position). This index is calculated as arithmetic mean value of lower rank sub-indices, namely pricing discretion sub-index (QA) and monetary freedom sub-index (MA).

$$QT_i = (QA_i + MA_i) / 2.$$

4. Foreign trade sub-index is used to compute foreign trade liberalization rate (rightist position) and strict public regulatory measures in this field (leftist position). This index is computed as an arithmetic mean value of three lower rank sub-indices, namely foreign trade freedom sub-index (XTA), import costs sub-index (IIQ) and trade freedom sub-index (TA):

$$XT_i = (XTA_i + IIQ_i + TA_i) / 3.$$

5. Licensing Sub-Index. The evaluation of the leftness-rightness of an economy upon the ease or difficulty of licensing requires consideration of four parameters: a) number of economic activities obligatory to licensing, b) variety of licensed activities, c) validity time of licenses, d) licensing rules. The more favorable these parameters are for businesses (i.e. less number, narrower list, longer term and simpler rules), the righter is an economy. However, sufficiently accurate inter-country comparisons on any of these parameters are unobtainable. L_i

6. Employment regulation sub-index is computed by two lower rank sub-indices – employment regulation strictness sub-index (MTS) and discharge costs sub-index (ICX):

$$MT_i = 0,75 \cdot MTS_i + 0,25 \cdot ICX_i.$$

Of them, the former lower rank sub-index is calculated, in turn, by three indicators, namely employment ease (complexity), strictness of working hours regime regulation and discharge ease (complexity).

7. Minimum wage sub-index represents indexed version of proportion of government-set annual minimum wage (MH) to per capita GDP (UDM).

$$M\Theta H_i = MH_i / UDM_i.$$

Index of Leftness (Rightness) of economy, all associated sub-indices and low rank sub-indices range 0-1. Zero value implies absolute Rightness of economy (public intervention measures scarcity) and "one" depicts total Leftness of economy (excessive public regulation).

While calculating the finite index you must firstly identify the shares of the index components from perspective of Leftness (Rightness). Public funding sub-index and social expenditures sub-index should be addressed in a different way since bearers of Leftness or Rightness ideologies strongly differ by their attitude towards state-implemented social programs. Essence and calculation techniques, though, provide synergies.

Hence, index of Leftness (Rightness) of economy is computed in the first option as follows:

$$\dot{I}S(S)\dot{I}_i = 0,15 \cdot DM_i + 0,15 \cdot SX_i + 0,14 \cdot QT_i + 0,14 \cdot XT_i + 0,14 \cdot L_i + 0,14 \cdot MT_i + 0,14 \cdot M\Theta H_i.$$

The second option of $\dot{I}L(R)E$ calculation specifies a bigger share value for public funding sub-index (0.30). The remainder of shares is evenly distributed

across sub-indices. Hence, the second calculation option computes the index of Leftness (Rightness) of economy in the following manner:

$$IS(S)I_i = 0,30 \cdot DM_i + 0,14 \cdot QT_i + 0,14 \cdot XT_i + 0,14 \cdot Li + 0,14 \cdot MT_i + 0,14 \cdot M\Theta H_i$$

What scientific and practical implications could calculation of IL(R)E or cross-country comparison bring? Practical relevance of the index above lies in feasibility of effectiveness analysis of political and economic decisions made over the given period through index values analysis and detection of index interaction with other economic indicators. For example: 1) once leftist/rightist political and social decision is made (increase/decrease in *IL(R)E* values as compared with previous years) and linked with decline in per capita GDP implies ineffectiveness of leftist/rightist decision making and requires appropriate modifications in the decision made; 2) if *IL(R)E* of any country remain more or less steady for certain timeframe except minor fluctuations (provided no leftist/rightist decisions-generated serious implications are recorded) and other economic indicators experience permanent increase, implementation of political and economic decisions is rather effective; 3) in case of making leftist/rightist decisions (i.e. *IL(R)E* value goes up/down as compared with previous years) are followed by constant increase in key macroeconomic indicators leftist/rightist decisions are highly effective and should be maintained.

Consequently, *availability/non-availability* of correlation between IL(R)E of any country and relevant macroeconomic indicators for the given period plays crucial role as political and economic information source for decision-related and post-decision economic projections. For example, by comparison of inter-temporal changes in human development index in Turkey and Azerbaijan respectively for last 15 years, we can judge efficiency rate of leftist/rightist economic reforms in above-stated countries.

Human Development Index in Azerbaijan and Turkey

Human Development Index, known till 2013 as "human potential development index", represents a composite indicator designed by UN and aimed at measurement of dimensions of living standard, education and life expectancy in any country and making cross-country comparisons. This index calculation methodology was devised by a group of economists in 1990 and ever since has been published in UN reports.

Human Development Index combines three dimensions, namely: 1) life expectancy at birth; 2) education index (mean years of schooling and expected years of schooling); 3) a decent standard of living computed as purchasing power parity (PPP)-adjusted per capita Gross National Income in USD. All these dimensions are calculated separately as sub-indices. For example, life expectancy sub-index is calculated as follows: $(LE\dot{I}) = (LE - 20) / (85 - 20)$, where *LE* is life expectancy at birth in the given country and 20- minimum life expectancy (years).

Education sub-index is computed as $E\dot{I} = (MYS\dot{I} + EYS\dot{I}) / 2$, where *MYSI* – mean years of schooling while *EYSI* is expected years of schooling. Mean years of schooling sub-index, in turn, is calculated as $MYS\dot{I} = MYS / 15$ and expected

years of schooling sub-index is $EYSI = EYS/18$. As for Income sub-index, the following formula is used for calculation: $I\ddot{I} = (\ln(GNIPs) - \ln(100)) / (\ln(75000) - \ln(100))$. Finally, Human Development Index (HDI) represents the geometric mean of aforementioned three sub-indices:

$$DI = \sqrt[3]{LEI \cdot EI \cdot \ddot{I}}$$

Human Development Index or human potential development index should not be deemed as abstract ratios. The indices are means of quantitative and qualitative assessment of efficiency rate of government-implemented economic policies. For instance, Table 1 below describes changes in human development index in Turkey and Azerbaijan respectively. As it is clearly seen in the Table, index values of Azerbaijan and Turkey are close enough and follow the upward trend for last 13 years. However, the countries above differ by value increase rates. Figure 1 provides a clear-cut picture of the rates difference as well.

In early XXI century, Human Development Index of Turkey slightly exceeded that one of Azerbaijan. Yet Azerbaijan-related indicator rapidly grew later and finally caught up and surpassed Turkish one. Azerbaijan introduced and launched implementation of State Program on Poverty Reduction for this particular time. Over the period of ten years this indicator rebounded from 0.64 to 0.743, that's 16.3% increase. Substantial poverty alleviation process was underway at that time as well.

Table 1. Human Development Index changes in Turkey and Azerbaijan

	2000	2005	2008	2010	2011	2012	2013
Human Development Index of Turkey	0,653	0,687	0,710	0,738	0,752	0,756	0,759
$DI = \sqrt[3]{LEI \cdot EI \cdot \ddot{I}}$							
Human Development Index of Azerbaijan	0,639	0,686	0,724	0,743	0,743	0,745	0,747
$DI = \sqrt[3]{LEI \cdot EI \cdot \ddot{I}}$							

Note: This table is drawn up by authors of this article on the basis of statistical data provided by United Nations' Development Program.

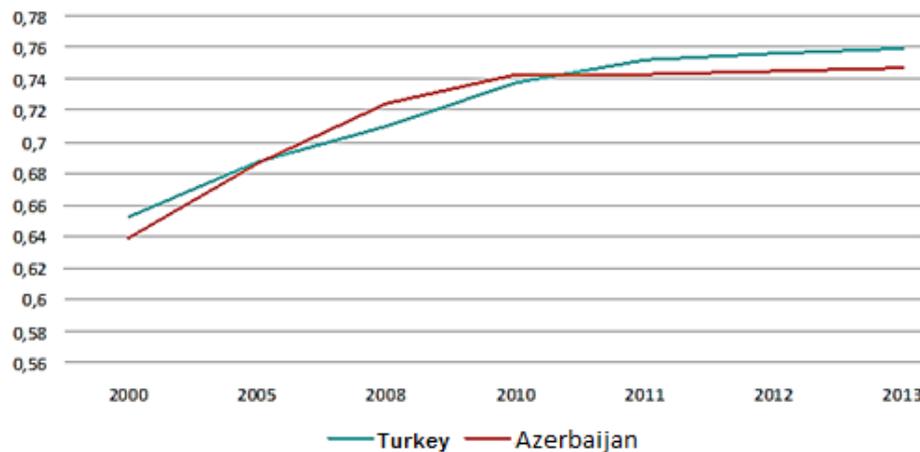


Figure 1. Comparative changes in human development index in Turkey and Azerbaijan

Neither Turkish nor Azerbaijanian indicators experienced drastic changes beyond 2011. Over that period no fundamental leftist/rightist decisions capable to affect Human Development Index were ever made and, consequently, no serious alterations in *IL(R)E* ever occurred in Turkey or Azerbaijan.

IL(R)E in Turkey and Azerbaijan

Table 2 also specifies *IL(R)E*-related changes in Turkey for last 14 years.

Table 2. *IL(R)E* changes in Turkey

	2000	2005	2008	2010	2011	2012	2013	2014
Public funding sub-index (DM)								
1 $DM_i = (VY_i + BX_i)/2$	0,677	0,536	0,563	0,631	0,634	0,492	0,524	0,516
Tax burden sub-index= VY	0,528	0,528	0,443	0,433	0,433	0,4	0,4	0,397
Budget expenditures= BX	0,827	0,544	0,683	0,829	0,836	0,585	0,649	0,635
Price regulation sub-index								
(QT) $QT_i = (QA_i + MA_i)/2$	0,491	0,456	0,304	0,305	0,293	0,305	0,292	0,303
2 Pricing discretion sub-index= QA	0,7	0,55	0,683	0,689	0,687	0,671	0,682	0,676
Monetary freedom sub-index= MA	0,318	0,538	0,708	0,7	0,727	0,719	0,733	0,718
Foreign trade sub-index (XT)								
$XT_i = (XTA_i + İQ_i + TA_i)/3$	0,302	0,304	0,301	0,296	0,300	0,300	0,246	0,293
3 Foreign trade freedom sub-index= XTA	0,755	0,738	0,641	0,735	0,724	0,725	0,725	0,725
Import costs sub-index= $İQ$	0,588	0,588	0,588	0,512	0,522	0,522	0,683	0,55
Trade freedom sub-index= TA	0,75	0,76	0,868	0,864	0,854	0,854	0,852	0,845
4 Licensing sub-index (L)	0,481	0,481	0,477	0,539	0,537	0,567	0,609	0,629
Employment regulation sub-index (MT)						0,20	0,20	0,20
$MT_i = 0,75 \cdot MTS_i + 0,25 \cdot İÇX_i$	0,432	0,432	0,432	0,209	0,209	9	9	9
5 Employment regulation strictness sub-index= MTS	0,26	0,26	0,26	0,18	0,18	0,18	0,18	0,18
Discharge costs sub-index= $İÇX$	0,947	0,947	0,947	0,298	0,298	0,298	0,298	0,298
Minimum wage sub-index								
($M\Delta H$) $M\Delta H_i = MH_i / \dot{U}DM_i$	0,068	0,074	0,054	0,053	0,049	0,049	0,049	0,048
6 <i>Minimum wage</i> = MH_i (annual PPP)	7540	10080	9769	10115	10419	10701	10898	11038
<i>Per capita GDP</i> (PPP)	9177	11394	15021	16001	17692	18002	18599	19054
Integral index of leftness								
9 (rightness) of economy (II calculation option)- $\dot{I}S(S)\dot{I}-2$	0,592	0,545	0,528	0,526	0,525	0,488	0,494	0,502

Note: This table is drawn up by the authors of the article on the basis of data provided by The Heritage Foundation, World Bank, Doing Business and Fraser Institute

Table 2 contains computation of *IL(R)E* and associated indices of Turkey for last 14 years. Analysis of sub-indices and lower rank sub-indices shows Turkish economy passed through various leftist or rightist decisions over the period above. Although public funding sub-index used to tend to Rightness, it is found positioned leftward in probability interval ranged 0-100. As regards as foreign trade sub-index, despite of a slight drift towards Leftness, it is generally of

rightist nature. Price regulation and licensing sub-indices bear undeniable evidence of shift to Leftness.

The same applies to economy of Azerbaijan where all sub-indices change diversely. Public funding sub-index, say, tended to Rightness yet, in fact, has leftist value as it is still slightly positioned in leftist way in the probability interval ranged 0-100. Leftist trend also dominates in price regulation and licensing sub-indices.

As it is seen from Table 3, economy of Azerbaijan tended to be more "rightist" as compared to economy of Turkey. Although Turkish economy was inclined to more leftward and rightward, the key trend is to range constantly 0.40-0.45. IL(R)E for Azerbaijan ranges 0.35-0.40.

Table 3. IL(R)E changes in Azerbaijan

	2000	2005	2008	2010	2011	2012	2013	2014
1 Public funding sub-index (DM) $DM_i = (VY_i + BX_i)/2$	0,614	0,667	0,619	0,592	0,5595	0,5185	0,539	0,524
Tax burden sub-index= VY	0,464	0,464	0,409	0,409	0,409	0,4	0,4	0,4
Budget expenditures= BX	0,765	0,87	0,829	0,775	0,71	0,637	0,678	0,648
2 Price regulation sub-index (QT) $QT_i = (QA_i + MA_i)/2$	0,371	0,323	0,3045	0,3135	0,2725	0,2845	0,2865	0,2385
Pricing discretion sub-index= QA	0,55	0,55	0,626	0,746	0,729	0,686	0,692	0,735
Monetary freedom sub-index= MA	0,707	0,804	0,765	0,627	0,726	0,745	0,735	0,788
3 Foreign trade sub-index (XT) $XT_i = (XTA_i + IIQ_i + TA_i)/3$	0,471	0,423	0,368	0,367	0,367	0,358	0,333	0,355
Foreign trade freedom sub-index= XTA	0,59	0,592	0,666	0,648	0,654	0,679	0,679	0,679
Import costs sub-index= IIQ	0,447	0,447	0,447	0,48	0,475	0,475	0,55	0,483
Trade freedom sub-index= TA	0,55	0,692	0,784	0,771	0,771	0,772	0,772	0,772
4 Licensing sub-index (L)	0,245	0,245	0,346	0,487	0,481	0,48	0,492	0,494
5 Employment regulation sub-index (MT) $MT_i = 0,75 \cdot MTS_i + 0,25 \cdot IÇX_i$	0,204	0,204	0,204	0,182	0,182	0,182	0,182	0,182
Strictness of employment regulation sub-index= MTS	0,2	0,2	0,2	0,17	0,17	0,17	0,17	0,17
Discharge costs sub-index= $IÇX$	0,217	0,217	0,217	0,217	0,217	0,217	0,217	0,217
6 Minimum wage sub-index (MƏH) $MƏH_i = MH_i / \dot{U}DM_i$	0,009	0,017	0,013	0,016	0,015	0,016	0,015	0,017
Minimum wage= MH_i	5,5	25	60	75	85	93,5	93,5	105
Per capita GDP _i	593,2	1494,3	4603,7	4753	5752,9	5966,1	6258,3	6264,1
7 Integral index of leftness(rightness) of economy (II calculation option)- $IS(S)/-2$	0,506	0,510	0,499	0,509	0,492	0,480	0,485	0,477

Note: This table is drawn up on the basis of calculations of the authors of this article

Yet both countries demonstrate figures approaching mean value within the probability interval ranged 0-100. It is worth stating, this research findings and conclusions demonstrate strong resemblance to findings and conclusions by Nazim Muzaffarli. He also came to conclusion that Turkey has more leftist economy in comparison with Azerbaijan.

Figure 2 clearly describes comparative changes in $IL(R)E$ in Turkish and Azerbaijani economies.

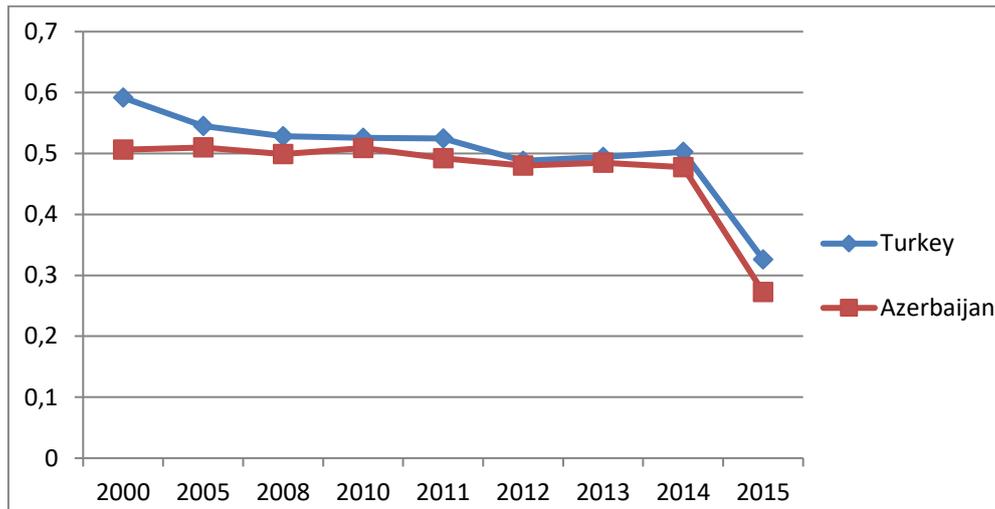


Figure 2. $IL(R)E$ changes in Turkey and Azerbaijan

Figure 2 shows Turkey is much more leftist country as compared to Azerbaijan in terms of public intervention in economy if we take 2000 as a base year. Later on, specifically in 2005 and 2012 $IL(R)E$ of Turkey and Azerbaijan approached each other. And during the period in between Turkish economy followed leftist trends in economy. Both country indices strongly approximated since 2012.

Interestingly, $IL(R)E$ of both states is positioned slightly rightward in 0-1 probability interval and is not subject to fundamental changes over the given period. As it was stated above, sustainable growth in any sector of economy during the period with no visible changes in $IL(R)E$, including steady growth of human development index, signals about effectiveness of relevant political and economic policy measures.

According Figure 3 $IL(R)E$ and Human Development Index of Turkey are correlated strongly. As well as Figure 4 describes there is some correlation between $IL(R)E$ and Human Development Index of Azerbaijan, but this is not strong.

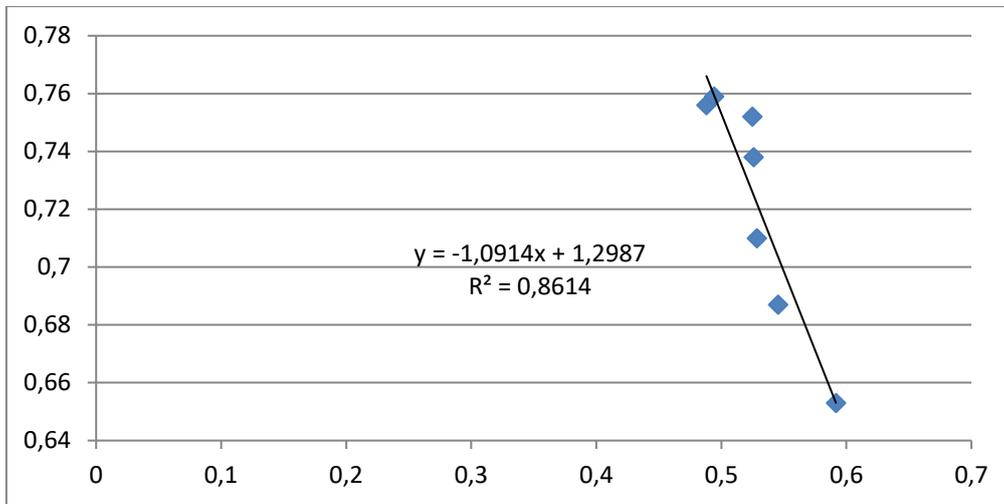


Figure 3. Human Development Index- *IL(R)E* correlation in Turkey

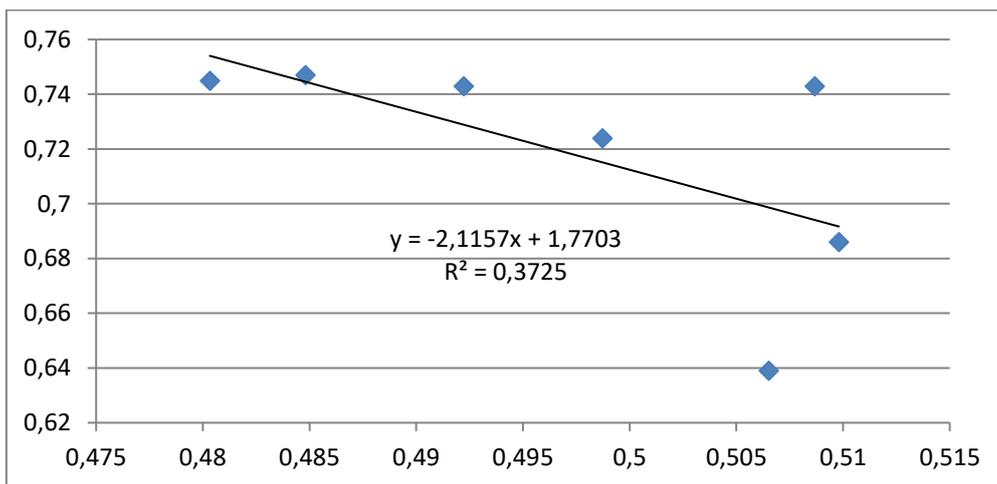


Figure 4. Human Development Index-*IL(R)E* correlation in Azerbaijan

But essential result is that for both countries' economy moving towards "right" causes increasing of HDI. But this conclusion is not universal. So the is any country's economy by moving towards to "left" can cause increasing of HDI. It means for every country there is "optimum" of the leftness (Rightness) Index, where HDI and other macroeconomic indicators are increasing.

Elaborating on the impact of liberalization on the social policy formation and the practice of its implementation, we should focus on the following. The liberalization of the world economy as a complex of processes regulating the organized usage of tangible and intangible resources across the planet – it is an objective reality that cannot be stopped, slow down, canceled, etc. At the same time, this process is very complex, contradictory and multivector.

One of the most important theoretical-methodological problems of the research of liberalization processes is the problem of assessing the nature of these processes' impact on the socio-economic development, which solution was taken in this article on a real example that showed the way to assess the impact of liberalization on the processes of social development, in particular – on the development of human capital. This determines the contribution of this scientific article into the world of science.

At the same time, the article focuses not only on the theoretical aspects of the studied problem, but also on the presenting of the visual and convenient instrumentation, based on the practice of dependence between the liberalization dynamic and the social development indicators (for example, a comparison of indicators of Azerbaijan and Turkey).

Discussions and Conclusions

The reliability of the scientific results of the study is provided by:

- the reasonable selection of the main assumptions and limitations in the formulation of the aim and objectives of the study;
- taking into account a reasonable number of factors influencing the solution of the scientific problem of comparative analysis of the economic development conditions of Turkey and Azerbaijan with a view of identifying and comparing the features of the liberalization process in these countries;
- the usage of the reliable initial data obtained from the results of the theoretical and experimental studies;
- the usage of the modern, approbated scientific methods and mathematical apparatus;
- the justified correct choice of used methods, general and specific indicators and criteria's.

The reliability of the scientific results of this research article is confirmed by common elements (the nature of liberalization in the countries with post-Soviet economy and countries with more mature capitalism, the impact of liberalization on the development of society) of the results of theoretical and experimental article research.

The liberalization concepts, presented in the economic literature, have, according to the author of the article, the two main disadvantages: they do not take into account the factor of time (the duration of the market period) and functional-system level of the economy. Overcoming of these disadvantages is one of the priority tasks of development of theoretical justification of the economy liberalization process effecting on the development of society.

According to the result of the carried out in the article comparative analysis of conditions of Turkey and Azerbaijan economies development revealed that the Azerbaijan's economy tends to liberalization in comparison with the economy of Turkey. At the same time the Turkish economy is more prone to fluctuations in the studied parameters. At the same time, the main way of the Turkish economy

development is the direction towards increased liberalization. In this context, the Azerbaijan economy is more liberalized and less regulated.

Comparing the obtained research results with other researchers in particular, (Bumann, Hermes & Lensink, 2013; Cohen, 2010; Cohen & Centeno, 2006), it should be noted that the transformation of most countries into a liberal economic system took place during a significant historical period through a gradual reduction of the administrative pressure on the economic activity. The only exception is Israel (based on the analyzed researches), which was originally developing as a liberal economy, oriented on the high-tech products export. At the same time, quite different effects of liberalization have been experienced in different countries, which was largely predetermined by the history of the development of the economic and social relations in the country. Considering in this context the results of the study, should be noted that Turkey's economy was not formed, in contrast to Azerbaijan, under the socialism conditions, so at the moment is not only more socially effective, but also more liberal.

In this regard, the Azerbaijan's economy cannot pass this way in a short period of time without serious social consequences, primarily – negative.

In the countries of the "old" capitalism the national economic systems are predominantly liberal (or even in some cases hiper liberal), in the countries of the "new" capitalism – quasi-liberal, and in the majority of countries with the transition economy – illiberal or less liberal. The national economic system of Azerbaijan at the present stage of market reform of the economy is the most illiberal or less liberal. Such economic systems are not authoritarian or totalitarian, but they are not fully liberal yet. These are basically the economic systems, which gradually evolved from liberal into an anti-liberal. Their liberalization has not become yet a separate and independent productive force.

The initial element of the modern state's concept is the state regulatory institutions, which do not become a substitute for the processes of the market self-organization, but do not act only as add-on market elements either. Speaking about the formation of the single entity, shifting the center of the state influence on the institutional and management activities at all levels of the economic complex. We need a shift from purely administrative (in its content) activities in the field of liberalization and deregulation of the economy to the establishment of a new economic order, which takes into account the general laws of market development and the specific features of the country, would combine the values of economic liberalization with the interests of society, independence and initiative of market participants with increasing challenges effectiveness of social reproduction, economic well-being of the population.

Implications and Recommendations

The article describes the nature of modelcreated liberalization as a specific economic process, which is formed and developed under the influence of changes of the globalization and integration processes development conditions in the society. Has been implemented the improvement of the theoretical justification of influence the process of economic liberalization on the development of society. The comparative analysis of the Azerbaijan and Turkey economic development

conditions was conducted. It revealed that the Azerbaijan economy compared with the economy of Turkey is not using more stringent methods of economy regulation in spite of the fact that Azerbaijan has new independent economy. The Turkish economy is more prone to fluctuations in the studied parameters, at the same time, the main way of development of the Turkish economy is the direction towards increased liberalization. In this context, the Azerbaijan economy is more liberalized and less regulated.

According to the author, the liberalization of its economic part can be reduced to a process of partial or complete reduction of the administrative (administrative-economic) pressure from the government on the subjects of a certain economic activity. After all, at the beginning of the capitalist economic systems becoming and formation the management practice on the nature of its implementation, governance and control was totalitarian or at least authoritarian, illiberal. Largely, as an example, may be the development of Azerbaijan's economy, which can not be regarded as a liberal, but which has its own way of development and certain prospects for growth.

Disclosure statement

No potential conflict of interest was reported by the authors.

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References

- Abdymanapov, S. A., Toxanova, A. N., Galiyeva, A. H., Abildina, A. Sh., & Aitkaliyeva, A. M. (2016). Development of Public-Private Partnership in the Republic of Kazakhstan. *IEJME-Mathematics Education*, 11(5), 1113-1126.
- Acemoglu, D., & Robinson, J. A. (2013). *Why nations fail: The origins of power, prosperity and poverty*. London: Profile Books.
- Ahmed, F. Z., Greenleaf, A., & Sacks, A. (2014). The paradox of export growth in areas of weak governance: The case of the readymade garment sector in Bangladesh. *World Development*, 56, 258-271.

- Based upon "Doing Business 2014: Understanding Regulations for Small and Medium-Size Enterprises" report designed by the World Bank (See: *Doing Business 2014: Dealing with Construction Permits*. Direct access: <http://www.doingbusiness.org/data/exploretopics/dealing-with-construction-permits>; latest review-August 2014).
- Bumann, S., Hermes, N., & Lensink, R. (2013). Financial Liberalization and Economic Growth: A Meta-analysis. *Journal of International Money and Finance* 33, 255-281.
- Carrieri, F., Chaieb, I., & Errunza, V. (2013). Do Implicit Barriers Matter for Globalization? *Review of Financial Studies* 26, 1594-1739.
- Co-convener of "Neoliberalism and Democracy beyond the Economic Crisis" research group. (2015). Van Leer Jerusalem Institute. Direct access: <http://www.vanleer.org.il/sites/files/MANDELKERN%20CV%20updated%2010.4.16.pdf>
- Cohen, J. N. (2010). *How Prosperous was the World Economy in the Age of Neoliberalism? Working Paper at Munich Personal RePEc Archive*. University Library of Munich, Germany. Direct access: <http://ideas.repec.org/p/pramprapa/22437.html>
- Cohen, J. N., & Centeno, M. A. (2006). Neoliberalism and Patterns of Economic Performance, 1980-2000. *Annals of the American Academy of Political and Social Science*, 606, 32-67.
- Greenwald, J. (1989, Monday). Harvard Debt Doctor's Controversial Cure. *Magazine "Time" Nov. 06*. Direct access: <http://content.time.com/time/magazine/article/0,9171,958962,00.html>
- Heath, R., & Mobarak, A. M. (2014, Sept.). Manufacturing Growth and the Lives of Bangladeshi Women. Cato Institute. *Research Briefs in Economic Policy*, 10, 72-79.
- Hidalgo, J. C. (2014, Janu. 23). Growth without Poverty Reduction: The Case of Costa Rica. Cato Institute. *Economic Development Bulletin*, 18, 23-28.
- Hill, R. V. (2010). Liberalization and Producer Price Risk: Examining Subjective Expectations in the Ugandan Coffee Market. *Journal of African Economics*, 19(4), 433-458.
- McCartney, M. (2015). *Economic growth and development: A comparative introduction*. London: Palgrave Macmillan.
- Musumba, M., & Rajorshi, S. G. (2013). Transmission of World Prices to Ugandan Coffee Growers in a Liberalised Economy. *Development Policy Review*, 31(2), 219-234.
- Müzəffərli, N. (2014, Səh. 63). *İqtisadiyyatın sosialyönlüyü sağçı və solçu sistemlərdə*. Şərq-Qərb Nəşriyyat Evi. Bakı.
- Sally, R. (2013, June 5). Asia's Story of Growing Economic Freedom by Razeen Sally. Cato Institute. *Policy Analysis*, 725, 1-12. Direct access: <http://object.cato.org/sites/cato.org/files/pubs/pdf/pa725-revised.pdf>
- Schaefer, P. F., & Schaefer, C. (2014, Dec. 3). An Innovative Approach to Land Registration in the Developing World: Using Technology to Bypass the Bureaucracy. Cato Institute. *Policy Analysis*, 765, 1-12. Direct access: <http://object.cato.org/sites/cato.org/files/pubs/pdf/pa765.pdf>
- State Statistical Committee (SSC) [Azerbaijan] and Macro International Inc. (2008, May). *Azerbaijan Demographic and Health Survey 2006*. Calverton, Maryland, USA: State Statistical Committee and Macro International Inc. Direct access: <http://dhsprogram.com/pubs/pdf/FR195/FR195.pdf>
- Swaminathan, S., Aiyar, A., Debroy, B., & Bhandari, L. (2014). *Economic Freedom of the States of India 2013*. New Delhi: Friedrich Naumann Foundation and Cato Institute.