

AZERBAIJAN NATIONAL ACADEMY OF SCIENCES
INSTITUTE of ECONOMICS

IL(R)E – 2016

THE LEVEL OF LIBERALISM- DIRIGISME OF THE ECONOMY

Group of Experts led by
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(Group of experts led by Nazim Muzaffarli)**

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The study is devoted to the effective balance between self-regulation of the economy and its state regulation. Based on the methodology developed by the ANAS Institute of Economics, a level of liberalism-dirigisme of the 95 economies' is comparatively assessed. The necessity of further liberalization of the Azerbaijani economy is theoretically justified, and the main directions of economic reforms for the coming years are determined. The authors hope that the theoretical innovations and practical recommendations of the research will be of interest and useful for economists and policy-makers.

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1. THE AZERBAIJANI ECONOMY'S LIBERALISM POTENTIAL AND THE MAIN VECTORS OF THE "STRATEGIC ROADMAPS"

IL(R)E – 2016 is the third Annual Report published by the Institute of Economics of the Azerbaijan National Academy of Sciences to assess the level of liberalism (dirigisme) of the economy in various countries of the world. In these studies, the comparative level of liberalism-dirigisme of the economy is measured by the model-shaping forms of government intervention in the economy. *IL(R)E – 2016* was developed based on the improved methodology. The number of analyzed countries has also increased and the latest Report covers 95 countries.*

The working on *IL(R)E – 2016* was coincided in time with the Azerbaijani economy's adaptation to the post-oil stage. By that time the implementation of a set of new economic reform programs – the "Strategic Roadmaps" – has already started. This is why it is needed to assess to what extent the main vectors of the

* In this review, countries with per capita GDP more than 30,000 international dollars (that is, the current USD adjusted for the purchasing power parity) are considered as high-income, countries where this indicator is in the range from 10,000 to 30,000 – as middle-income, and those with per capita GDP less than 10,000 international dollars – as low-income countries.

country's economic development in the medium and long term, as envisaged by the Strategic Roadmaps, are in tune with our conclusions on the Azerbaijani economy's current level and future potential of liberalism (dirigisme).

1.1. General Assessment

The "Strategic Roadmaps for the National Economy and Its Main Sectors", approved by the President of the Republic of Azerbaijan in 2016, provides that:

- (i) in some priority sectors, the public-private sector ratio will change in favor of the latter (also through the privatization);
- (ii) environment for free competition will be improved (including by reinforcing anti-monopoly measures);
- (iii) in oil revenue transfers to the state budget so-called "golden rule" will be applied (mainly, as a restriction of transfers);
- (iv) effective tax incentives will be implemented (and the tax burden of businesses also will be facilitated);
- (v) foreign economic interactions will be simplified (including through the free trade agreements);
- (vi) business environment will be improved in general, and in particular, more favorable conditions for foreign investors will be created;
- (vii) monetary regulation based on a "floating" exchange rate will be implemented.

All these reforms are aimed at reducing the overall level of the model-shaping government intervention in the economy, which means that they are of a right-wing (liberal) character. Generally, it can be stated that the relevance for Azerbaijan of reforms in this direction is confirmed by studies conducted at the ANAS Institute of Economics.

1.2. The Azerbaijani Economy's Liberalism Potential

In the ranking of 95 economies from right to left (that is, from more liberal to more dirigist economies) Azerbaijan occupies 57th place. It means that Azerbaijani economy is more dirigist than 56 economies and more liberal than 38 economies. The average value of IL(R)E for all analyzed economies is 0.288. The average value for both low- and middle-income countries is 0.307, and for high-income countries – 0.255.

Azerbaijan's IL(R)E is 0.301.

In 19 of the 35 high-income countries and in 22 of the 43 middle-income countries the Index value is in the range of 0.201 - 0.300 (*Table 1.1*). This can be interpreted in two ways: a) most developed and developing countries prefer less government intervention in the economy, i.e. a relatively more liberal economic model; b) countries that prefer less government intervention in the economy, i.e. relatively more liberal economic model, achieve higher level of economic development.

Azerbaijan's IL(R)E practically coincides with the Index average value for middle-income countries. In half of these countries Index exceeds 0.300. In the remaining middle-income countries and approximately in 80% of high-income countries, the Index value is less than 0.300. This allows concluding that for a higher development the Azerbaijani economy's liberalization potential still remains quite large, or in other words, the Azerbaijani economy needs further liberalization.

*Table 1.1. Distribution by IL(R)E of Countries
with Different Income Level**

IL(R)E Intervals	The number of countries with Index value in the marked intervals			
	High-income countries	Middle-income countries	Low-income countries	All countries
0.100 – 0.200	8	-	1	9
0.201 – 0.300	19	22	6	47
0.301 – 0.400	8	19	9	36
0.401 – 0.500	-	2	1	3
<i>Average IL(R)E value</i>	<i>0.255</i>	<i>0.307</i>	<i>0.307</i>	<i>0.288</i>
<i>Minimum value of IL(R)E</i>	<i>0.112</i>	<i>0.226</i>	<i>0.174</i>	<i>0.112</i>
<i>Maximum value of IL(R)E</i>	<i>0.371</i>	<i>0.476</i>	<i>0.401</i>	<i>0.476</i>
<i>Total number of countries</i>	<i>35</i>	<i>43</i>	<i>17</i>	<i>95</i>

Studies on IL(R)E also show that a reduction in the model-shaping state intervention in the economy, if it allows to approximate the ratio of liberalism and dirigisme to its optimal (for a given country and given time) point, in low- and middle-income countries opens up wider opportunities for accelerating economic growth than in high-income countries.

Below is a brief overview of some components of the Azerbaijani economy that according to the *IL(R)E – 2016* results have the highest potential for liberalization.

* All the tables in this Review are designed based on *IL(R)E – 2016*.

1.3. Liberalism of Economy by the Public Finance Sub-index

The Public Finance Sub-index is one of the most important indicators used in IL(R)E studies. Currently, Azerbaijan's position on this Sub-index is in line with its economic development level. Among both high- and middle-income countries, the number of countries with the Sub-index value in the range between 0.301 and 0.400 exceeds the number of those in other intervals. Azerbaijan (0.392) is located close to the upper boundary of this interval. The Sub-index average values for high- and middle-income countries are almost equal (respectively, 0.378 and 0.379). Azerbaijan's indicator is higher than these average values, and it may well be stated that in this direction the country has a certain potential for liberalization (*Table 1.2*).

Table 1.2. Distribution of Countries with Different Income Level by the Public Finance Sub-index

Sub-index Intervals	The number of countries with Sub-index value in the marked intervals			
	High-income countries	Middle-income countries	Low-income countries	All countries
0.100 – 0.200	1	-	-	1
0.201 – 0.300	7	10	7	24
0.301 – 0.400	13	19	6	38
0.401 – 0.500	10	10	4	24
0.501 – 0.600	4	3	-	7
0.601 – 0.700	-	-	-	0
0.701 – 0.800	-	1	-	1
<i>Average value of Sub-index</i>	<i>0.378</i>	<i>0.379</i>	<i>0.324</i>	<i>0.369</i>
<i>Minimum value of Sub-index</i>	<i>0.187</i>	<i>0.226</i>	<i>0.207</i>	<i>0.187</i>
<i>Maximum value of Sub-index</i>	<i>0.597</i>	<i>0.738</i>	<i>0.485</i>	<i>0.738</i>
<i>Total number of countries</i>	<i>35</i>	<i>43</i>	<i>17</i>	<i>95</i>

The Public Finance Sub-index is calculated by two indicators, and the share of state budget expenditures in GDP is one of them. Since part of the government expenditure is spent to the physical infrastructure improvements (i.e. to improvement of the basic conditions for the business operation), it can be assumed that if the boundaries of these basic conditions are properly defined and state funds are effectively spent, they open new opportunities for accelerated private sector growth. However, if public investment spending is excessively increased and exceed a certain point, which is, of course, individual for each country at given time (even if this increase is ensured not by a greater tax burden, but by oil revenues), then it leads to a negative process that in economic theory is called “*Crowding out effect*”. When the public expenditures (budget deficit) are financed due to borrowing, interest rates on financial markets are rising; private investments become more expensive and, as a result, are decreasing.

In economies with the dominance of extraction and export of natural resources, the crowding out effect proceeds somewhat differently, since a non-resource budget deficit can also be financed from resource incomes. For example, in Azerbaijan the substantial part of the non-oil budget deficit is covered by transfers from the Oil Fund. Therefore, the influence is indirect: the transfers to the budget from the Oil Fund are turned into the main channel for money issuing and the Central Bank's refinancing channel partially loses its effectiveness. As a result, the opportunities for commercial banks to purchase cheap financial resources are narrowing, and they are forced to use more expensive resources (primarily deposits), which again leads to a rise in the cost of private investment and its reduction.*

The easing of the tax burden leads to a smaller redistribution of the national income through the state budget, and it means the lesser degree of government intervention in the economy. This is one of the most important components of the liberalization of economic system. Therefore, if the Oil Fund money is trans-

* See: *IL(R)E – 2015: Liberalization Potential of Economy* (Ed. N.Muzaffarli). – Baku, 2017, p. 72 (in Azerbaijani and Russian) [Available at: economics.com.az].

ferred to budget specifically to compensate the easing of tax burden, this, in a sense, can also be considered a right-liberal economic policy. However, it should be borne in mind that when these transfers go through a certain line, they, on the contrary, strengthen the dirigisme of the economy. Therefore, to narrow the crowding out effect, the "golden rule", i.e. the retention of oil revenue transfers to the state budget at the level of *necessary minimum* is extremely important.

1.4. Price Regulation

Freedom of producers in pricing (with the establishment of prices by the government at the opposite pole) is one of the main model-shaping factors that give the economy features of liberalism and dirigisme. The results on the *Price Regulation Sub-index*, which is one of the components of IL(R)E, testify that currently the largest potential for liberalization of the Azerbaijani economy is concentrated in the pricing.

The average value of this Sub-index for all countries analyzed is 0.198, for high-income countries – 0.127, for middle-income countries – 0.222, and for low-income countries – 0.283.

Azerbaijan's Sub-index value is 0.325. Pricing in Azerbaijan is more liberal than only in 3 countries (Iran, Ukraine and India), and is more dirigist than in the remaining 91 countries (*Table 1.3*).

When it comes to pricing, almost all high-income countries prefer a liberal model. In 31 countries of this group, Sub-index value is less than 0.200 and only in 4 countries it is in the 0.201 - 0.300 interval. Most middle-income countries are concentrated between 0.101 and 0.300. Sub-index average values indicate that the higher level of country's development, the less government interferes in pricing. These indicators can also be interpreted in a way that countries with the lesser degree of government interference in pricing achieve a higher level of economic development.*

* Even J.M.Keyns, who is considered the main ideologist of active state regulation of the economy, was opposed to interference in pricing and believed that legislative conservation of prices at a low

Table 1.3. Distribution of Countries with Different Income Level by the Price Regulation Sub-index

Sub-index Intervals	The number of countries with Sub-index value in the marked intervals			
	High-income countries	Middle-income countries	Low-income countries	All countries
0.001 – 0.100	15	-	-	15
0.101 – 0.200	16	17	-	33
0.201 – 0.300	4	20	12	36
0.301 – 0.400	-	6	5	11
<i>Average value of Sub-index</i>	<i>0.127</i>	<i>0.222</i>	<i>0.283</i>	<i>0.198</i>
<i>Minimum value of Sub-index</i>	<i>0.063</i>	<i>0.127</i>	<i>0.214</i>	<i>0.063</i>
<i>Maximum value of Sub-index</i>	<i>0.253</i>	<i>0.356</i>	<i>0.378</i>	<i>0.378</i>
<i>Total number of countries</i>	<i>35</i>	<i>43</i>	<i>17</i>	<i>95</i>

In 2014-2016 in Azerbaijan dirigisme in the pricing has increased dramatically. Sub-index values for 2014 and 2015, brought to a single dimension with the indicator of 2016, were, respectively, 0.208 and 0.213, and in 2016, Sub-index increased to the 0.325. The main reason is that after two devaluations of the Azerbaijani manat in 2015, in an effort to guarantee social protection of the population, the government actually applied a moratorium on price increases.* Now this moratorium, can be said, has already been abolished and pricing is more liberal than it follows from the *IL(R)E – 2016* Report. Therefore, it can be assumed that in subsequent reports Azerbaijan will have a more liberal position on this Sub-index.

level ultimately leads the economy to stagnation (See: *J.M.Keynes.The Economic Consequences of the Peace.* – London, Macmillan & Co., 1919, p. 114).

* The *IL(R)E – 2016* Report is based on the 2015 statistics.

Nevertheless, the Price Regulation Sub-index results testify that there is a rather sharp need for liberalization of the Azerbaijani economy in this area. In the "Strategic Roadmaps" the improvement of centrally set prices, primarily in the utilities sector, is given special attention, reforms are envisaged for the separation of energy distribution and sale networks, as well as for the liberalization of its retail sales.

1.5. Liberalization of Foreign Trade

Foreign trade regulations are one of the important factors that give the economy the properties of liberalism and dirigisme. By the *Foreign Trade Sub-index*, Azerbaijani economy is more dirigist than 72 economies, and more liberal than the 22. The average value of the Sub-index is 0.244, the average for high-income countries is 0.194, for middle-income countries – 0.259, and for low-income countries – 0.309 (*Table 1.4*).

Table 1.4. Distribution of Countries with Different Income Level by the Foreign Trade Sub-index

Sub-index Intervals	The number of countries with Sub-index value in the marked intervals			
	High-income countries	Middle-income countries	Low-income countries	All countries
0.001 – 0.100	1	-	-	1
0.101 – 0.200	22	16	1	39
0.201 – 0.300	11	13	7	31
0.301 – 0.400	1	11	6	18
0.401 – 0.500	-	2	3	5
0.501 – 0.600	-	1	-	1
<i>Average value of Sub-index</i>	<i>0.194</i>	<i>0.259</i>	<i>0.309</i>	<i>0.244</i>
<i>Minimum value of Sub-index</i>	<i>0.058</i>	<i>0.133</i>	<i>0.135</i>	<i>0.058</i>
<i>Maximum value of Sub-index</i>	<i>0.308</i>	<i>0.553</i>	<i>0.445</i>	<i>0.553</i>
<i>Total number of countries</i>	<i>35</i>	<i>43</i>	<i>17</i>	<i>95</i>

Azerbaijan's Sub-index is 0,306.

As can be seen, the absolute majority of high-income countries prefer the liberal regime of foreign trade. 22 countries of this group are located in the range from 0.101 to 0.200, 11 countries – from 0.201 to 0.300. The middle-income countries also have the highest density in the 0.101 - 0.200 interval. Again, two interpretations may be suggested: a) most developed countries prefer liberal foreign trade regime; b) countries that simplify foreign economic interactions attain a higher economic development.

Obviously, both interpretations have a right to exist. On the one hand, most goods and services produced in developed countries usually are competitive enough for these countries to be interested in free international trade. Relatively less developed states strive to protect their domestic markets more rigidly. On the other hand, only the freedom of international economic interactions makes it possible for these "less developed" countries to import and implement innovative technologies. Besides, it is a necessary condition to increase competition in the domestic market, while measures to protect the domestic market, if they are excessive, hamper economic development.

Naturally, any government has the right to apply certain restrictions in foreign trade to defend its interests. Economically developed countries also protect their domestic markets.* Simply, for developed (or striving to develop) countries, the free foreign trade is a higher priority than the protection of domestic market.

The latest IL(R)E studies show that the liberalization potential of the Azerbaijani economy in this sphere is quite large, and there is a real need for simplification of foreign economic interactions for country's entrepreneurs. These conclusions are consonant with the reforms of foreign trade regulations planned by the "Strategic Roadmaps".

* For example, Japan imposes a 328% import tariff on sugar and 778% on rice. Such tariffs, in essence, are equivalent to the ban on imports (See: *No More Grand Bargains (WTO's Whole Approach to Negotiating Free Trade Needs Radical Change)*. – The Economist, August 9-15, 2014, p. 10).

1.6. Simplified Licensing

Licensing, by idea, is applied for the citizens' security and public interests protection, and in this sense, it is, surely, inevitable. But it is well-known that the excessive number of activities mandatory for licensing and the difficulties in license obtaining (including expenses) limit the economic freedom of enterprises and worsen the business environment. As an instrument of government regulation of the economy, licensing is also controversial: with the public interests protection on one (left) pole, and business freedom on the other (right). Therefore, in studies on liberalism-dirigisme of the economy licensing is accepted as a model-shaping form of state intervention in the economy.

According to the *IL(R)E – 2016*, the absolute majority of countries prefer a liberal model of licensing. The Sub-index average value for high-income countries is 0.085, for middle-income countries it is 0.101, and for low-income countries – 0.122. Average Sub-index value for all countries analyzed is 0.099 (*Table 1.5*).*

By this component of the business environment Azerbaijani economy, with a Sub-index value of 0.122, is more dirigist than 56 economies, and more liberal than the 38. It is located to the left from the center (towards a greater regulatory burden) for both the high- and middle-income countries.

The increase in the number of activities mandatory for licensing and the tightening of licensing procedures, although they restrict the freedom of companies and individual entrepreneurs, still to some extent forestall potential threats to the health and rights of citizens, national security and national interests. However, international practice proves that public interests that certain states try to protect by licensing, in many cases can be ensured without means of licenses. Therefore, the gradual narrowing of the list of licensed economic activities combined with simultaneous increase in the efficiency of social self-regulatory mechanisms is the correct policy. *IL(R)E – 2016* argues that Azerbaijani economy has a sufficiently

* When calculating the cost of licensing, only official payments are considered.

high potential for the implementation of liberal reforms in this area which are envisaged by the “Strategic Roadmaps”.

Table 1.5. Distribution of Countries with Different Income Level by the Licensing Sub-index

Sub-index Intervals	The number of countries with Sub-index value in the marked intervals			
	High-income countries	Middle-income countries	Low-income countries	All countries
0.001 – 0.100	22	26	7	55
0.101 – 0.200	12	16	8	36
0.201 – 0.300	-	1	1	2
0.301 – 0.400	1	-	1	2
<i>Average value of Sub-index</i>	<i>0.085</i>	<i>0.101</i>	<i>0.122</i>	<i>0.099</i>
<i>Minimum value of Sub-index</i>	<i>0.015</i>	<i>0.047</i>	<i>0.025</i>	<i>0.015</i>
<i>Maximum value of Sub-index</i>	<i>0.314</i>	<i>0.215</i>	<i>0.357</i>	<i>0.357</i>
<i>Total number of countries</i>	<i>35</i>	<i>43</i>	<i>17</i>	<i>95</i>

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Comparative cross-country studies of the liberalism-dirigisme of the economy, conducted by the Institute of Economics last years, show that in extreme economic situations, government intervention in the economy, as a rule, increases. The sharp drop in the world oil prices turned out to be stressful for Azerbaijan and gave the economic situation the features of extremality. Nevertheless, increased government intervention in the economy (dirigist reforms) or its reduction (liberal reforms) should be carried out only based on deep research.

Practically, all the "model-shaping reforms" envisaged by the *"Strategic Roadmaps for the National Economy and Its Main Sectors"* are of right-liberal character. The *IL(R)E – 2016* study confirms that reforms of this nature should continue, because at present the model-shaping government intervention in the economy has deviated from the "optimal ratio field" of liberalism and dirigisme towards the second. The potential for liberalization of the economy is high. In the current situation, liberal reforms are a necessary, although not sufficient, condition for accelerating economic growth and raising public welfare.

2. ABOUT INDEX

The Index of Leftness (Rightness) of Economy – IL(R)E – is an indicator annually being published by the Institute of Economics since 2014. At the initial stage, the Index was calculated for the Eastern Europe and Central Asia (EECA), and for selected developed countries (37 nations in total). Another 25 countries with different level of economic development and representing various regions of the world were added in Report for 2015, and the number of observed countries had reached 62. 2016 research covers 95 countries.

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All the governments and – regardless their predominant political-economic ideology – all the political groups proclaim the improvement of people's well-being as their ultimate goal. According to the left-wing political-economic ideology, the “shortest” path to achieve this goal is through more active government regulation, and to the right-wing ideology – through more economic freedom (economic self-regulation). The permanent competition between these two philosophies is one of the main driving forces of political-economic progress in modern world.

In classifications of the government intervention in economy “model-shaping” forms should be allocated in a separate group. ***The model-shaping forms of state intervention are...***

- ... ***main criteria to distinguish different economic systems (models of market economy).*** For example, import restrictions to protect the domestic market reduce the freedom of foreign

trade, and by implication – the level of liberty of the economy in general. This suggests that the regulation of foreign trade refers to model-shaping forms of state intervention in the economy. Meanwhile, government interventions in the financial market in order to adjust the exchange rates, which also are the variation of government interference in the economy, do not make the economy more liberal or more dirigiste, and therefore do not apply to model-shaping forms;

- ... *bipolar*. For example, both objectives pursued by the regulation of foreign trade that, in fact, mutually exclude one another – the freedom of imports and domestic market protection – have a right to exist. They are like two values with the constant sum, i.e. an increase of one implies a decrease of another. It is fundamentally impossible to increase freedom of imports and reinforce market protection for the same goods and services (or for the country as a whole) simultaneously;

- ... *subjects for political competition*. For example, for the left-wing political groups (parties, organizations, think tanks) a higher priority is, as a rule, the internal market protection, while for the right-wing groups – the freedom of foreign trade.

The leftness and rightness are features of real economies too – not only of ideologies. In any particular country and at any given time, the economy acquires certain degree of leftness (rightness) depending on the extent of model-shaping forms of the government intervention in economy. The higher the level of these forms of government intervention, the lefter the economy, and vice versa, relative rightness of the economy indicates lower intervention.

The leftness-rightness of economy is measurable and can be assessed by the Index proposed here. For any particular country the IL(R)E indicates that its economy is lefter relative to any other country's (countries') economy, and righter than other's (others') economy. The Index also measures *the degree* of leftness-right-

ness of the economy showing how far leftier (or rightier) the economy of country “A” is relative to the economy of country “B”.

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There is not any overall (universal for all economies) optimal value of IL(R)E. Countries with a liberal or dirigiste economy can be equally successful – both in the economic development and in raising of public welfare. Some countries achieve the greater social and economic success due to the rightness of their economy, while the others – to its leftness. In addition, the optimality limits of Index for a single country also are subject to change over time – due to a variety of economic and non-economic factors.

Nevertheless, the cumulative economic growth for several years in any particular country provides a certain ground to define how close the IL(R)E of that country is to its optimal level – the methodology called indicative. It can also be useful in evaluation of government regulation changes in separate sectors of the economy. If government introduces more liberal (or dirigiste) regulation in any sector of the economy, and as a result, the development pace of that sector becomes higher than that of other sectors (or higher than overall economic growth rate), then policies are chosen properly and reforms of same nature should be continued.

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The research on the IL(R)E – 2016 is conducted by the group of experts:

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Some published works:

Muzaffarli, N. The Social Orientation of Economy in the Left and Right Systems. – Baku, “East-West” Publishing House, 2014 (in Azerbaijani and Russian).

IL(R)E – 2015: The Potential of Liberalism in the Economy (Ed. N.Muzaffarli). – Baku, “Science and Knowledge” Publishing House, 2017 (in Azerbaijani and Russian).

Gulaliyev, M., F.Musayeva. Index of Leftness (Rightness) of Economy in Azerbaijan and Turkey (Comparative Evaluation). // Proceedings of the Institute of Economics, ANAS, 2015, № 3 (in Azerbaijani).

Gulaliyev, M., F.Musayeva. Economic Liberalization and Index of Leftness (Rightness) of Economy. // Proceedings of the Institute of Economics, ANAS, 2015, № 4 (in Azerbaijani).

Mammadov, Y. Contemporary Research and Its Outcomes on Left-wing and Right-wing Views on the Social Orientation of Economy. // Transactions of ANAS, Economics, 2015, № 3 (in Azerbaijani).

Gulaliyev, M., Sh.Ibrahimov, F.Haziyev. Determining the Level of the State Intervention in the Agrarian Sector: Comparative Analysis of Azerbaijan and Some Countries. // Russian Journal of Agricultural and Socio-Economic Sciences, 2016, № 4 (in Russian).

Gulaliyev, M., S.Abassova. On the Lowest and Highest Limits of the Government Intervention in the Foreign Trade. // ПОЛИТЭК (St. Petersburg State University), 2016, Vol. 12, № 3 (in Russian).

Gulaliyev, M. Evaluation of Dependence of Economic Growth on Government Finances (Comparative Analysis of Azerbaijan and Georgia). // «Інноваційна економіка» (Ukraine), 2017, № 1-2 (in Russian).

M.Gulaliyev, S.Abassova, Sh.Huseynova, R.Azizova, T.Yadigarov. Assessment of Impacts of the State Intervention in Foreign Trade on Economic Growth. // Revista Espacios, 2017, No. 51, Vol. 38.

3. METHODOLOGY

Index of Leftness (Rightness) of Economy for 2016 is a weighted average of six sub-indices:

- **Public Finance Sub-Index (PF),**
- **Price Regulation Sub-Index (PR),**
- **Foreign Trade Sub-Index (FT),**
- **Licensing Sub-Index (L),**
- **Employment Regulation Sub-Index (ER),**
- **Minimum Wage Sub-Index (MW).**

IL(R)E and its all sub-indices change in 0-1 interval. Zero indicates the extreme rightness of economy (absence of the government intervention), one – its extreme leftness (total government regulation). The indicators, except those for the Foreign Trade Sub-index and one indicator of the Employment Regulation Sub-index (*Rigidity of Employment*), were brought into this interval by the formula $(V_i - V_{min}) / (V_{max} - V_{min})$. With reference to the specifics of the basic statistics, the indicators mentioned above were brought into interval from 0 to 1 by the formula $(V_i - V_{max}) / (V_{min} - V_{max})$.

For some forms of the government intervention in economy (i.e. for some sub-indices) an absolute rightness, of course, is possible, but in general, a national economy can't take absolute right or left points. So all countries' IL(R)Es are at a certain distance from 0 to the left and from 1 to the right.

Just as in 2015, in calculations for 2016, the lowest possible (or supposedly minimal) indicator for each index is adopted as V_{min} , and the highest possible (or supposedly maximal) indicator as V_{max} . With the exception of the Price Regulation sub-index, the methodology for calculating sub-indices has not undergone major changes.

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Public Finance Sub-Index expresses the level of income redistribution through taxes, and is calculated as a simple average of two indices – *Budget Expenditures Index* and *Business Tax Burden Index*. The former is calculated through indexing of the share of budget expenditures in GDP. IMF's *World Economic Outlook Database* is used as source for this information.* The latter is counted through indexing of the total taxes paid in a given year by a modeled company as share of its profit. Data is retrieved from the World Bank's "*Doing Business*" report.**

If there weren't resource exporters among the examined countries, the share of budget expenditures in GDP would albeit indirectly, but still adequately describe aggregate tax burden of businesses and citizens. In case oil and gas revenues transfers make up a significant portion of budget funds, there is a need to take into account tax burden indicators separately.

Some research institutions calculate tax burden on the basis of top tax rates on individual and corporate income. But tax payments on top rates both by citizens and companies are not typical for most countries. This is why tax payments of a hypothetical company are accepted as indicators to calculate the Business Tax Burden Index. Theoretically, Public Finance Sub-Index must also reflect the redistribution of national income via individual income tax, but some countries apply proportional and others progressive tax system, and it would be a mistake to make them single measure.

For both indices $V_{min} = 0$, and $V_{max} = 100$.

* <http://www.imf.org/external/pubs/ft/weo/2017/02/weodata/index.aspx>.

** <http://www.doingbusiness.org/data/exploretopics/paying-taxes>.

#

Price Regulation Sub-Index signifies the level of freedom of pricing (the right wing), and at the same time, the level of government interference in the price formation (the left wing). Approaching of PR Sub-Index of a country to 0 means that pricing is getting there more liberal, and in opposite, approaching to 1 means that government regulation of prices becomes more stringent. In IL(R)E – 2014 and IL(R)E – 2015 Reports PR Sub-Index was calculated as a simple average of *Price Freedom Index* and *Monetary Freedom Index*.

In this study, to measure the freedom of pricing the purchasing power parity (PPP) coefficients, which reflect both monetary and non-monetary, both formal and informal government interventions in pricing are used. For each country, this coefficient is calculated as the ratio of its GDP with PPP (i.e. GDP in international dollars) to GDP in current US dollars. Both indicators are from the IMF statistics.* Expressing the deviations of the general level of prices in individual countries from that in the US, the PPP coefficients, thereby, enable comparisons the overall level of prices in different countries.

Monetary regulation of prices (in general, the level of monetization of the economy, measured by the ratio of money supply in national currency to GDP) and the application of the upper limit to the prices of so-called strategic products (for example, energy) are the most important determinants of price differences between countries. The lower the monetization of economy (which reflects the rigidity of monetary regulation of prices) and the lower the upper limits of prices for products and services than their real market value (which reflects the rigidity of non-monetary price regulation), the lower the general level of prices in the country (i.e. prices more deviate from the level of prices in the US), and accordingly, the higher its PPP coefficient. Taking into account these dependencies, the PPP coefficients allow conducting more reliable international comparisons in price regulation than other available indicators.

When indexing the PPP coefficients, it is assumed that $V_{min} = 0.1$, $V_{max} = 10$.

* <http://www.imf.org/external/pubs/ft/weo/2017/02/weodata/index.aspx>.

#

Foreign Trade Sub-Index measures the freedom of foreign trade (the right side) and the rigidity of foreign trade regulations that in most cases are related to protection of domestic market (the left side). If FT Sub-Index of a country goes down to 0, it means that freedom of this countries' companies to trade internationally is getting higher; if government regulations of foreign trade are becoming stricter, then FT Sub-Index approaches to 1.

The concept relies on three principles. First, the foreign trade freedom should be measured by the freedom of imports, not exports. Second, as a rule, the higher the freedom of imports, the weaker the domestic market protection, but stricter regulations does not necessarily mean better protection. Third, for countries where natural resource exports constitute a significant part of the economy, foreign trade freedom can't be measured through the absolute volume of export-import operations or their relative values (e.g. the exports and imports to GDP ratios).

FT Sub-Index is calculated as an average of three indices – *Foreign Trade Freedom*, *Economic Value of Imports*, and *Trade Freedom*. Foreign Trade Freedom Index is calculated based on Freedom to Trade Internationally ratings by the Fraser Institute (*Economic Freedom of the World 2016*)*. Economic Value of Imports Index is calculated based on Domestic Market Access scores by World Economic Forum's the *Global Enabling Trade Report 2016*** , and Trade Freedom Index is calculated based on the indices of the same name from the *2015 Economic Freedom Index* jointly presented by the Heritage Foundation and The Wall Street Journal.***

For Foreign Trade Freedom Index – $V_{min} = 0$, $V_{max} = 10$, for Economic Value of Imports Index – $V_{min} = 0$, $V_{max} = 7$, and for Trade Freedom Index – $V_{min} = 0$, $V_{max} = 100$. In the statistical bases used in calculation higher scores express less

government intervention, and therefore final values of FT Sub-Index are obtained by subtracting from 1.

*<https://www.fraserinstitute.org/sites/default/files/economic-freedom-of-the-world-2016.pdf>.

** http://www3.weforum.org/docs/WEF_GETR_2016_report.pdf.

*** http://www.heritage.org/index/pdf/2016/book/index_2016.pdf.

#

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.

Consequently, Licensing Sub-Index calculations lean on the World Bank's methodology and are done using indicators of time and cost that the hypothetical company spends to obtain necessary licenses and permits for a construction (*Doing Business 2016: Dealing with Construction Permits*).* Licensing Sub-Index is a simple average of two indices calculated by using two respective series of data. The World Bank's third indicator (number of procedures) is not considered as far as it distorts the overall picture of simplicity (complexity) of licensing.

For Licensing Time Index – $V_{min} = 0$, $V_{max} = 1000$, and for Licensing Cost Index – $V_{min} = 0$, $V_{max} = 100$.

* <http://www.doingbusiness.org/data/exploretopics/dealing-with-construction-permits>.

#

Employment Regulation Sub-Index measures to what extent a government intervenes in the relationship between employer and employee, and regulates the labor process. Unlike some conventional social programs, this interference *directly* aims social protection purposes. As a rule, the reinforcement of direct social protection of employee costs the limitation of employer freedom.

ER Sub-Index is calculated based on two indices – *Rigidity of Employment* and *Redundancy Cost*. In IL(R)E – 2015 Report the former was the average of 3 indicators: *difficulty (ease) of hiring*, *rigidity (flexibility) of working hours* and *difficulty (simplicity) of redundancy*. Considering the higher importance of the Rigidity of Employment Index, it was weighted as 0.75 and Redundancy Cost Index as 0.25. As data on the working hours regulation is currently unavailable, in the study for 2016 the Rigidity of Employment Index is calculated based just on two indicators: *difficulty (simplicity) of hiring and firing*. And when calculating the Sub-index, the *Rigidity of Employment Index* and the *Redundancy Cost Index* are weighted as 2/3 và 1/3, accordingly. The statistical database of World Economic Forum 2015 is used in calculations.*

When evaluating business environment, the research institutions usually rank the countries “from good to bad”, that is, from the countries with more favorable environment for business to those that complicate business activities with tough regulations. Classification of economies on the basis of leftness-rightness does not assume “bad or good” countries; this approach just indicates that there are countries with righter or lefter economy. The higher priority for the first ones is the freedom of companies, and for the second ones – the social protection of workers.

For the Rigidity of Employment Index it is assumed that $V_{min} = 0$, $V_{max} = 7$, and for the *Redundancy Cost Index* – $V_{min} = 0$, $V_{max} = 78$. Redundancy Cost is a sum of advance notice cost and severance payments, expressed in week wages. The maximum level of this indicator for the analyzed countries is 58.5 weeks. Therefore, 78 weeks (the number of weeks in 1.5 year) are conventionally taken as V_{max} (i.e. the extreme left point).

* http://www3.weforum.org/docs/gcr/2015-2016/Global_Competitiveness_Report_2015-2016.pdf.

#

Minimum Wage Sub-Index is the indexed version of share of legal minimum wage in GDP per capita (both with correction for PPP). The level of minimum wage directly affects the leftness-rightness of economy. Its increase, as of some

other indicators, enhances both the leftness of economy and the degree of its social orientation.

The economies where the minimum wage level is regulated neither by law nor collective agreements are located on the absolute right (zero) point. The countries where its level is regulated only by collective agreements, but not by law are conditionally placed on 0.050 point, and the economies where it is regulated by government, but for a limited number of employees are located on 0.080 point.

Statistical data on annual minimum wage by countries is retrieved from the *Wage Indicator** and *Minimum-wage***.

It is accepted that $V_{min} = 0$, $V_{max} = 100$.

* <https://wageindicator.org/main/salary/minimum-wage>.

** <https://www.minimum-wage.org/international>.

#

In calculations of the final Index of Leftness (Rightness) of Economy the higher weight is given to Public Finance Sub-Index:

$$IL(R)E_i = 0.30*PF_i + 0.14*PR_i + 0.14*FT_i + 0.14*Li + 0.14*ER_i + 0.14*MW_i$$

4. RESULTS BY SUB-INDICES

The tables may be interpreted both from top to down and from bottom to up. In the first approach economies are ranked from right to left, in the second – from left to right. Higher place of a country in the table means that its economy contains more rightness (self-regulation) and less leftness (governmental regulation). The countries with GDP per capita over 35 thousand international dollars are in colored boxes.

#

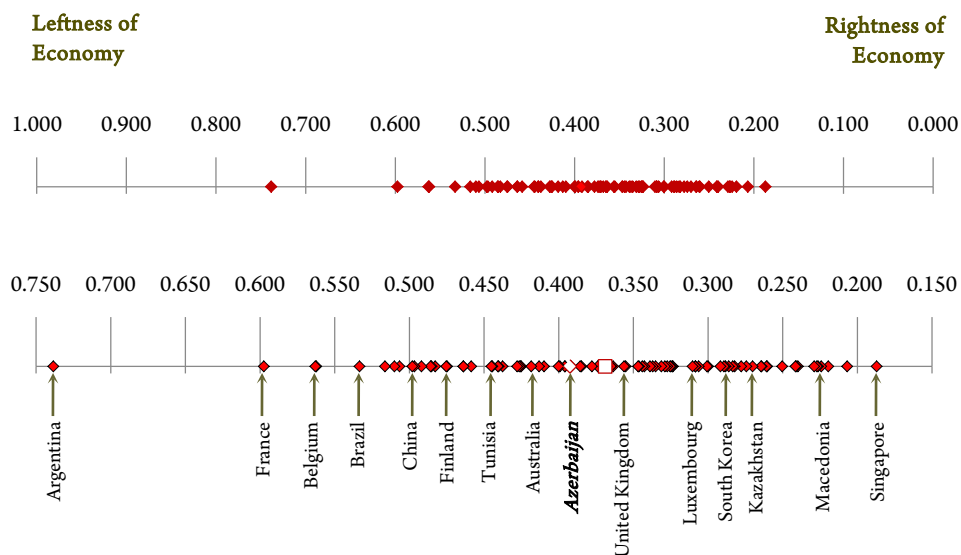
4.1. Public Finance Sub-Index

Table 4.1. Public Finance Sub-Indices – 2016

Country	PF	Country	PF	Country	PF
<i>Singapore</i>	<i>0.187</i>	Bulgaria	0.324	Poland	0.410
Cambodia	0.207	Cyprus	0.325	Russia	0.413
<i>Ireland</i>	<i>0.219</i>	Malaysia	0.325	Serbia	0.418
Armenia	0.224	Malawi	0.327	<i>Australia</i>	<i>0.425</i>
Macedonia	0.226	Kyrgyzstan	0.329	<i>Malta</i>	<i>0.425</i>
Nigeria	0.227	Bosnia & Herz.	0.331	<i>Netherlands</i>	<i>0.426</i>
Georgia	0.229	Albania	0.335	<i>Japan</i>	<i>0.428</i>
Indonesia	0.240	<i>Kuwait</i>	<i>0.337</i>	<i>Norway</i>	<i>0.438</i>
Bangladesh	0.241	Israel	0.339	India	0.440
<i>UAE</i>	<i>0.241</i>	<i>New Zealand</i>	<i>0.343</i>	Portugal	0.441
<i>Bahrain</i>	<i>0.250</i>	Montenegro	0.344	Estonia	0.444
Kazakhstan	0.260	Croatia	0.346	Tunisia	0.445
<i>Taiwan (China)</i>	<i>0.261</i>	Vietnam	0.347	Czechia	0.458
<i>Qatar</i>	<i>0.264</i>	<i>United Kingdom</i>	<i>0.355</i>	<i>Germany</i>	<i>0.464</i>

Uganda	0.264	Ecuador	0.356	Spain	0.464
<i>South Korea</i>	<i>0.270</i>	Romania	0.364	<i>Finland</i>	<i>0.475</i>
Thailand	0.274	<i>Iceland</i>	<i>0.365</i>	Ukraine	0.475
Chile	0.278	Iran	0.365	Hungary	0.483
<i>Saudi Arabia</i>	<i>0.282</i>	Latvia	0.368	Tajikistan	0.485
Jordan	0.283	<i>Oman</i>	<i>0.371</i>	Slovakia	0.486
Lebanon	0.286	Uruguay	0.371	<i>Sweden</i>	<i>0.492</i>
Ghana	0.288	Turkey	0.373	China	0.497
Peru	0.289	Slovenia	0.374	Colombia	0.498
Mongolia	0.292	Sri Lanka	0.378	Venezuela	0.507
Panama	0.300	Egypt	0.385	Greece	0.510
Dominican R.	0.301	Lithuania	0.386	<i>Austria</i>	<i>0.516</i>
<i>Canada</i>	<i>0.306</i>	<i>Azerbaijan</i>	<i>0.392</i>	Brazil	0.533
<i>Switzerland</i>	<i>0.308</i>	Moldova	0.392	<i>Italy</i>	<i>0.562</i>
Philippines	0.308	Mexico	0.396	<i>Belgium</i>	<i>0.563</i>
South Africa	0.308	<i>USA</i>	<i>0.396</i>	<i>France</i>	<i>0.597</i>
<i>Luxembourg</i>	<i>0.310</i>	<i>Denmark</i>	<i>0.399</i>	Argentina	0.738
Kenya	0.323	Morocco	0.400		

*Scale 1. Leftness-Rightness of Economies
by Public Finance Sub-Index (2016)*



By Public Finance Sub-Index Singapore's economy (0.187) is the rightest one, and economy of Argentina (0.738) is the leftest one among all considered. Azerbaijan (0.392) is not far from the relative center point (0.369). The closeness of the relative center and median (0.364 – Romania) indicates the approximate numerical equality of the countries on both sides of the relative center.

Both economically developed and developing countries are almost equally distributed to the right and left from the relative center. It leads to the conclusion that there is no strict interdependence between the Public Finance Sub-Index and economic development. In other words, the degree of government intervention in the economy on this parameter is not conditioned by the level of national economic development and is not a condition for it.

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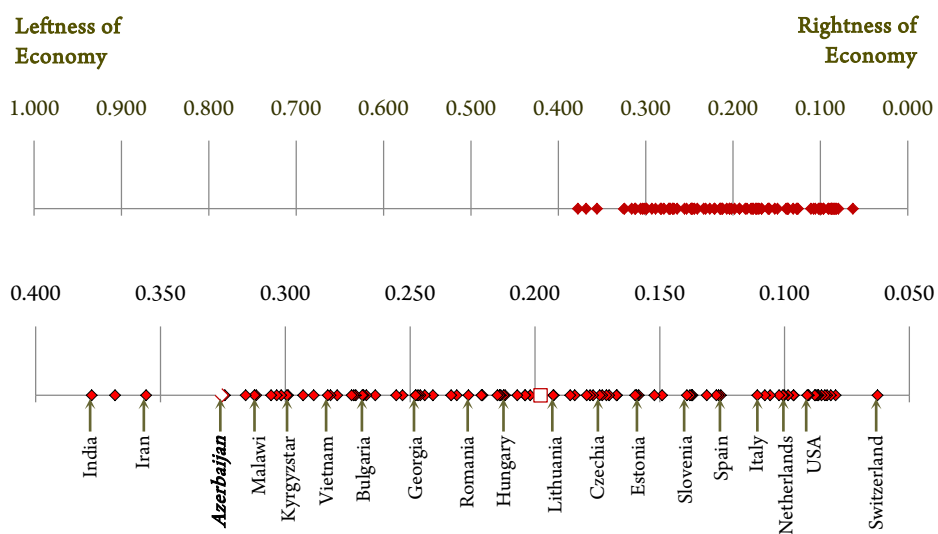
4.2. Price Regulation Sub-Index

Table 4.2. Price Regulation Sub-Indices – 2016

Country	PR	Country	PR	Country	PR
<i>Switzerland</i>	<i>0.063</i>	Panama	0.159	<i>Oman</i>	<i>0.246</i>
<i>Denmark</i>	<i>0.080</i>	Lebanon	0.160	Philippines	0.247
<i>Iceland</i>	<i>0.081</i>	Chile	0.167	Georgia	0.248
<i>Norway</i>	<i>0.083</i>	China	0.167	<i>Kuwait</i>	<i>0.248</i>
<i>Australia</i>	<i>0.084</i>	Brazil	0.170	<i>Saudi Arabia</i>	<i>0.253</i>
<i>United Kingdom</i>	<i>0.085</i>	<i>UAE</i>	<i>0.171</i>	Serbia	0.256
Israel	0.086	Latvia	0.173	Morocco	0.264
<i>Finland</i>	<i>0.087</i>	Czechia	0.174	Bulgaria	0.268
<i>Sweden</i>	<i>0.087</i>	Ecuador	0.177	Malaysia	0.269
<i>New Zealand</i>	<i>0.088</i>	Slovakia	0.178	Moldova	0.269
<i>Luxembourg</i>	0.090	Croatia	0.179	Thailand	0.272
<i>USA</i>	<i>0.091</i>	<i>Qatar</i>	<i>0.184</i>	Bangladesh	0.273
<i>Canada</i>	<i>0.096</i>	Mexico	0.186	Russia	0.273
<i>Ireland</i>	<i>0.096</i>	Lithuania	0.192	Albania	0.279
<i>Austria</i>	<i>0.099</i>	Peru	0.193	Vietnam	0.282

<i>Belgium</i>	<i>0.100</i>	<i>Bahrain</i>	<i>0.198</i>	Macedonia	0.283
<i>France</i>	<i>0.101</i>	<i>Taiwan (China)</i>	<i>0.202</i>	Tunisia	0.289
<i>Netherlands</i>	<i>0.102</i>	Poland	0.204	Cambodia	0.293
<i>Germany</i>	<i>0.106</i>	Venezuela	0.204	Kyrgyzstan	0.299
<i>Japan</i>	<i>0.108</i>	Hungary	0.207	Tajikistan	0.299
<i>Italy</i>	<i>0.111</i>	Dominican R.	0.212	Mongolia	0.302
<i>South Korea</i>	<i>0.126</i>	Jordan	0.213	Sri Lanka	0.303
Spain	0.126	Nigeria	0.214	Ghana	0.306
Uruguay	0.127	Turkey	0.214	Malawi	0.312
Argentina	0.131	Kenya	0.215	Uganda	0.312
Cyprus	0.137	Colombia	0.221	Egypt	0.316
Portugal	0.137	South Africa	0.221	Indonesia	0.324
Greece	0.138	Romania	0.227	<i>Azerbaijan</i>	<i>0.325</i>
Slovenia	0.139	Kazakhstan	0.231	Iran	0.356
<i>Malta</i>	<i>0.149</i>	Armenia	0.234	Ukraine	0.368
<i>Singapore</i>	<i>0.152</i>	Montenegro	0.241	India	0.378
Estonia	0.158	Bosnia & Herz.	0.244		

**Scale 2. Leftness-Rightness of Economies
by Price Regulation Sub-Index (2016)**



By Price Regulation Sub-Index Switzerland's economy (0.063) is the rightest one among the analyzed and Indian economy (0.378) is the leftest. Azerbaijan's economy (0.325) is the fourth closest to the extreme left point.

The relative center is shifted from the geometric center to zero and this indicates that by this sub-index the countries tend to the rightness. It, however, does not mean that the economies, which are located between the geometric center and the zero, are categorically right-wing economies by this sub-index. In accordance with the theoretical interpretation of IL(R)E, the results obtained on a particular sub-index (as well as the integral index) allow to evaluate (measure) the leftness-rightness of economies only comparatively to each other.

The price regulation models preferred by developed and developing countries vary considerably. In economically developed countries, prices tend to be more liberal, i.e. governments intervene in the pricing in a lesser extent.

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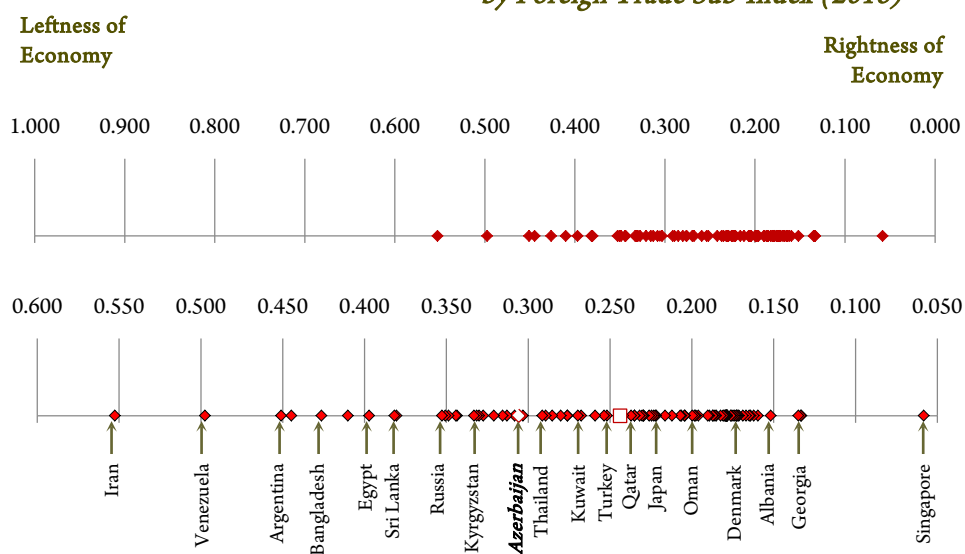
4.3. Foreign Trade Sub-Index

Table 4.3. Foreign Trade Sub-Indices – 2016

Country	FT	Country	FT	Country	FT
<i>Singapore</i>	<i>0.058</i>	Hungary	0.186	<i>Kuwait</i>	<i>0.270</i>
Chile	0.133	Slovenia	0.187	South Africa	0.276
<i>New Zealand</i>	<i>0.133</i>	Spain	0.187	<i>South Korea</i>	<i>0.276</i>
Georgia	0.135	Poland	0.189	Morocco	0.280
Albania	0.152	<i>Germany</i>	<i>0.190</i>	Uganda	0.285
Peru	0.160	<i>France</i>	<i>0.196</i>	Vietnam	0.289
<i>Ireland</i>	<i>0.162</i>	Bosnia & Herz.	0.198	Thailand	0.291
Israel	0.164	<i>Iceland</i>	<i>0.198</i>	Lebanon	0.303
Estonia	0.165	<i>Oman</i>	<i>0.200</i>	<i>Azerbaijan</i>	<i>0.306</i>
Romania	0.167	Mexico	0.204	<i>Saudi Arabia</i>	<i>0.308</i>
Portugal	0.169	<i>Norway</i>	<i>0.205</i>	Mongolia	0.313
Latvia	0.171	<i>USA</i>	<i>0.206</i>	Cambodia	0.316
<i>Netherlands</i>	<i>0.172</i>	<i>UAE</i>	<i>0.207</i>	Tajikistan	0.321

<i>Luxembourg</i>	0.173	Panama	0.212	Tunisia	0.328
Slovakia	0.173	Greece	0.216	Malawi	0.330
<i>Denmark</i>	0.174	Dominican R.	0.222	China	0.331
<i>Finland</i>	0.175	Serbia	0.222	Kyrgyzstan	0.333
Czechia	0.176	<i>Taiwan (China)</i>	0.223	Ecuador	0.344
Lithuania	0.176	<i>Japan</i>	0.225	Kazakhstan	0.344
Bulgaria	0.178	Malaysia	0.226	Brazil	0.349
<i>Sweden</i>	0.178	<i>Switzerland</i>	0.229	Kenya	0.351
<i>United Kingdom</i>	0.178	Armenia	0.230	Russia	0.353
<i>Austria</i>	0.179	<i>Bahrain</i>	0.230	Ghana	0.380
<i>Belgium</i>	0.179	Uruguay	0.232	Sri Lanka	0.382
Croatia	0.179	Philippines	0.235	Egypt	0.397
<i>Italy</i>	0.179	Ukraine	0.235	Nigeria	0.410
Montenegro	0.179	<i>Qatar</i>	0.237	Bangladesh	0.426
Cyprus	0.180	Indonesia	0.242	India	0.445
<i>Malta</i>	0.180	Colombia	0.252	Argentina	0.451
<i>Canada</i>	0.181	Turkey	0.254	Venezuela	0.498
<i>Australia</i>	0.182	Moldova	0.259	Iran	0.553
Macedonia	0.185	Jordan	0.268		

*Scale 3. Leftness-Rightness of Economies
by Foreign Trade Sub-Index (2016)*



Regarding regulation of foreign trade, Singapore's is the most liberal economy (0.058), and Iranian economy (0.553) is the leftest. Among 95 countries, Azerbaijan (0.306) is the 23rd country on severity of the government regulation of foreign trade operations. The median (0.222 – Serbia) is righter than the relative center (0.244); in the majority of ranked countries foreign trade is more liberal than it's expressed by the relative center.

If to compare with developing countries, the governments in economically developed countries usually less strictly regulate foreign trade. This is quite understandable: the majority of goods and services produced in the developed countries are competitive, and therefore their leaders and business communities are more interested in the liberalization of international trade. As for developing countries, they strive to protect their domestic markets harder, although the domestic market protection measures can stimulate economic development only under certain additional conditions.

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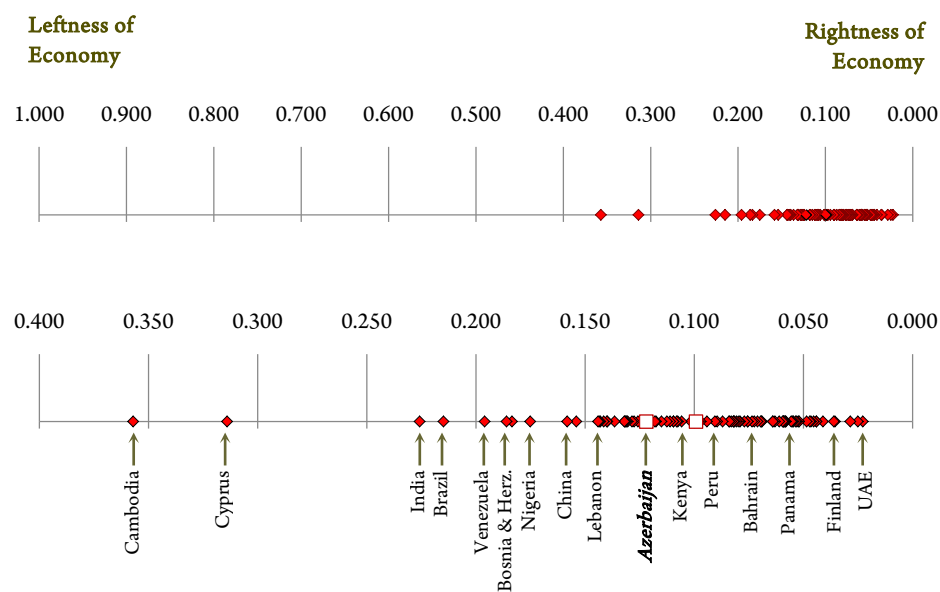
4.4. Licensing Sub-Index

Table 4.4. Licensing Sub-Indices – 2016

Country	L	Country	L	Country	L
<i>UAE</i>	<i>0.023</i>	Turkey	0.070	<i>France</i>	<i>0.115</i>
Georgia	0.025	Greece	0.071	<i>Austria</i>	<i>0.118</i>
<i>Qatar</i>	<i>0.029</i>	Colombia	0.073	Ghana	0.118
<i>Finland</i>	<i>0.036</i>	<i>Bahrain</i>	<i>0.074</i>	<i>Azerbaijan</i>	<i>0.122</i>
<i>South Korea</i>	<i>0.036</i>	Bulgaria	0.076	Indonesia	0.124
<i>Denmark</i>	<i>0.041</i>	South Africa	0.076	Czechia	0.125
<i>Iceland</i>	<i>0.044</i>	Jordan	0.077	Slovenia	0.126
<i>Singapore</i>	<i>0.044</i>	Chile	0.079	Uganda	0.128
<i>USA</i>	<i>0.045</i>	Poland	0.080	Spain	0.129
Armenia	0.047	Kyrgyzstan	0.081	Albania	0.131
Malaysia	0.047	<i>Luxembourg</i>	<i>0.082</i>	<i>Canada</i>	<i>0.131</i>
<i>Taiwan (China)</i>	<i>0.049</i>	Malawi	0.082	<i>Italy</i>	<i>0.132</i>
Estonia	0.052	<i>Switzerland</i>	<i>0.082</i>	Tajikistan	0.132

Thailand	0.052	<i>Oman</i>	<i>0.083</i>	Uruguay	0.132
Lithuania	0.053	Kazakhstan	0.084	Montenegro	0.137
<i>Germany</i>	<i>0.054</i>	Latvia	0.084	Romania	0.140
Philippines	0.055	Vietnam	0.087	Russia	0.140
<i>Saudi Arabia</i>	<i>0.055</i>	Peru	0.090	Moldova	0.142
<i>New Zealand</i>	<i>0.056</i>	Hungary	0.091	Bangladesh	0.143
<i>Norway</i>	<i>0.058</i>	Mexico	0.094	Lebanon	0.144
<i>United Kingdom</i>	<i>0.058</i>	<i>Malta</i>	<i>0.097</i>	Slovakia	0.144
<i>Australia</i>	<i>0.059</i>	Egypt	0.098	Serbia	0.154
Iran	0.059	<i>Netherlands</i>	<i>0.099</i>	China	0.158
Sri Lanka	0.059	Dominican R.	0.101	Nigeria	0.175
Tunisia	0.059	<i>Japan</i>	<i>0.102</i>	Argentina	0.184
Panama	0.060	<i>Ireland</i>	<i>0.106</i>	Bosnia & Herz.	0.186
Ecuador	0.061	Croatia	0.108	Venezuela	0.196
Portugal	0.063	Kenya	0.108	Brazil	0.215
Macedonia	0.064	<i>Kuwait</i>	<i>0.110</i>	India	0.226
Morocco	0.064	Ukraine	0.110	Cyprus	0.314
Mongolia	0.069	<i>Belgium</i>	<i>0.111</i>	Cambodia	0.357
<i>Sweden</i>	<i>0.069</i>	Israel	0.113		

**Scale 4. Leftness-Rightness of Economies
by Licesing Sub-Index (2016)**



By Licensing Sub-Index UAE's economy (0.023) is the rightest one, and Cambodia occupies the leftest point (0.357) among 95 economies under view. Azerbaijan's economy (0.122) is located righter than 27 economies and lefter than 67, and to the left from relative center (0.099).

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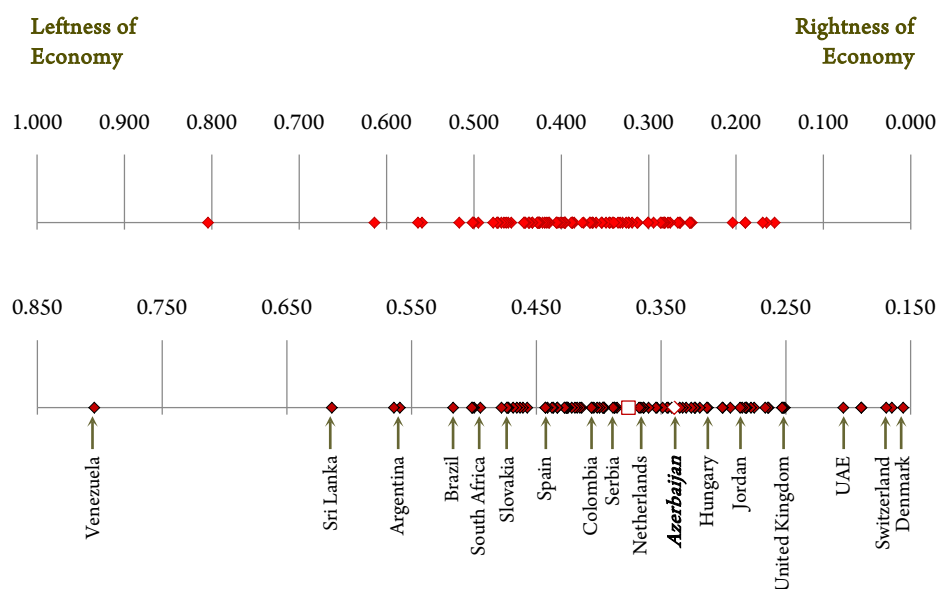
4.5. Employment Regulation Sub-Index

Table 4.5. Employment Regulation Sub-Indices – 2016

Country	ER	Country	L	Country	L
<i>Denmark</i>	<i>0.156</i>	<i>Azerbaijan</i>	<i>0.339</i>	Morocco	0.425
<i>Singapore</i>	<i>0.165</i>	<i>Malta</i>	<i>0.340</i>	Philippines	0.425
<i>Switzerland</i>	<i>0.169</i>	Russia	0.341	Iran	0.426
<i>Iceland</i>	<i>0.189</i>	Lebanon	0.344	Mexico	0.426
<i>USA</i>	<i>0.189</i>	<i>Austria</i>	<i>0.345</i>	Dominican R.	0.427
<i>UAE</i>	<i>0.204</i>	China	0.349	Portugal	0.427
Georgia	0.251	Montenegro	0.353	<i>Italy</i>	<i>0.433</i>
Nigeria	0.252	Latvia	0.354	Moldova	0.433
<i>New Zealand</i>	<i>0.253</i>	Bulgaria	0.360	<i>Germany</i>	<i>0.436</i>
<i>United Kingdom</i>	<i>0.253</i>	Kyrgyzstan	0.364	<i>Australia</i>	<i>0.437</i>
<i>Bahrain</i>	<i>0.264</i>	<i>Netherlands</i>	<i>0.364</i>	Turkey	0.441
<i>Qatar</i>	<i>0.264</i>	Israel	0.366	<i>France</i>	<i>0.442</i>
Malaysia	0.266	<i>Finland</i>	<i>0.367</i>	Spain	0.443
Estonia	0.275	Vietnam	0.374	Egypt	0.457
Armenia	0.278	Serbia	0.385	Croatia	0.461
Jordan	0.281	Malawi	0.387	Peru	0.463
<i>Canada</i>	<i>0.282</i>	<i>Norway</i>	<i>0.387</i>	<i>Belgium</i>	<i>0.466</i>
Uganda	0.283	Bangladesh	0.389	Chile	0.468
Kazakhstan	0.285	Greece	0.396	Slovakia	0.472
Macedonia	0.287	<i>Luxembourg</i>	<i>0.396</i>	<i>South Korea</i>	<i>0.473</i>
<i>Ireland</i>	<i>0.294</i>	Thailand	0.396	Lithuania	0.474
Kenya	0.300	<i>Japan</i>	<i>0.397</i>	Slovenia	0.478
Cyprus	0.301	Colombia	0.399	South Africa	0.495
Hungary	0.313	<i>Kuwait</i>	<i>0.401</i>	Ghana	0.500

India	0.313	Panama	0.404	Uruguay	0.501
<i>Taiwan (China)</i>	<i>0.319</i>	Albania	0.405	Indonesia	0.502
Cambodia	0.322	<i>Sweden</i>	<i>0.406</i>	Brazil	0.517
Mongolia	0.323	Bosnia & Herz.	0.414	Argentina	0.559
Tajikistan	0.326	Poland	0.415	Ecuador	0.564
Romania	0.330	Tunisia	0.417	Sri Lanka	0.614
Ukraine	0.333	<i>Oman</i>	<i>0.419</i>	Venezuela	0.804
<i>Saudi Arabia</i>	<i>0.335</i>	Czechia	0.422		

*Scale 5. Leftness-Rightness of Economies
by Employment Regulation Sub-Index (2016)*



Regarding regulation of labor relations between employer and employee Denmark (0.156) is the most liberal country, and the leftest economy belongs to Venezuela (0.804). A number of economically developed countries, including South Korea (0.473), Belgium (0.466), France (0.442), Australia (0.437), Germany (0.436) and Italy (0.433) attach higher importance to the protection of employees' direct social rights and "in return" rather severely limit the freedom of

companies. Some other rich countries, in particular, Singapore (0.165), Switzerland (0.169), the United States and Iceland (0.189 each), the United Arab Emirates (0.204), the United Kingdom and New Zealand (0.253 each), on the contrary, provide in this area extensive rights to businesses in cost of limiting the rights of workers.

On this sub-index, Azerbaijan (0.339) is number 33 among the liberal countries and its economy is to the right both from the center (0.376) and the median (0.387 – Norway).

Stochastic ranking of developed and developing economies suggests that “softness or stiffness” (within certain limits) of the state regulation of hiring and firing rules is not a condition for economic development and is not conditioned by it.

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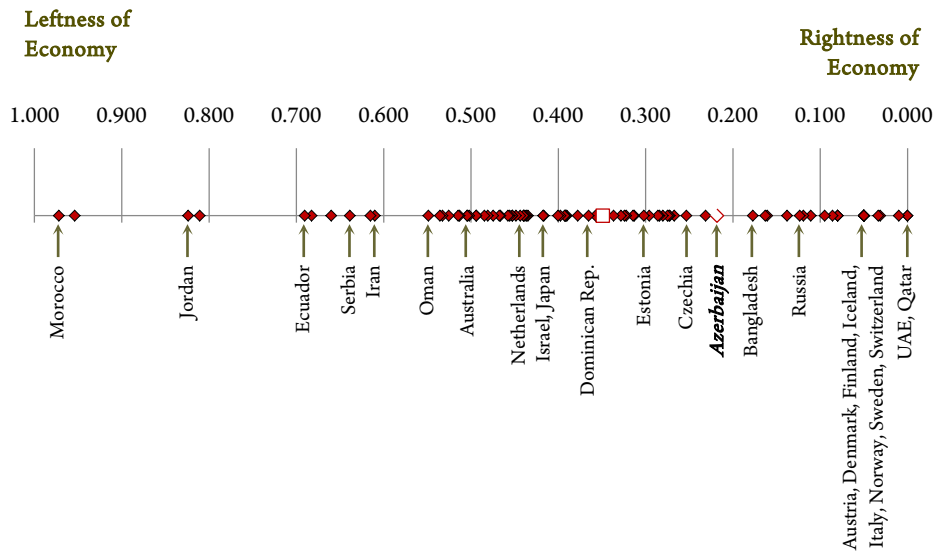
4.6. Minimum Wage Sub-Index

Table 4.6. Minimum Wage Sub-Indices – 2016

Country	MW	Country	MW	Country	MW
<i>Qatar</i>	<i>0.000</i>	Lithuania	0.280	<i>Netherlands</i>	<i>0.448</i>
<i>UAE</i>	<i>0.000</i>	Panama	0.284	Indonesia	0.453
<i>Singapore</i>	<i>0.010</i>	Uruguay	0.286	Venezuela	0.453
Uganda	0.031	Mongolia	0.296	Croatia	0.456
<i>Bahrain</i>	<i>0.033</i>	Estonia	0.302	Peru	0.458
<i>Austria</i>	<i>0.050</i>	Ukraine	0.313	Colombia	0.466
<i>Denmark</i>	<i>0.050</i>	Slovakia	0.314	Macedonia	0.468
<i>Finland</i>	<i>0.050</i>	Brazil	0.322	<i>Germany</i>	<i>0.475</i>
<i>Iceland</i>	<i>0.050</i>	China	0.324	Lebanon	0.481
<i>Italy</i>	<i>0.050</i>	Chile	0.328	<i>United Kingdom</i>	<i>0.485</i>
<i>Norway</i>	<i>0.050</i>	<i>Taiwan (China)</i>	<i>0.337</i>	Argentina	0.494
<i>Sweden</i>	<i>0.050</i>	Bulgaria	0.349	<i>Belgium</i>	<i>0.494</i>
<i>Switzerland</i>	<i>0.050</i>	Portugal	0.350	<i>Australia</i>	<i>0.502</i>
Cambodia	0.080	Latvia	0.352	Moldova	0.504
Cyprus	0.080	Romania	0.352	Slovenia	0.504

South Africa	0.080	Ghana	0.357	France	0.513
Kuwait	0.086	Hungary	0.365	Turkey	0.515
Georgia	0.095	Dominican R.	0.378	Tajikistan	0.525
Kazakhstan	0.111	India	0.390	Albania	0.533
Mexico	0.119	Armenia	0.391	Kenya	0.536
Russia	0.123	Spain	0.392	Oman	0.549
Egypt	0.138	Thailand	0.393	Iran	0.610
Saudi Arabia	0.161	Montenegro	0.398	New Zealand	0.615
Kyrgyzstan	0.163	Malta	0.400	Serbia	0.639
Bangladesh	0.177	Israel	0.417	Bosnia & Herz.	0.660
Azerbaijan	0.218	Japan	0.417	Vietnam	0.682
Sri Lanka	0.231	Greece	0.435	Ecuador	0.690
Czechia	0.253	South Korea	0.436	Malawi	0.811
USA	0.267	Tunisia	0.438	Jordan	0.824
Ireland	0.272	Nigeria	0.439	Philippines	0.954
Luxembourg	0.273	Canada	0.440	Morocco	0.972
Malaysia	0.275	Poland	0.444		

*Scale 6. Leftness-Rightness of Economies
by Minimum Wage Sub-Index (2016)*



In the United Arab Emirates the minimum wage level is regulated neither by law nor collective agreements. The Emir of Qatar has the authority to set a minimum wage, but currently it is not applied. These two states have the rightest economies (with an absolute indicator) among the analyzed 95 countries. When IL(R)E Reports for 2014 and 2015 were in progress, Singapore's situation was identical. In January 2014, Singapore has officially established minimum wage for cleaner jobs in the amount of USD 1,000 per month. Since this group of workers is relatively small, Singapore is conditionally placed at the point "0.010".

In Uganda (0.031) and Bahrain (0.033) the MW sub-indices are also low. In Bahrain, Egypt and Saudi Arabia the minimum wage is set only for those employed in the public sector. When calculating the MW sub-indices for these countries, the share of employed in the public sector was also considered. Eight economies (Austria, Denmark, Finland, Iceland, Italy, Norway, Sweden and Switzerland) are conditionally placed at the 0.050 point. In these countries a minimum wage is not defined legislatively, but still governed by collective agreements. Sub-indices are conditional also for South Africa, Cambodia and Cyprus (0.080). In these countries a minimum wage is established legislatively, but for a limited categories of employees.

In a number of economies the minimum wage, even being enshrined in law by the state, is subject for collective agreements. In these cases the agreed minimum, as may be expected, exceeds the statutory which is regarded as a kind of minimum limit of the minimum wage. Since the leftness-rightness of economy is defined by government interference, and, to the same, statutory minimum expresses the final lower limit, then legally approved figure is used in this study.

As the right pole allowed to certain conventions, the analysis of the relative center and the median, in comparison with the previous cases, has a smaller value. But these conventions do not affect the leftness-rightness of economies in relation to each other. The economy of Azerbaijan (0.218) is located to the right from both the relative center (0.349) and the median (0.357 – Ghana).

5. COUNTRY RESULTS

As noted in the "Methodology" section, in calculations of the final Index of Leftness (Rightness) of Economy the higher weight is given to Public Finance Sub-Index:

$$IL(R)E_i = 0.30*PFi + 0.14*PRi + 0.14*FTi + 0.14*Li + 0.14*ERi + 0.14*MWi$$

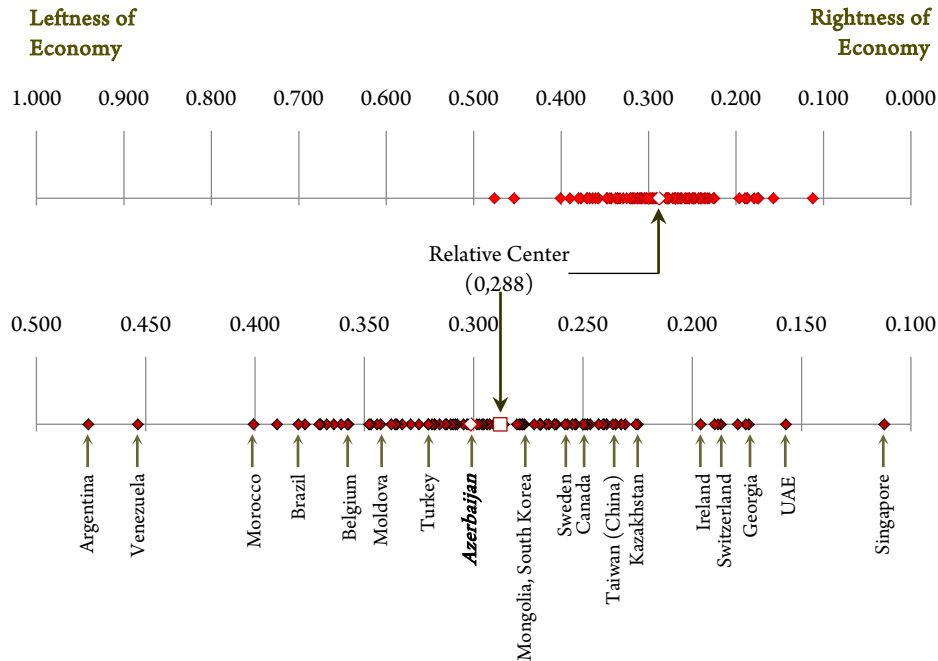
When the tables are interpreted from top to down economies are ranked from more liberal to more dirigiste, and if from bottom to up – then from more dirigiste to more liberal. Higher place of a country in the table means that its economy contains more rightness (self-regulation) and less leftness (governmental regulation). The countries with GDP per capita over 35 thousand international dollars are in colored boxes.

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Table 5.1. Indices of Leftness (Rightness) of Economy (2016)

Country	IL(R)E	Country	IL(R)E	Country	IL(R)E
<i>Singapore</i>	<i>0.116</i>	<i>Austria</i>	<i>0.266</i>	Egypt	0.312
<i>UAE</i>	<i>0.157</i>	Estonia	0.267	Slovenia	0.313
Georgia	0.174	Bangladesh	0.269	<i>Germany</i>	<i>0.316</i>
<i>Switzerland</i>	<i>0.176</i>	Bulgaria	0.269	Jordan	0.318
<i>Qatar</i>	<i>0.179</i>	Latvia	0.269	Spain	0.318
<i>Bahrain</i>	<i>0.187</i>	Mongolia	0.270	Ghana	0.319
<i>Iceland</i>	<i>0.188</i>	<i>South Korea</i>	<i>0.270</i>	Oman	0.321
<i>Denmark</i>	<i>0.190</i>	Kyrgyzstan	0.272	Turkey	0.321
<i>Ireland</i>	<i>0.196</i>	Nigeria	0.277	Slovakia	0.325
Uganda	0.225	Dominican Rep.	0.278	Greece	0.329
Kazakhstan	0.226	Peru	0.278	Ukraine	0.333
<i>USA</i>	<i>0.231</i>	Romania	0.279	China	0.335
Armenia	0.232	Thailand	0.279	Sri Lanka	0.336
<i>Luxembourg</i>	<i>0.235</i>	Lithuania	0.280	Bosnia & Herz.	0.338
<i>Taiwan (China)</i>	<i>0.236</i>	Lebanon	0.286	Moldova	0.343
Cyprus	0.239	Montenegro	0.286	Vietnam	0.344
<i>Saudi Arabia</i>	<i>0.240</i>	Uruguay	0.290	Colombia	0.347
<i>Norway</i>	<i>0.241</i>	<i>Malta</i>	<i>0.291</i>	Tunisia	0.348
<i>Finland</i>	<i>0.243</i>	Portugal	0.293	Serbia	0.357
Panama	0.247	<i>Netherlands</i>	<i>0.294</i>	<i>Belgium</i>	<i>0.358</i>
Chile	0.248	<i>Italy</i>	<i>0.295</i>	Philippines	0.361
Macedonia	0.248	Russia	0.296	Ecuador	0.364
Malaysia	0.249	Croatia	0.297	Malawi	0.367
<i>Canada</i>	<i>0.250</i>	Czechia	0.298	Tajikistan	0.370
South Africa	0.253	<i>Azerbaijan</i>	<i>0.301</i>	<i>France</i>	<i>0.371</i>
Cambodia	0.254	Indonesia	0.302	India	0.377
<i>United Kingdom</i>	<i>0.255</i>	<i>Japan</i>	<i>0.303</i>	Brazil	0.380
<i>Kuwait</i>	<i>0.257</i>	<i>Australia</i>	<i>0.305</i>	Iran	0.390
<i>Sweden</i>	<i>0.258</i>	Hungary	0.307	Morocco	0.401
Israel	0.262	Kenya	0.308	Venezuela	0.454
Mexico	0.263	Poland	0.309	Argentina	0.476
<i>New Zealand</i>	<i>0.263</i>	Albania	0.310		

Scale 7. Indices of Leftness (Rightness) of Economy (2016)



The countries are almost equally scattered on the left and right sides from the relative center and located mirror-like on an identical distance from it.

By the integral index the economies are more centripetal than by the individual sub-indices. The reason is that the rankings of an economy on various criteria of the leftness-rightness somewhat balance each other. For example, by Public Finance Sub-Index Austrian economy is the left-wing (0.516), while by Price Regulation Sub-Index it is right-wing (0.099). Being one of rightest economies regarding Minimum Wage Sub-Index (0,080), South Africa is in the top 10 of leftest economies among the 95 countries as it comes to the Employment Regulation Sub-Index (0.495). As a result, by the integral index both economies gravitate to the relative center (Austria – 0.266, South Africa – 0.253).

The number of analyzed economies has grown almost 3 times compared to 2014 and 1.5 times compared with 2015. In 2016, the distribution density of the recalculated Indices of 37 countries analyzed in *IL (P)E – 2015 Report*, slightly decreased compared to 2014 and almost unchanged from 2015: in 2014 IL(P)Es were in the range of 0.117-0.276, in 2015 – in the range of 0.114-0.375, and in 2016 – 0.116-0.371. These indices were recalculated with a 2016 methodology and on the same statistical sources.

#

The rightest economy among the 95 is Singapore's (0.116), where the government intervention in economy is at a minimum. Economies of the United Arab Emirates (0.157), Georgia (0.174), Switzerland (0.176), Qatar (0.179), Bahrain (0.187), Iceland (0.188) and Denmark (0.190) also belong to the right-wing. Argentine economy is the leftest (0.476), followed by Venezuela (0.454), Morocco (0.401), the Islamic Republic of Iran (0.390) and Brazil (0.380). Of the developed countries, the economy of France (0.371) and Belgium (0.358) are closest to the left pole.

In the ranking of 95 economies from right to left Azerbaijan (0,301) occupies 57th place and from left to right – 39th, and is located to the left from the relative center (0.288).

#

To evaluate the changes that have occurred over the past three years, the Indices of Leftness (Rightness) of Economy of the 37 countries analyzed in 2014, were restated using the statistical sources and indexing methods of this Report, and the results for 2014, 2015 and 2016 were reduced to a single dimension.

*Table 5.2. Indices of Leftness (Rightness) of Economy
(Eastern Europe and Central Asia, and selected developed
countries, in alphabetical order, 2014, 2015 and 2016)*

Countries	IL(R)E 2014	IL(R)E 2015	IL(R)E 2016	Countries	IL(R)E 2014	IL(R)E 2015	IL(R)E 2016
Albania	0.285	0.296	0.310	Latvia	0.276	0.260	0.269
Armenia	0.250	0.221	0.232	Lithuania	0.283	0.281	0.280
<i>Australia</i>	<i>0.301</i>	<i>0.305</i>	<i>0.305</i>	Macedonia	0.229	0.241	0.248
Azerbaijan	0.285	0.280	0.301	Moldova	0.328	0.321	0.343
Bosnia & Herz.	0.301	0.297	0.338	Montenegro	0.275	0.271	0.286
Bulgaria	0.262	0.277	0.269	<i>Netherlands</i>	<i>0.308</i>	<i>0.301</i>	<i>0.294</i>
<i>Canada</i>	<i>0.254</i>	<i>0.238</i>	<i>0.250</i>	<i>New Zealand</i>	<i>0.229</i>	<i>0.259</i>	<i>0.263</i>
Croatia	0.293	0.294	0.297	<i>Norway</i>	<i>0.245</i>	<i>0.243</i>	<i>0.241</i>
Cyprus	0.251	0.243	0.239	Romania	0.281	0.277	0.279
<i>Denmark</i>	<i>0.204</i>	<i>0.193</i>	<i>0.190</i>	Russia	0.306	0.292	0.296
<i>France</i>	<i>0.384</i>	<i>0.376</i>	<i>0.371</i>	Serbia	0.347	0.366	0.357
Georgia	0.178	0.185	0.174	<i>Singapore</i>	<i>0.117</i>	<i>0.114</i>	<i>0.116</i>
<i>Germany</i>	<i>0.260</i>	<i>0.317</i>	<i>0.316</i>	Spain	0.330	0.317	0.318
Hungary	0.309	0.307	0.307	<i>Sweden</i>	<i>0.270</i>	<i>0.262</i>	<i>0.258</i>
<i>Ireland</i>	<i>0.258</i>	<i>0.250</i>	<i>0.196</i>	Turkey	0.322	0.322	0.321
<i>Italy</i>	<i>0.306</i>	<i>0.309</i>	<i>0.295</i>	Ukraine	0.353	0.359	0.333
<i>Japan</i>	<i>0.331</i>	<i>0.303</i>	<i>0.303</i>	<i>United Kingdom</i>	<i>0.263</i>	<i>0.257</i>	<i>0.255</i>
Kazakhstan	0.218	0.223	0.226	<i>USA</i>	<i>0.243</i>	<i>0.233</i>	<i>0.231</i>
Kyrgyzstan	0.270	0.264	0.272				

Quite naturally, in such a short period of time there have not been big changes in *general*/level of the government intervention in compared economies. The relative center of the leftness-rightness scales remained virtually unchanged (2014 – 0.276, 2016 – 0.275).

For a more accurate assessment of changes in the liberalism-dirigisme level of the economy, each country should be analyzed separately, since a change in the same

indicator in the same direction (its rise or fall) in different countries can occur for various reasons.

For example, one of the two indicators that the Public Finance Sub-index is based on is the share of budget expenditures in GDP, which can rise both by increasing tax rates (through increasing of the share of budget revenues in GDP), and by improving tax administration and tax collection. It can be achieved also under invariability, and sometimes even a decrease, of tax rates. The share of budget expenditures in GDP, and as a consequence – the Public Finance Sub-index, will grow in both cases, regardless which of these two economic policies is implemented, although they are of different nature. But, in the second case, the economy does not move to the left, since strengthening (or weakening) of financial discipline does not add to the economy the characteristic of liberalism or dirigisme (does not apply to model-shaping forms of state intervention in the economy). While a tax rates reduction increases the level of liberalism (rightness) of the economy in any case, even if the volume of tax revenues increases due to a decrease in tax evasion.

Just as in 2014-2015, in 2016 the economies of Singapore, Georgia and Denmark represent the maximum rightness, and of France, Serbia and Ukraine, with some permutation of places, the leftness. This time Moldova and Bosnia and Herzegovina too joined the group of the most left-wing economies. In countries that have retained their positions (liberal or dirigiste), there have also been some changes in the level of model-shaping government intervention in the economy.

The number of countries whose economies have significantly shifted to the left or to the right is not large. If to judge by the absolute values of $IL(R)E$, in 2016 compared with 2014, the economies of Ireland (-0.062), Japan (-0.028) and Ukraine (-0.020) have most moved to the right, and the economies of Germany (+ 0.056), Bosnia and Herzegovina (+0.037), New Zealand (+0.034) and Albania (+0.025), on the contrary, to the left.

Since the leftness-rightness of economies, in principle, appears in comparison with each other, changes in the places of countries in the rankings from right to left and from left to right also are of some interest. Regardless of how their absolute value

of the Index of Leftness (Rightness) of Economy has changed, the economies that have most risen in the ranking from right to left (or dropped in the ranking from left to right) are Ireland, the Netherlands, Japan (each 8 positions), Italy (6 positions), Latvia, Russia and Sweden (each 4 positions). The economy of these countries in relative terms has become more liberal. And the economies that have most risen in ranking from left to right (or dropped in ranking from right to left) are Germany (17 positions), Bosnia and Herzegovina (9 positions), New Zealand (8 positions), Albania (6 positions) and Macedonia (5 positions). In relative terms, the economies of these countries have become more dirigiste.

In order to find out the reasons for change of IL(R)E's absolute value in a particular country, an additional analysis of the reforms implemented there is needed, since it is reforms that increase liberalism, or vice versa, dirigisme of the economy. For example, in 2014-2016 the German economy, as noted, has significantly shifted to the left. It should be considered, however, that in 2016 Germany's IL(R)E had practically the same value as in 2015 (respectively, 0.316 and 0.317), and in the ranking of economies from right to left it even climbed 2 positions. The shift occurred in 2015, when the value of the Index rose from 0.260 (2014) to 0.317, and in the ranking from right to left Germany dropped from 13th to 32nd place. The main reason for this was the introduction of the legislatively approved minimum wage. Due to a sharp increase in the MW Sub-index (from 0.050 to 0.477) the German economy despite some increase of its rightness by a number of sub-indices, as a whole moved to the left.* (And of course, with equal justification it can be argued that in 2015 in the ranking of 37 economies from left to right Germany rose from 25th place to 6th).

In 2014-2016, Azerbaijan's economy has also shifted somewhat to the left. Although in 2015 the value of the Index slightly decreased compared to the previous year (-0.005), in 2016 it significantly increased (+ 0.021). In 2014, in the ranking of 37 economies from right to left, Azerbaijan shared 22-23rd places with Albania, in 2015 it took 20th place, and in 2016 – 25th place. Compared with 2015, in 2016, the Azerbaijani economy slightly moved to the right by the Foreign Trade

* See: *IL(R)E – 2015 Report (economics.com.az)*.

(-0.009), Employment Regulation (-0.001) and Minimum Wage (-0.001) sub-indices, and, on the contrary, shifted to the left by the Public Finance (+ 0,012), Price Regulation (+ 0,113) and Licensing (+ 0,025) sub-indices. Obviously, the price regulation was responsible for the most of increase in IL(R)E value.

The *IL(R)E – 2016* Report is based on the statistics for 2015 and therefore reflects also the consequences of two devaluations of the Azerbaijani manat carried out that year. As noted, after those devaluations, the Azerbaijani government for the social protection purposes, in a quite strict manner prevented the consumer prices increase. Azerbaijani manat's fall against the US dollar and, at the same time, the retention of domestic prices at a relatively low level caused a significant increase in the deviation of GDP by PPP from GDP in current US dollars. This is what explains the increase of Azerbaijan's Price Regulation Sub-index in 2015.

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If on any particular indicator – in this case on the IL(R)E – countries rank "logically", i.e. countries with different level of economic development (say, countries with GDP per capita above and below a certain value, in this study – 35 thou. Int. dollars), are arranged in separate groups, this means that comparisons on this indicator should be carried out within groups: developed countries should be compared with each other and developing countries with each other. But if the countries rank stochastically, i.e. countries with different level of economic development are arranged mixed, it means that the comparison of any pair of countries with one another is permissible.

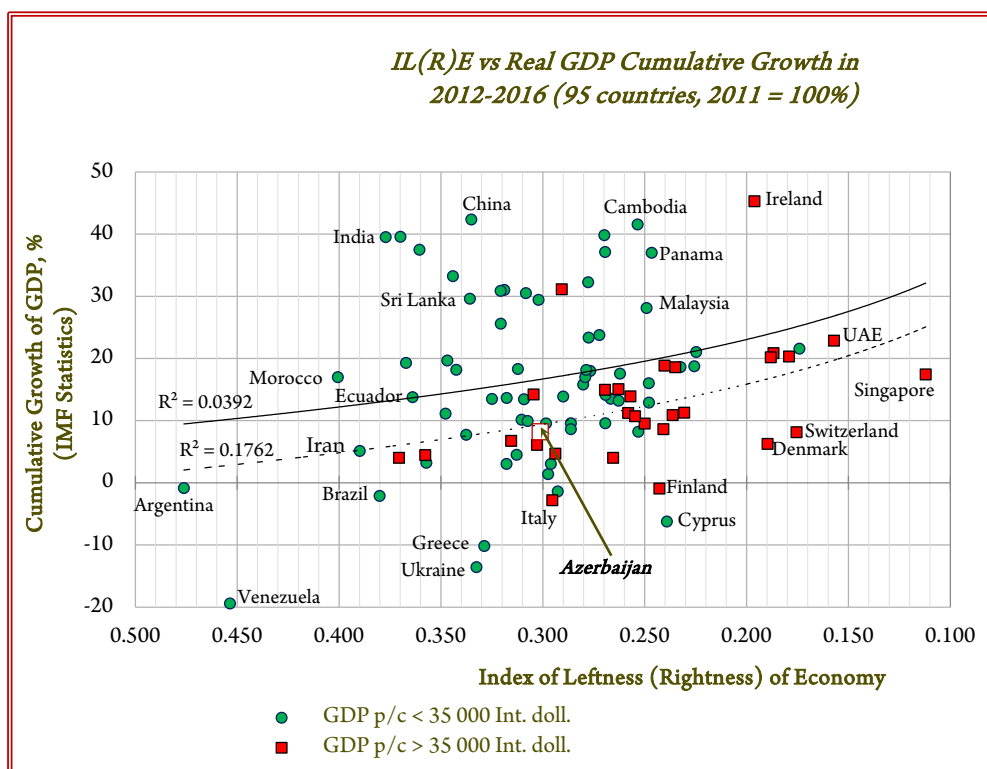
Of course, it should be specially stipulated that some of the countries analyzed in this Report have achieved a high level of economic development (expressed in a high GDP per capita) not by accelerating economic growth due to limited government intervention in the economy, but because of natural resources (oil) exports. In such cases, low values of IL(R)E are not a cause, but a consequence of economic enrichment of the country. For example, Bahrain, the United Arab Emirates, Kuwait, Qatar and some other Muslim countries do not apply income tax (or "charge" it at a zero rate). The fact that it is related to religious reasons is best manifested in Saudi Arabia, whose citizens are not subject to income tax, but they

officially pay a Zakat. In all of mentioned countries, GDP per capita exceeds 35 thousand international dollars and they belong to a group of high-income countries. However, their economic wealth is the result of oil exports, rather than a more liberal economic model, which, in turn, is a consequence, but not a reason of wealth. It is oil wealth that allows them to preserve citizens' and businesses' tax burden at a low level.

Although in developed countries, $IL(R)E$, as a rule, does not exceed a certain level, the ranking of 95 countries is, in fact, of the stochastic nature: both economically developed and developing countries are located on either side of the relative center. Therefore, this is incorrect to suppose that successful economic development is assured if the government intervention in the economy is above or below a certain level. Singapore and the United Arab Emirates, located on the right pole, France that occupies the left-wing position, Malta and Netherlands, that are placed close to the relative center, are the countries successful both in the economic development, and in improving of public welfare. That is to say, some countries attain better socio-economic results due to the rightness of their economy, others – through the leftness.

Collation of Indices of Leftness (Rightness) of 95 economies with a cumulative GDP growth achieved by them over the last 5 years shows that a single value of the $IL(R)E$, which could be considered optimal for all countries, does not exist. Diagram below shows that relation between $IL(R)E$ and economic growth is weak both in countries with GDP per capita above 35 thou. Int. dollars (intermittent logarithmic curve), and, especially, in all others (solid logarithmic curve).

Theoretically, if other conditions of economic development are constant, in any particular country as the level of the government intervention in economy is approaching its optimal value, economic growth should accelerate, and as is distancing from it, growth should slow down. Or vice versa: if economic growth rates of a country are getting higher, it means that the $IL(R)E$ is getting closer to its optimal value for this country at this time framework.



Hungary, Poland and Portugal are on approximately similar level of economic development (GDP per capita is, respectively, 27.5 thousand, 27.8 thousand and 28.9 thousand international dollars). These countries' IL(P)E values also are very close to each other (respectively, 0.307, 0.309 and 0.293). Meanwhile, the cumulative growth of real GDP achieved in these countries in 2012-2016 varies significantly – 9.9%, 13.5% and -1.4%, respectively. It can be argued that in Poland, which has achieved the highest economic growth, this IL(R)E is closer to its optimum for the country and for the time being.

In terms of GDP per capita (PPP) Australia (48.9 thou.), Slovakia (31.3 thou.) and Estonia (29.3 thou. Int. dollars) – in one group, and Uruguay (21.5 thou.), Mexico (18.9 thou.), Jordan (12.3 thou.) and Ecuador (11.1 thou. Int. dollars) – in another group, are at different level of economic development. The intensity of model-shaping government intervention in the economy in these countries also significantly differs: IL(R)Es are, respectively, 0.266, 0.325, 0.267, 0.290, 0.263, 0.318 and 0.364. However, in 2012-2016, these 7 countries achieved approximately the same cumulative real GDP growth – 14.2%, 13.5%, 13.5%, 13.9%, 13.2%, 13.7% and 13.8, respectively. Collation of these statistical series may well be interpreted in a way that these countries' IL(R)Es are at roughly equal distance from their optimal value.

In some countries accelerated development appears as a result of stricter regulation, while in others – due to liberal reforms. To judge what level of the government intervention in economy is more effective for a country, it is needed to find out the IL(R)E's optimal value interval for that particular country in a given time. Corresponding studies are underway.

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In Table 9, the distribution of countries by IL(R)E is compared with the real GDP cumulative growth in 2012-2016, based on the groupings both by the IL(R)E ranges and by cumulative growth intervals.

In terms of IL(R)E the largest number of countries (approximately two thirds of them) is in the ranges of 0.251 - 0.300 (33 countries) and 0.301 - 0.350 (26 countries). In countries ranging from 0.251 to 0.350, the average GDP cumulative growth rate is 15.4%, in particular, in countries ranging from 0.251 to 0.300 – 15.2%, and from 0,301 to 0,350 – 15,7%.

Table 9. Distribution of Countries by IL(R)E Ranges and by Intervals of Real GDP Cumulative Growth

		IL(R)E Ranges								Number of Countries
		0,100 0,150	0,151 0,200	0,201 0,250	0,251 0,300	0,301 0,350	0,351 0,400	0,401 0,450	0,451 0,500	
Intervals of Real GDP Cumulative Growth (%)	- 20 – -10	0	0	0	0	2	0	0	1	3
	-10 – 0	0	0	2	2	0	1	0	1	6
	0 – 10	0	2	1	10	7	4	0	0	24
	10 – 20	1	0	8	14	9	2	1	0	35
	20 – 30	0	5	2	2	3	0	0	0	12
	30 – 40	0	0	1	4	4	3	0	0	12
	40 – 50	0	1	0	1	1	0	0	0	3
Number of Countries		1	8	14	33	26	10	1	2	95
Average Cumulative Growth (%)		17,4	20,7	15,3	15,2	15,7	16,4	17	-10,1	15,4

By IL(R)E, Azerbaijan (0.301) belongs to the central group. However, the cumulative GDP growth of 8.2%, achieved by Azerbaijan in 2012-2016 (12.4% in 2011-2015), is noticeably lower than the average of the countries with the medium values of IL(R)E. These comparisons confirm that Azerbaijan's IL(R)E deviated from its optimal value and the acceleration of liberal economic reforms is the urgent task for the next few years.

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Index of Leftness (Rightness) of Economy reveals one of the fundamental changes that have occurred in the global economy over the past 25 years. During this

period some new states that came out of “socialism” have created economies that are righter than the well-established market economies of some rich countries. Azerbaijan, whose economy just only 25 years ago was characterized by extreme leftness, now has a more liberal economy than France, Belgium, Germany and many other countries.

The economic reforms that were implemented by former "socialist" countries with far left economies differ in content and intensity. IL(R)E allows evaluating and comparing the result of these reforms. For example, it becomes clear that Azerbaijan has built the righter economy than Serbia, but kept government intervention in the economy at the higher level than Georgia – although all these countries attributed the liberal reforms to the main priorities of economic policy for many years ahead.