

THE EVALUATION MECHANISM OF THE TAX PRESSURE ON THE ECONOMY IN THE REPUBLIC OF MOLDOVA

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The relevance of the research topic to today's realities lies in the fact that one of the indicators, which makes it possible to evaluate the tax policy effectiveness at macroeconomic level, is the indicator of the tax pressure. Nowadays, an important component of the effective financial management is considered the efficient tax planning and the tax pressure management, which is one of the key factors for a successful economic activity. It is important to understand that the state's purpose is to collect sufficient taxes to ensure the good operation of all state functions, and along with this, to avoid an excessive tax pressure and not to allow it to repress the economic activity of the economic agents. The purpose of this study is based on the argument that the indicator of the tax pressure on the economy, unfortunately, does not reveal the actual level of tax exemptions based on the country's GDP. The study is based on using modified methods of calculating the indicator of the country's tax pressure, which are proposed by the author and can be used for regulatory purposes. The study reveals that, independently, this indicator reflects the share of GDP redistributed through taxes. But only in combination with other important indicators of the socio-economic development of the country we can estimate the level of taxation in the country and the efficiency of the fiscal system operation. The analysis of some indicators in a number of countries shows that in Moldova the high tax pressure is associated with the low level of GDP and the GDP per capita compared to other countries.

Keywords: tax pressure, tax receipts, fiscal policy, fiscal administration, tax payments, tax regulation.

Actualitatea temei de cercetare constă în faptul că unul dintre indicatorii, care permit evaluarea eficacității realizării politicii fiscale la nivel macroeconomic, este indicele presiunii fiscale. În prezent, o componentă importantă a managementului financiar eficient este desfășurarea eficientă a planificării fiscale și gestionării presiunii fiscale, care reprezintă unul dintre factorii esențiali ai activității economice de succes. Evident este acel lucru, că scopul statului rezidă în colectarea impozitelor într-o cantitate suficientă pentru asigurarea executării tuturor funcțiilor statului și, în același timp, evitarea faptului ca presiunea fiscală să fie excesivă și să suprimă activitatea economică a agenților economici. Scopul acestui studiu se bazează pe argumentarea faptului că indicatorul presiunii fiscale asupra economiei, cu regret, nu reprezintă nivelul real al nivelului scutirilor fiscale în temeiul evaluării PIB-ului țării. Studiul se bazează pe utilizarea metodelor modificate de calcul al indicatorului presiunii fiscale a țării, propuse de autor, care pot fi utilizate cu scop de reglementare. Studiul relevă că, de sine stătător, acest indicator caracterizează ponderea PIB-ului redistribuită prin intermediul impozitelor și taxelor. Dar numai în asociere cu alți indicatori importanți ai dezvoltării socio-economice a țării se poate de estimat gravitatea fiscalității în țară și eficiența de funcționare a sistemului fiscal. Analiza unor indicatori între țări arată că în Republica Moldova presiunea fiscală înaltă se asociază cu nivelul scăzut al PIB-ului și al PIB-ului pe cap de locuitor în comparație cu alte țări.

Cuvinte-cheie: presiune fiscală, încasări fiscale, politică fiscală, administrare fiscală, plăți fiscale, reglementare fiscală.

Одним из показателей, позволяющих оценить эффективность реализации налоговой политики на макро-уровне, является показатель налоговой нагрузки. В настоящее время одним из важнейших компонентов эффективного финансового менеджмента в организациях является эффективное осуществление налогового планирования и управления налоговой нагрузкой, которые являются одним из существенных факторов их успешной экономической деятельности. Цель

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государства – собрать налоги в сумме, достаточной для обеспечения исполнения всех функций государства, и в то же время не допустить того, чтобы налоговая нагрузка была чрезмерной и подавляла экономическую деятельность организации. Целью исследования является понимание того, что показатель налоговой нагрузки на экономику страны, рассчитанный как соотношение объема уплаченных налогов и сборов в бюджетную систему к произведенному ВВП, к сожалению, не характеризует реальный уровень налоговых изъятий. Исследование основано на применении модифицированных методов расчета показателя налоговой нагрузки страны, которые могут быть использованы для целей ее регулирования. Исследование показывает, что этот показатель отражает долю ВВП, который перераспределяется за счет налогов. Но только в сочетании с другими важными показателями социально-экономического развития страны можно оценить серьезность налогообложения в стране и операционной эффективности налоговой системы. Анализ показателей между странами показывают, что в Молдове высокая налоговая нагрузка связана с низким уровнем ВВП и ВВП на душу населения по сравнению с другими странами.

Ключевые слова: налоговая нагрузка, налоговые поступления, налоговая политика, налоговое администрирование, налоговые платежи, налоговые правила.

JEL Classification: H25, H32.

UDC: 336.22:334.7

Introduction. Not every state possesses a rational fiscal policy and an efficient mechanism for its implementation. The key issue of the tax pressure management, in my opinion, is to determine the optimum value of tax payments. It is important to understand that the state's purpose is to collect enough taxes to ensure the operation of all state functions and at the same time to avoid an excessive tax pressure that suppresses the economic activity of the organization.

From the state's point of view, the "tax pressure level" indicator is used to determine the optimal tax levies in order to ensure economic growth and supplement the budget in the regions and the economy as a whole. At the same time, the value of tax levies influences the financial and economic activity of economic entities. In this regard, it is necessary to strike a balance between the state's and institution's fiscal objectives concerning the optimization of tax payments and the creation of such a fiscal mechanism that will allow for the principle of fair taxation, which takes into account the possibility for the taxpayer to make mandatory payments and have the opportunity to develop production [6, p.58].

The scientific approach to the topic and its presentation in the scientific literature. According to the majority of scientists in the fiscal field, the tax pressure is an indicator of the overall fiscal impact on the economy as a whole, on individual economic entities or on other taxpayers, and is defined as the share of their income paid to the state in taxes and other fiscal mandatory payments.

The tax pressure indicator is crucially important in carrying out a number of tasks, which are related to the fiscal policy development, the comparative analysis conduct of the tax pressure in different countries, the state social policy formation, as well as the economic behavior forecast of the economic entity.

In relation to the above mentioned tasks, the issue of defining, establishing and maintaining the optimal tax pressure on the economy plays an important role in the creation and improvement of the tax system of any state [3, p.89-90].

The basic contents. The tax pressure indicator on the economy, calculated as the ratio between the amount of taxes and the taxes paid to the budget system as to the generated GDP, regrettably, it does not represent the real level of the tax exemptions based on the country's GDP evaluation, which consists in the adjustment of the official data of output to the GDP value from the informal sector of the economy. Therefore, we suggest using the modified methods of calculating the country's tax pressure indicator, which can be used for regulatory purposes [7, p.245].

There has also been developed a complex method for estimating the tax pressure on the economy of the country (region, public and legal education) based on the calculation of indicators, whose structure varies depending on the purpose of the proposed use: to perform transnational, interregional comparisons; to choose the fiscal policy instruments [1, p.12]. This method includes the calculation of 2 indicators: the tax capacity of the economy and fiscal regulation (Table 1).

Table 1

The evaluation mechanism of the tax pressure on the economy

Indicator	Purpose of use	Calculation formula
Tax pressure type 1 (the tax capacity of the economy) TBE (tax pressure on the economy)	Transnational, interregional comparison	$TBE = \frac{RTR}{GDP} \times 100\%$ where, RTR - real tax receipts to the budget
Tax pressure type 2 (tax regulation) - RTB Regulatory tax pressure	The choice of the fiscal policy regulation instruments, sector comparisons	$RTB = \frac{RTR}{GAD} \times 100\%$ where, GAD – gross added value

Source: Created by РОГОЖИН А.Н. *Налоговая нагрузка в системе налоговой политики государства и организаций. Автореферат диссертации на соискание ученой степени кандидата экономических наук. Саратов, 2012 [1, p.12].*

Both indicators of the tax pressure are based on the calculation of the real tax receipts to the budgetary system of the country. Tax pressure type 1 (the taxable capacity of the economy) is calculated in relation to GDP and is suitable for conducting an international and inter-regional comparative analysis of the tax pressure. The indicator of the tax pressure type 2 (tax regulation) is calculated in relation to the added value and is effective in assessing the balance level of the state and business interests, the opportunities of applying the fiscal policy regulation instruments.

Thus, we will do the calculation according to the coefficients for the Republic of Moldova for the last five years (table 2). Both coefficients show a clear upward trend in 2012 compared to 2011, followed by a gradual decrease over 2012-2015. From the taxpayer's point of view, anything, even a slight reduction in the tax pressure, is a positive result.

Table 2

The tax pressure on the economy of the Republic of Moldova, calculated by different methods

Indicators	2011	2012	2013	2014	2015
GDP, m.lei	82348,703	88227,753	100510,471	112049,578	121850,947
Tax receipts in the national public budget, m. lei	25580,0	28863,2	32173,2	35630,8	38107,1
Gross added value, m. lei	68390	73686	83719	94504	103161
Coefficient 1. The ratio of the national public budget tax revenue to GDP, %	31,06	32,71	32,01	31,80	31,27
Coefficient 2. The ratio of tax revenues to the gross value added, %	37,40	39,17	38,43	37,70	36,94

Source: Author's calculations based on data from the Ministry of Finance of the Republic of Moldova and from the National Bureau of Statistics of the Republic of Moldova [9, 10].

For a better understanding, here are the coefficients calculated in a graph form figure 1.

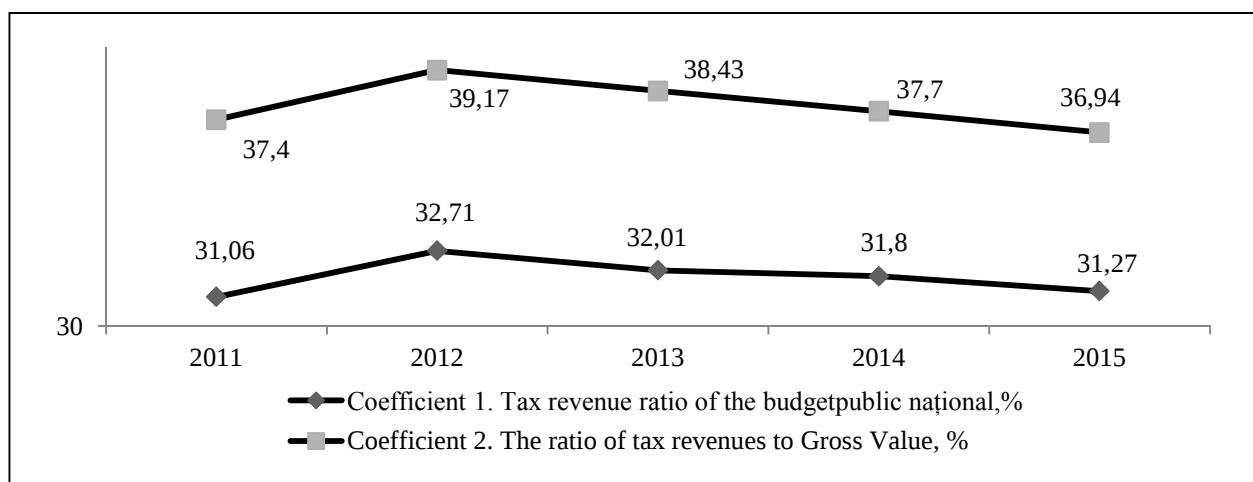


Figure 1. The dynamics of the tax pressure type 1 and 2 in the Republic of Moldova for 2011-2015, %

Source: Developed by the author on the data from table 1.

The degree of influence on the tax pressure level of the debts on duties and taxes is also not taken into account, which on 01.01.2016 amounted 1035, 8 million lei or 2.37% of the total amount of duties and taxes received in 2015 to the national public budget of the country. Over the last five years, this indicator has fallen, which is clearly shown in figure 2.

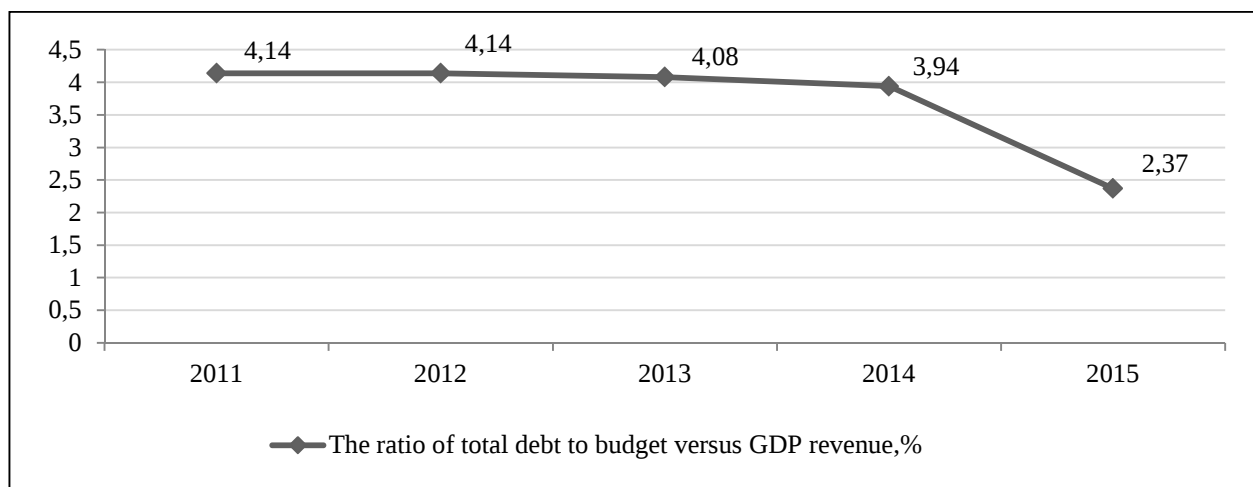


Figure 2. Dynamics of the ratio between the total amounts of debts to the budget compared to the sum of the income received to the national public budget of the Republic of Moldova, %

Source: author's calculations based on the data from the Main State Tax Inspectorate and the Ministry of Finance of the Republic of Moldova

Figure 2 clearly shows that the debt indicator is decreasing (initially – gradually, but in 2015 – dramatically), which certainly shows a positive trend in fiscal discipline and public finances.

The international practice demonstrates that levying from the taxpayer up to one-third of income leads to a reduction in savings and thus to investments in the economy. If more than 40% of income is levied from the taxpayers, this virtually deprives them of the desire for entrepreneurial initiative and increasing production.

To make a comparative analysis of the tax pressure in different countries, they use the indicator that characterizes the share of taxes as a percentage of GDP (table 3).

Table 3

The specific tax pressure in different countries in GDP

Country	The specific tax pressure in GDP, %
Franța	45,4
Suedia	44,7
Italia	42,1
Germania	39,6
Spania	32,7
Republica Moldova	31,3
Letonia	27,5
Romania	27,2
Bulgaria	26,7
Lituania	26,1

* The data for European countries – for 2011, the Republic of Moldova – for 2015 (author's calculations based on the data from the Ministry of Finance of the Republic of Moldova and of the National Bureau of Statistics of the Republic of Moldova).

Sources: Developed by author based on the data from: www.europa.eu [12].

According to the data presented in the chart, the level of tax levies in the country is not significantly lower than the tax pressure in the developed countries. At the same time, the specific limits for the tax pressure indicators (both at macro- and micro-) levels are determined otherwise from those that are not directly related to the tax factors in various countries. Thus, the level of the tax pressure may depend on the level of state involvement in public spending for healthcare, education, public utilities and other services, as well as R & D, investments and other programs. For example, the Swedish tax system is

structured in such a way that taxpayers pay more than 44% of their income, and this does not lower their incentives for entrepreneurial activity. This is not a paradox, because in a centralized way, the state solves many of the economic and social problems from the tax receipts, which in other countries the tax payer have to solve by themselves, from their own income after tax [3, p. 89-90].

If we take into account the tax pressure (as a share of the tax revenues in the GDP of the Republic of Moldova) increasingly (for 2000-2015) (figure 3), it is obvious that over 2000-2007 the tax pressure was constantly increasing and reached a peak (in 2007 – 33.6%), then it was fluctuating over a few years, but then it decreased insignificantly (in 2015 – 31.3%).

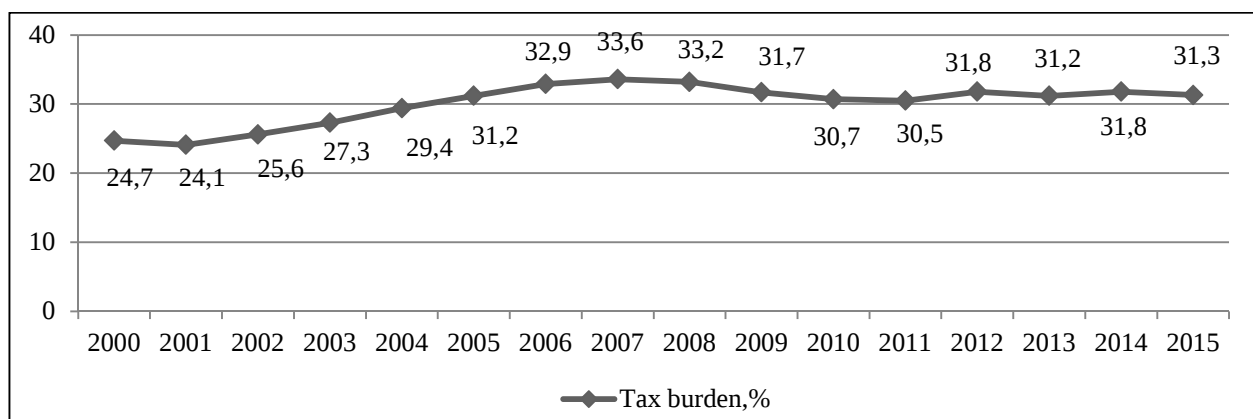


Figure 3. The dynamics of the tax pressure in the Republic of Moldova over 2000-2015, %

Source: Created by the author based on the data from the website of the Ministry of Finance of the Republic of Moldova [9].

The share of taxes to GDP as a percentage does not reveal the real size of the current tax pressure on a particular taxpayer, who conscientiously pays the taxes, and this can be explained by the facts as follows. First of all, they ought to take into account those serious issues related to tax discipline. The existence of this problem is confirmed by the indicators that describe the size of tax debts to the budget. Practice shows that the calculated tax liabilities and their actual fulfilment is not the same thing, and the tax pressure indicator is determined based on the real taxes paid to the budget or planned for the next fiscal year. Therefore the level of tax collection is questionable in terms of the fairness of the aforementioned indicator. Thus, the cumulative tax pressure indicator should be adjusted taking into account the collection rate, and namely the amount of annual yield or the reduction in payment arrears to all types of budgetary and extra-budgetary funds.

Another factor that influences the objectiveness of the tax pressure evaluation is the misrepresentation of GDP due to significant measurement errors. This situation is explained by the fact that statistical institutions add to the GDP indicator, which is calculated according to the statistical reports, their official data to the amount of GDP produced in the so-called underground economy. Another important factor in determining the tax pressure indicator is the socio-economic conditions in which taxpayers are forced to carry out their financial and economic activity and have to pay taxes. There are still a number of important factors that "make heavier" the fiscal pressure of the taxpayer, such as the slender development of market relationships, the country's imperfect and constantly changing fiscal system without affecting the size of the absolute indicator of the tax pressure.

The tax pressure on the country's economy can likewise be calculated by two methods (table 4).

Table 4

The tax pressure on the economy of the country (calculated by different methods), %

Indicators
The ratio of the national public budget tax revenue to GDP
Tax ratio to GDP without calculating the adjustments for informal activities (based on 25% GDP)
Tax ratio to the GDP without taking into account social and health insurance

Source: Created by the author based on ЮРЧЕНКО, В.Р. Регулирование налоговой нагрузки как фактора развития производства. Автореферат диссертации на соискание ученой степени кандидата экономических наук. Москва, 2007, с. 13 [2, p. 13].

The indicator of the fiscal pressure on the country's economy alone characterizes the share of GDP redistributed through taxes and duties, but only in conjunction with other important indicators of the socio-economic development of the country they can evaluate the bad condition of taxation within the country and the efficient functioning of the fiscal system. Therefore, the author makes valuable theoretical conclusions that explain that the greatest tax capacity of a country exists in that country where:

- 1) labour productivity is growing rapidly;
- 2) the GDP output is growing more rapidly than the number of the population in the country;
- 3) GDP is distributed more evenly;
- 4) the greatest part of taxes is spent in such a way as to serve the interests of the majority, especially the poorer part of the population;
- 5) at the basis of the state policy lies the desire to find a balance in the development level of the sectors, regions and living standards of the different social classes.

Whilst putting this approach into practice, there has been made an attempt to compare the degree of the tax pressure in the Republic of Moldova and other countries using certain indicators that describe the development level of the countries (table 5).

Having analysed the data, we can conclude that the tax pressure in the Republic of Moldova is not much below the level of the tax pressure in the developed countries in the case of specific difficulties in labour remuneration in GDP (41.2% in the Republic of Moldova, in other countries 46.6-57.8%). Along this, the GDP per capita in our country is much lower than in other countries.

Table 5

The comparison of the tax pressure level and socio-economic indicators in some countries

Countries	Tax pressure %	Specific share of employees' salaries in GDP, %	GDP per capita, US dollars	The indicator of human potential development	Labour productivity level, %	The use of GDP in gross receipts
Russian Federation	36,1	46,6	8087	0,795	23,3	20,3
Great Britain	37,3	56,3	28906	0,936	74,5	16,5
France	45,0	52,5	27701	0,932	72,3	20,6
Japan	28,6	53,3	27207	0,938	78,5	25,2
Republic of Moldova	31,8	41,2	2244	0,699	40,8	25,4

Source: Created by the author based on ЮРЧЕНКО, В.Р. Регулирование налоговой нагрузки как фактора развития производства. Автореферат диссертации на соискание ученой степени кандидата экономических наук. Москва, 2007, с. 12 [2, p.12]; BNS al Republicii Moldova – pentru 2014 [10].

If to analyse a number of countries that are close to the Republic of Moldova in terms of GDP volume, the following results come out (table 6).

Table 6

GDP and tax pressure in some countries

Country	GDP, trillion dollars	Tax pressure, %
Kosovo	6,45	21,0
Republic of Moldova	6,44	31,3
Niger	5,68	15,8
Tajikistan	6,25	28,3
Haiti	7,46	12,2
Rwanda	7,14	13,9
Kyrgyzstan	6,68	20,8
Benin	8,27	16,3

Source: Created by the author based on the data from the website <https://tradingeconomics.com/gdp>

The analysis of the data presented in table 6 allows us to conclude that the Republic of Moldova has a very high tax pressure compared to the group of countries similar in terms of GDP volume.

Further, we will be going to make a comparative analysis between countries (the Republic of Moldova and several other countries) according to other indicators. According to the calculations, the tax pressure in the Republic of Moldova accounted for 31.5%. Having a number of countries with a similar tax pressure indicator, we have received the following data (table 7).

Table 7

Several indicators from different countries

Country	Tax pressure, %	Income tax rate	Corporate tax rate	GDP, trillion dollars	Economic growth, %	GDP per capita, thousands US dollars	Share of state expenditures in GDP, %
Israel	30,5	48	26,5	268,5	2,8	32691	41,3
Argentina	30,6	35	35	947,6	0,5	22582	40,3
Canada	30,6	29	15	1591,6	2,5	44342	40,7
Botswana	31,3	25	22	33,7	4,9	16036	32,4
Republic of Moldova	31,3	18	12	6,44	4,6	2244	38,5
Cyprus	31,8	35	12,5	27,4	-2,3	30769	41,9
Estonia	31,8	20	20	35,6	2,1	26999	38,8
New Zealand	32,1	33	28	158,9	3,2	35152	42,4
Namibia	32,1	37	34	23,6	5,3	10765	41,3

Source: Developed by the author.

Thus, summarizing the data in tables 6 and 7, we can conclude that the high tax pressure in the Republic of Moldova does not contribute to GDP growth, but it possibly hinders growth.

The data in the table clearly show that if to compare the Republic of Moldova with other countries which have the same tax pressure level, we will observe that even having the lowest rates of income tax (both for citizens and for companies), the Republic of Moldova has the smallest volume of GDP and GDP per capita (at least 2 times lower compared to other countries in the sample).

Conclusions and recommendations: Making an overview of the contemporary scholars' opinions who have studied taxation and the tax pressure, we can conclude that the total amount of taxes and duties paid to the budget, either at macro or micro level, is to be called a tax pressure in absolute terms, because this information does not carry any other information or any other sense, other than information about the amount of taxes and duties paid [2, p.21].

At the same time, taking into account the existing definitions for the „tax pressure” concept at regulatory level in the fiscal regulation field, in order to assess the impact of taxation both on the economy as a whole and on economic entities, it would be appropriate to define the concept of tax pressure as "the tax pressure at micro-level which is the share of a levied part of the economic entity's income to the budgetary system as taxes and duties, as well as other tax payments" [4, p.98].

The tax pressure indicator on the country's economy alone, however, still describes the share of GDP redistributed through taxes and duties. However, only in conjunction with other important indicators of the socio-economic development of the country it is possible to estimate the bad condition of taxation in the country and the efficient functioning of the fiscal system [5, p.169].

The analysis of some indicators between countries has shown that in the Republic of Moldova the high tax pressure is associated with the low GDP and GDP per capita compared to other countries.

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Recommended for publication: 11.04.2017