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ANALYSIS AND MANAGEMENT OF MACROECONOMIC RISKS OF THE REPUBLIC OF MOLDOVA

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Abstract: *Macroeconomic risks have a complex effect on the level of business activity, liquidity and financial stability of the economy of the Republic of Moldova. Risks and vulnerabilities can develop endogenously within the financial system, but can also occur in the real economy and be transferred to the financial system. The systems approach determines the reform of the macroeconomic risk management system as part of the strategic planning process for the development of the banking sector, the financial system and the country as a whole. The methodology used to calculate indicators of the macroeconomic risks were based on IMF methodology. Authors conclude that Moldova's is lagging in terms of per capita income and weak social development emphasizes the need for faster and more comprehensive growth. However, the existence of an export-oriented economy development model, along with a weak financial system, makes the real sector vulnerable to external shocks and does not allow for a sustainable economic growth.*

Key words: *macroeconomic risks, business activity, liquidity and financial stability, Moldova.*
JEL Classification: *B22, B27, F4.*

1. Introduction

Macroeconomic risks have a complex effect on the level of business activity, liquidity and financial stability of the economy of the Republic of Moldova. Risks and vulnerabilities can develop endogenously within the financial system, but can also occur in the real economy and be transferred to the financial system. The systems approach determines the reform of the macroeconomic risk management system as part of the strategic planning process for the development of the banking sector, the financial system and the country as a whole. The size and likelihood of endogenous imbalances can be influenced by financial authorities through regulation, supervision, or adequate crisis management (IMF).

2. Scientific Research Methodology

The methodology used to calculate indicators of the macroeconomic risks was published in the following IMF publications:

- External debt statistics: guide for compilers and users (IMF, 2014);
- Balance of Payments Manual (IMF, 2014).

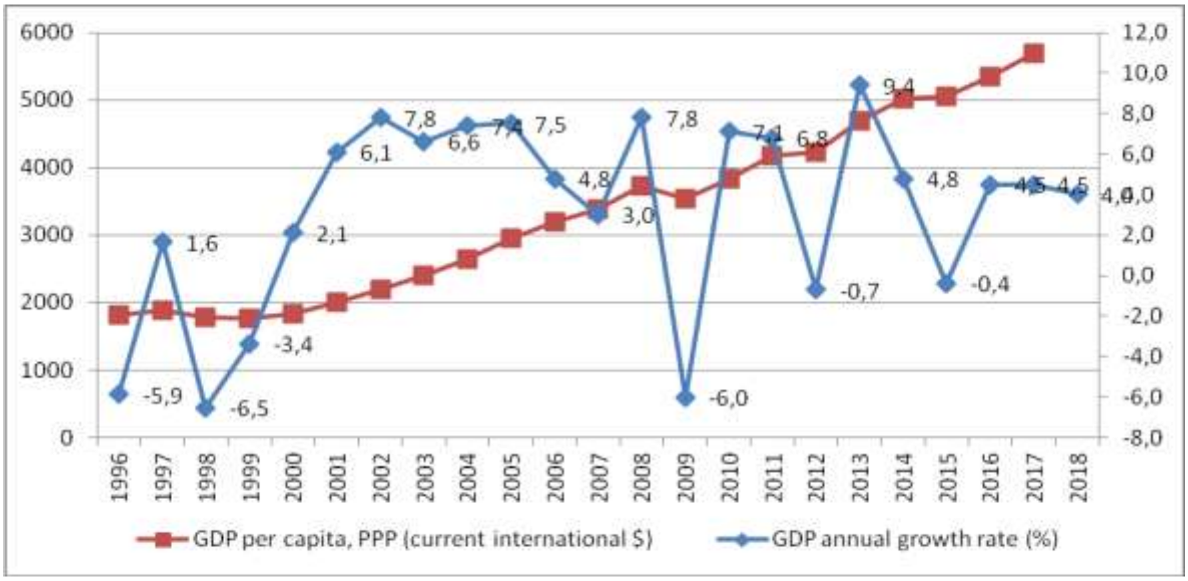
Based on the IMF's recommendations, "an analysis of the vulnerability of low-income countries should focus on the vulnerability of these countries in the event of a sharp fall in economic growth as a result of external shocks, such as abrupt changes in the terms of trade and fluctuations in external financial flows. These shocks can cause instability in the public sector and in the foreign economic sector, deterioration of the debt situation, tension in the banking system and a sharp drop in production. All these factors can lead to a significant decline in welfare and even social disruption" (IMF). **Risk management includes continuous inspection and analysis of potential risks of vulnerability** that may pose a threat to the financial system and economic activity, because different sources of risk tend to have different policy implications.

3. Analysis of macroeconomic risks of the Republic of Moldova

The main macroeconomic risks of the economy of the Republic of Moldova: *unstable rates of economic growth of the country; poverty; foreign economic dependence; change in exchange rates and inflation; level of political instability.*

By 2013, the economy of the Republic of Moldova had overcome the impact of the global economic crisis of 2008-2009.

Figure 1. GDP annual growth rate, (%), and per capita, 1996-2018, Republic of Moldova



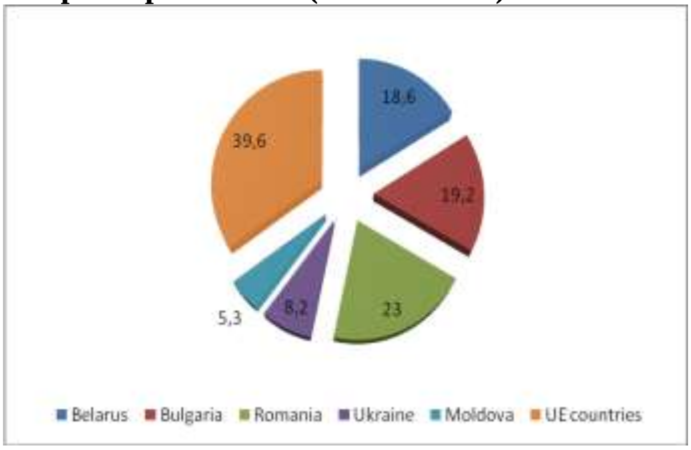
Source: elaborated by authors based on NBS data

Despite the sharp decline in economic growth in 2012, the average annual GDP growth in 2010-2013 exceeds 5%. In 2013, the economic growth rate increased to 9.4%. Financially, the banking crisis in 2014-2015 again led to a significant decline in GDP - 0.4%.

The instability of the growth process can also be detrimental to growth itself, which in turn can have a negative effect on poverty. The degree of inequality in a country itself can affect economic growth (Ames B., Brown W., Devarajan S.).

Despite the restoration of economic growth over the past 2 years (4.5%) and regional GDP growth per capita, the relative level of GDP per capita remains at extremely low levels. According to the national statistics of the Republic of Moldova, the minimum level of GDP per capita was registered at the end of 2004 (2028 USD), by 2013 it had increased to 5014 USD and was only 13% of the world average. The national level of GDP per capita is the lowest among European countries with economies in transition. According to the IMF (World Economic Outlook, April, 2018), Moldova belongs to the 10 poorest countries in Europe: Moldova, Ukraine, Albania, Bosnia and Herzegovina, Belarus, Macedonia, Serbia, Montenegro, Bulgaria and Romania.

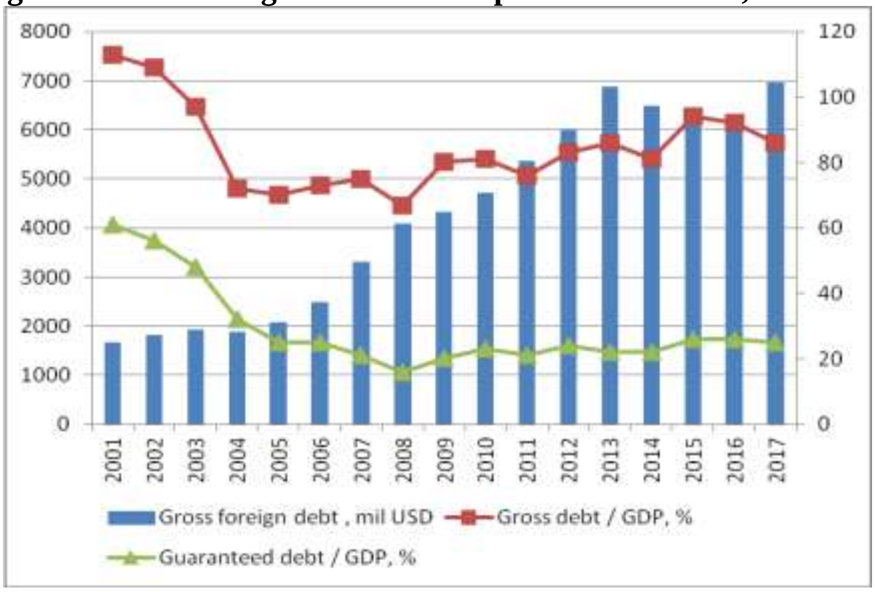
Figure 2. GDP per capita at PPP (in US dollars) for several countries, 2016



Source: elaborated by authors based on WB data

New, rising risks are closely related to the rapid integration of developing countries into international financial and capital markets. After the global economic crisis from 2008-2009, the growth of the global economy was mainly based not on creating new jobs and generating income through long-term investments in industrial development, but on building up public and private debt as a source of demand in the short term. Under these conditions, the growth of the total external debt of the Republic of Moldova, which accumulates not only the debt obligations of the general government sector, but also the debts of the private sector — banks and non-financial corporations — represents a potential danger to financial stability.

Figure 3. Gross foreign debt of the Republic of Moldova, 2001-2017



Source: elaborated by authors based on NBM and NBS data

At the international level, various indicators and thresholds have been set for assessing the risks of the external debt sustainability of countries. The sustainability of the external debt position is determined by comparing debt burden indicators to the HIPC targets. With the introduction of the HIPC Initiative in 1996, and its enhancement in 1999, the key indicators used to evaluate a country’s debt sustainability are the following:

- present value of debt to exports (150%);

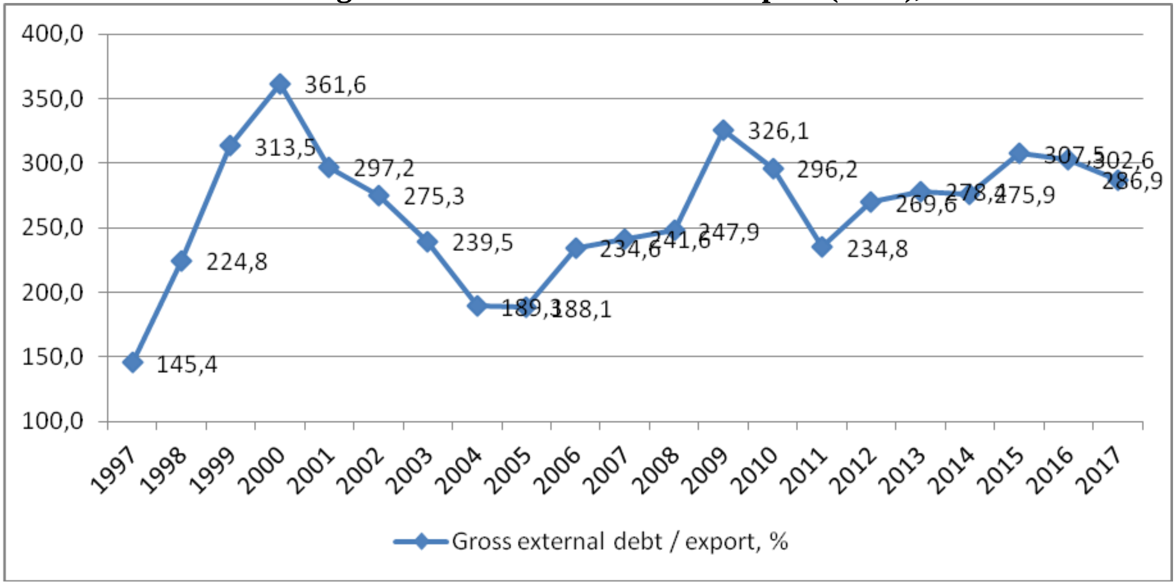
• present value of debt to domestic budget revenue (250%).

At present, when determining indicators of external debt sustainability, countries should be guided by a provision developed by the IMF: *External debt statistics- guide for compilers and users* (IMF, 2014). For developed countries and for countries seeking to join the EU, external debt sustainability is a measure of public debt that does not exceed 60% of GDP (Maastricht criteria).

In the Republic of Moldova, despite a significant level of gross external debt in relation to GDP, the level of debt guaranteed by the state remains at a level significantly below the threshold according to the Maastricht criteria. However, a general increase in the volume of private sector debt is likely to ultimately have a negative impact on the financial situation of the public sector, in particular, in the absence of national or international regulatory systems for resolving the problem of contingent public sector obligations on a systemic basis (UNCTAD). The main danger in the context of the acceptability of the level of external public debt lies in the ever-increasing number of cases of bankruptcy of companies and in the transfer of unacceptable corporate debt to the balance of the state. In addition, the economy of the Republic of Moldova is faced with growing difficulties due to over-indebtedness of customers and defaults in the microenterprise sector.

In terms of public debt, the economy of the Republic of Moldova meets the EU criterion, but according to the calculations of IMF, the ratio of total external debt reported to exports is at the level of critical values (150%).

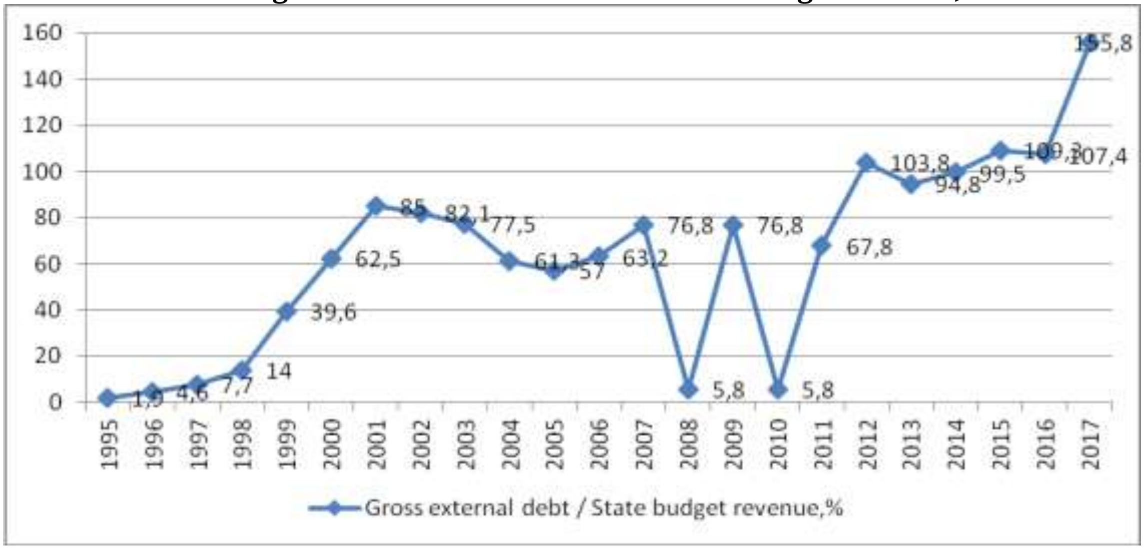
Figure 5. Gross external debt / export (FOB), %



Source: elaborated by authors based on BNM

The ratio of total external debt reported to exports gives an assessment of the country's solvency in the near future. The more important this indicator is the more foreign trade, currency and budget policy needs to be adjusted. Thus, the ratio of gross external debt of the Republic of Moldova to budget revenues increased significantly during the 2015 crisis, but remains below the thresholds defined by the IMF (250%).

Figure 6. Gross external debt / State budget revenue,%



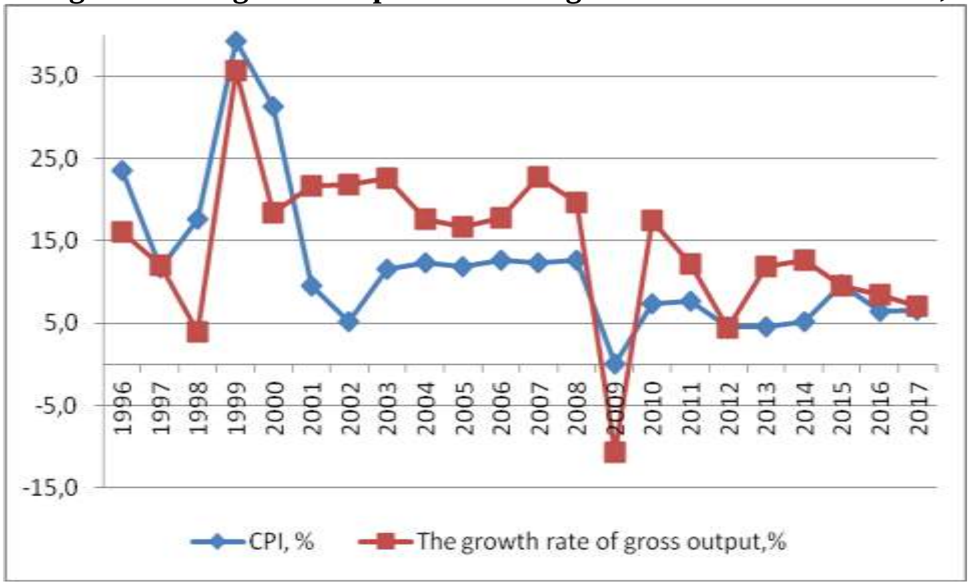
Source: elaborated by authors based on WB data

The state budget deficit in accordance with the Maastricht criteria should not exceed a threshold level of 3% of GDP. In Moldova, the state budget deficit meets the criteria for financial sustainability. However, since 2014, the level of the "net borrowing" [1] indicator has been growing, which shows a lack of financial capacity to be distributed to other sectors of the economy. According to BNM (NBM), this indicator in 2017 amounted to 132% compared to 2016 and indicates an increase in the debt burden on the budget.

The real types of macroeconomic risks in the Republic of Moldova are inflation and currency risks. Monetary regulation of BNM provides for maintaining the level of inflation within a variable interval of ± 1.5 pp from the target indicator of 5% and is aimed at increasing domestic demand. However, the average annual price increase (CPI) in 2000-2009 accounted for - 16.2%; in 2010-2011 - 7.5%; from 2012-2013 - 4.6%; in 2014 - 5.1%. In 2015, the CPI growth was 9.7%, significantly exceeding the stipulated target interval. Over the past 2 years, inflation has been maintained at 6.4–6.7%. Production factors and changes in market conditions, especially with low growth rates of labor productivity, a shortage of certain goods and resources, higher prices for imports as a result of rising prices on the world market etc lead to higher cost inflation. It can be mentioned that both types of inflation are related. Cost inflation usually leads to a reduction in lending to the real sector of the economy; the inflow of foreign investments decreases as a result of the flow of capital from the production sphere to the sphere of circulation. The processes of reducing inflation and raising production should go on simultaneously, as they condition each other.

[1] Net lending (+) / net borrowing (-) is equal to government revenues less expenses, minus net investments in non-financial assets. It is also equal to the net results of transactions in financial assets and liabilities. Net lending / net borrowing is a consolidated measure indicating the extent to which the government either provides financial resources to other sectors of the economy or abroad, or uses financial resources from other sectors of the economy or from abroad. Source: IMF, Government Finance Statistics Annual Report and data files

Figure 7. The growth of production of goods and services and CPI, in %



Source: http://www.statistica.md

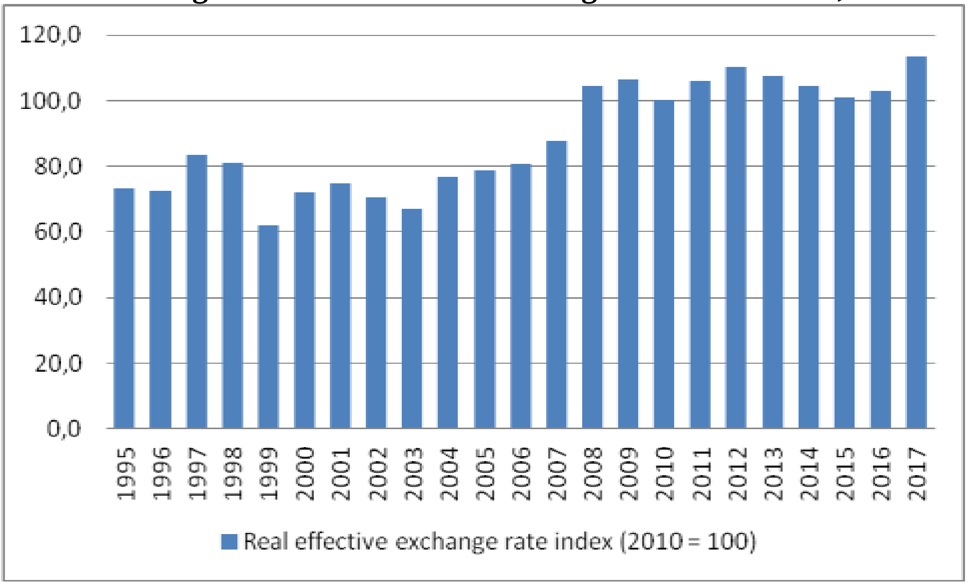
From the analysis of data for countries with emerging markets it has been found that inflation has a non-linear effect on the indicator that defines the goals of sustainable development - the growth rate of GDP per capita. If the inflation rates take values higher than 6%, then a further increase in inflation leads to a drop in the growth rate of GDP per capita. Inflation below 6% does not have a statistically significant effect on economic growth (Shagas N.L., Bozhechkova A.V., Perevyshin Yu.N., Perevyshina EA, Tumanova EA, 2016). The growth of inflation estimated using the GDP deflator, shows periods of sharp decline in per capita income during periods of crisis in the economy of the Republic of Moldova. The GDP per capita indicator shows an assessment of the efficiency of the economy and production organization in terms of ensuring the level of material well-being of the population; this is a final indicator of the assessment of sustainable development and an indicator of the crisis state of the economy of the Republic of Moldova.

In terms of inflation, the purchasing power of the national currency is significantly reduced. In transition countries, in the long run, inflation by 50% depends on the nominal effective depreciation of the national currency, by 40% - on unit labor costs and 10% - on utility prices. Inflation is closely related to the dynamics of the money supply in circulation and the devaluation of the national currency (IMF, 2004). The available statistics on countries in transition indicates that the degree of transfer of the exchange rate to the consumer price index during the month is about 50% (Korhonen I., Wachtel P., 2005). The currency crisis of 2015 in the Republic of Moldova was reflected in:

- significant depreciation of the national currency;
- reducing the level of foreign exchange reserves of the country;
- loss of public confidence in the national currency;
- falling prices for domestic financial assets;
- reducing confidence in government institutions and banks.

As a result of the currency crisis, cash accumulation could not be used to invest in the real sector of the economy and led to the disruption of the financial system of the country and the financial instability of the economy. The growth of the real effective exchange rate in the Republic of Moldova indicates that the competitiveness of domestic goods on world markets is declining.

Figure 8. Real effective exchange rate in Moldova, %[1]



Source: World Bank

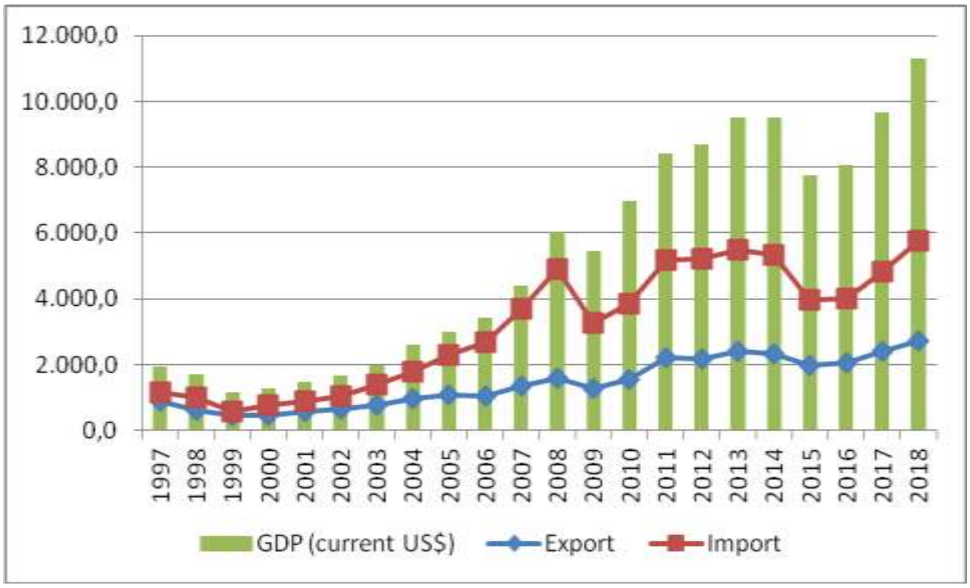
International experience shows that the dynamics of the real exchange rate on the eve of the crisis most often signals the appearance of a crisis. The main mechanism for the transmission of the crisis on the economy of the Republic of Moldova is represented by the fall in remittances. This fall was most clearly manifested during the crises of 2009 and 2015.

The existence of a model for the development of a national economy focused on the export of labor, along with a weak financial system of the Republic of Moldova, makes the real sector vulnerable to external shocks and does not allow achieving sustainable economic growth. External imbalance is reflected in the country's balance of payments. The growth of the balance of payments deficit in relation to GDP was registered a year before the crisis in 1998, in 2008, 2011. Before the financial and banking crisis of 2015, there was also an increase in the balance of payments deficit (Perciun, Petrova and Gribincea, 2018).

The main reason for the steady current account deficit of the balance of payments is associated with a decrease in the level of export opportunities in the economy of the Republic of Moldova; and an increase in imports due to dependence on energy imports and an increase in consumer demand stimulated by remittances from abroad. The tension in the external sector is due to the low level of export opportunities in the economy of the Republic of Moldova. The main share of export growth is agricultural raw materials (grain and sunflower seeds) and products on a give-and-take raw materials. Moldova's imports include a significant share of food and consumer goods.

[1] The real effective exchange rate is the nominal effective exchange rate divided by the price deflator or cost index.

Figure 9. Export-import and GDP of the Republic of Moldova, in million US dollars



Source: www.statistica.md

Import growth outpaces export growth in many countries. However, the trade balance deficit in Moldova is significant compared with other countries in transition. In 2016, the negative trade balance was of $ 1.98 billion. In 2017, the negative trade balance increased to $ 2.406 billion and its volume became equal to the volume of annual exports of goods.

The most significant impact on the competitiveness of the Moldovan economy is exerted by changes in external terms of trade. According to experts of the UNCTAD (2016), the terms of trade in the Republic of Moldova or the ratio of import and export prices are the worst compared with the indicators of the main trading partners of the Republic of Moldova. According to the data for 2016 the volume of exports in relation to GDP in the Republic of Moldova is 43.6%, and imports -71.8% of GDP (UNCTAD, 2016). The level of exports and imports to GDP in Romania is 41.3% and 42.3% respectively of GDP, in Russia -25.7% in exports and 20.5% of GDP in imports UNCTAD (2016). The deterioration in the terms of trade affected the fall in economic growth in 2009 and 2015. In 2015, the terms of trade ratio dropped to 97.9%, in 2016 it rose to 105.1% and, by 2017, fell slightly again to 103%.

4. Conclusions

The growth of the Moldovan economy is extremely vulnerable, as it is exposed to external risks from trading partners and global processes, as well as internal macroeconomic risks.

Moldova's is lagging in terms of per capita income and weak social development emphasizes the need for faster and more comprehensive growth. However, the existence of an export-oriented economy development model, along with a weak financial system, makes the real sector vulnerable to external shocks and does not allow for a sustainable economic growth. So, to manage economic growth becomes almost impossible. Contradictions of the interaction of macroeconomic and financial policies in the context of political instability can lead to the accumulation of a potential systemic risk.

For the effective implementation of risk management programs, it is important to track the performance of all sectors of the economy. At the same time, the assessment of macroeconomic risks and forecasting crises are the theoretical basis for decision-making in politics and the economy, contributing to the minimization of negative processes. Especially important benchmarks for risk management are indicators of the sustainability of public finances, the stability of exchange rates, the sustainability of price levels defined in the Maastricht criteria for countries seeking economic and institutional convergence with EU countries.

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