

# DISCORDANCES BETWEEN FISCAL POLICY AND MONETARY POLICY – MAJOR ISSUE FOR THE EMERGENT COUNTRIES

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## **Abstract:**

This is a topic on which there is an abundance of literature. Books are filled with information on the topic of the interaction between monetary and fiscal policies, which is one of the key, but also one of the more complex, relationships in economic theory. With the role of the central bank lawyer in mind, the discussion below will address the issue from one specific angle, namely the relevance of fiscal policy for central bankers.

In the last few years' papers have begun to analyze optimal monetary and fiscal policy in models incorporating nominal rigidities where social welfare is derived from the utility of agents. This article examines whether this analysis provides support for the consensus assignment, where monetary policy controls demand and inflation and fiscal policy controls government debt.

In this article, we review positive and normative issues in the interaction between monetary and fiscal policy, with an emphasis on how views on policy coordination have changed over the last years. On the positive side, no cooperative games between a government and its central bank have given way to an examination of the requirements on monetary and fiscal policy to provide a stable nominal anchor. On the normative side, cooperative solutions have given way to emergency loans allocations. The central theme throughout is on the optimal degree of price stability and on the coordination of monetary and fiscal policy that is necessary to achieve it.

**Key words:** Monetary policy, fiscal policy, public debt management, Central Bank

**JEL classification codes:** E52, E58, H30, H63

## **Introduction**

The financial crises through which the economy of the Republic of Moldova is passing by is resulted after admitted 1 billion US dollars' bank theft, requires fiscal and monetary commitments in fiscal and monetary policy, being realized with success separately they shall be correlated with dexterity. However, it is pretty hard to realize this correlation due to coverage of bank theft was secured by issuing of net monetary mass guaranteed by the Government, therefore this lead to liquidity excess with a high pressure upon inflation, requiring restrictive actions of monetary policy.

A sever monetary policy lead to increasing of credit price, decreasing of absorbance liquidity capacity by real sector and reducing of economic growth, which reduced the budget revenues. The lack of transparency in policies is reducing foreign capital inflows from foreign financial institutions and foreign investors as well. This events drove to necessity to access internal public debt, which even worse affected the monetary policy – plenty of states securities versus a low demand caused an increase in rates higher than loans rates. On the background of expansive actions of monetary authorities, fiscal authorities are powerless.

We are sure that in general lines the financial situation of The Republic of Moldova is a specific one, but we consider that all countries with emerging economy are placed in situation in correlation between monetary and fiscal policy. In basis of stated above, this paper aims to follow the way the emerging countries take in order to obtain a sustainable economic growth and to correlate monetary with fiscal policy.

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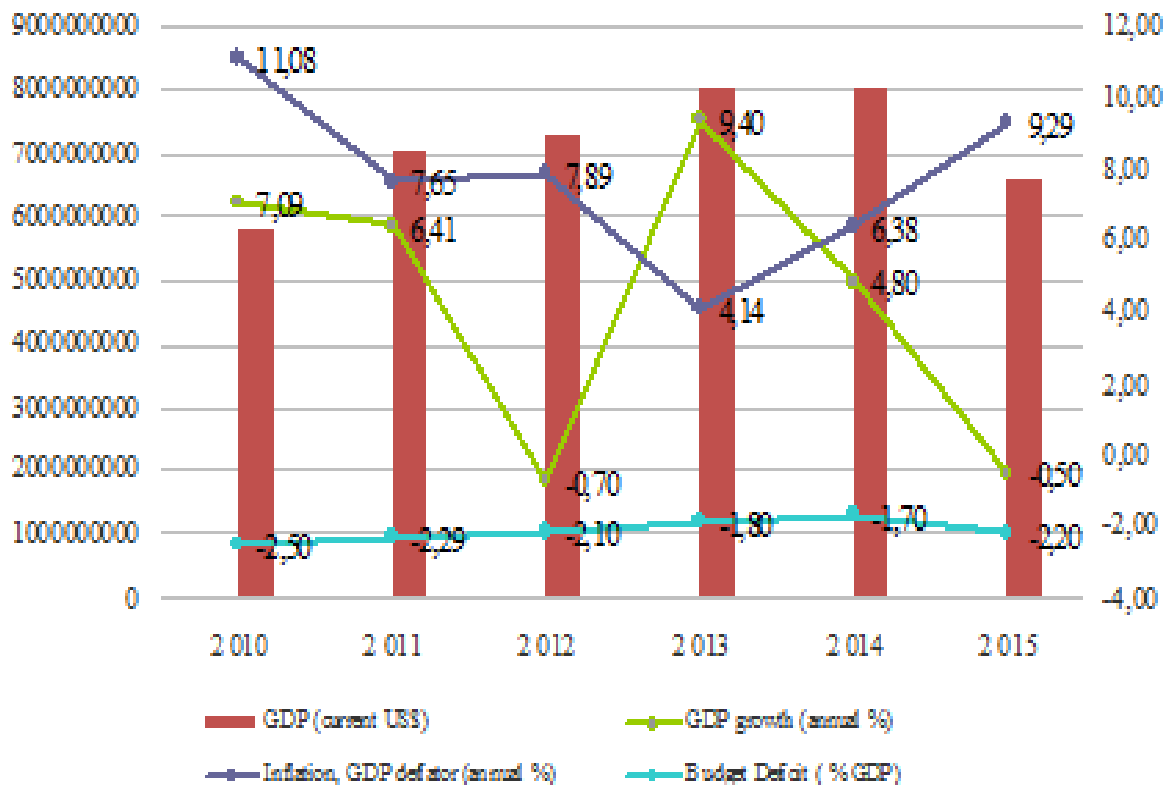
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## Efficiency assessment of monetary and fiscal policy correlation

In research ways of correlation between monetary and fiscal policy it is used the function of public losses, which is formed from the sum of squares deviation from its main values. This function includes the following indicators: GDP, inflation, exchange rate and budget deficit. Mainly in the dynamics of these indicators the society is interested in, in the same time includes the monetary and fiscal component. Accordingly, the most effective model of correlation is characterized by the minimum public losses. The figure below shows us the evolution of basic parameters taking into account for efficient estimation to its statistic values.

**Figure 1 - The evolution of GDP, GDP deflator, GDP growth and Budget deficit for 2010 – 2015 years in The Republic of Moldova**



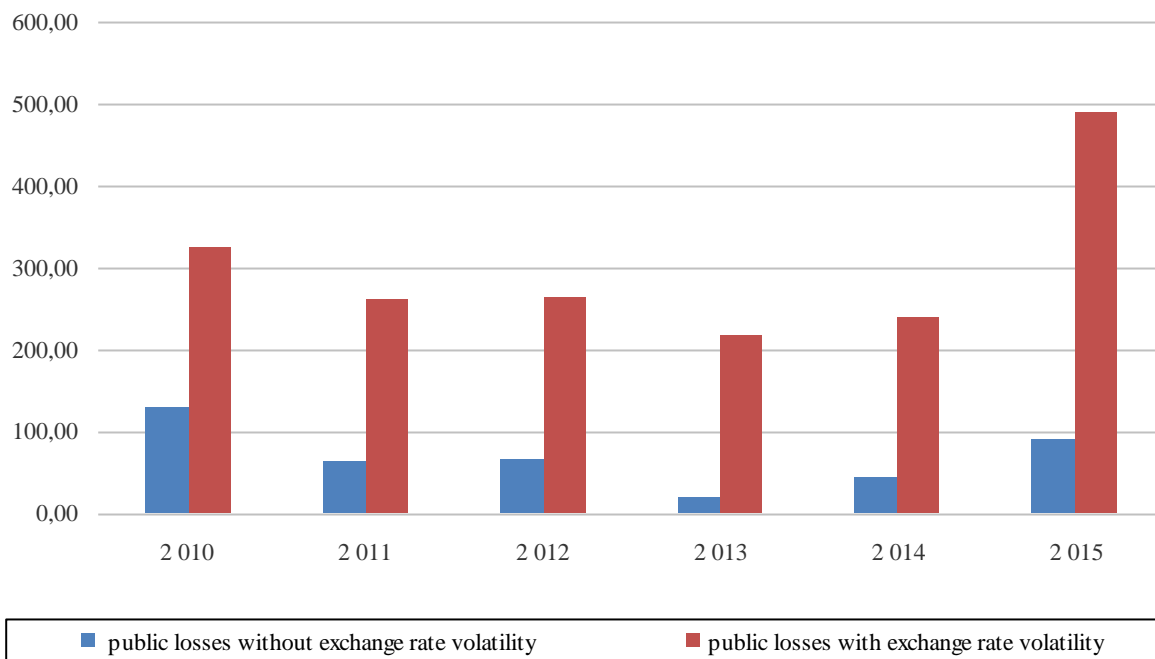
Source: World Development Indicators. Available at: <http://databank.worldbank.org>

Thus, the budget deficit is not so disastrous from the numeric point of view, we can see the lack of sustainability for it, because of negative GDP rhythm of growth for last two years, assisted with inflationary pressure over established limits of 5%. There is no volatility of exchange rate of national currency towards US dollars' reference currency, which have been depreciated by 30% in las year.

Theoretical for the stable and developing economy the inflation and budget balance shall be equal to zero, which determines the goal value in our research. At the zero inflation the exchange rate is stable, which is caused by purchasing power parity. We take the average exchange rate during a year in our calculus. We take GDP and monetary mass as main values during a year, which are stated in official acts. Due to this fact the public losses will include also losses from unreal forecast. Taking into consideration that in calculus we use only percentage, then the results are just coefficients. Respectively, the higher is the coefficient the bigger public losses are.

In the context of actual financial situation, we will try to estimate the efficiency of correlation between monetary and fiscal policy in The Republic of Moldova. In the context of social losses, as square deviation from equilibrium values (figure 2), we can see that in year 2013 is was the lowest deviation from macroeconomic expectations, social losses were the lowest.

**Figure 2 - Social losses from non correlation between monetary and fiscal policy in The Republic of Moldova for 2010 -2015 years.**



*Source: Elaborated by the authors*

In the same time, we can mention that a major contribution to social losses of national currency volatility towards reference currency can be explained as that our economy depends from imports and a low level of openness as well.

### **Type identification of correlation between monetary and fiscal policy**

For fiscal and monetary policy, it is inheriting a different, in some cases even opposite character of influence upon economic dynamic.

In this case there are two scenarios displaying the consequences of correlation between monetary and fiscal policy:

- Violation of macroeconomic equilibrium as a result of aggravation influence upon economics;
- Financial stability achievement due to effective government financial policy.

Obviously, that the first scenario does not include specific features of each policy separately, in the same time, the second scenario is based on synergic effect given that fiscal and monetary instruments are used by complementary principle.

Correlation between monetary and fiscal policy especially were actual in academic researches during crises and post crises periods. Although, being actual and for stability period and for countries with developed economy this subject remains to be very sensible mainly for countries with emerging economy, because they bring in discussion all the structured discordances.

From recent researches of mechanism of correlation between monetary and fiscal policy (Davig T. Leeper E. M,2011 , Aktas Z., Kaya N., Ozlale U.,2010) at the first stage of setting an effective correlation it is necessary to define a form of this correlation.

Since the Ministry of Finance (further MoF) and The Central Bank are the subject of realization of monetary and fiscal policy, it is appropriate to apply the existing correlating models in case of duopoly on oligopoly market. Respectively underlying the existing models:

- Independence and equality by Kurno
- Correlation by Shtakelberg
- Coordination.

The Kurno model assumes that MoF and The Central Bank are taking decisions independently and in the same time. In Shtakelberg model the agents are choosing one of available options of behavior: leader or follower.

The follower reacts on leader's actions, adjusting its volume of production to an existing volume of a leader. Namely the leader actions are creating the conditions for follower actions. Moreover, the follower thinks that the leader does not react to its actions. However, leader continues the opposite position.

This way, in taking of its decisions it considers the follower's actions, understanding its influence on expectations and mainly the reaction of the last one. In Shtakelberg correlation model it is necessary to consider two options:

- MoF – leader, The Central bank the follower,
- The Central Bank the leader – MoF the follower.

It is necessary to mention, that different approaches of correlations research show that among the researchers there is no a common point of view in this question. In the same time some of researchers even doubt the effectiveness of different forms correlation between government and the central bank in case if they have different goals and different ways of its achieving.

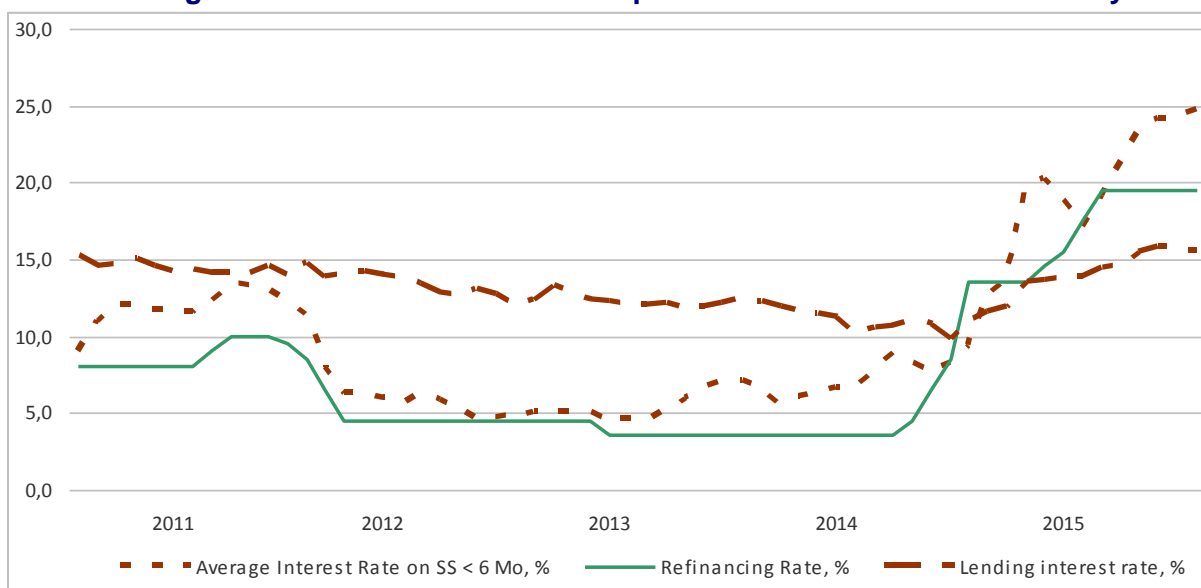
To notice the results of foreign scientific researches the correlation of government and The Central bank on Kurno model is less effective, which is defined by a significant deviation output from target level, by possible high inflationary indicators and as a result big public losses.

In opinion of some scientists an effective Shtakelberg model is possible with government leader and in case of coordination as well.

Talking about The Republic of Moldova, we can see a non-correlation actions of The National Bank of Moldova and Ministry of Finance, the fact which can be underlined from non-equilibrate decisions. The effects of restrictive monetary policy in year 2015 lead to an increase in securities interest rates and public debt services as well. In the same time, bank loans interest rates are lower than then reference rate of monetary policy.

From this point of view, we can affirm that in The Republic of Moldova the Kurno model is applied, which is the less effective and leads to a significant public loss.

**Figure 3 - The evolution of interest rate on state securities, banking loans and basis rate in The Republic of Moldova for 2010 – 2015 years.**



Source: *Elaborated by the authors in basis of presented data on Ministry of Finance and The National Bank of Moldova official web pages.*

## Building of monetary and fiscal correlation

Establishing an effective cooperation between The Ministry of Finance and The Central Bank is impossible without a clear defining of its goals and a fiscal policy in particularly. To notice, that during all economic periods the role of goal vectors were to achieve a sustainable development and a low level of unemployment.

However, at the modern stage of financial stability it is necessary to select the key goals of monetary and fiscal policy for short run.

The economist, laureate of Nobel premium Paul Krugman in counterweight with rigid economy believes, that for financial stability in post crises conditions it is necessary to stimulate the aggregate demand.

He proves his point of view with Keynes postulate: “savings should be done during the economic rise, but not during the recession” (Krugman,2013). Thus, the economist shows, “in the period when the majority of borrowers try to pay de debts, it is very important, somebody to do the opposite, to take the loans”. It is crystal clear that this “somebody” should be the government. The research results of International Monetary Fund experts show that rigid budget restrictions suppress, but do not stimulate the economy, prove this point of view.

The aggregate demand can lead to an economic growth, but another object of a correlated monetary and fiscal policy shall be the investments. To notice that the both indicators are in the field of monetary and fiscal effects.

Concerning aggregate demand – the effect of fiscal policy is seen in the moment of fiscal instrument applying (e.x. subsidiaries) and its multiplied till the end of a year. The monetary instruments (e.x. interest rate, bank liquidity maintenance tenders) also influence as well upon consumers’ demand in the moment of its realization, but without its continuing in the following periods.

To notice that in the following periods, upon growing aggregate demand the monetary policy influences with a restrictive method. This feature is very important, because it is establishing an equilibrium tool between monetary and fiscal expansion (Bhattarai Saroj 2012, Davig Troy,2011 ).

In case of investments the fiscal policy acts similarly like upon demand, but after some time the key factor is privatization. The list of monetary instruments influence upon investments changes somehow (e.x. overnight credits, REPO), but their importance as tools is seen in the moment of applying.

In the achieving of strategic goals, the fiscal policy realizes its influence upon economic processes in three directions: budget, fiscal and debt. Respectively we can suppose of different monetary instrument correlations from one side, and these three groups of fiscal instrument on the another side. The list of monetary and budget instruments is presented in the Table 1.

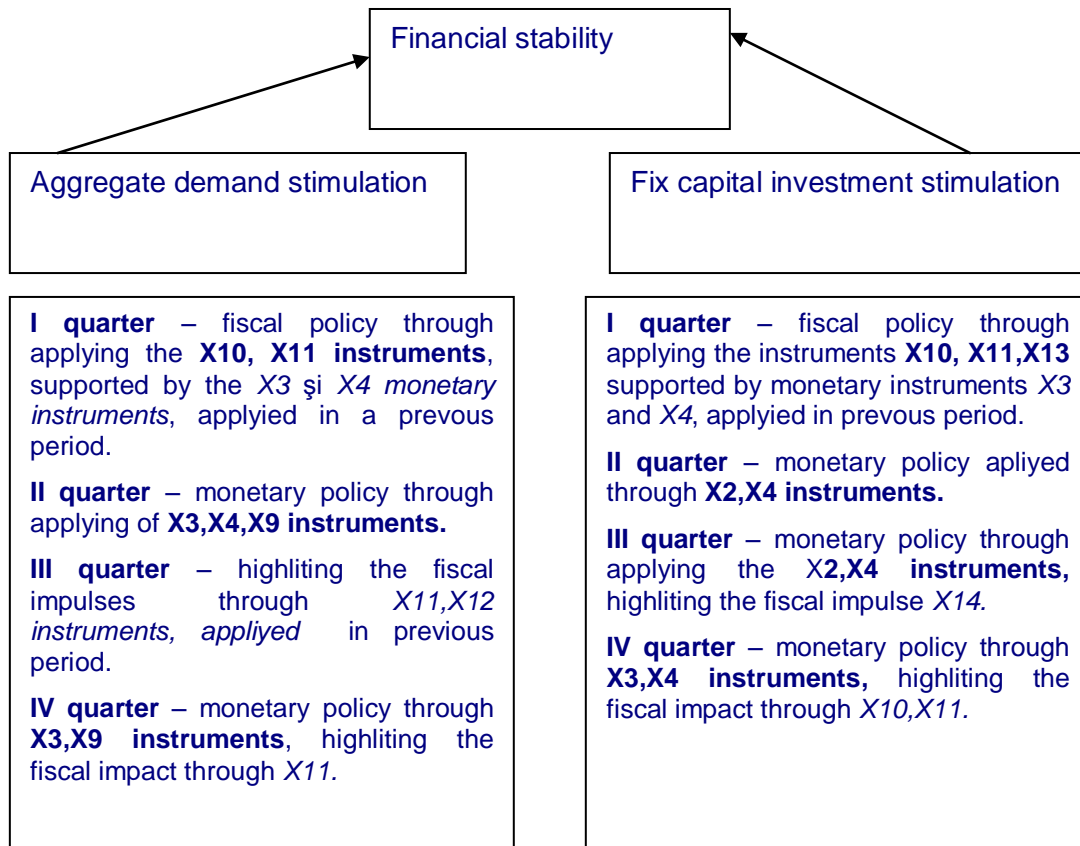
**Table 1**

**The list of monetary and fiscal instruments**

<b>Monetary group instruments</b>	
X1	Aggregate volume of monetary mass (turnover for the period)
X2	Refinancing available money (overnight credits)
X3	Bank maintenance liquidity tender
X4	REPO operations
X5	The volume of monetary mass mobilization (turnover for period)
X6	REPO operations, revers
X7	Foreign investment balance
X8	Open market securities operations by The Central Bank
X9	The central Bank discount rate
<b>Budget group instruments</b>	
X10	Subsidiaries (transfers)
X11	State procurements
X12	Lending
X13	Science financing
X14	Incomes from public privatizations

Let us model the correlation between monetary and fiscal policy in one-year frame. Taking into account that state budget is executed during a year, for fiscal policy it is related one-year imperfectness. However, for monetary policy we can choose the imperfectness in any period of time. The model of one-year correlation is presented in picture 1.

**Figure 4 - Proposal of usage of monetary and fiscal policy in the context of its correlation**



It is necessary to mention, that highlighted bold represent its realization. Italic highlighted indicate about its influence in previous periods. We consider that in this case, correlation between fiscal and monetary policy will achieve its final goal – financial stability and economic sustainable growth with social minimal adverse effects.

### Conclusions

This way, at the begging of financial year (in the first quarter) for aggregate demand stimulation the fiscal policy applies subsidiaries and state procurements, its influence will maximize direct REPO operations and bank maintenance liquidity tender (the last operations shall be done at the end of previous year). In the second quarter it is desirable to run the monetary expansion through direct REPO operations and decreasing of interest rate.

Choosing the bank liquidity tender and interest rate is explained by a closed relationship between the goal variable (aggregate demand). Considering direct REPO operations correlation between budget instruments, are used for a synergic effect with fiscal policy.

Applying agreement of these monetary instruments will maximize the state procurements and lending in third quarter.

In the fourth quarter we can see the display of fiscal instruments influence (state procurements), realized at the beginning of the year. Thus, for multiplying the effect from procurements we can apply the rate policy and to run the maintenance bank liquidity tender.

In case of investments fiscal instruments are important directly in the period of its application with the following display in the fourth quarter. In turn, the monetary policy instruments are displayed in the moment of its realization and without continuing in time.

Therefore, for investment stimulation it is advisable to implement this model of fiscal and monetary coordination.

Respectively the effect of fiscal expense applying through state procurements, subsidiaries and science financing in the first quarter it is advisable to highlight with direct REPO operations and bank liquidity maintenance tender in the previous quarter. In the second and third quarter a positive impact upon investment dynamics can be ensured by overnight credits and direct REPO operations.

To mention, that this list of monetary instruments is characterized by a closed relation with fiscal instruments, which in final ensures a synergic effect of correlation between fiscal and monetary policy.

The problem of correlation between fiscal and monetary policy always had a special place in domestic and foreign researchers. The financial crises gave the more weight to this question, and the importance of achieving a financial sustainability and post crises recovery as well caused

creation of new approaches in determine new vectors, as well as choosing goal instruments.

Taking into account its opposite influence character upon economic indicators, there is the necessity to design a new and more effective model of fiscal and monetary correlation.

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