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Assessment of Money Supply in Circulation: Some Topical Issues

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Abstract

In the economic literature there are controversial questions about the assessment and management of money supply in circulation. A group of scientists and economists believe that there is no need to analyze the short-term fluctuations in the money supply, because short-term fluctuations in the money supply are largely dependent on seasonal factors. In addition, there is no consensus among scientists and economists about the choice of a particular monetary aggregate as an indicator of monetary policy. This paper analyzes the current issues of assessment of money supply in circulation.

Keywords

Money, Money Supply, Monetary Aggregate, Cash, Supply of Money, Demand for Money, Transaction Deposits, Targeting

1. Introduction

In this paper, there has been carried out a comparative and critical analysis of the existing approaches to the assessment of the money supply.

The author formulated scientific conclusions and developed specific proposals to improve the assessment of money supply in circulation. In particular, the author concluded that the inclusion of short-term fluctuations in the money supply is important in those countries where there is applied the targeting of the money supply.

2. Main Part

Assessment and management of the money supply are the key issues of monetary policy. Since assessment of the money supply allows us to estimate the demand for money, the deviation of the money supply from demand for it, changes in the level of monetization of the economy, to assess the population's propensity to save and accumulate. Also, the assessment of the money supply allows us to estimate the monetary gaps.

Quantitative measurement of money is widely put into practice and on the basis of it the level of money supply is estimated. It is most often used monetary aggregates as quantitative measuring instruments of money supply.

In the international banking practice the following monetary units are widely used:

M0 – the cash issued by the Central bank;

M1 - M0 + demand deposits + traveler's checks + credit cards;

M2 - M1 + time deposits + savings deposits;

M3 – M2 + deposit certificates + savings certificates + state securities.

In the USA corporate securities are also considered in structure of monetary aggregates. They are considered in structure of the monetary aggregates L.

In our opinion, the need of quantitative measurement of money supply is defined by the following factors:

1. In system of the macroeconomic analysis the monetary analysis is important. And money supply is the main monetary indicator.

2. The offer of money is object of monetary and credit regulation of the economy. Therefore there is a need of providing an optimum level of money supply.

3. Low level of provision of the economy with money will lead to the delay of macroeconomic growth rate. And the appearance of additional money in circulation promotes strengthening of inflationary processes.

4. The central bank, providing the stable growth of money supply, positively influences on development of the national economy.

Changes in the money supply and its growth rate influence on important economic variables, they can also affect the

achievement of the main development objectives of the national economy (1).

In the economic literature there are different approaches to the assessment of the money supply. For example, F.Mishkin believes that while making assessment of the money supply one should not pay much attention to short-term fluctuations in the money supply, but instead long-term changes should be analyzed (2).

F.Mishkinis right in the sense that the seasonal adjustment of data on the money supply leads to significantly different results when new data appears.

However, in our opinion, taking into account short-term fluctuations in the money supply is important in those countries where the targeting of the money supply is applied. This is due to the fact that in certain months of the current fiscal year occurs, quite probably, a sharp increase in the quantity of money in circulation due to various reasons. In particular, price increases for goods and services of natural monopolies, the financing of the state budget expenses out of Central Bank's credits, increasing of inflation rate etc. As a result, in certain months of the financial year, there is a high growth rate of the money supply and, in the final analysis, the Central Bank will not be able to keep the growth rate of the money supply within the specified parameters. Therefore, only in 54% of cases central banks were able to achieve their goals (3).

Currently, many countries use money supply targeting. For example, the US Federal Reserve under the leadership A.Bernsdeclared about the transition to the regulation of the money supply as the basic regime of its policy and the object of control became the monetary aggregate M1 (4).

Germany's central bank - the Bundesbank, since 1988 has been using monetary aggregate M3as an indicator of monetary policy. The Central Bank of Uzbekistan has been using monetary aggregate M2 as an indicator of monetary policy (5).

According to R.Miller and D.Van-Hoose, the use of monetary aggregate M1as an indicator of monetary policy of the US Federal Reserve is due to an increase in cash in circulation: "in the US the significance of cash has grown as it is or as a component of the index M1. For example, in 1973 in the US the amount of cash in circulation was around $ 325 per capita. By 1993 it had risen to $ 1,050. The share of cash in the monetary aggregate M1 increased from 20.5% at the end of 1960 to more than 30% at the end of 1992"(5).

Currently, the European Central Bank uses monetary aggregate M3(6)as an indicator of monetary policy. This is due to the fact that in the structure of the monetary aggregate M3 the amount of deposit and savings certificates has a relatively high growth rate.

In our opinion, in countries with economies in transition, in the assessment of the money supply in circulation there must taken into account the growth rate of the components of the monetary aggregates and specific weight of each component in the total volume of money supply. This is because in the developed countries, cash and transaction deposits occupy a relatively low specific weight in the total

volume of the monetary aggregate M2 and M3. But in countries with economies in transition cash and transaction deposits occupy a relatively large specific weight in the total volume of the monetary aggregate M2 and M3. So, as of January 1, 2014, in Uzbekistan the specific weight of transaction deposits in total volume of deposits of commercial banks amounted to 45.4% (6).

In the banks of developed countries, including commercial banks of the US and Western Europe the specific weight of transaction deposits in total volume of deposits does not exceed 30%.

In addition, in many countries with economies in transition, cash occupies a relatively large specific weight in the total volume of money supply. For example, the ratio of cash by aggregate M0 to GDP was as follows: in Russia - 10.9%, China - 11.8%. At the same time, the value of this indicator comprises in Germany - 8.9%, in France - 8.5%, in the US - 6.9% and in Canada - 3.6% (7).

From the above it can be concluded that in countries with economies in transition, where cash and transaction deposits occupy a relatively large specific weight in the total money supply, it is necessary to use monetary aggregate M1 as an indicator of monetary policy. Since, in this case the use of M2 as a monetary indicator cannot really assess the impact of money supply on the basic macroeconomic indicators, including the economic activity of population.

Now credit expansion of commercial banks has an emission character. That is, the main part of money in circulation is the results of credit expansion of commercial banks. Therefore, while estimating the money supply in circulation, the assessment of level of credit expansion of commercial banks places an important role.

According to Mises, in a free banking system any bank, unilaterally expanding the credit by reduction of a cash reserve below reasonable level, risks to be insolvent (9).

It is necessary to emphasize that too high level of credit expansion of commercial banks will lead the increase of money supply, as the results of which inflationary processes intensify. In M. Thatcher's opinion, in the period of her being the prime minister, the quantity of money and the credits grew too fast and as a result of it the prices of assets raised (10).

M. Freidman also recognized an important role of credit expansion of banks in the formation of the money supply. Therefore he suggested to introduce100 percentage reservations of deposits of commercial banks. But many scientists-economists criticized this idea of M. Freidman. For example, one of prominent scientists-economists of Huerta de Soto considers that if to support 100 percentage coefficient of reservation, it can lead to death of a banking system (11).

The world famous scientist-economist J. M. Keynes, generalizing the factors that affect quantity of money in circulation, noted the nominal and real sizes. In Keynes's opinion, the nominal size of money supply directly depends on price level, and demand for money depends not only on the nominal income, but also on the level of interest rates (12).

Based on the above-mentioned, it can be concluded that the level of credit issuance of commercial banks is very important in the evaluation and management of the money in circulation.

It is important to note that in many countries with economies in transition, level of credit issuance of commercial banks is relatively low. This is due to many factors, the most important of these is the low level of development of the banking system, the financial instability of the enterprises and the relatively low level of household savings.

Table 1. *The level of credit investments of commercial banks in relation to gross domestic product in some countries with economies in transition(13)*

#	Countries	2011	2012	2013
1	Ukraine	61,6	58,9	65,0
2	Russia	42,6	42,9	48,3
3	Armenia	33,2	40,3	42,7
4	Kazakhstan	31,8	33,1	40,3
5	Byelorussia	57,4	17,8	27,9
6	Azerbaijan	18,8	23,0	27,1
7	Tajikistan	13,7	11,8	18,5
8	Kyrgyzstan	11,4	13,2	15,6

Source: Central bank of Uzbekistan

As can be seen from the data presented in Table#1, in the analyzed countries, the level of credit issue of commercial banks is relatively low. This indicates that the credit issue of banks in these countries is not a determining factor in the growth of money in circulation.

Especially in Azerbaijan, Tajikistan and Kyrgyzstan loans occupy a very low specific weight in relation to GDP.
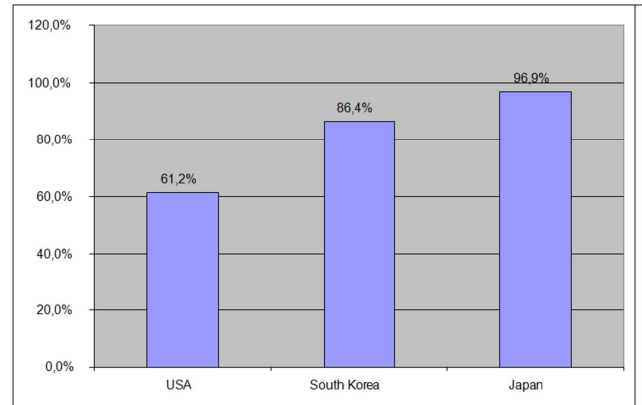
The growth rate of credit investments and the stability of its growth depend on the stability of the resource base of commercial banks. Unfortunately, in many countries with economies in transition, commercial banks have weak resource base, there is a lack of long-term resources. For example, in M.Matovnikova's opinion, the lack of long-term resources in Russia is a generally recognized phenomenon(14).

In developed countries, developed stock market allows banks to attract long-term resources by issuing long-term bonds. The adequacy of the deposit base of western commercial banks is also important.

In many countries with economies in transition, relatively high rate of money grow this explained mainly by high inflation and a poor regulatory system of the money supply. For example in Russia, by the results of 2013the inflation was 6.5%, exceeding the established target range (15).

In developed countries, the credit investment of commercial banks is the main source of growth of the money supply. This is explained by the relatively high level of credit investments of commercial banks (Figure 1).

As can be seenfromFigure#1, in the analyzed countries, the loans from commercial banks take a relatively large specific weight in relation to GDP.

Source: Central bank of Uzbekistan

Figure 1. *The level of loans of commercial banks in USA, Japan and South Korea in relation to gross domestic product, as of January 1, 2013(16)*

3. Conclusion

As results of research of famous scientists-economists note, the calculation of short-term fluctuations of money supply is important in those countries where targeting of the monetary offer is applied.

In countries with economies in transition, the close interrelation between cash monetary circulation and economic activity is observed. Besides, transactional deposits have rather big specific weight in the total amount of deposits of commercial banks. In such conditions, it would be appropriate, to use the monetary aggregate M1 as the indicator of monetary policy of the Central bank.

When assessing the money supply in circulation, the assessment of level of credit expansion of commercial banks is very important as the main part of money in circulation results from credit expansion of banks.

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