THE CONCEPT OF CREDIT AGGREGATES:
SOLVING THE ANOMALY OF MONEY VELOCITY DECLINE

Abstract: The article presents the results of studying money velocity decline in rent-seeking economy on the example of Russia. The use of credit aggregates’ approach gives a negative result. The stability of money velocity is reached only in case of economy’s cash flows’ disintegration to short and medium-term loans.

Key words: anomaly of money velocity decline, rent-seeking economy, credit aggregates, monetary economics, institutional economics.

Аннотация: В статье представлены результаты исследования аномалии падающей скорости обращения денег в рентоориентированной экономике на примере России. Использование метода кредитных агрегатов дает отрицательный результат. Стабильность скорости обращения денег достигается лишь в случае дизагрегации денежных потоков до краткосрочных и среднесрочных кредитов.
Introduction

The researchers came across the anomaly of the money velocity decline in the second half of the twentieth century. However, until the 1980s changes in the trend were short-lived and associated with either prolonged crisis or with technological innovations in payment documents and means of payment. [1] The literature on the issue can be conditionally divided into two directions: studies of short-term/medium-term factors and studies of long-term factors influencing money velocity. factors and studies of long-term factors influencing money velocity.

Literature review

For example, a fundamental review paper on the issue of velocity of money in the short/medium term perspective by J. Hamilton (J. Hamilton, 1989) identifies three key factors affecting changes in the velocity of money. These include a change in disposable income, inflation and interest rate. [1] Growth (reduction) in rates leads to an appreciation (depreciation) of the value of money and the decline (growth) in the transaction demand for money. These include a change in disposable income, inflation and interest rate. [1]


In addition to the classical factors of influence, the revolution in financial technology has led to the possibility of allocating new factors of long-term influence on the velocity of money. R. Anderson, M. Bordo and J. Duca (R. Anderson, M. Bordo & J. Duca, 2017) reassessed these factors and proved the importance of the
risk premium in the structure of interest rate, financial innovation and changes in banking regulation. [5,6]

Yet this anomaly is still not explained. To solve this riddle R. Werner suggested a method of disintegration of the money supply, given the fact that not all funds according to the quantity theory of exchange, are involved in the production of the final national product. Thus, to determine the actual velocity of money it’s necessary to take into account only the amounts that are involved in the creation of GDP (as we know, financial transaction, for example, are not included in the calculation of GDP). This method is designed to eliminate the problem of measuring money supply and was named the concept of credit aggregates, which in recent years gets more and more recognition. The reestimation of money velocity through the credit aggregates remove anomaly of money velocity decline for most countries.

**Methodology**

To conduct the disintegration of cash flows, in the calculation of monetary exchange equation,

\[ \frac{M}{(C)V} = PQ \]

in part of the money supply (M) we use only loans granted to the nonfinancial sector of the Russian economy (C).

**Results and discussion**

An alternative method of checking for presence or absence of the studied anomaly and for the hypothesis’ testing is disaggregation technique. For the test we use values of the money supply (M2), aggregate loans to non-financial sector (K1), cleaned from production and consumer inflation, respectively. The results of the calculations are presented in Figure 1.
As can be seen from these calculations, the velocity of money, as by using monetary and credit aggregates, is of steadily falling character. Hence, we can conclude that in the case of rent-seeking economy, even disaggregating cash flows does not resolve the mystery of the missing money. It can be assumed that the principle of target use of credit resources in rent-seeking economy is broken. Given that in Russia over 50% of all loans to corporate clients are issued for a period exceeding 3 years (investment loans), we decided to consider only a combination of loans to the nonfinancial sector for a period from 181 days up to 3 years (unit K2). In this approach, the trend in the velocity of money is stable in long term with cyclical oscillations in periods of crisis, which corresponds with the monetary theory and assumptions about the nature of money velocity.

**Conclusion**

Thus, we receive confirmation of the existence of anomaly of money velocity decline in case of a rent-seeking economy. We have identified a deficiency of disaggregation technique when dealing with rent-seeking economies, which consists in the possibility of no linkage between loans granted to non-financial sector and the country's GDP. Third, elimination of this disadvantage is possible by considering the loans to the corporate segment of certain urgency.
References: