

Institute of Money: the Problem of Evaluating the Level of Trust in Monetary Unit

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Abstract — The relevance of investigated problem is caused by underestimation of factor of trust in money in modern economic researches and insufficient studying of problem of evaluating the level of trust in monetary unit as the carrier of the institute of money. The article presents a mechanism for assessing of level of trust in monetary unit. In addition, relevant quantitative indicators, which make possible to calculate mathematically the level of trust in money, are identified. The choice of quantitative measurers of the public trust level is based on the analysis of savings behavior, sociological surveys of the population, credit ratings and official statistical information.

Keywords — institutionalism, institute of money, public trust, stability of the monetary unit, currency, deposits, monetary institutions.

I. INTRODUCTION

Trust in money had unequal importance in different historical periods. It was determined primarily by the internal filling of the money. Modern money is fiduciary by its nature and dependent on public trust to a large degree.

A high level of public trust in the state monetary unit ensures the stability of the national currency in crisis, stimulates economic processes in the country, money inflow into banking structures and fast normalization of basic macroeconomic proportions.

As opposite, the fall of the level of trust in the national monetary unit leads to popularization of money surrogates, provokes inflationary processes in the country and inhibits the growth of the economy. In its turn all of these lead to decrease of the national currency stability itself.

In order to ensure stability of monetary units, a lot of effort can be implemented by maintaining of specific quantitative indicators, and it will have certain results. However, if these measures do not affect the level of trust, the population will perform its own types of behavior. Thus, today maintaining a high level of trust in money is required condition for their effective functioning.

For ordinary citizens, the question if to accept some currency or not is a question of trust to the one. In other words, a monetary unit exists as long as individuals believe in its ability to be exchanged for any other commodity. For this reason, the trust in the monetary unit must be constantly maintained.

Thereby, in modern conditions, the need to rethink the category of trust in money has become obvious, as it is both the most important condition for economic exchange and the criterion for the stability of national currencies.

Present article aims to form a modern approach to evaluating the trust in monetary units as the carriers of the money institute. Achieving this goal predetermined the main objectives of the research:

- to search the importance of trust in money during different stages of the evolutionary of the money institute;
- to reveal the essence of relationship between the stability of a monetary unit and the level of public trust;
- to elaborate a mechanism for evaluating the level of trust in the monetary unit;
- to detect objective quantitative indicators of the level of trust in the national monetary unit.

II. LITERATURE REVIEW

The problem of money was considered in varying degree by each economic school. However, in the institutional economy it has always had a modest place. Within the framework of institutionalism, the study of money is limited by covering certain issues related to the money circulation. Foreign researchers which made a significant contribution to the development of institutional direction of monetary theory are J.K. Galbraith, W.C. Mitchell, G. Myrdal, P. Samuelson etc.

Thus, in the theory of W.C. Mitchell special attention is paid to the 'monetary institutions' (whole system of monetary circulation). According to the researcher, money plays an independent role in society which is the main engine of economic activity. Based on this thesis about determining role of money, Mitchell formulated the tasks of economics, which, in his opinion, should reveal the connections between money circulation and people's behavior [6].

The founder of the Austrian school, C. Menger, in the eighth chapter of his "The Teaching of Money" [5] of his main work "Foundations of Political Economy" laid the foundations for the study of the economic institutions evolution. C. Menger notes the importance of historical reconstruction of institutional evolution and the role of habits in the formation

of economic institutions. In his opinion, habits, economic culture and economic practice are the three basic elements which form the money institute in the exchange economy.

The American economist and sociologist J.K. Galbraith [8] emphasizes the importance of interdisciplinary approach. He notes that studying of money in isolation from all other areas of the economy uses complexity as a way to hide the truth, rather than disclose it.

Today many domestic scientists are engaged in research in the field of institutional nature of money. It is V.M. Polterovich, G.B. Kleiner, Yu.V. Bazulin, A.K. Lyasko, I.V. Degtyareva, O.A. Zolotareva, L.A. Titova, P.S. Lemeshchenko, A.Yu. Gribov, D.P. Pavkov, T.M. Koryagina, A.E. Shastitko, K.Yu. Surikov, K.N. Ermolaev, V.K. Burlachkov and others.

In modern society the problem of trust becomes more and more important year by year and gradually comes to the foreground of humanitarian researches. The constantly growing level of informational saturation of economic and social interactions, the improvement of the ways of innovation exchange, the expansion of interaction forms between individuals – all of these increase the speed and scope of economic decision-making. In its turn it changes the importance of trust in society [2].

Consideration of the problem of trust as a socio-economic phenomenon is presented in the works of foreign researchers as Y.F. Fukuyama, J. Baudrillard, R.M. Locke, K.P. Polanyi, J. Kornai and some domestic researchers: B.Z. Milner, V.V. Radaev, I.Yu. Zhilin, A.N. Oleinik, Yu.Ya. Olszewicz O.V. Takhanova, and others.

Some aspects of trust relationships concerning money institute are disclosed in the works of A.K. Lyasko, O.A. Zolotareva, K.Yu. Surikov and others.

III. RESULTS AND DISCUSSION

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A. The importance of trust in money at different evolutionary stages

The problem of trust in money arose at the same time with their appearance and accompanied them at every stage of historical development. However, in different historical periods, trust in money had unequal importance.

Thus, in the early stages of society development, the trust in primitive forms of money was ensured by the value of the commodity acting as money itself (livestock, hides, furs, etc.). Since such money was trusted by the participants of the transaction, the problem of trust in money did not arise.

Trust in the first metal money (made of gold and silver) was not very differ from the primary monetary goods, because

it was backed by the value of the material from which they were made.

The coin issue was the next step in hardening of trust in metal money. The sign (seal, trademark) of the issuer, applied to a piece of metal, was at the same time a symbol of power and a guarantee of the usefulness of the coin being issued. As a consequence, trust in money has increased. Since the state monopolization of the metal money issue the trust in money began to be in close complementary connection with trust in the government.

Representative money, which came to substitute the full weight money from precious metals, and in consequence completely replaced them, marked a transition from fully secured money to fiat (fiduciary) money. The major factor in ensuring of trust in money became a gold reserve, which the state issuing monetary units was referred to.

By the end of the XX century money made another jump in its development, completely threw off its internal commodity content and turning into a pure symbol of public trust. The reason for this evolutionary leap, along with it, was the overall growth of trust in the society between individuals, organizations and the government.

Thus, there is an increase of trust factor importance during evolution of money from the commodity form to fiat money. Trust in money acquires a new meaning with the expansion and complication of interaction forms between individuals and organizations. Modern fiduciary money has the highest degree of sensitivity to any changes in the level of trust.

At the same time, private forms of money need public trust a much more than national monetary units. So, such a modern kind of money as a crypto currency is interrelated with even greater trust than its predecessors. That is why its rate is subjected to such significant fluctuations.

B. Modern View on the Problem of Trust in Money

Despite the fact that the need to maintain a high level of trust in money is recognized by many researchers in the field of monetary theory, the issues of trust in money are not sufficiently developed. Some aspects of the trust relationship applied to the institute of money are disclosed in the works of domestic researchers.

Zolotareva [1] notes that trust at the stage of commodity money played the role of an auxiliary institution, but then it gradually took the place of the 'institutional base of modern money'. The researcher considers trust as the basic institution of modern monetary policy, which is in a complementary relationship with the institute of money.

However, the position of Zolotareva seems not entirely vindicable. The possibility of such an interpretation of trust is groundless as the trust category doesn't have key features of institution.

Similarly Surikov [7] for the reason of the lack of significant compulsive mechanisms (as a key feature of the institute) classify the trust as informal type quasi-institution. In addition, the researcher notes that the existence and development of the money institute is associated with the level

of trust in issuers of money, but it is not determined by trust in the money itself as an economic phenomenon. Considering the institutional trust in the state as the initial level of the pyramidal hierarchy of institutional trust in monetary institutions, Surikov reduces the issue of public trust in monetary units to the problem of trust in the state as its guarantor.

Indeed, the fiduciary nature of modern money contributed to the strengthening among economists of the opinion that there is currently no problem of trust in the monetary unit.

Since the monetary unit are fixed by the law as the only legitimate mean of payment it does not leave any alternative on the state territory. Thus the problem of trust in the national currency is considered solved.

A similar point of view is expressed by Lyasko [4]. According to the scientist, the sovereignty of the state's right to issue national currency, which is mandatory for circulation on its territory, reduces the problem of trust in monetary unit to the issue of trust in the state and its economic policy.

However, such a point of view is not fully vindicable. Indeed, it is difficult not to agree that the legitimization of a monetary unit is a necessary condition for the functioning of money as a formal institution. However, the domestic experience of recent decades has shown that in the case of a decrease of the citizens' trust in the national currency, the only legitimacy of national money is insufficient to ensure its stability. Changes in the level of trust in national money lead to a shift in consumer preferences toward the use of various monetary surrogates and foreign currencies. Namely it activates a search for alternatives to the national monetary unit.

Thus, hyperinflation in Russia in the early 1990s (1992-1994) and a low monetization rate of the economy (fluctuating according to different estimates in the range of 12-20%) [10] undermined the trust of the citizens and foreign investors in the Russian ruble, led to the barterization of the economy, and the use by citizens the money surrogates: different types of private money, including ersatz money [9]. The population increasingly used the Russian ruble only as a temporary means of saving and strived to transfer the cash to durables or goods demanded for further exchange as quickly as possible.

At the same time, it is notable the gap between the perception of the national currency and the state acting as its guarantor in the Russian mass consciousness. In the public minds the instability of the ruble was not fully identified with the government responsibility for the occurred events. Since wages were indexed by the state in accordance with the level of inflation, in the mass consciousness the idea of state stability and temporary difficulties was still maintained. For this reason, despite the rapid decline in public trust in the ruble, the level of trust in government regulators has remained fairly constant for quite a long time [11].

Thus, the above overview analysis allows to recognize that the mechanisms of state compulsion carry out some institutional support for individuals' trust in money, but the public trust in a monetary unit is not guaranteed by their legitimization and it is not reduced to it. In addition, the

guarantor can compensate the lack of trust to some extent and to be base for further building trust in the institute.

The cyclical renewal of the exchange process requires the trust of contract participants to the other side of the transaction, to the institution of money, to specific carriers of money functions, to monetary institutions, and trust in the issuer as a guarantor of its value.

Thus, the hierarchy of contractual relations in the money institute functioning process in society leads to a hierarchy of institutional trust in money (Fig. 1).

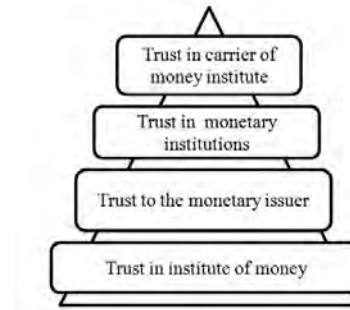


Fig. 1. Hierarchy of trust in the institute of money

C. Public Trust in the Monetary Unit as a Criterion of Money Stability

The majority of representatives of the institutionalism fairly accent that the existence of the institution is caused by the fact of its reproduction. However, in scientists researches insufficient attention is paid to conditions of normal reproduction of the institute. Meanwhile, it is important to note a stability as one of the key conditions for the institute functioning. For the institute being it must be reproduced, and that means it supposed to be stable. Since the specific norms and rules that make up the essence of the institution are realized in society through carriers of the institution, a stable must be the carrier.

In order to ensure the stability of monetary units, a lot of effort can be made to maintain specific quantitative indicators. And that will have certain results. However, if these measures do not affect the level of trust, the population will behave in its own way.

Therefore, measures to increase the stability of monetary units should be complex and affect the level of public trust.

On the other hand, if an institution able to reduce the uncertainty in interactions, retaining this ability for a long time leads to reinforcement of trust. So long as a monetary unit is used and it is trusted, it is stable and used in circulation. The more it is used, the more it is trusted.

Taking into account the above, it should be recognized that the main problem of the institution functioning is ensuring the stability of its carriers, which is impossible without public trust.

It should be noted, the issue of private monetary units stability, unlike state money, cannot be reduced to the problem

of its back (internal filling), because of absence of any back. Thus, the stability of the modern type of private money *‘crypto currency’* is determined only by the level of existing trust. Trust only the thing that allows the crypto currency to function. This aspect is of fundamental importance for understanding the mechanisms of the money institute functioning in society.

The formation of the monetary unit stability is a complex multi-factor process which is caused by a combination of external and internal factors. There is a complex interlacing with nomination of one or another factor as the determinative depending on the general economic and political situation in the country and the world. It is rather difficult to determine the priority of these factors. At present, the stability of monetary units is largely influenced by both external and internal factors.

Both groups of stability factors of the national monetary unit are very diverse. The complex of monetary and non-monetary components covers the economic, socio-political and institutional systems of society (Table 1). Regulatory measures to achieve the stability of the monetary unit must take into account the nature of the factors and be implemented in these areas.

The influence of each of these groups of factors is reflected in a certain resulting characteristic, which is a specific quantitative or qualitative indicator.

Taking into account the above, within the framework of the proposed concept, stability is suggested to be interpreted as a complex positive long-term state of a monetary unit, formed under the influence of a complex of external and internal factors and expressed through public trust in the monetary unit.

From the above concept, the trust in the monetary unit can be represented in the following form:

$$Trust = f(F_{economic}, F_{social-political}, F_{institutional}) \quad (1)$$

Since the confidence in the monetary unit consists of two parts, external and internal, the trust index to the monetary unit will look like:

$$IT = I_{et} + I_{it} \quad (2)$$

where

I_{et} the index of external trust, which is the result of the influence of a set of external factors

I_{it} the index of internal trust, which is the result of the influence of a set of external factors

Therefore, external and internal trust is a function of the factors described above, the impact of which is expressed through appropriate quantitative or qualitative resulting characteristics.

$$I_{et} = f(\text{exchange rate, external credibility of the monetary unit issuer, trust in the monetary unit as a means of international settlements}) \quad (3)$$

$$I_{it} = f(\text{inflation, public trust in the state, public trust in monetary institutions}) \quad (4)$$

In order to make possible the mathematical calculation of these indices, it is necessary for non-economic factors to assign specific quantitative indicators.

As a result of the research, there were chosen objective quantitative measures which the most reflect the main aspects of qualitative factors (Table 2).

In order to solve the problem of quantitative evaluating the level of public trust in monetary institutions, it was made of the structure of the individuals' savings by terms of placement period in Russia from 1998 to 2017 (Figure 2).

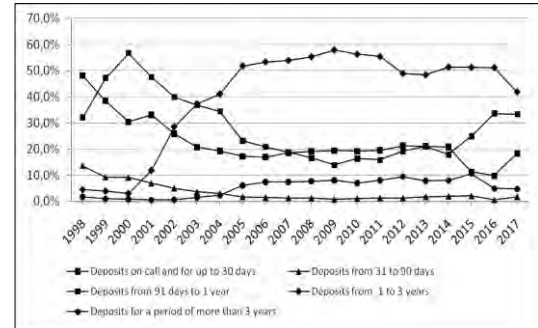


Fig. 2. The structure of Russian citizens deposits by the terms of placement (1998-2017).

The results of the research showed a high sensitivity of the savings behavior of the Russian population to changes in the level of public trust in monetary institutions.

Periods of economic instability, adoption of unpopular regulatory acts by monetary authorities, insecurity of depositors' rights lead to a loss of public trust in the banking system and negative changes in the structure of individuals' deposits toward increasing the share of short-term investments with a simultaneous decrease in the share of long-term deposits.

In the research process, the dynamics of public trust to the state as a guarantor of the monetary unit was determined through the use of the index of trust in public authorities of the Russian Federation. It was based on data obtained as a result of sociological survey of the population.

To construct an integral index of trust in public authorities of the Russian Federation (ITI) private indices (PIT) were calculated, which in its turn were the result of the population's answers to the following questions:

- a) Is the country today moving in the right direction, or is the country heading down the wrong path?
- b) Do you generally approve or disapprove performance of president of Russia (from 05/2000 to 04/2008 V.V. Putin, from 05/2008 to 04/2012 D.A. Medvedev, from 05/2012 to 2017 V.V. Putin)?
- c) Do you generally approve or disapprove of the russian government's performance?
- d) Do you generally approve or disapprove of the performance of the governor of your region?

TABLE I. FACTORS OF NATIONAL MONETARY UNIT STABILITY

<i>External</i>			<i>Internal</i>		
<i>Economic</i>	<i>Social-politic</i>	<i>Institutional</i>	<i>Economic</i>	<i>Social-politic</i>	<i>Institutional</i>
- the state of the world economy; - world prices for energy resources; - currency markets activity; - international export-import relations; - export-raw materials dependence of the country's economy, etc.	- geopolitical situation; - international political events; - the activities of foreign-policy unions; - external socio-political image of a monetary unit; - wars, etc.	- reliability of international monetary institutions; - rules and conditions for international financial cooperation and collaboration; - the degree of involvement in the global globalization process; - availability of international financial instruments, etc.	- the trade balance of the country; - the ratio of money supply and GDP; - balance of the state budget; - public external debt; - gold and foreign exchange reserves, etc.	- political stability in the country; - social rights of citizens; - socio-political image of the currency inside the country; - social sentiment; - the pace of socio-political changes, etc.	- institutional arrangement of the monetary system; - legal security of the functioning of the monetary unit; - transparency and accessibility of information of monetary institutions; - financial literacy of the population; - informal customs and traditions associated with the treatment of money; - social inertia, etc.
<i>Quantitative / qualitative resulting feature</i>					
Exchange rate	External credibility of the monetary unit issuer	Trust in monetary unit as a means of international settlements	The rate of inflation	Public trust in the state	Public trust in monetary institutions
<i>The result of influence</i>					
External trust to the monetary unit			Internal trust to the monetary unit		

TABLE II. QUANTITATIVE INDICATORS OF THE FACTORS OF TRUST IN THE NATIONAL MONETARY UNIT

<i>Quantitative indicator</i>	<i>Qualitative indicator</i>	<i>Calculation procedure</i>
Exchange rate	Official exchange rate	According to the Central Bank's data
External credibility of the monetary unit issuer	Credit rating of the issuing country	According to data international credit rating agencies
Trust in monetary unit as a means of international settlements	The share of payments in a monetary unit in international settlements	According to the Central Bank's data
Rate of inflation	Consumer Price Index	According to Federal state statistics Service
Public trust in the state	Integral index of trust to public authorities	The integral trust index is the arithmetic mean of the private indices; a private trust index is the difference between the shares of positive and negative answers to the questions of a sociological survey to the total number of answers received.
Public trust in monetary institutions	Structure of individuals' deposits in terms of placement period	The share of deposits with a maturity of more than one year in the total amount of individuals' savings

The private indexes were calculated for each question above as the difference between the shares of positive and negative responses to the total number of responses received:

$$PIT = (Positive\ answers - negative\ answers) / (Total\ of\ answers) \quad (5)$$

where

PIT Private Index of Trust in public authorities of the Russian Federation

The integral index of trust in public authorities of the Russian Federation was calculated as the arithmetic average of the private trust indexes:

$$ITI = (PIT\ 1 + PIT\ 2 + PIT\ 3 + PIT\ 4) / 4 \quad (6)$$

where

ITI Integral Trust Index in public authorities of the Russian Federation

PIT₁₋₄ Private Indexes of Trust

Dynamics of public trust in public authorities of the Russian Federation (1998-2017) is presented in Figure 3.

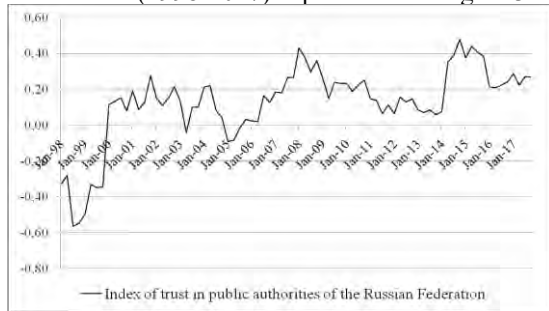


Fig. 3. Dynamics of trust in the public authorities of the Russian Federation (1998–2017).

The results of the research showed that a low level of trust in the monetary unit can be compensated by a high degree of trust in the public authorities. At the same time, if there is a critically low level of trust in the public authorities (like in the period from 1998 to 1999 in the Russian Federation (Figure 3), it can lead to turbulent processes intensification in the monetary sphere, which in its turn make worse the crisis situation.

IV. CONCLUSIONS AND RECOMMENDATIONS

In different historical periods, trust in money had of unequal importance and was determined primarily by the internal filling (back) of the money. Modern money is fiduciary in its nature and largely depends on the level of public trust. The fall in the level of trust in monetary units leads to the popularization of monetary surrogates and leads to a decrease of the national currency stability. Today maintaining a high level of trust in money is a requirement for their effective functioning.

The basis of trust money are other forms of public trust, which have the following hierarchy:

- trust in the money institute;
- trust in the issuer of money as a guarantor of its value.
- trust in monetary institutions;
- trust in the specific carriers of the monetary functions.

The state enforcement mechanisms provide institutional support for individuals' trust in money, but they cannot guarantee trust in a particular monetary unit.

The main problem of the institute functioning is to ensure the stability of its carriers, which is impossible without public trust.

Stability is a complex positive long-term state of a monetary unit, formed under the influence of a set of external and internal factors and expressed through public trust in the monetary unit.

Since the stability of money is determined by the influence of a combination of economic, socio-political and institutional

factors, trust in a monetary unit is a function of these factors. The evaluation of each factors groups influence on the monetary unit stability becomes possible due to the appropriation of specific quantitative measurers for non-economic determinants. As a basis for quantitative evaluation of institutional factors which have non-monetary character, it is advisable to use indices obtained in the process of sociological public surveys, statistical information of monetary institutions and expert assessments.

As a result of the research, objective quantitative indicators of non-economic factors were recognized as:

- the share of long-term individuals' deposits (with a maturity of more than 1 year) in the total amount of deposits (an indicator of the level of public trust in monetary institutions);
- the index of trust in government (an indicator of the level of public trust in the state as a guarantor of the national currency);
- the share of payments in a monetary unit in international settlements (the indicator of the ability of a monetary unit to fulfill the function of world money);
- credit rating of the monetary unit issuing country (indicator of the level of external confidence in the issuer of the monetary unit).

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