Analysis of Monetization Level Influence on the Basic Macroeconomic Indicators in Ukraine

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Abstract

In the article the influence mechanism of the money supply parameters on the dynamics of the basic macroeconomic indicators is analyzed; such problems as poor diversification of the payment system, hypertrophied cash flow and capital investments dynamics in Ukraine are researched.

Key words: money aggregates, money multiplicator, capital investments, cash flow, GDP (gross domestic product), currency ratio, increasing capital-intensiveness.
JEL Classification: E51, E52.

The problem definition

For the nearest 30 years the Ukrainian economic growth will be conditioned by the development depth of the banking system, which finds its expression in the economy's monetization level. In its turn it means that the deeper and more divversified money relations are, and correspondingly the monetary policy, the more dynamic will be the economic growth.

However, the influence of monetary impulses on the real processes in the economic system is one of the main points at issue of the modern monetary conceptions, whereas the exceptional complexity of the present economic mechanism forces to look for the steadiest regularities in this sphere.

The latest researches and analysis of publications

The leading native scientists pay considerable attention to the problems of currency circulation. Such scientists as A. Gal'chinsky, V. Geets, A. Gritsenko, T. Krichevskaya, V. Lagutin, I. Lyutyi, V. Mishchenko, Y. Pakhomov, N. Savluk, V. Stel'makh, V. Yushchenko and some others dedicated their research works to the resource providing of the Ukrainian economy innovative development. Still the diametrically opposed standpoints in the problem of putting up the level of monetization in Ukraine and thus, influencing upon the parameters of money supply on the dynamics indicators of macroeconomic growth are very often expressed in the works of the above mentioned and some other economists.

The article objectives

In the article the mechanism of influence of the money supply parameters on the dynamics of the basic macroeconomic indicators in Ukraine is researched; the dynamics of wide spectrum indicators of the national economy provision with cash resources is analyzed; the problems of inadequate structure of money supply are handled.

The basic material exposition

The so called indicators of economic monetization are widely used to analyze the monetary market condition as well as money-and-credit relations. These indicators are rated as the relation of different money aggregates to the volume of GDP (Table 1).

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Table 1

Money supply in circulation and the level of economic monetization of Ukraine in 1996-2005

Index	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
GDP on current basis, mln. hrn.	81519	93365	102593	130442	170070	204190	225810	267344	345113	424741
Money supply in circulation (M3), mln. hrn.	9364	12541	15705	22070	32252	45755	64870	95043	125801	194071
Among them: M0	4041	6132	7158	9583	12799	19465	26434	33119	42345	60231
M1	6315	9050	10331	14094	20762	29796	40281	53129	67090	98573
M2	9023	12448	15432	21714	31544	45186	64321	94855	125483	193145
Monetization level on aggregate M0, %	5.0	6.6	7.0	7.3	7.5	9.5	11.7	12.4	12.3	14.2
Monetization level on aggregate M1, %	7.7	9.7	10.1	10.8	12.2	14.6	17.8	19.9	19.4	23.2
Monetization level on aggregate M2, %	11.1	13.3	15.0	16.6	18.5	22.1	28.5	35.5	36.4	45.5
Monetization level on aggregate M3, %	11.5	13.4	15.3	16.9	19.0	22.4	28.7	35.6	36.5	45.7

Note: Worked out according to “The National Bank of Ukraine Bulletin” data, #4, 2006.

The above given indicators of the national economy provision with cash resources over a period of 1996-2005 demonstrate the tendency to progressive rising. The main reason is the steady growth rate domination of the money aggregates over GDP growth rate, which in combination with the mild inflation rate in this period makes it possible to talk about the high absorption property of the national economic system against the financial resources. At the same time the non-linear nature of dependence of change in monetization indicators from the change in certain money quantity bears the evidence of complex and multiple processes in the financial sphere as well as substantial changes in money-and-credit relations, which took place in that period of time.

Monetization as a process has taken a double course: the growing transactions monetization was forming the institutionally structured demand of economic entities for cash resources; the liquid assets monetization was determining the money supply in the form of money emission by the National Bank.

Nowadays the Ukrainian money-market is, unfortunately, ineffective instrument of mobilization and interindustry capital flowing. In many cases it can be explained by the powerful mechanism of financial resources reorientation from the sphere of production into the private possession of the shadow structures. And the cash liquidity becomes the main instrument of the shadow transaction realization. In particular, the hypertrophied part of the cash liquidity, even having reduced by factor of 1,5 during the period under review, still amounts the third part of the general load of the national cash resources (Table 2) and prevents the strengthening of the banking system, accumulation of resource potential and investment activity in the state.

Table 2

Dynamics of components proportion ratio of money supply in Ukraine according to their degree of liquidity, %

Index	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
M0/M3	43.15	48.90	45.58	43.42	39.68	42.54	40.75	34.85	33.66	31.04
(M1-M0)/M3	24.28	23.27	20.20	20.44	24.69	22.58	21.35	21.05	19.67	19.76
(M2-M1)/M3	28.92	27.10	32.48	34.53	33.43	33.64	37.06	43.90	46.42	48.73
(M3-M2)/M3	3.64	0.74	1.74	1.61	2.20	1.24	0.85	0.20	0.25	0.48

Note: Worked out according to "The National Bank of Ukraine Bulletin" data, #4, 2006.

In economically developed countries increasing the volumes of money aggregates is achieved by the processes of monetary basis multiplication as the amount of cash flow, circulating in the state, and the banking system stocks, controlled by the National Bank. At that deposits are of particular interest from the viewpoint of multiplicative expansion of money supply influence on the qualitative macro processes transformations. Deposits are indirect investments into economy. The fact that the majority of Ukrainian legal bodies prefer to keep circulating assets in cash and to carry out mutual payments reflects in extremely negative way on the processes of multiplicative expansion of money supply. Thus cash is taken out from the banking circulation and doesn't become the credit source. Moreover, the national credit resources are split up and used in minor goals. In this case it would be more appropriate to use quasi-money, i.e. cheap money substitutes [2].

At the same time the increase of the monetization level in the Ukrainian economy, which took place in the above given period of time, was accompanied by a number of positive transformations. Firstly, it stimulated increase of the mobile resources, which are expressed in the stocks supply index. Whereas in 1995 when the monetization level was 9.3% the part of mobile resources in GDP reached 11%, in 2003 this part was 0.5% and in 2004 it acquired the negative value and fixed on a mark of 0.5% [1]. Secondly, the economic money supply saturation initiated the market pricing mechanism in Ukraine that is responsible for the principle possibility existence of economically sound comparison of production costs in different economic sectors and maximally adequate exchange of the produced goods. Thirdly, the monetization gradually created the first order conditions for optimal temporary advantage among the economic agents, which found its expression in savings and investment process accumulation.

Values analysis of stand and the extended currency ratio (Table 3) evidently demonstrates that for a long time the national monetary system of Ukraine and correspondingly the monetary policy didn't provide adequate facilities for saving function realization by the unit of national currency. The saving function was and up to this day is successfully realized by the foreign currency out of Ukrainian banking system. It will be remembered that in 1991 the ratio between the volume of the cash flow and the volume of the cash resources on demand deposits was 0.3 [2] and in 1998 it was increased sevenfold. The indicator of depositary tie-up of money supply at the level of 1.5 in 2005 was shaky and indicative of low degree of belief to the banking system among the population.

In the developed economic systems personal savings are sufficient for satisfaction of needs of the real sector in net investment, budget deficiency payment and even for deficiency payment of visible balance of trade. For example, in 1989 the US population directed 198 billion of savings to the financial markets, 30% of which was used as the consumer loan, the rest 70% that is about 140 billion of dollars fully met the enterprises demands in investments, covered the federal budget deficit and was spent on the local authorities needs [3].

Certainly, savings of the Ukrainian people are incomparably less than those of the US population. Nevertheless, the positive trends concerning this issue are recently growing in strength. If in 1999 future time resources of economic agents made 1.5 billion of hryvnyas coinciding with size of the budget deficiency, then in 2005 they made almost 25 billion of hryvnyas and threefold exceeded the state budget deficiency.

Table 3

Dynamics of the Ukrainian currency ratio and "financial depth" indicator

Index	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Demand deposits in national currency, mln. hrn.	2595	2959	3203	4557	8013	10394	13880	20109	25765	40103
Currency ratio on demand deposits, %	1.56	2.07	2.23	2.10	1.60	1.87	1.90	1.65	1.64	1.50
Deposits total in national currency, mln. hrn.	3583	4685	5046	6830	11551	17393	25636	41794	52759	87198
Currency ratio extended, %	1.13	1.31	1.42	1.40	1.11	1.12	1.03	0.79	0.80	0.69
Financial depth (M2-M1)/GDP, %	3.3	3.6	5.0	5.8	6.3	7.5	10.6	15.6	16.9	22.3

Note: Worked out according to "The National Bank of Ukraine Bulletin" data, #4, 2006.

Dynamics of the "financial depth" indicator also reflects the development degree of the depositary components of money supply in Ukraine – the relation of time deposit to GDP (see Table 3). It's a common knowledge that the economic process of savings deceleration or discontinuation leads to disinvestment and "dissaving" of the already accumulated capital. Really, the growth of the financial depth indicator from 6% to 17% over the period of 2000-2004 as well as the level of monetization from 19% to 36.5% influenced the real GDP from 6% to 12% .

Altogether, researching the peculiarities of the monetary transmission mechanism one should presume that bounds of money supply are extremely uncertain. The supply of money consists of components, which considerably differ on a degree of liquidity, velocity of circulation and value of demand for them on the part of economic agents. Moreover, non-synchronism of relations between money supply and level of prices takes place. The differences in duration of business cycles in separate economic sectors leave traces on this non-synchronism.

Consequently, the influence of monetary transmission mechanisms on reprocessings, including the basic macroeconomic factors (GDP, domestic income, and level of prices) in the longer term has a rather obscure character.

Researching the given problem at the essential level we should assume that the amounts of domestic production can be increased in two ways: 1) eliminating the recessive spread between total demand and potential GDP; 2) increasing potential GDP as the country's industrial potential increment indicator [4].

Exposing the essence of the first method one should admit that it's just the total demand in the great majority of economic doctrines that acts as the final part of monetary transmission mechanism and takes shape with certain elasticity in the growth of real GDP and prices. At that money supply is the basic unit of monetary transmission. However, not the money supply itself but the income, to which economic agents lay claim as the result of GDP distribution and redistribution that was produced on the previous steps of economic cycle, is the source of total demand and real GDP growth. Money is the means of total demand realization. Thereby the balanced changes in money supply, influencing the business activity, are able to increase the volumes of production by means of drawing the total demand up to the level of the potential GDP. In this case, the growth of GDP indicator will be the result of the state policy stabilization.

Yet the monetary policy can also have an effect on the long-term changes in potential GDP dynamics. We remind that monetarism adherents are devoted to the neutrality of money concept in the long-term period by virtue of assumption of inflation compensation of the quantity changes in money supply. At the same time we know that there are no unquestioned empiric evidences in favor of proportional dependence between money supply and inflation, which is once again supported by statistical data throughout Ukraine. The main reason of weakness of this approach is monetarists' limiting the role of investments only as the total demand component. But the investments growth is additionally the capital accumulation in the branches, buying producer goods. At this if the total demand increment depends on gross investments then the growth of capital – on net investments. And the relation between these investments components in its turn directly determines economic abilities in industrial potential accumulation.

Table 4

The chain rates of growth of money supply, capital investments into the economy and GDP in Ukraine

Index	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Rates of growth of the real money supply, %	96.7	121.6	104.4	117.9	116.2	133.7	142.6	135.4	117.8	139.9
Rates of growth of investments into the basic stock, %	78.0	91.2	106.1	100.4	114.4	120.8	108.9	131.3	128.0	101.9
Rates of growth of GDP in comparable prices, %	90.0	97.0	98.1	99.8	105.9	109.2	105.2	109.6	112.1	102.6

Note: Worked out according to "The National Bank of Ukraine Bulletin" data, #4, 2006.

Really, the data of the period under report (see Table 4) illustrate that the rates of GDP growth not always answered the impulse of money component accumulation of the national economy. It is explained by the fact that not entire money supply mediates reprocessings at the macro level. Its part is directed to the internal debt settlement, the shadow sales servicing and the so called fictitious capital forming. The problem of money supply channels formation and distribution acquire the main importance in this aspect, because they directly influence upon the efficiency of money and credit policy.

Thereby, it can be said that the considerable runup of gross output is viewed when the investments growth rates into the basic capital are exceeding or at least comparable to the growth rate of money supply. Indeed, while in 2004 the GDP runup at a rate of 12.1% was against surpassing by the capital investments growth rate of the same money supply marker in 1.09 times, in 2005 the opposite situation took place, when the money supply was increasing in rates that in 1.4 times surpassed the investments growth into economy. As it shown in Table 1 in 2005 the aggregate growth rate M0, cum inflation, was 129.0% and the aggregate growth rate M2, which includes the time deposits component, was 139.0%. Thus we can't say that there were no conditions for the capital investments accumulation into the Ukrainian economy.

Alongside with it the shaky Ukrainian economic structure with its low efficiency of savings is remarkable. It is reflected in such indicators as capital intensiveness or the relation of the gross investments into the basic capital for a certain period to the GDP runup in fixed prices for the same period as well as the increment capital productivity coefficient.

Table 5

Dynamics of the increasing capital intensiveness and capital productiveness coefficients in Ukraine

Index	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Investments into the basic capital in comparable prices, mln hrn	12557	11452	12151	12199	13956	16859	18359	24105	30854	31441
GDP in actual prices, mln hrn	81519	93365	102593	130442	170070	204190	225810	267344	345113	424741
The real GDP growth in comparison to the previous year, %	-10	-3	-1.9	-0.3	6.0	9.2	5.2	9.6	12.1	2.6
Increasing capital intensiveness coefficient I/GDP	-1.54	-4.68	-6.85	-59.45	1.81	1.08	1.73	1.11	0.95	3.25
Increasing capital productiveness coefficient GDP/I	-0.65	-0.21	-0.15	-0.02	0.55	0.93	0.58	0.90	1.05	0.31

Note: Worked out according to "The National Bank of Ukraine Bulletin" data, #4, 2006.

The conducted calculations (see Table 5) demonstrate that up to 1999 the increasing capital productiveness coefficient in Ukraine was of negative quantity. Hence, within the bounds of the economic structure existing in that time and the functioning monetary transmission mechanisms, the investment impulses provided not the runup of the productive potential but its recession. Numerically it means that for example in 1996 each monetary unit of capital investments was accompanied by the GDP volume reduction in real terms at 0.65 hrn. In 2000 these negative tendencies were partially covered. But unfortunately we have to state that there were no notable changes in the Ukrainian investments potential growth.

Thereby, following the strict money and credit policy course was a sufficiently effective method of fight against inflation, whereas weakening the government control over reprocessings and the absence of the well-judged policy function in the structured economy reforming disabled the production sphere to provide the effective transformation of the monetary impulses on the basis of the general economic situation principles [5].

Conclusions

The change in the state financial flow structure for the investment component of the Ukrainian economy strengthening is of top-priority. This process must be provided with the effective money supply run mechanism of credit and financial institutions into stocks of trade, industrial, transport enterprises and first of all those who have good sales perspectives in the domestic market. As a result the consumers demand will extend and the income level in the real economic sector will rise. The issue of the day is working out the effective mechanism of the long-term savings mobilization that let channel them into the real economy according to the strategic direction to the economic growth.

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