European Research Studies,
Volume XI, Issue (4) 2008

Considerations Regarding the Structure, Significance and Trend of Monetary Indicators in Romania and in the Eurosystem

By

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Abstract:

The present paper aims at achieving a comparative analysis of the structure of monetary aggregates, according to the definitions used by the European Central Bank and the National Bank of Romania, respectively. The relevance of such a comparison is justified by the changes adopted by the monetary authority from Romania at the beginning of 2007 in what regards the structure of aggregates M1, M2 and M3. The paper expresses opinions on the effectiveness and impact of monetary strategies implemented by the two monetary authorities, namely the two-pillar strategy used by the European Central Bank and the direct inflation targeting strategy implemented by the National Bank of Romania.

Keywords: monetary indicators, monetary aggregates, National Bank of Romania, Eurosystem.

JEL Classification: E42, E51

1. The relevance of the present research under the framework of the methodology used at European level

Ensuring price stability is the main objective of the European Central Bank (ECB). Given the fact that the Maastricht Treaty has not provided a specific quantitative definition for this objective, in October 1998 the Governing Council of the ECB agreed that price stability is defined as a year-on-year increase in the Harmonized Index of Consumer Prices (HICP) for the euro area of below 2 per cent. According to the ECB, price stability should be kept in the medium run. After an thorough evaluation of the monetary policy strategy carried out in 2003,

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the Governing Council made it clear that the definition provided in 1998 pointed to an inflation rate below, but close to 2 per cent in the medium run.

The monetary policy strategy of the ECB rests on two "pillars". The first pillar is a prominent role for money. As inflation in the long run is considered to be a monetary phenomenon, the ECB Governing Council has announced a quantitative reference value for money growth. The second pillar is a broadly based assessment both of the outlook regarding price developments and of the risks to price stability in the euro area as a whole.

The Governing Council is regularly analyzing the relationship between actual monetary growth and the pre-announced reference value. If the deviation of monetary growth from the reference value indicates a threat to price stability, monetary policy will react accordingly. Still, the ECB will not change interest rates in a mechanistic fashion. That is why the ECB does not speak of a target for monetary growth, but rather of a reference value. The reference value will refer to the growth rate of M3, which is a broad monetary aggregate.

Central banks that follow an inflation targeting approach – like the National Bank of Romania – often publish inflation forecasts. In an inflation targeting approach, the intermediate target for monetary policy does not consist of a growth rate for money, but expected inflation. Whenever expected inflation threatens to become too high, monetary policy will become more restrictive. In determining expected inflation, the monetary authorities may use all kind of information, including money growth rates.

Money fulfils three functions in the economy. It serves as a medium of exchange, as the unit of account and as a store of value. Given that many different assets are substitutable, and that the nature and features of financial assets, transactions and means of payment are changing over time, it is not always clear how money should be defined and which financial assets belong to a certain definition of money. For these reasons, central banks usually define and monitor several monetary aggregates. These range from very narrow aggregates such as base money to broader aggregates, which include currency, bank deposits and certain types of securities. The Eurosystem has defined a narrow (M1), an "intermediate" (M2) and a broad aggregate (M3) – also see Table 1.

When appointing M3 as an intermediate target, the ECB took 3 criteria into account:

- Stability of money demand;
- Money has leading indicator properties;
- Controllability of a monetary aggregate.

Broad aggregates normally show higher stability and better leading indicator properties than narrow aggregates. In contrast, in the short term narrow aggregates are easier to control via official interest rates than broad aggregates. On balance, the ECB considered the properties of M3 best.

The ECB's two-pillar strategy is likely to create confusion in the financial markets and with the public. Continental-European analysts are more inclined to focus on the first pillar (M3 growth), whereas Anglo-Saxon analysts are more aimed at the second pillar (risks to price stability) coinciding better with inflation targeting which is more familiar to them. Economists like Eijffinger[3] and Verhagen consider that the way of defining M3 is still ambiguous, leading to misinterpreting of statistical data. This requires for a replacement of the two-pillar strategy with a strategy based on one pillar, namely *flexible inflation targeting*. Such a strategy

Inflation targeting should be flexible rather than strict in the sense that it allows for concerns not only about inflation variability around the inflation target but also about real variability in the economy, in particular in terms of output stabilization. It would be appropriate in terms of accountability and transparency of European monetary policy if the ECB would decide to turn to the strategy of flexible inflation targeting.

2. The use of monetary aggregates in Romania during the transition period

During the first years of the transition period (1991, 1992 and the first half of 1993), the National Bank of Romania has aimed at direct controlling the aggregate M2. Starting the second half of 1993, after having created the premises for exerting indirect control over the money supply, the central bank started using base money (currency in circulation and deposits with the central bank) as an operational objective of monetary policy.

Ensuring control over M2 via base money has been based on the hypothesis that the multiplying process of base money is relatively stable and that the dynamics of the money multiplier is predictable in time. Any assessment of the monetary policy programmes implemented in Romania must be adapted to the specific context, characterized, for a long period of time, by unstable relations and disturbing factors on the financial and money markets.

For several years, Romanian authorities have considered that the strategy based on money as an anchor is the most appropriate one for the following reasons: inflation reacts promptly and firmly to the changes in base money; the monetary anchor protects the independence of monetary policy and is considered to be highly adequate for an economy confronted with shocks on the money demand side, as well as with difficulties affecting the external competitiveness.

The use of base money as operational objective of the monetary policy in Romania was facilitated in 1993 and 1994 by the predictable character of the base money multiplier and the trend of the currency in circulation. In practical terms the control of base money aimed at keeping refinancing credit in-between the planned parameters. The transformation process of refinancing credit from base money into broad money was nevertheless neither automatic, nor immediate. The multiplication process has been rather slow because of increases in cash in circulation or delays in granting credits by banks. Later on, by taking to a large extent the base money out of the direct control of the monetary authority, the expansion of base money over the accepted threshold has accelerated inflation in

[3] Sylvester C.W. Eijffinger, *Briefing paper on "The Conduct of Monetary Policy and an Evaluation of the Economic Situation in Europe – 3rd quarter 2001" (august 2001) for the European Parliament, Should the European Central Bank Use M3 to Assess Price Stability?*

1996 and 1997. Base money multiplier has become much more stable between 2002 and 2005.

Among the two determinant factors for the increase in money supply during the transition period (base money and money multiplier) the first one is the main responsible for the increase in broad money, thus limiting the effectiveness of monetary anchors as monetary policy objectives.

The main destinations towards which base money injections have been directed include:

▪ government credit, a substantial channel through which the National Bank of Romania has injected liquidity for covering budget deficits;

▪ non-government credit granted to banks facing problems or under restructuring;

▪ foreign currency purchases by the NBR in order to consolidate the foreign currency reserve, as well as to support the external competitiveness of the national economy, by avoiding the appreciation of the national currency – the counterpart in national currency for all these interventions has been represented by base money injections, difficult to sterilize afterwards.

For a long period of time, the injection of liquidity in the banking system, influenced by administrative decisions, has accelerated inflation and diminished trust in the national currency. Non-inflationist monetization of the economy has only begun starting 2000, when the public started to trust the economic policy of the government and save their accumulations via deposits with the banks, thus generating resources for non-inflationist credit granting.

Starting mid-2005, the National Bank of Romania officially announced the shift from monetary targeting to direct inflation targeting, with an accepted variation margin of +/-1 per cent around the annual target. The main characteristics of the new monetary regime refer to: (1) an explicit quantitative inflation target, (2) a framework for policy decisions being inflation-forecast targeting (which uses an internal conditional inflation forecast as an intermediate target variable), and (3) a high degree of central bank accountability and transparency.

The beginning of the new strategy was not extremely convincing for the wide public. First, the monetary authority has not been precise enough regarding the starting moment for the new regime and its time horizon. Second the annual inflation rate was 8.6 per cent at the end of 2005, higher than the upper limit of the fluctuation margin of ±1 percentage points around the (revised) inflation target of 7.5 per cent.

The situation significantly improved in 2006: an actual inflation rate of 4.87 per cent was recorded while the target had been fixed at 5 per cent ±1 percentage points. The disinflation process initiated in 2006 has continued in the first months of 2007 as well, the annualized inflation rate being of 3.66 per cent in March 2007.

The National Bank of Romania has been forced to revise upwards its inflation prognosis for the end of 2007, from the level of 3.9 per cent estimated in August to the level of 5.7 per cent. The new prognosis highlights the fact that the upward margin of the fluctuation band around the inflation target of 4 per cent has been exceeded by 0,7 per cent.

3. The new structure of money aggregates used in Romania

Starting January 2007, the National Bank of Romania publishes monetary indicators following the structure indicated by the European Central Bank and the European System of Accounts (ESA). In order to achieve the objectives established in the Treaties of the European Union and in particular those of the Economic and Monetary Union, a set of harmonized statistical tools have been created for the use of European institutions, governments, economic and social operators. This was called The European System of National and Regional Accounts (ESA 95) and can be used for various European policies - economic, agricultural, regional, social, trade and environment. The definition of money aggregates according to the methodology of the European Central Bank and the ESA 95 classification of financial instruments according to institutional sectors has generated changes in the structure of both the money aggregates and their counterparts.

Following these changes, the central banks currently works with 3 money aggregates:

▪ **Narrow money (M1)** – includes cash in circulation (banknotes and coins) as well as *overnight* deposits;

▪ **Intermediate money (M2) –** includes narrow money (M1), deposits with agreed maturity up to 2 years and deposits redeemable at notice up to 3 months. The definition of M2 reflects the interest that is paid to a money aggregate that includes, besides the cash in circulation, deposits with a high degree of liquidity;

▪ **Broad money (M3)** – includes intermediate money (M2) plus money market fund (MMF) shares/units and money market paper and *repo* operations (their high degree of liquidity makes them substitutes for deposits).

As compared to the structure of monetary indicators used by the National Bank of Romania until December 2006, the main reclassifications refer to:

▪ the monetary aggregate M1 includes, in addition to the structure used before January 2007, population savings denominated in national currency as well as overnight deposits held in foreign currency by population and companies (previously included in *quasi* money; these are considered to have a similar degree of liquidity as current accounts denominated in national currency;

▪ deposits with agreed maturity over 2 years are not included in the money supply anymore;

▪ deposits of local administrations and those of social insurance administrations are included in the money supply.

A comparative analysis of the monetary indicators used before and after January 2007 is shown in Table 2.

4. The analysis of recent trends of monetary indicators in Romania

Broad money (M3) was, at the end of January 2008, 147 427.1 billion lei. As compared to December 2007, this decreased by 0.4 per cent (-1.2 per cent in real terms) and as compared to January 2007, it increased by 38.3 per cent (28.9 per cent in real terms) – see Table 3.

Households' deposits denominated in the national currency increased by 2.1 per cent, reaching the level of 43 303.1 mill. lei. At the end of January 2008, households' deposits denominated in the national currency recorded an increase of 42.2 per cent (32.5 per cent in real terms) as compared to January 31st 2007 – see Table 4.

Companies' deposits denominated in the national currency (non-financial companies and non-monetary financial institutions) decreased by 6.5 per cent, reaching the level of 42 317.4 mill. lei. By January 31st 2008, companies' deposits denominated in lei recorded an increase of 22.9 per cent (14.6 per cent in real terms) as compared to January 31st 2007.

Households' and companies deposits denominated in foreign currency increased by 35.8 per cent as compared to the same period of the last year.

In addition to the necessary harmonization of monetary indicators used in Romania with those used in the monetary practice of the European Union, the new definition of monetary aggregates according to the methodology of the European Central Bank brings an important correction to the structure of narrow money (payment instruments) and broad money (store of value instruments).

In the same time, the publication of the new monetary indicators by the National Bank of Romania in the new structure requires a special attention in order to ensure data comparability in time and allow for correct monetary analysis. The most significant differences can occur for the money aggregate M1, which only included cash in circulation current account surpluses and overnight deposits of companies until December 2006. Similar conclusions could arise when analyzing the dynamics of M2, though differences between statistical data before and after December 2006 are in this case smaller.

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APPENDIX

Table 1: The monetary aggregates structure in the Eurosystem

Elements	M1	M2	M3
Currency in circulation	x	x	x
Overnight deposits	x	x	x
Deposits with agreed maturity up to 2 years		x	x
Deposits redeemable at notice up to 3 months		x	x
Repurchase agreements			x
Money market fund (MMF) shares/units and money market paper			x
Debt securities up to 2 years			x

Source: European Central Bank, www.ecb.int

Table 2: Comparative analysis of monetary aggregates structure in Romania before and after January 2007

<table>
<tr><th colspan="2">until December 31st 2006</th><th rowspan="3"></th><th colspan="3">after January 1st 2007</th></tr>
<tr><td>M1–narrow money
- cash in circulation (banknotes and coins);
- overnight deposits in national currency.</td><td>Quasi-money</td><td>M1–narrow money
- cash in circulation;
- overnight deposits in national currency;
- population savings in national currency;
- overnight deposits in foreign currency.</td><td>- deposits with agreed maturity up to 2 years;
- deposits redeemable at notice up to 3 months.</td><td rowspan="2">- money market fund shares/units and money market paper.</td></tr>
<tr><td colspan="2">M2-broad money</td><td colspan="2">M2- intermediate money</td></tr>
<tr><td colspan="2"></td><td></td><td colspan="3">M3- broad money</td></tr>
</table>

Table 3: Components of monetary aggregates

INDICATORS	January 31st 2008 (mill. RON)	Jan. 2008/ Dec. 2007 (%)	Jan. 2008/ Jan. 2007 (%)
M1 (narrow money)	**79 155.2**	**-0.8**	**53.3**
Cash in circulation	20 731.7	-2.7	53.7
Overnight deposits	58 423.5	-0.1	53.1
M2 (intermediate money)	**147 353.9**	**-0.4**	**38.7**
M1	79 155.2	-0.8	53.3
Deposits with agreed maturity up to 2 years and deposits redeemable at notice up to 3 months.	68 198.7	0.1	24.9
M3 (broad money)	**147 427.1**	**-0.4**	**38.3**
M2	147 353.9	-0.4	38.7
Other financial instruments (money market fund shares/units and money market paper)	73.2	1.8	-80.3

Source: National Bank of Romania, Press release on Monetary indicators - January 2008, www.bnro.ro

Table 4: Broad money and its counterparts

INDICATORS	January 31st 2008 (mill. RON)	Jan. 2008/ Dec. 2007 (%)	Jan. 2008/ Jan. 2007 (%)
Broad money (M3)	**147 427.1**	**-0.4**	**38.3**
Net external assets	31 910.2	9.8	-19.8
Net internal assets	115 516.9	-2.9	72.9
Non-government credit (total)	**154 253.2**	**4.1**	**66.8**
Non-government credit in the national currency	69 335.6	2.4	45.7
- households	33 944.4	1.1	43.1
- companies	35 391.2	3.7	48.3
Non-government credit in foreign currency	84 917.6	5.5	89.1
- households	40 202.2	6.0	143.4
- companies	17 438.9	5.6	34.3

Source: National Bank of Romania, Press release on Monetary indicators - January 2008, www.bnro.ro