

## IV. Monetary Developments in the Republic of Macedonia

### 4.1. Money Supply Creation and Withdrawal

In 2000, the Denar exchange rate against the Deutsche mark maintained the stable level, hence NBRM met the intermediate target of the monetary policy. In addition, in terms of conducting the monetary strategy of the exchange rate targeting, the favorable movements at the foreign exchange market determined the changes in the monetary aggregates that have an endogenous character.

In the first half of 2000, the money supply registered high annual growth rates, while in the second half of the year its annual growth decelerated, due to the high comparison base from the previous year. In addition, the increment in the monetary aggregates is primarily a result of enhanced monetary multiplication process, in accordance with the increased deposit potential of the banks.

Monetary aggregate by the narrowest definition - M1 (which includes currency in circulation and demand deposits) as of December 31, 2000 amounted to Denar 22,388 million, which is by Denar 2,694 million, or by 13.7% more compared to the end of 1999. The average annual growth rate of money supply M1 equals 16.0% in 2000.

Table 6

Money supply M1 creation and withdrawal<sup>1</sup>

(in Denar million)

	Balance as of 31.12.1999	Changes by quarters					Balance as of 31.12.2000
		I	II	III	IV	Total	
Money Supply M1	19,694	-359	-582	391	3,244	2,694	22,388
Net foreign assets <sup>2</sup>	32,482	2,872	6,232	5,456	6,809	21,369	53,851
Net domestic assets	7,999	-1,787	-6,343	-2,838	-42	-11,010	-3,011
Domestic credits	40,804	-570	-5,264	-363	1,015	-5,182	35,622
out of which:							
Social and private sector credit <sup>3</sup>	30,267	1,125	2,284	1,175	898	5,482	35,749
- in Denars	23,834	865	3,010	1,222	1,806	6,903	30,737
- in foreign currency <sup>2</sup>	6,433	260	-726	-47	-908	-1,421	5,012
NBRM claims on Government, net	-2,597	-1,973	-6,681	-1,568	752	-9,470	-12,067
Other items, net	-32,805	-1,218	-1,078	-2,476	-1,056	-5,828	-38,633
Quasi- and non-monetary deposits <sup>4</sup> (non-government sector)	18,409	1,596	431	1,994	1,543	5,564	23,973
Government deposits <sup>4</sup>	2,378	-152	40	232	1,981	2,101	4,479
- demand deposits	926	-266	20	220	1,983	1,957	2,883
- quasi- and non-monetary deposits	1,452	114	20	12	-2	144	1,596

1/ (+) Creation of money supply M1; (-) withdrawal of money supply M1.

2/ Stocks are valued at a constant rate; flows are valued at a current rate.

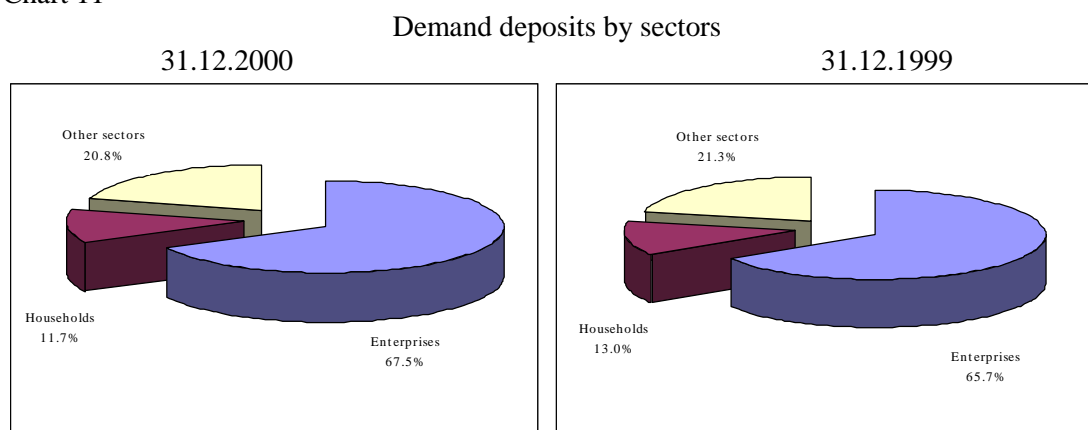
3/ Accounting balances of banks' credits to non-Government sector.

4/ Positive change reflects withdrawal of money supply, negative change reflects creation of money supply.

With respect to dynamics, in the first two quarters of 2000, money supply M1 registered annual average increase of 29.0% and 22.0%, respectively. Due to the high comparison base from the previous year, in the second half of 2000 the annual growth rate of money supply M1 decreased, and in the third quarter it equaled 7.4%, while in the fourth quarter it equaled 5.4%, on average. It is important to mention that the movements of the money supply completely correspond with the dynamics of the economic activity, which was growing more intensively in the first half of the year. This indicates that in 2000 the money supply was dimensioned in accordance with the necessity for normal execution of transactions in the economy.

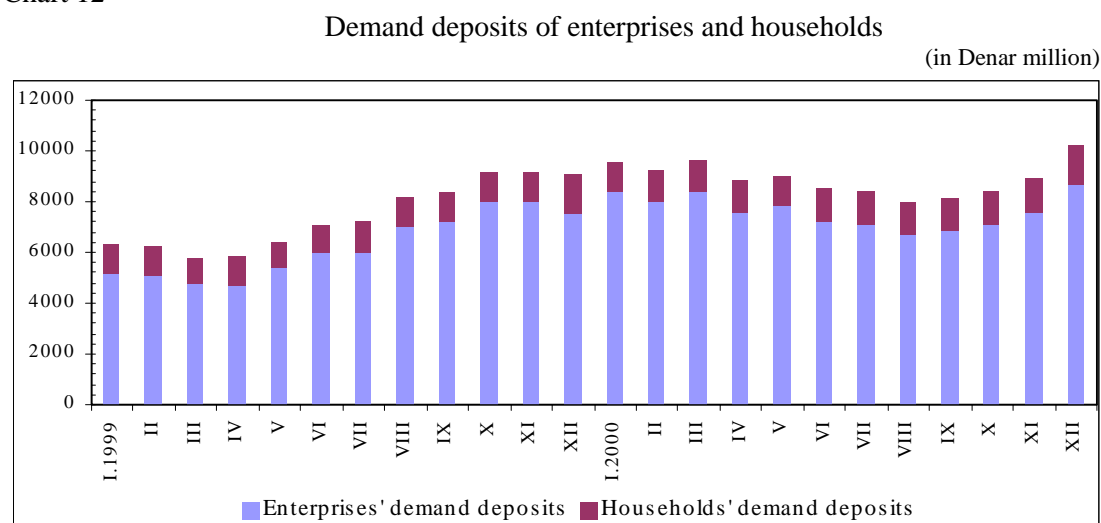
In 2000, the components of money supply M1 significantly increased. In addition, currency in circulation increased by Denar 1,352 million, or by 16.5%, while demand deposits increased by Denar 1,342 million, or by 11.6%. In the structure of money supply M1, a further decline of the share of currency in circulation was registered. Namely, in 2000 its share equaled 39.5%, on average, and relative to 1999 it was lower by 3.3 percentage points. Simultaneously, the average share of demand deposits in money supply M1 equaled 60.5%, which is by 3.3 percentage points more relative to the last-year average.

Chart 11



The analysis of demand deposits by sectors shows that their increase in 2000 is primarily due to increased enterprises' deposits. Namely, in 2000 the demand deposits of the enterprises increased by Denar 1,117 million, or by 14.7%. In addition, in the first half of 2000, enterprises' demand deposits registered exceptionally high annual growth rates (53.3%, on average), as a result of the increased number of transactions in the economy. In the second half of 2000, they mainly registered negative annual growth rates. Despite the high comparison base (intensive increase in enterprises' demand deposits was registered in the second half of 1999), it is also due to the stunted economic activity in this period of the year. However, the significant increase in the enterprises' demand deposits in the first half of the year determined the increase in their share of 1.8 percentage points in 2000, and as of December 31, 2000 it reached 67.5%.

Chart 12



Households' demand deposits at the end of 2000, relative to the end of 1999, registered slight increase of Denar 8 million, or 0.5%, due to the high comparison base from the previous year. Thus, the average annual growth rate of enterprises' demand deposits equals 12.9% in 2000. Increased demand of the households for transaction deposits in 2000 is due to the increased interest in usage of financial instruments for non-cash payments (credit and debit cards, etc.) in 2000. Relatively lower increase in the households' demand deposits compared to the enterprises' demand deposits, determined decreased share of households' demand deposits in the structure of the total demand deposits. Namely, at the end of 2000 it equaled 11.7% and was lower by 1.3 percentage points relative to the end of 1999.

Table 7

### Monetary aggregates

(in Denar million)

	Balance as of					Changes by quarters				
	31.12.1999	31.03.2000	30.06.2000	30.09.2000	31.12.2000	I	II	III	IV	Total
Currency in circulation	8,169	7,148	7,182	7,980	9,521	-1,021	34	798	1,541	1,352
Demand deposits	11,525	12,187	11,571	11,164	12,867	662	-616	-407	1,703	1,342
Money Supply M1	19,694	19,335	18,753	19,144	22,388	-359	-582	391	3,244	2,694
Quasi-Denar deposits	6,815	7,298	7,075	7,873	8,767	483	-223	798	894	1,952
Quasi-foreign currency deposits*	6,328	7,087	7,779	9,316	9,707	759	692	1,537	391	3,379
Money Supply M2	32,837	33,720	33,607	36,333	40,862	883	-113	2,726	4,529	8,025
Non-monetary Denar deposits	3,816	3,663	3,791	3,727	3,606	-153	128	-64	-121	-210
Non-monetary foreign currency deposits*	1,450	1,957	1,791	1,514	1,893	507	-166	-277	379	443
Money Supply M4	38,103	39,339	39,189	41,574	46,361	1,236	-150	2,385	4,787	8,258

\*/ Stocks are valued at constant rate; flows are valued at current rate.

The increase in deposits, that reflects the continuous strengthening of the confidence in the banking system, enabled more intensive increase in the broader monetary aggregates in 2000. Thus, money supply M2 (which comprises the money supply M1, sight deposits and time deposits up to one year) at the end of 2000, compared to the end of 1999, increased by Denar 8,025 million, or by 24.4%. In addition, its Denar component increased by Denar 4,646 million, or by 17.5% on December basis. Compared to the projected level for the end of 2000, money supply M2 – Denar is lower by Denar 421 million, or by 1.3%. The monetary aggregate by the broadest definition – M4 (which besides the money supply M2, includes the restricted and long-term time deposits) at the end of 2000, relative to the end of 1999, is higher by Denar 8,258 million, or by 21.7%.

#### 4.1.1. Total Deposits

Increased disposable income in 2000, complemented with the continuous strengthening of the economic agents' confidence in the banking system, resulted in significantly increased non-Government deposits with the banks. In 2000, the increased deposits were a base for increased monetary multiplication, which resulted in adequate increase in money supply. Simultaneously, the increased domestic saving was very important precondition for intensification of the banks' credit support to the economy and for achieving more dynamic economic development. In addition, the preference of the economic agents to deposit their assets in foreign currency and in short-term was maintained in 2000.

Total deposits of the non-Government sector (sight deposits, time and restricted deposits, denominated in Denars and in foreign currency) increased by Denar 5,564 million, or by 30.2% in 2000. In real terms, total non-Government deposits at the end of 2000, relative to the end of 1999, increased by Denar 4,562 million, or by 25.1%, due to the relatively higher annual inflation rate in 2000.

Table 8

## Total deposits

(in Denar million)

	Balance as of					Changes by quarters				
	31.12.1999	31.03.2000	30.06.2000	30.09.2000	31.12.2000	I	II	III	IV	Total
Total deposits of the non-government sector	18,409	20,005	20,436	22,430	23,973	1,596	431	1,994	1,543	5,564
- Denar	10,631	10,961	10,866	11,600	12,373	330	-95	734	773	1,742
- foreign currency <sup>1</sup>	7,778	9,044	9,570	10,830	11,600	1,266	526	1,260	770	3,822
I. Short-term deposits <sup>2</sup>	13,143	14,385	14,854	17,189	18,474	1,242	469	2,335	1,285	5,331
- Denar	6,815	7,298	7,075	7,873	8,767	483	-223	798	894	1,952
- foreign currency <sup>1</sup>	6,328	7,087	7,779	9,316	9,707	759	692	1,537	391	3,379
II. Long-term deposits <sup>3</sup>	5,266	5,620	5,582	5,241	5,499	354	-38	-341	258	233
- Denar	3,816	3,663	3,791	3,727	3,606	-153	128	-64	-121	-210
- foreign currency <sup>1</sup>	1,450	1,957	1,791	1,514	1,893	507	-166	-277	379	443

1/ Stocks are valued at constant rate; flows are valued at current rate.

2/ Short-term deposits include sight deposits and time deposits up to one year.

3/ Long-term deposits include time deposits over one year and restricted deposits.

With respect to dynamics, in 2000 total deposits grew continuously. Thus, in the first quarter of 2000 they increased by Denar 1,596 million, while their increase in the second quarter was moderate and equaled Denar 431 million. The non-Government deposits registered the highest increase of Denar 1,994 million in the third quarter of 2000, while in the last quarter of the year they increased by Denar 1,543 million. In real terms, except in the second quarter, in the other quarters of 2000, the total deposits registered an increment (in the first quarter by Denar 1,314 million, in the third – by Denar 2,037 million and in the fourth quarter by Denar 1,704 million). In the second quarter of the year, the total deposits of the non-Government sector decreased by Denar 493 million, due to the relatively high inflation rate registered in this period.

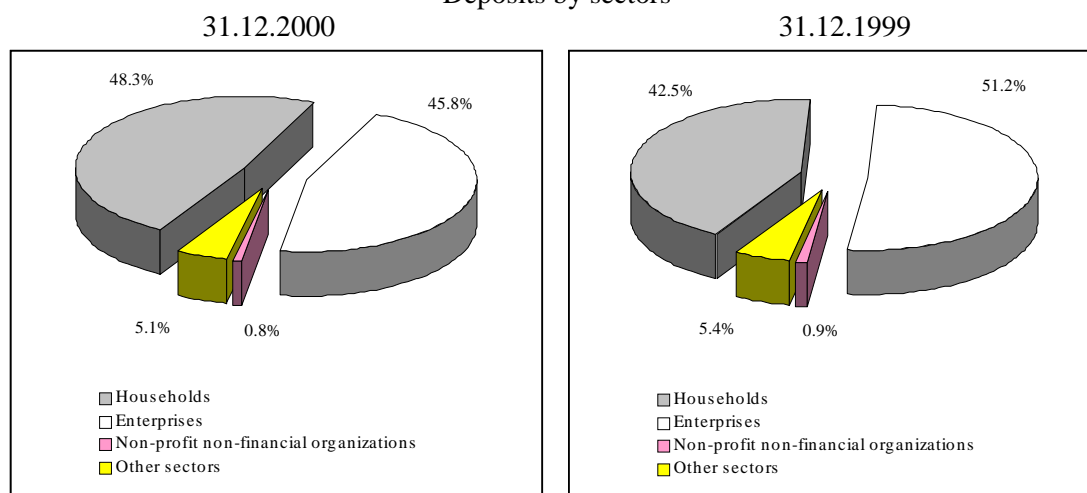
With respect to maturity, the increment in total deposits in 2000 is primarily a result of the significant increase in short-term deposits (sight deposits in Denars and in foreign currency and time deposits up to one year). Namely, at the end of 2000, compared to the end of 1999, they were higher by Denar 5,331 million, or by 40.6%. At the same time, long-term deposits (time deposits over one year and restricted deposits) increased by Denar 233 million, or by 4.4%. In addition, in real terms, short-term deposits increased by Denar 4,601 million, or by 35.4%, while long-term deposits decreased by Denar 38 million, or by 0.7%. These movements confirm the preferences of the economic agents to use instruments with higher liquidity.

Regarding the currency structure, the foreign currency deposits registered more intensive growth compared to the Denar deposits. Thus, total foreign currency deposits at the end of 2000, relative to the end of 1999, increased by Denar 3,822 million, or by 49.1%. It is mainly due to the increased short-term foreign currency deposits by Denar 3,379 million, or by 53.4%, while long-term foreign currency deposits increased by Denar 443 million, or by 30.5%. In real terms, in 2000, the foreign currency deposits increased by Denar 3,787 million, where short-term foreign currency deposits increased by Denar 3,350 million, or by 52.9%, while long-term foreign currency deposits by Denar 437 million, or by 30.1%.

Total Denar deposits increased by Denar 1,742 million, or by 16.4% in 2000. With respect to maturity, it is due to the short-term Denar deposits' increment of Denar 1,952 million, or by 28.6%, while the long-term Denar deposits in the same period decreased by Denar 210 million, or by 5.5%. Having in mind that the long-term deposits are the source for financing long-term financial projects, these movements are unfavorable regarding the intentions for achieving more intensive investment activity and accelerated economic growth. In real terms, in 2000 the short-term Denar deposits increased by Denar 1,251 million, or by 18.8%, while the long-term Denar deposits are lower by Denar 476 million, or by 12.7%.

Chart 13

## Deposits by sectors



The sector-by-sector analysis of total deposits' structure<sup>13</sup> in 2000 shows increased share of households' deposits and decreased share of enterprises' deposits. Thus, as of December 31, 2000, the households' deposits had the most significant share in the structure of total deposits of 48.3%, which compared to the end of the last year is higher by 5.8 percentage points. Simultaneously, enterprises' deposits participated with 45.8%, and their share was lower by 5.4 percentage points relative to the end of 1999.

In addition, households' deposits were continuously increasing during the year, and on December basis (December 2000 / December 1999) they increased by Denar 3,954 million, or by 47.6%. At the same time, enterprises' deposits registered moderate increase by Denar 1,621 million, or by 16.2%. These movements confirm the gradual revitalization of domestic saving, and represent the continuous strengthening of the economic agencies' confidence in the banking system. Expressed in real terms, in 2000, the households' deposits increased by Denar 2,946 million, or by 36.3%, while enterprises' deposits by Denar 713 million, or by 7.3%.

#### 4.1.2. Banks' Placements<sup>14</sup>

In 2000, the significant expansion of banks' credit activity was registered, so the total placements were directed towards a money supply creation. The intensified credit activity of the banks is due to the following factors: a/ increased deposit potential of the banks; b/ permanently high liquidity level of the banking system, and c/ abolishment of the credit ceilings for Denar placements, as a direct and non-market instrument for monetary regulation. In addition, in 2000 the banks' placements were an important support for the economic sector and had an important contribution for achieved economic growth.

<sup>13</sup> When analyzing the structure of deposits by sectors, they are presented at current rate, while for monetary aggregates the flows are presented at current rate, and stocks at constant rate.

<sup>14</sup> Banks' placements are shown in accordance with their actual balance. The actual balance differs from the accounting balance because it includes the claim of one bank in 1997 in the amount of Denar 4,144 million, the claims of banks on the basis of overdue principal in the June 1998 – December 2000 period in the amount of Denar 3,912 million, as well as claims based on swap transaction of a bank with the State in amount of Denar 1,686 million in December 1999, while it excludes the increase in credits due to the consolidation of accounts in December 1998 in the amount of Denar 6,270 million. Foreign currency placements include the accounting re-recordings in December 1998 in the amount of Denar 774 million and claims based on the above-mentioned swap transaction and re-recordings with a bank in December 1999 in the amount of Denar 1,041 million.

Total banks' placements to the non-Government sector in 2000 increased by Denar 6,042 million, or by 17.2% and as of December 31, 2000 reached Denar 41,149 million. With respect to dynamics, during 2000 total placements were continuously increasing, and their average annual growth rate equaled 15.7%.

Regarding the currency structure, the increase in total banks' placements in 2000 is completely a result of the increased Denar placements, while foreign currency placements registered a decline. Thus, banks' Denar placements to the non-Government sector as of December 31, 2000 amounted to Denar 34,322 million, which compared to the end of 1999 represents a significant increase of Denar 7,463 million, or by 27.8%. In addition, banks' Denar placements in 2000 registered an average annual growth rate of 20.3%.

Table 9

Deposit money banks' domestic credits

(in Denar million)

	Balance as of					Changes by quarters				
	31.12.1999	31.03.2000	30.06.2000	30.09.2000	31.12.2000	I	II	III	IV	Total
Domestic credits <sup>1</sup>	43,402	44,804	46,221	47,426	47,989	1,402	1,417	1,205	563	4,587
Domestic credits <sup>2</sup>	48,242	49,499	51,380	52,704	53,389	1,257	1,881	1,324	685	5,147
1. Credits to the Government	8,524	8,447	7,967	7,806	7,390	-77	-480	-161	-416	-1,134
- Denar credits	1,260	1,179	712	548	652	-81	-467	-164	104	-608
- Foreign currency credits <sup>3</sup>	7,239	7,239	7,239	7,239	6,719	0	0	0	-520	-520
- overdue interest	25	29	16	19	19	4	-13	3	0	-6
2. Social and private sector credit <sup>1</sup>	34,878	36,357	38,254	39,620	40,599	1,479	1,897	1,366	979	5,721
- Denar credits	23,834	24,699	27,709	28,931	30,737	865	3,010	1,222	1,806	6,903
- Foreign currency credits <sup>3</sup>	6,433	6,693	5,967	5,920	5,012	260	-726	-47	-908	-1,421
- overdue interest	4,611	4,965	4,578	4,769	4,850	354	-387	191	81	239
2a. Social and private sector credit <sup>2</sup>	35,107	36,087	38,835	40,129	41,149	980	2,748	1,294	1,020	6,042
- Denar credits	26,859	27,579	31,053	32,394	34,322	720	3,474	1,341	1,928	7,463
- Foreign currency credits <sup>3</sup>	8,248	8,508	7,782	7,735	6,827	260	-726	-47	-908	-1,421

1/ Accounting balance.

2/ Actual balance.

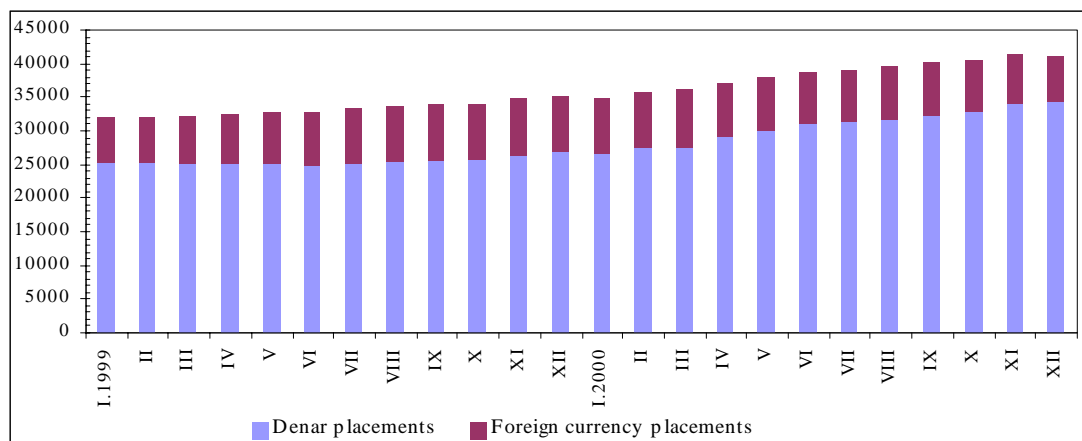
3/ Stocks are valued at constant rate; flows are valued at current rate.

Analyzed by quarters, banks' Denar placements registered continuous increase in 2000, whereas the highest increment was registered in the second quarter of 2000. Namely, in the first quarter, banks' Denar placements increased by Denar 720 million, while the increment in the second quarter equaled Denar 3,474 million. Significantly intensified credit activity of the banks in the second quarter of 2000 is mainly due to abolishment of credit ceilings for banks' Denar placements, which was done at the end of March 2000. Relatively high increase of banks' Denar placements was also registered in the third and fourth quarter of 2000, by Denar 1,341 million, and by Denar 1,928 million, respectively. This corresponds with the increased banks' deposit potential and with the permanently high liquidity of the banking sector in the second half of 2000.

Chart 14

## Banks' placements

(in Denar million)



The maturity structure<sup>15</sup> of banks' Denar placements to the non-Government sector remained unfavorable in 2000, regarding the dominant share of the short-term Denar placements. Namely, their share in total banks' Denar placements at the end of 2000 equaled 69.1% and was by 1.4 percentage points higher relative to the end of 1999. Increase in the long-term credits' share in the Denar placements' structure is an elementary precondition for accelerated investment activity and intensified economic growth in middle and long term.

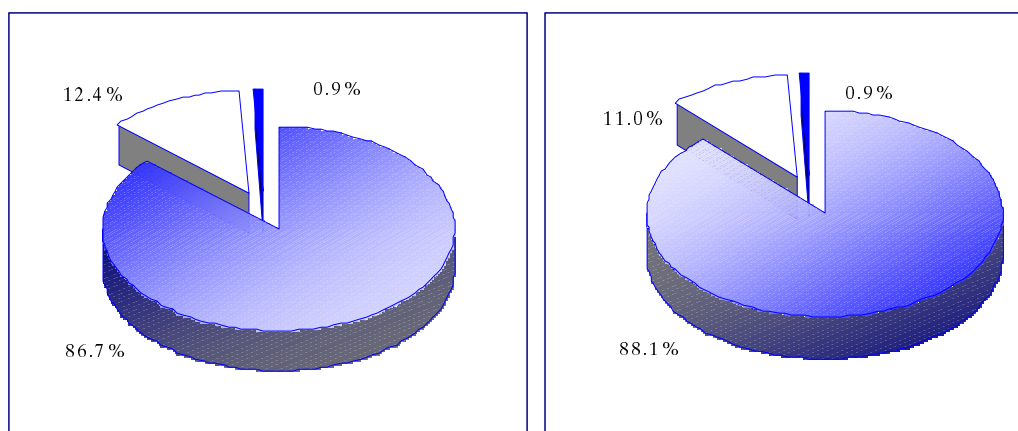
Analyzed by sectors<sup>16</sup>, in 2000, banks' Denar placements to the enterprises increased by Denar 5,560 million, or by 26.9%, while banks' Denar placements to the non-Government sector rose by Denar 1,189 million, or by 45.1%. In addition, the dominant share in the structure of banks' Denar placements in 2000 had the placements to the enterprises, which as of December 31, 2000 equaled 86.7%. Compared to the end of 1999, the share of the placements to the enterprises was lower by 1.4 percentage points. Simultaneously, the share of Denar placements to the non-Government sector increased by 1.3 percentage points, and as of December 31, 2000 reached 12.4%. Changes in the structure of Denar placements in 2000 are due to the more intensive growth of banks' Denar placements to the non-Government sector relative to the increase of placements to the enterprises.

Chart 15

## Structure of Denar placements by sectors

31.12.2000

31.12.1999



<sup>15</sup> When analyzing by term structure, banks' Denar placements are presented according to their accounting balance.

<sup>16</sup> When analyzing by sectors, banks' Denar placements are presented according to their accounting balance.

Contrary to the increase of banks' Denar placements, the banks' foreign currency placements to the non-Government sector in 2000 registered a decline. Namely, at the end of 2000, they equaled Denar 6,287 million, and were by Denar 1,421 million, or by 17.2% lower compared to the end of 1999. Their decline is due to lowered interest of the banks for foreign credit lines. Namely, in terms of high and inflexible credit demand, banks prefer to extend a Denar credits, having in mind the higher interest rates on these placements.

Dynamically observed, in 2000, except in the first quarter, the foreign currency placements to the non-Government sector registered continuous decline. Namely, in the first quarter they increased by Denar 260 million, while in the other three quarters of 2000 they declined, i.e. in the second quarter they decreased by Denar 726 million, in the third quarter by Denar 47 million, and in the last quarter by Denar 908 million.

In 2000, the maturity structure of the bank's foreign currency placements to the non-Government sector registered positive changes. Namely, the share of the long-term foreign currency placements in total foreign currency placements increased by 5.9 percentage points in 2000 and as of December 31, 2000 reached 49.9%. Herewith, in 2000 the foreign currency placements had a more favorable term structure compared to the Denar placements. In addition, these changes are not a result of increased long-term banks' placements, but to the lower decline in the long-term placements relative to the short-term banks' placements.

Analyzing by sectors, the foreign currency placements to the enterprises at the end of 2000, relative to the end of 1999, decreased by Denar 1,095 million, or by 13.6%. Besides, this sector has further dominant share in the structure of total foreign currency placements, which as of December 31, 2000 equaled 96.8%. Compared to the end of 1999, the share of the foreign currency placements to the enterprises was lower by 2.4 percentage points.

#### 4.1.3. Net Foreign Assets of the Monetary System

Net foreign assets of the monetary system, which include transactions of the banking system with the non-residents, registered high increase in 2000, thus representing the most significant flow for money supply creation. Namely, the net foreign assets of the monetary system increased by Denar 21,369 million, or by 65.8% in 2000, and as of December 31, 2000 it amounted to Denar 53,851 million. In addition, both its components registered an increase: the net foreign assets of NBRM and the net foreign assets of deposit money banks.

Table 10

#### Net foreign assets of the monetary system\*

	Balance as of 31.12.1999	Changes by quarters					Balance as of 31.12.2000
		I	II	III	IV	Total	
Net foreign assets of the monetary system	32,482	2,872	6,232	5,456	6,809	21,369	53,851
Net foreign assets of NBRM	25,061	2,153	4,834	3,231	6,966	17,184	42,245
Foreign assets	29,980	1,834	5,401	2,920	6,959	17,114	47,094
Foreign liabilities	4,919	-319	567	-311	-7	-70	4,849
Net foreign assets of the deposit money banks	7,421	719	1,398	2,225	-157	4,185	11,606
Foreign assets	20,648	77	523	1,609	807	3,016	23,664
Foreign liabilities	13,228	-642	-876	-615	963	-1,170	12,058

\*/ Stocks are valued at constant rate; flows are valued at current rate.

Net foreign assets of NBRM at the end of 2000, relative to the end of 1999, increased by Denar 17,184 million, or by 68.6%. It is due to the high increase in foreign assets of NBRM, in terms of decline in its foreign liabilities. Thus, the foreign assets in 2000 increased by Denar 17,144 million, or by 57.1%, while the foreign liabilities registered a decline by Denar 70 million, or by 1.4%.



Regarding its components, the increase of net foreign assets of NBRM in 2000 is a result of: a/ net purchase of foreign exchange at the foreign exchange market in total amount of US Dollar 190.1 million; b/ net inflow on the Government's external account in the amount of US Dollar 25.5 million, and c/ net inflow of foreign exchange of US Dollar 22,2 million, based on interest.

Net foreign assets of deposit money banks increased by Denar 4,185 million or by 56.4% in 2000, whereas the foreign assets and foreign liabilities registered divergent movements. Namely, foreign assets of the banks increased by Denar 3,016 million, or by 14.6%, which is primarily due to the high increase in the foreign assets of the banks at their accounts abroad. On the other hand, foreign liabilities of deposit money banks decreased by Denar 1,170 million, mainly due to the withdrawal of sight deposits in foreign currency by the non-residents, as well as to the decreased short-term and long-term foreign currency credits from foreign banks and other financial institutions.

With respect to dynamics, net foreign assets of the monetary system during 2000 registered continuous increase. In addition, the increase in the first quarter of 2000 was primarily a result of increased net foreign assets of NBRM, mainly determined by the high increase of the re-deposited foreign currency deposits of the Government sector with NBRM (by US Dollar 46 million). Favorable movements at the foreign exchange market in the rest of the year resulted in large purchase of foreign exchange at the foreign exchange market, thus determining high increase of the foreign assets of NBRM, and consequently, the increase of net foreign assets of the monetary system. Simultaneously, except in the last quarter of 2000, the growth in net foreign assets of the monetary system was also supported by the significant growth in net foreign assets of deposit money banks. In addition, in the last quarter of the year, net foreign assets of the monetary system registered the highest increase, determined by increased net foreign assets of NBRM. This was mainly due to purchased foreign exchange in the amount of US Dollar 55.2 million at the foreign exchange market, changed balance of Government's external account with NBRM in the amount of US Dollar 25.8 million, and increased Government deposits with NBRM in foreign currency (US Dollar 13.4 million). At the same time, net foreign assets of deposit money banks registered a decline, whereas their foreign assets decreased, while their foreign liabilities registered high growth (due to increased giro-accounts of foreign banks in foreign currency).

## 4.2. Reserve Money

The reserve money dynamics in 2000 was determined by the movements at the foreign exchange market and the government deposits with NBRM. At the end of 2000 the reserve money reached Denar 12,089 million and relative to the end of 1999 registered significant increase of Denar 3,574 million, or by 42.0%. Its high increase at the end of the year is due to the conducted reserve money issuance on the basis of the decreased government deposits with NBRM, according to the budget supplement and the budget supplement funds utilization program. It determined overshooting of the reserve money projected level at the end of 2000 by Denar 1,846 million, or by 18.0%.

Table 11

Reserve money by the narrowest definition

	Balance as of 31.12.1999	Changes by quarters					Balance as of 31.12.2000
		I	II	III	IV	Total	
Reserve money (narrowest definition)	8,515	-689	8	654	3,601	3,574	12,089
- currency in circulation	8,169	-1,021	34	798	1,541	1,352	9,521
- giro-accounts and cash in vaults	346	332	-26	-144	2,060	2,222	2,568

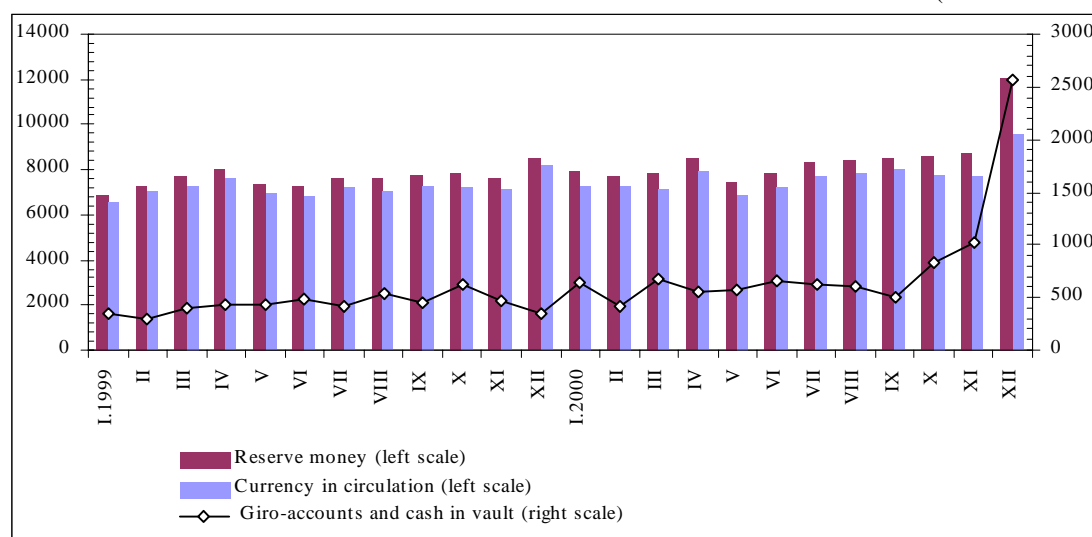
Dynamically observed, the reserve money movement in the first half of 2000 registered decrease by Denar 681million, or by 8.0%. It is due to the offset demand for currency in circulation in the first quarter of the year, after the seasonally determined increase at the end of the year, as well as to the changed preferences of the economic agents in direction of decreased demand for currency in circulation. In the second half of 2000 the reserve money was continuously increasing, in accordance with the foreign exchange market movements. Namely, in the second half of the year, high repurchase of foreign currency at the foreign exchange market was registered, as a result of the higher foreign currency supply relative to the foreign currency demand. This was complemented by the seasonally increased demand for the currency in circulation, prior to the New Year and Christmas holidays, as well as by the disbursements of funds from the budget surplus at the end of December 2000. It resulted in high reserve money increase in the second half of the year by Denar 4,255 million, or by 54.3%.

At the end of 2000, the currency in circulation reached Denar 9,521 million, by which on December basis they registered an increase of Denar 1,352 million, or by 16.6%. In addition, the currency in circulation had dominant share in the reserve money of 78.7%, which relative to the end of 1999 decreased by 17.2 percentage points. It is due to the increased giro accounts funds of the banks at the end of the year, due to the inflow of budget funds at the giro accounts of the banks which remained nonsterilized. Thus, the share of the banks' and saving houses' giro accounts in the reserve money structure at the end of the year reached 18.5%, which compared to the end of the previous year represents an increase of 15.6 percentage points.

Chart 16

#### Dynamics of the reserve money and its components

(in Denar million)



Dynamically, during the year, tight correlation between the reserve money and the currency in circulation was registered. Thus, in the first quarter of 2000, the currency in circulation decreased by Denar 1,021 million. During the rest of the year, the currency in circulation were registering gradual and continual increase (Denar 34 million, Denar 798 million and Denar 1,541 million, respectively by quarters). The uncommon high increase of the currency in circulation at the end of 2000, besides the seasonal effect of the increased demand for currency in circulation prior to the New Year and Christmas holidays, also reflects the budget surplus funds spending.

Table 12

Flows of reserve money creation and withdrawal<sup>1</sup>

(in Denar million)

	Balance as of 31.12.1999	Changes by quarters					Balance as of 31.12.2000
		I	II	III	IV	Total	
Reserve money	8,515	-689	8	654	3,601	3,574	12,089
Net foreign assets <sup>2</sup>	25,061	2,153	4,834	3,231	6,966	17,184	42,245
Net domestic assets	-16,546	-2,842	-4,826	-2,577	-3,365	-13,610	-30,156
- Domestic credits	-1,613	-2,400	-6,744	-1,482	634	-9,992	-11,605
- Other items, net	-11,091	-1,707	1,393	-287	-119	-720	-11,811
- Instruments	-3,842	1,265	525	-808	-3,880	-2,898	-6,740

1/ (+) reserve money creation; (-) reserve money withdrawal

2/ The stocks valued at constant exchange rate; flows valued at current exchange rate

Regarding the Central Bank balance sheet's components, the reserve money increase is completely due to the net foreign assets increment in amount of Denar 17,184 million, or by 68.6%. On the other hand, the net domestic assets represented a flow of reserve money withdrawal. Namely, in 2000 its level was reduced by Denar 13,610 million, which is mainly due to the increased government deposits with NBRM.

#### 4.2.1. Liquidity of Banks

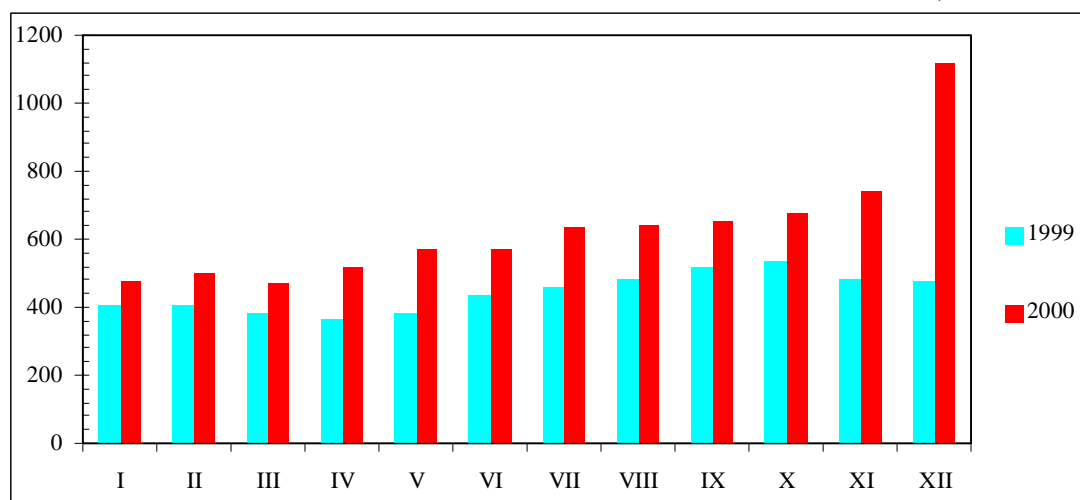
In 2000, significant improvement and more equivalent liquidity dispersion of the banking system was registered. The high liquidity is due to the relatively low level of currency in circulation, the high amount of created reserve money on the basis of the Central Bank's foreign exchange transactions, as well as to the increasing tendency of the deposits within the banks as a reflection of the gradual enhancement of the economic agents' confidence in the banking sector.

The average level of banks' daily liquidity (funds in giro accounts and cash in vaults) in 2000 reached Denar 631 million, which compared to the average of 1999 represents a significant increase of Denar 187 million, i.e. by 42.1%. Dynamically observed, the liquid assets of the banks were increasing permanently during the year, with more intensive dynamics in the second half of 2000, when the average level of banks' daily liquidity registered increase by 51.5% relative to the same period of 1999. This was also a result of the favorable movements at the foreign exchange market, which enabled high net-purchase of foreign currency by the Central Bank and significant issuance of reserve money on that basis. In addition, the highest level of banks' average daily liquidity is registered in December 2000, when it reached Denar 1,120 million (annual increase by 135.7%). It is due to the high amount of funds, which in accordance to the budget supplement, at the end of December 2000 were transferred from the government deposits with NBRM to the banks. The funds transferred in the last days of the year, remained unsterilized and they caused increment in the banks' giro accounts level.

Chart 17

## Average daily level of banks' liquidity

(in Denar million)



Consequently, as of 31.12.2000, high level of giro accounts' funds and cash in vaults was registered in amount of Denar 2,568 million, which in comparison with the level at the end of 1999 represents an increase of Denar 2,222 million, or 7.4 times. Dynamically observed, the liquidity of the banks considerably increased in the first three months of the year by Denar 332 million, or by 95.9%. However, in the second and the third quarter of the year, it registered decrease by Denar 26 million, i.e. by Denar 144 million. In the last quarter of 2000, its level increased by Denar 2,060 million, or even 5 times.

As a result of the high liquidity during the 2000, the bills auction instrument (which main function is reserve money withdrawal) has become the most significant instrument for regulation of the liquidity level in the banking system, whereas the credit auctions and the last resort facilities were of marginal importance in the process of monetary regulation. Thus, in 2000, the regular implementation of the credit auction was ceased, with implementation of this instrument only in March, April and October. Namely, in the last days of March auction of credits with maturity of one and three days was conducted. In April two credits auctions were conducted with maturity of one and seven days, while in October two credits auctions with maturity of seven days were conducted.

In 2000, the NBRM intervened through the last resort facilities (lombard credits and Swap transactions), in order to overcome the short – term liquidity problems of the banks. The utilization of the lombard credits is registered only in the February-June 2000 period, when 15 lombard credits were allowed, and only two banks were credit – beneficiaries. The average monthly amount of the used lombard credits, in 2000, amounted Denar 78 million, which represents relatively low level of implementation of this instrument and it is due to the high level of the average liquidity of the banking sector. In 2000, the banks showed higher interest in using the Swap transactions, primarily due to the lack of adequate collateral for lombard credits utilization. It resulted in more frequent implementation of this instrument relative to the lombard credits and with higher average monthly amount of contracted Swap transactions as a last resort facility in 2000 (Denar 111 million).

In order to achieve more efficient and more flexible liquid assets management by the banks, in 2000, the NBRM made changes within the average system of compulsory reserves, by increasing the limit for compulsory reserves utilization from 40% to 60%. In addition, in 2000, the banks in the Republic of Macedonia had excess of compulsory reserves by 10.3% on average monthly basis, which is by 5.6 percentage points more compared to the respective average in 1999. The higher amount of excess of the compulsory reserves is a reflection of the

high banks' liquidity and their preference to keep the excess of liquidity funds at the compulsory reserves account.

The money market also has important role in the cash-flow management of the banks, where the banks had opportunity to place the excess of the liquidity funds, i.e. to provide the funds needed. In accordance with the high liquidity level, in 2000, higher supply relative to the demand for liquid funds at the money market was registered, which enabled decrement in the interest rates.

In 2000, the activities regarding the payment system reforms in the Republic of Macedonia continued. As a component of the reform, in 1998 the "large value" payments (over Denar 5 million) were transferred to the banks. In 2000, this decision was subjected to certain modifications, and all payments over Denar 3 million were treated as a "large value" payments. This change was made in order to put the largest part of the payments under banks' control, which had positive reflection on the cash-flow management of the banks.

#### 4.2.2. NBRM Placements

Central Banks' credits which include Denar credits to banks and net claims on Government, at the end of 2000, had a negative sign and equaled Denar 11,605 million. Relative to the end of the previous year, the total domestic credits of NBRM in 2000 were decreased by Denar 9,992 million and acted towards reserve money withdrawal. It is due to the significantly decreased amount of the credits extended to banks in 2000, as well as to the permanent increase in the net liabilities to the government.

Table 13

#### Placements of NBRM

(in Denar million)

	Balance as of 31.12.1999	Changes by quarters					Balance as of 31.12.2000
		I	II	III	IV	Total	
Domestic claims	-1,613	-2,399	-6,745	-1,483	635	-9,992	-11,605
I. Credits to banks	984	-427	-63	86	-118	-522	462
- credit auctions	534	-434	-100	0	0	-534	0
- lombard credits	0	15	-15	0	0	0	0
- other credits	450	-8	52	86	-118	12	462
II. Government, net	-2,597	-1,972	-6,682	-1,569	753	-9,470	-12,067
- Claims from the Government	5,205	93	-513	-95	-307	-822	4,383
- Government deposits <sup>1/</sup>	-9,684	-2,426	-4,092	-3,293	2,795	-7,016	-16,700
a) for monetary policy support	-5,413	-400	-300	-100	-2,347	-3,147	-8,560
b) giro-account	-2,805	-1,726	-3,559	-2,973	5,486	-2,772	-5,577
v) other deposits	-1,466	-300	-233	-220	-344	-1,097	-2,563
- External financing	1,882	361	-2,077	1,819	-1,735	-1,632	250

1/ Since these accounts are part of the liabilities, but are shown within the assets side of the balance sheet, the balances as of 31.12.1999 and 31.12.2000 are presented with a negative sign. Within the quarter by quarter changes, a change with a negative sign represents increase of the deposits, while a change with a positive sign represents a decrease of the deposits.

The total Central Bank's credits extended to banks in 2000 decreased by Denar 522 million, or by 53.0%. This is due mainly to the credits auctions movements. Namely, in accordance with the high liquidity level of the banking system, in 2000, through the credit auctions reserve in amount of Denar 534 million was withdrawn. Dynamically observed, in the first quarter of 2000, the amount of credits extended at auctions decreased by Denar 434 million, or by 81.3%. This decrease represents normalization of their level after the increase at the end of the previous year, when the banks usually face with deficit of liquid funds. In the second quarter of the year, the level of credits extended at auctions was reduced by additional Denar 100 million, by which in May 2000, their level was reduced to zero. The successive decrease in the amount of credits extended at auction was in function of sterilizing the effects

of the Central Bank's transactions at the foreign exchange market. In the second half of 2000, NBRM was using this instrument only during the October, when during the days of more significant reserve money withdrawal on the basis of government deposits increment, through the credit auctions, Denar 500 million were created. During the same month, their level was again reduced to zero.

In 2000, in order to outrun the short-term liquidity problems of the banks, NBRM was extending lombard credits. In addition, the Central Bank has used this last resort facility solely in February-June 2000 period. The average monthly amount of lombard credits utilized in this period equals Denar 294 million, with the highest amounts of lombard credits extended in April and May. In accordance with the high average liquidity of the banking sector, in the second half of 2000, there was no need of using this instrument.

The net-position of Government presents on net basis: credits to Government, Government deposits with the Central Bank and Government external account balance. At the end of 2000, the net-position of the Government had a negative sign and equaled Denar 12,067 million, which indicates the existence of net liabilities of the Central Bank to the government. The registered decrease of the NBRM net claims to government by Denar 9,470 million indicates that in 2000 they represented a flow of reserve money withdrawal.

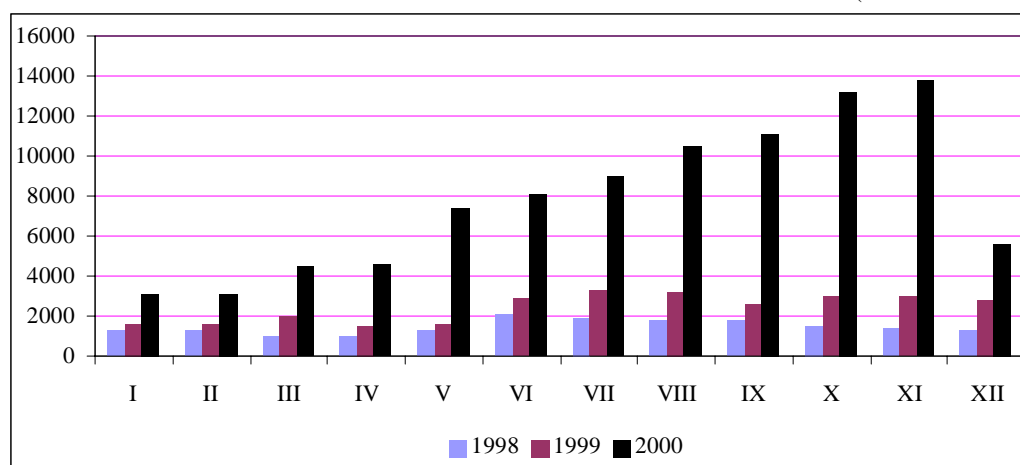
Structurally observed, the increment in the NBRM net liabilities to government is due to the decreased amount of the claims to the government, with simultaneous high increase of the government deposits and the net inflow on the government's external account. The claims to government in 2000 were reduced by Denar 822 million, or by 15.8%, which is due to the repayment of the foreign credits by the government, as well as the payment of part of the government bonds issued during the rehabilitation process of the banks in accordance with the budget supplement.

The higher budget inflows relative to the budget outflows in 2000, resulted in significant increase in the government deposits with NBRM. Namely, their level at the end of 2000 was higher by Denar 7,016 million, or by 72.4%. With respect to the structure, this increase is a result of the government deposit for monetary policy support increment in total amount of Denar 3,147 million, the increment in the government giro accounts funds by Denar 2,772 million, as well as to the increment in the rest of the deposits by Denar 1,097 million.

Chart 18

#### Dynamics of the government giro account funds

(in Denar million)



The NBRM claims on government which are induced by the external account, at the end of 2000 were lower by Denar 1,632 million, or by 86.7%. It indicates that the inflows in the government external account registered in the second and in the fourth quarter of 2000 were above the payments, which the Central Bank registered on the basis of government foreign debt repayment in the first and the third quarter of 2000.

#### 4.2.3. Instruments for Reserve Money Withdrawal

The compulsory reserves and the bills auctions are the main instruments that are used by the NBRM for reserve money withdrawal. At the end of 2000 the total amount of reserve money withdrawn through these instruments reached Denar 6,740 million. In comparison with the end of 1999, the withdrawn amount is higher by Denar 2,898 million, i.e. by 75.4%, which is due to the significantly increased liquidity of the banking system in 2000.

Table 14

#### Instruments of reserve money withdrawal<sup>1</sup>

(in Denar million)

	Balance as of 31.12.1999	Changes by quarters					Balance as of 31.12.2000
		I	II	III	IV	Total	
Compulsory reserve	-1,795	360	227	-110	-600	-123	-1,918
Central Bank bills sold at auction	-2,047	905	298	-698	-3,280	-2,775	-4,822
Total amount withdrawn	-3,842	1,265	525	-808	-3,880	-2,898	-6,740

1/ (-) Reserve money withdrawal; (+) Reserve money creation

The largest part, i.e. around 96.0% of the reserve money was withdrawn through the auction sale of CB' bills. At the end of 2000, the total amount of bills sold equaled Denar 4,822 million and relative to the level at 31.12.1999 was higher by Denar 2,775 million, or by 2.4 times. However, dynamically observed in the first half of 2000 this instrument acted towards reserve money creation by Denar 1,203 million, caused by the following reasons: a/ with reserve money withdrawal through the credits auctions, the settlement of the bills due for payment represented the most significant source of banks' liquidity; b/ the introduction of the credit auctions based on collateral in April 2000 (where the CB' bills were used as collateral) has made the terms for acquiring funds at the credit auctions more severe, which has motivated the banks to cover their need for liquid assets by reducing the quantity of the CB' bills; and c/ by the abolishment of the credit limits in April 2000, the available assets were redirected from the CB' bills into credits. In the second half of 2000, an increase of the amount of sold CB' was registered, which resulted into significant reserve money withdrawal in amount of Denar 3,978 million, withdrawn mainly in the last quarter of the year. It corresponds with the high level of liquidity in the banking system, in accordance with the high net-purchase of foreign currency at the foreign exchange market by the NBRM in the second half of 2000 (in amount of USD 120 million). The high amount of sold CB' bills in the last quarter of the year reflects the sterilization of the funds transferred from the government within the banks, for repayment of the old foreign savings bonds in December 2000.

Table 15

## Review of the CB' bills auctions in 2000

	Average amount of CB bills (in Denar million)	Average number of participants	Maturity of realized CB bills (in days)	Weighted interest rate
January	2,024	10	14-28	7.50-9.50
February	2,049	12	28	9.50
March	1,337	11	28	9.50
April	1,178	10	28	9.45
May	1,089	14	28	9.77*
June	998	11	28	9.27
July	1,166	11	28	8.59
August	1,398	12	28	9.23
September	1,515	12	28	8.32
October	1,281	13	28	8.23
November	1,093	13	28	7.39
December	2,326	12	28	6.84

\* Since May 2000, the interest rates at the “interest rate tender” CB' bill auction type are presented

In April 2000 NBRM conducted certain reforms within the existing monetary instruments, in purpose of their modernization. Thus, as of April 2000, two alternative types of CB' bills auction (“interest rate tender” and “volume tender”) were introduced. Also, weekly dynamics regarding their conduction and standardized maturity of 28 days was introduced. In addition, the interest rate at the “interest rate tender” type of CB' bills auction is formed on a market basis and it was fluctuating between 6.8% (in December) and 9.8% (in May). Regarding the “volume tender” auction type the interest rate is set by the NBRM and until October 2000 inclusive, it was fixed and equaled 9.5%. However, starting from November 2000 a more flexible approach in the interest rate setting was applied, in order to adjust it with the market based interest rates.

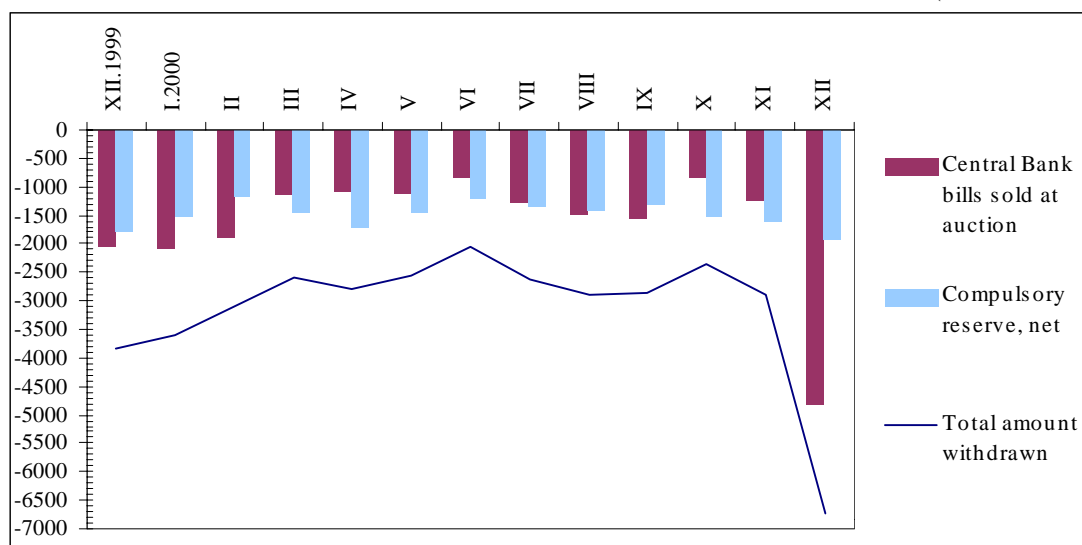
Significantly smaller amount of reserve money was withdrawn through the compulsory reserve instrument in 2000. Namely, the net compulsory reserve in 2000 increased by Denar 123 million and as of 31.12.2000, they reached the level of Denar 1,918 million. The increased amount of net compulsory reserves in 2000 represents a reflection of the increased banks' deposit potential. The dynamic analysis indicates identical dynamics as the reserve money withdrawal through the bills auctions. Namely, in the first and the second quarter of 2000, the net compulsory acted towards reserve money creation in amount of Denar 360 million, i.e. Denar 227 million, respectively. However, as a result of the increased amounts of the compulsory reserves, in the third and the fourth quarter, this instrument acted towards reserve money withdrawal, with the largest amount (Denar 600 million) withdrawn in the last quarter.



Chart19

## Effects of the instruments for reserve money withdrawal

(in Denar million)



Within the permanent activities of the Central Bank for modernizing the monetary instruments and for more efficient monetary regulation, in August 2000 the currency Swap was introduced (for buying and selling), as an instrument for the so called “fine tuning”. In 2000, the Central Bank intervened through the currency Swap in only three cases (once in October, November and December). Thus, the Swap transactions in October and November acted towards reserve money creation (repurchase of foreign currency in value of Denar 601 million), whereas through the transaction in December NBRM conducted reserve money withdrawal in amount of Denar 238 million (sale of foreign currency). On net basis, in 2000, this instrument acted towards reserve money creation in amount of Denar 363 million.