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Methodological Notes – Reformulation of Money Supply

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- * preliminary data.

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Foreword

The institutionalization of the Banco Central do Brasil Technical Notes, conducted by the Economic Department, promotes the dissemination of works featuring economic content, attracting both theoretical and methodological interest, giving a view of the short-term developments of the economy and reflecting the work of the Bank's employees in all areas of action. Besides, other works, though external to the Banco Central, may be included in this series provided the Bank has afforded institutional support to their preparation.

This Note describes the conceptual and methodological reformulation made by the Banco Central to the broad money supply in Brazil, based on the Special Data Dissemination Standard (SDDS) and international trends in the area. The reformulation was conducted following a survey of July 2001 balances and applied to the preparation of historical series from July 1988.

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Methodological Notes – Reformulation of Money Supply

1. Introduction

Broad money supply is a leading indicator for demand pressures on the real sector on the economy better than the restricted money supply, since the current ease with which portfolios may be rearranged permits M1 to be always at the necessary transactions level and respond passively to increases in price levels. However, it shall be noted that even for monetary policy models favoring interest rate control, the monetary aggregates keep being important instruments to follow the policy effects, both as liquidity indicators and as indicators of domestic inflows of funds, by the issuing system, for credit multiplication in the country.

The reduced correlation between legal tender and nominal income, prevailing in developed financial systems, may be ascribed to the application of technological progress to financial operations, which has granted increased liquidity to financial institution issued liabilities in general. In Brazil, instances of growth in the restricted money supply that is unrelated to increases in income and to significant changes in the general price level are clearly identifiable. In the economic stabilization process following the Real Plan, the restricted aggregates exhibited relevant increase in nominal terms, more specifically in the first years – in the months of 1996, for instance, there were twelve-month changes between 14% and 39% – reflecting a process of remonetization of the economy. In another moment, the introduction of the Provisional Contribution on Financial Transactions (CPMF), in January 1997, resulted in a sudden increase of M1, that exhibited in that year a change of 61.2% in twelve months.

2. Conceptual changes

The new concepts of broad money supply represent a change in the ordering criteria of its components, that no longer follow the degree of liquidity and came to define the aggregate according to their issuing systems. In this sense, M1 is generated by institutions that issue strictly monetary assets; M2 corresponds to M1 plus other highly liquid assets issued primarily in the domestic market by depositary credit-multiplying institutions; M3, in turn, is equal to M2 plus domestic funds gathered by fixed income funds and security portfolios registered with the Special System of Liquidation and Custody (Selic); M4 encompasses M3 and highly liquid public securities.

For this purpose, one assumes that among the assets of the monetary aggregate differences in potential velocity for their conversion into immediately available cash associated to value losses incurred in the procedure are not significant in the current financial system development stage. Otherwise, the ordering would have to consider such differences, since by assumption the higher the velocity, the more exposed to the demand for liquidity such component would be.

This way, the criterion used enables us to discriminate the financial system exposure to the demand for liquidity when including into M3 only liabilities of depositary institutions and fixed income funds before the public. In this sense, public securities, despite failing to have potential liquidity lower than private securities and savings deposits, were allocated to the broader concept in order to stress, in M3, the financial system exposure, except the Central Bank, acting solely as money supplier.

Notice that, though not usual in the majority of countries, the inclusion of public security debt in monetary aggregates is based on specificities of the Brazilian economy, where the public sector maintains a significant share in total expenditure for a long period, the funding of which depended significantly on private savings gathered through the issue of such securities. These circumstances required such instruments to be highly liquid, facilitating their use as quasi-money until the current days.

It should be noted that, among all federal securities, only those registered at Selic may be considered as money supply. Despite the high liquidity of the National Treasury funding instruments, it is understood that the acknowledgement of such issues as quasi-money in the money supply definitions should be as restricted as possible, since that agency does not belong to the National Financial System (SFN). On the other hand, Banco Central has most of its securities operations carried out by Selic.

Fixed income funds were included in M3, though being juristic entities in themselves and being not credit-multiplying institutions, given that, in general, they work in collaboration with depositary institutions, performing activities typical of such institutions, such as changing the liquidity of an asset portfolio and receive funds for investment, issuing shares to their clients as an alternative of financial investment. The performance and exposure of fixed income funds affect the managing institution, since the majority of clients fails to perceive the formally established difference.

Repurchase operations of the rest of the economy before the issuing system – corresponding to the net funding of securities taken by such system – operate as transaction money, and are included in the M3 concept.

3. Previous concepts

M1 = paper money held by the public + demand deposits;

M2 = M1 + remunerated special deposits + shares of short-term fixed income funds + highly liquid public securities;

M3 = M2 + savings account deposits;

M4 = M3 + securities issued by financial institutions.

4. Current concepts

a) Restricted money supply:

M1 = paper money held by the public + demand deposits;

b) Broad money supply:

$M2 = M1 + \text{remunerated special deposits} + \text{savings account deposits} + \text{securities issued by depository institutions};$

$M3 = M2 + \text{shares of fixed income funds} + \text{repurchase operations registered with Selic}.$

c) Financial savings:

$M4 = M3 + \text{highly liquid public securities}.$

5. Issuing systems

M1: Monetary aggregate – restricted monetary liabilities of the Central Bank and deposit money banks;

Monetary Aggregate (SDDS)⁽¹⁾	
ASSETS External Liquid Asset Credits to Governments Credits to Productive Sector Credits to Other Depository Institutions (-) Capital less Fixed Assets	LIABILITIES M1 Quasi-money Treasury Single Account

(1) Special Data Dissemination Standard (SDDS): A methodology organized by the International Monetary Fund (IMF) to standardize macroeconomic data of member nations.

M2: Bank aggregate less fixed income funds – restricted monetary liabilities of the Central Bank and monetary liabilities issued primarily by depository institutions;

Bank Aggregate less Fixed Income Funds (SDDS)	
ASSETS External Liquid Asset Credits to Governments Credits to Productive Sector Credits to Fixed Income Funds (-) Capital less Fixed Assets	LIABILITIES M2 Central Bank securities Repurchase operations Treasury Single Account

M3: Bank aggregate – restricted monetary liabilities of the Central Bank and broad monetary liabilities of depository institutions and fixed income funds;

Bank Aggregate (SDDS)	
ASSETS External Liquid Asset Credits to Governments Credits to Productive Sector (-) Capital less Fixed Assets	LIABILITIES M3 Central Government available cash Central Bank Securities

M4: Bank aggregate plus governments – broad monetary liabilities of the Central Bank, depositary institutions, fixed income funds and federal, state and municipal treasuries.

Bank Aggregate plus Governments (SDDS)	
ASSETS External Liquid Asset Credits to Productive Sector (-) Capital less Fixed Assets	LIABILITIES M4

Depositary institutions: multiple banks, commercial banks, savings banks, investment banks, development banks, development agencies, credit, financing and investment companies, real estate credit companies, savings and loans associations, mortgage companies. Non-depositary financial institutions, such as leasing companies, and security and stock brokers and dealers are deemed as being productive sector corporations for the purpose of definition of monetary aggregates.

Monetary aggregate: Central Bank, multiple banks with commercial portfolio, commercial banks and savings banks. Owing to operational restrictions, credit cooperatives have not been yet included in this aggregate.

Bank aggregate: monetary aggregate, other depositary institutions and fixed income funds.

6. Operating changes

a) Accounting data

An important operational change was the use of accounting data from the Accounting Plan of National Financial System Institutions (Cosif) as the main source of data. Other sources are the official data on outstanding federal state and municipality securities debt in the market, consolidated by Depec, money supply balances, from the Financial Administration Department (Deafi) and Selic positions on repurchase operations, broken by sectors by the Open Market Operations Department (Demab), according to the SDDS structure.

Broad money supply was previously calculated based on extra-accounting information collected in daily data delivered by institutions and charts of public security holders as recorded by Selic, for federal securities, and both, Selic and the Center of Financial Custody and Liquidation of Securities (Cetip), for state and municipal securities.

b) Custody position

The position of custody of the non-issuing public was used for all assets integrating the new concepts of money supply, since one is interested in the potential demand for money from that public. Previously, with the exception of the public security position, the methodology then in place considered the portfolio position to identify the asset

holder, a procedure that fails to contemplate financial assets held by the non-issuing sector.

For example, in case a commercial bank finances part of its securities portfolio with a corporation, the total security asset of such corporation would be, in addition to its own portfolio, the balance held by it as a result of the operation with the bank. By the portfolio criterion, however, the securities position of the corporation would be underestimated because it did not include operations with a commitment to resale. The custody position enables to capture the net balance of operations made with commitments to repurchase or resale, and for this reason it is currently in use.

c) Fixed income funds

The high degree of substitutability among fixed income funds and other remunerated financial investments evidences the need to aggregate them under the same concept of money. With this in mind, the inclusion of investment funds according to their equity, discriminating them from other investments, enables a better observation of portfolio reallocation operations by the non-depository sector.

Fixed income funds are those supervised by the Central Bank and, in this condition, must deliver accounting statements based on Cosif. Currently they correspond to Financial Investment Funds (FIF), excluded the funds owned by the central government in the assessment of monetary aggregates. Variable income securities and pension funds are not considered as issuers of liquidity and credit multipliers, and are classified as non-depository agents.

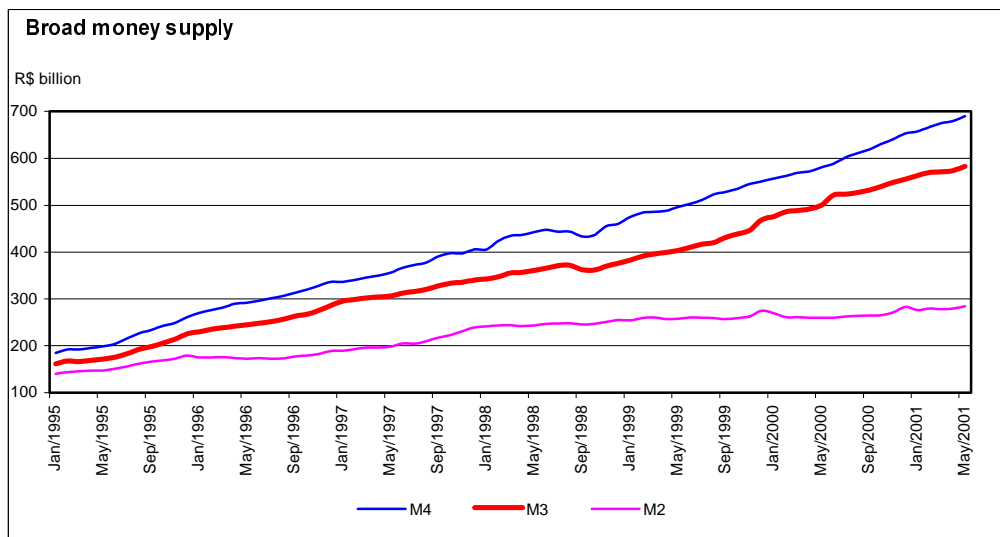
d) Price of assets

Another operational change, the one causing the greatest quantitative impact, was the more careful treatment given to the value of assets integrating the money supply. This way, as compared to the previous methodology, two changes were introduced. Up to June 1995, predetermined securities were accounted for in the assets of financial institutions by their face value, adjusting their present value on an accrual basis by means of an expense rectification account or income to be appropriated. Under the current methodology, this adjustment is performed on the value of the securities, which was not contemplated under the previous methodology.

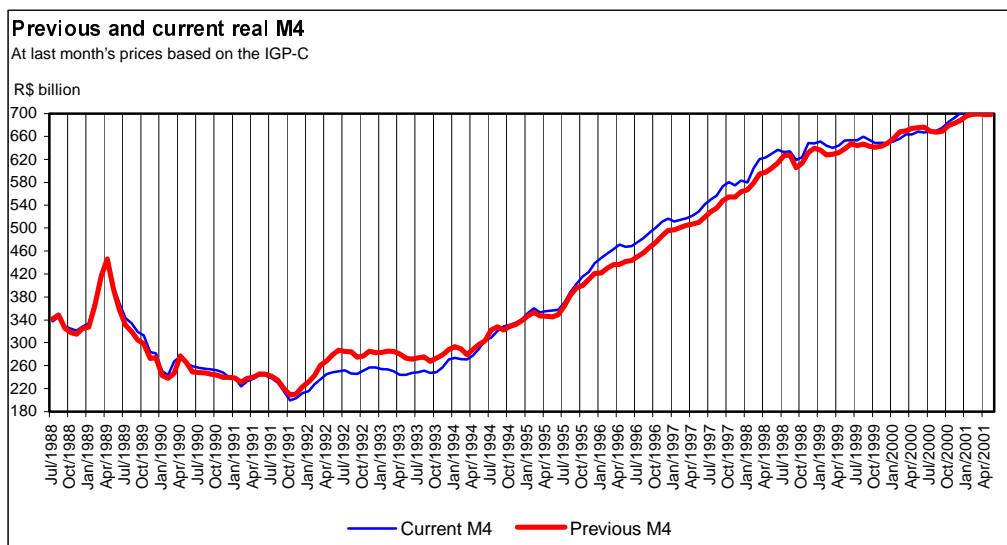
Similarly, in order to measure shares of fixed income funds based on available accounting statements, the adjusted net worth came to be used – corresponding to net worth plus the result to be appropriated. This criterion emerges from the accounting rule of appropriating profits in half-yearly balance sheets only, while in interim balance sheets revenues and expenses are accumulated in result accounts. In the survey previously made, the net worth of the investment funds included was not adjusted.

7. Graphs

Graph 1



Graph 2



Main periods of unpegging

1992/1993: current balance below previous balance, mainly due to replacement of nominal value by present value of private securities.

1996/1998: current balance above previous balance, mainly due to replacement of Net Worth (NW) by Adjusted Net Worth (ANW) as measure of fixed income fund shares.

Broad money supply**End-of-period balances**

Million of monetary units

Period	M1	Special profit-earning deposit	Savings deposit	Private securities	M2	Fixed-income quotas	Security committed operations	M3	Federal securities (Selic)	State and municipal securities	M4
1988 Jul	2 047 000	-	9 099 434	3 182 368	14 328 802	-	-	14 328 802	7 291 807	846 545	22 467 154
Aug	2 275 000	-	11 203 664	3 953 700	17 432 364	-	-	17 432 364	10 298 377	810 377	28 541 118
Sep	2 899 000	-	13 935 533	4 817 847	21 652 380	-	-	21 652 380	11 747 617	1 087 571	34 487 568
Oct	3 837 000	-	17 631 524	6 016 579	27 485 103	-	-	27 485 103	14 679 861	1 314 974	43 479 938
Nov	4 613 000	-	22 432 352	7 581 288	34 626 640	-	-	34 626 640	19 001 255	1 617 426	55 245 321
Dec	6 944 000	-	29 494 143	9 957 681	46 395 824	-	-	46 395 824	27 177 727	1 390 550	74 964 101
1989 Jan	8 469	-	36 166	9 216	53 851	-	-	53 851	35 679	4 437	93 967
Feb	8 892	-	43 394	8 126	60 412	-	-	60 412	47 253	5 357	113 022
Mar	9 749	-	52 424	8 293	70 466	-	-	70 466	58 398	5 265	134 129
Apr	14 624	-	59 444	9 329	83 397	-	-	83 397	65 228	5 945	154 570
May	13 985	-	62 538	12 790	89 313	-	-	89 313	67 916	7 982	165 211
Jun	15 872	-	72 931	17 481	106 284	-	-	106 284	85 621	10 277	202 182
Jul	17 557	-	92 219	20 698	130 474	-	-	130 474	113 298	14 292	258 064
Aug	20 412	-	117 955	29 174	167 541	-	-	167 541	156 308	21 979	345 828
Sep	27 847	-	152 373	39 775	219 995	-	-	219 995	211 497	29 209	460 700
Oct	37 921	-	205 453	54 985	298 359	-	-	298 359	300 379	41 545	640 283
Nov	53 442	-	272 424	82 202	408 068	-	-	408 068	381 229	63 606	852 903
Dec	103 060	-	396 309	158 502	657 871	-	-	657 871	603 719	95 203	1 356 793
1990 Jan	116 907	-	605 955	241 664	964 526	-	-	964 526	934 143	174 992	2 073 661
Feb	224 276	-	1 248 361	344 161	1 816 798	-	-	1 816 798	1 454 579	282 403	3 553 780
Mar	659 607	-	1 720 355	269 722	2 649 684	-	-	2 649 684	483 572	453 538	3 586 795
Apr	894 133	-	1 137 060	468 451	2 499 644	-	-	2 499 644	860 505	455 241	3 815 391
May	1 216 242	-	995 564	602 507	2 814 313	-	-	2 814 313	1 053 929	549 420	4 417 663
Jun	1 209 917	-	996 863	956 770	3 163 550	-	-	3 163 550	1 058 228	595 268	4 817 046
Jul	1 209 318	-	1 244 369	1 085 791	3 539 478	-	-	3 539 478	1 270 933	660 866	5 471 277
Aug	1 321 417	-	1 437 437	1 328 928	4 087 782	-	-	4 087 782	1 358 288	751 404	6 197 474
Sep	1 515 340	-	1 626 957	1 686 315	4 828 612	-	-	4 828 612	1 347 388	816 103	6 992 103
Oct	1 518 617	-	1 860 415	2 105 627	5 484 659	-	-	5 484 659	1 555 247	982 429	8 022 335
Nov	1 810 876	-	2 136 671	2 420 786	6 368 333	-	-	6 368 333	1 767 106	1 069 467	9 204 906
Dec	2 510 247	-	2 624 956	2 626 852	7 762 055	-	-	7 762 055	1 880 246	768 220	10 410 521
1991 Jan	2 138 125	-	3 198 997	3 361 493	8 698 615	-	-	8 698 615	2 832 049	1 006 137	12 536 800
Feb	3 303 990	-	3 591 587	3 287 719	10 183 296	-	-	10 183 296	2 573 333	538 123	13 294 751
Mar	3 454 989	-	3 997 982	4 383 922	11 836 893	1 572 098	-	13 408 991	1 213 824	556 502	15 179 316
Apr	3 517 605	-	4 364 844	5 102 638	12 985 087	1 764 314	-	14 749 401	1 210 900	754 148	16 714 449
May	3 873 366	-	4 758 311	6 031 249	14 662 926	1 835 961	-	16 498 887	1 477 922	841 416	18 818 225
Jun	4 400 597	-	5 354 400	6 813 475	16 568 472	2 077 537	-	18 646 009	1 775 997	783 155	21 205 161
Jul	4 389 224	-	6 053 444	8 277 688	18 720 356	2 348 621	-	21 068 977	1 981 721	1 040 323	24 091 020
Aug	5 008 668	384 913	6 771 256	9 484 923	21 649 760	2 752 697	-	24 402 457	2 580 718	1 196 474	28 179 649
Sep	6 351 820	761 900	7 905 329	10 848 535	25 867 584	3 192 912	-	29 060 496	2 508 299	1 053 579	32 622 374
Oct	5 974 229	1 124 435	9 577 723	13 847 397	30 523 784	3 800 836	-	34 324 620	3 823 615	1 028 055	39 176 290
Nov	7 345 239	1 811 144	12 657 971	17 475 766	39 290 120	5 301 001	-	44 591 121	4 671 322	1 262 951	50 525 394
Dec	10 811 561	2 783 438	18 759 950	20 836 381	53 191 330	7 553 794	-	60 745 124	5 605 692	1 228 894	67 579 710

(continues)

Broad money supply

End-of-period balances

(continued)

Million of monetary units

Period	M1	Special profit-earning deposit	Savings deposit	Private securities	M2	Fixed-income quotas	Security committed operations	M3	Federal securities (Selic)	State and municipal securities	M4
1992 Jan	10 260 640	3 996 705	23 675 818	28 886 125	66 819 288	10 676 868	-	77 496 156	8 358 665	2 954 102	88 808 923
Feb	13 816 712	5 751 700	30 277 996	37 948 189	87 794 597	14 331 206	-	102 125 803	11 707 699	3 896 045	117 729 547
Mar	13 991 466	7 925 647	37 595 264	50 616 931	110 129 308	19 780 547	-	129 909 855	14 954 832	4 890 192	149 754 879
Apr	17 716 833	10 628 066	47 313 941	61 391 118	137 049 958	24 715 713	-	161 765 671	23 740 520	5 706 021	191 212 212
May	20 427 047	13 729 943	55 376 082	82 115 869	171 648 941	30 574 110	-	202 223 051	31 698 297	7 453 428	241 374 777
Jun	26 258 835	17 640 051	68 004 349	106 874 294	218 777 529	34 283 541	-	253 061 070	39 212 985	8 876 193	301 150 248
Jul	29 920 022	23 101 880	84 753 319	138 109 153	275 884 374	42 817 257	-	318 701 631	51 418 143	11 565 768	381 685 542
Aug	38 554 650	28 491 885	105 341 409	180 789 370	353 177 314	51 047 739	-	404 225 053	61 796 920	15 062 101	481 084 073
Sep	47 273 420	32 456 327	134 019 708	230 722 487	444 471 942	68 981 496	-	513 453 438	72 636 581	18 099 621	604 189 640
Oct	55 606 923	38 405 394	173 435 857	290 241 452	557 689 626	93 142 329	-	650 831 955	97 080 141	22 553 622	770 465 718
Nov	78 280 000	44 523 208	215 049 889	358 895 277	696 748 374	137 931 918	-	834 680 292	114 682 032	27 417 758	976 780 082
Dec	104 575 000	52 444 953	281 499 700	476 514 066	915 033 719	157 126 697	-	1072 160 416	124 204 540	34 488 332	1230 853 288
1993 Jan	104 995 000	62 985 320	357 685 444	638 089 908	1163 755 672	188 948 685	-	1352 704 357	156 985 665	46 095 386	1555 785 408
Feb	144 449 000	76 747 434	481 192 599	735 681 055	1438 070 088	280 148 821	-	1718 218 909	206 064 147	49 654 493	1973 937 549
Mar	162 189 000	91 731 739	606 413 397	980 553 040	1840 887 176	313 898 667	-	2154 785 843	271 130 956	66 059 598	2491 976 397
Apr	225 928 000	111 536 549	769 343 222	1277 333 723	2384 141 494	392 877 486	-	2777 018 980	307 446 973	84 665 834	3169 131 787
May	291 091 000	130 463 017	1044 009 411	1632 612 458	3098 175 886	511 237 114	-	3609 413 000	456 247 149	101 991 492	4167 651 641
Jun	343 392 000	166 847 796	1398 666 237	2167 766 803	4076 672 836	682 155 345	-	4758 828 181	635 373 802	149 181 421	5543 383 404
Jul	452 243 000	206 464 532	1864 653 973	2868 961 697	5392 323 202	973 178 708	-	6365 501 910	836 801 861	194 733 980	7397 037 751
Aug	564 807	259 810	2 524 767	3 952 459	7 301 843	1 432 355	-	8 734 198	1 139 150	248 969	10 122 317
Sep	740 627	334 155	3 433 952	5 289 194	9 797 928	1 730 117	-	11 528 045	1 614 132	394 809	13 536 986
Oct	943 178	440 289	4 865 443	7 371 609	13 620 519	2 441 431	-	16 061 950	1 956 469	495 551	18 513 971
Nov	1 482 613	1 041 387	6 768 320	9 854 067	19 146 387	3 513 756	-	22 660 143	2 786 855	661 657	26 108 655
Dec	2 331 395	1 374 242	10 280 632	14 126 955	28 113 224	4 224 883	-	32 338 107	5 161 328	828 867	38 328 302
1994 Jan	2 788 455	1 884 789	15 735 552	19 767 448	40 176 244	6 040 793	-	46 217 037	7 781 797	1 144 989	55 143 823
Feb	4 274 863	2 584 528	21 402 121	27 095 707	55 357 219	9 657 746	-	65 014 965	11 532 700	2 016 801	78 564 466
Mar	5 299 764	3 579 886	30 534 664	40 193 602	79 607 916	13 501 581	-	93 109 497	16 807 867	2 558 104	112 475 469
Apr	7 731 705	5 104 305	44 363 101	57 690 208	114 889 319	21 433 284	-	136 322 603	23 051 337	4 362 482	163 736 422
May	11 600 945	7 270 591	66 675 589	86 872 057	172 419 182	30 641 750	-	203 060 932	36 026 907	5 889 114	244 976 953
Jun	20 531 932	10 376 218	102 684 937	124 800 022	258 393 109	47 306 611	-	305 699 720	55 954 029	16 558 403	378 212 152
Jul	10 687	3 949	41 816	44 245	100 697	18 820	-	119 517	21 040	4 916	145 473
Aug	12 902	3 879	42 198	47 867	106 846	19 505	-	126 351	24 134	4 329	154 814
Sep	15 844	3 790	42 287	49 839	111 760	22 029	-	133 789	24 137	4 043	161 968
Oct	16 735	3 752	43 217	55 156	118 860	21 216	-	140 076	21 762	5 449	167 287
Nov	17 825	3 672	44 119	58 809	124 425	20 924	-	145 349	20 743	5 876	171 969
Dec	22 773	3 457	45 751	60 577	132 558	21 986	-	154 544	18 216	3 689	176 449

(continues)

Broad money supply**End-of-period balances**

(continued)

Million of monetary units

Period	M1	Special profit-earning deposit	Savings deposit	Private securities	M2	Fixed-income quotas	Security committed operations	M3	Federal securities (Selic)	State and municipal securities	M4
1995 Jan	18 217	3 367	46 329	71 939	139 852	21 260	-	161 113	20 260	2 996	184 369
Feb	19 886	3 250	46 820	73 860	143 816	23 276	-	167 091	21 308	3 262	191 662
Mar	17 082	3 102	48 114	77 649	145 947	20 272	-	166 220	21 817	3 661	191 698
Apr	17 142	2 997	50 659	76 501	147 299	21 531	-	168 830	22 965	3 529	195 325
May	16 078	2 909	53 979	74 365	147 331	23 922	-	171 253	24 075	3 684	199 013
Jun	17 622	2 787	56 569	74 319	151 297	24 140	-	175 437	24 844	4 109	204 389
Jul	17 879	2 739	58 559	76 854	156 031	26 938	-	182 969	28 875	3 746	215 590
Aug	17 776	2 639	59 468	82 232	162 115	30 781	-	192 896	29 799	3 803	226 498
Sep	19 069	2 508	59 253	85 122	165 951	32 424	-	198 375	30 671	4 644	233 690
Oct	19 755	2 446	59 889	86 539	168 629	36 916	-	205 545	32 755	4 459	242 759
Nov	21 912	2 232	60 452	87 269	171 865	41 961	-	213 827	31 371	4 222	249 420
Dec	28 493	-	64 266	85 997	178 755	46 252	-	225 008	30 891	5 277	261 176
1996 Jan	23 482	-	64 904	86 652	175 037	54 432	-	229 469	35 897	4 605	269 972
Feb	23 095	-	65 234	86 503	174 833	59 886	-	234 719	37 028	4 343	276 090
Mar	22 985	-	65 268	87 131	175 384	63 036	-	238 420	38 535	4 637	281 592
Apr	23 276	-	65 114	85 260	173 650	68 561	-	242 211	42 194	5 754	290 160
May	22 762	-	64 694	84 774	172 230	73 097	-	245 327	40 906	5 685	291 919
Jun	23 513	-	64 510	85 449	173 472	75 222	-	248 695	41 295	5 981	295 971
Jul	23 107	-	64 281	85 029	172 417	79 603	-	252 020	43 743	6 024	301 787
Aug	23 477	-	64 237	85 295	173 010	83 601	-	256 611	43 847	6 152	306 609
Sep	25 143	-	64 729	87 123	176 995	86 606	-	263 601	44 433	5 446	313 480
Oct	23 171	-	65 756	90 257	179 184	88 236	-	267 421	46 232	6 038	319 690
Nov	24 383	-	67 561	90 219	182 164	93 396	-	275 560	47 192	5 487	328 238
Dec	29 807	-	72 651	86 277	188 735	97 206	-	285 942	45 756	4 450	336 148
1997 Jan	33 124	-	77 132	79 023	189 279	106 315	-	295 594	36 415	4 140	336 149
Feb	36 237	-	78 711	77 955	192 902	105 836	-	298 739	37 319	4 301	340 359
Mar	37 449	-	80 034	78 251	195 733	106 392	-	302 125	39 777	3 615	345 518
Apr	36 298	-	80 884	78 672	195 854	108 295	-	304 149	42 453	3 349	349 952
May	36 861	-	81 793	79 591	198 245	108 395	-	306 640	46 900	2 794	356 333
Jun	37 842	-	82 927	84 420	205 189	107 018	-	312 207	50 818	3 469	366 494
Jul	35 906	-	83 627	84 766	204 300	111 284	-	315 584	52 204	4 404	372 192
Aug	37 776	-	85 063	86 854	209 693	110 700	-	320 392	52 958	4 498	377 848
Sep	39 117	-	86 592	91 353	217 062	110 974	-	328 036	58 644	4 028	390 708
Oct	39 284	-	88 146	95 230	222 660	110 749	-	333 409	60 271	4 188	397 868
Nov	40 024	-	93 943	96 736	230 703	104 775	-	335 477	57 270	4 512	397 259
Dec	47 363	-	98 211	94 203	239 777	100 432	-	340 210	62 019	3 717	405 946

(continues)

Broad money supply

End-of-period balances

(concluded)

Million of monetary units

Period	M1	Special profit-earning deposit	Savings deposit	Private securities	M2	Fixed-income quotas	Security committed operations	M3	Federal securities (Selic)	State and municipal securities	M4
1998 Jan	42 620	-	100 628	98 513	241 761	100 557	-	342 318	60 230	2 749	405 297
Feb	42 821	-	98 600	102 029	243 450	103 866	-	347 315	73 044	2 973	423 332
Mar	41 922	-	98 110	104 396	244 428	110 634	-	355 062	75 629	3 881	434 572
Apr	42 275	-	97 851	102 068	242 194	114 721	-	356 915	75 596	4 241	436 753
May	42 502	-	98 234	102 878	243 615	117 188	-	360 802	77 641	4 019	442 463
Jun	44 060	-	99 702	103 538	247 300	118 528	-	365 828	79 075	2 329	447 232
Jul	43 982	-	101 146	102 525	247 652	123 116	-	370 769	70 157	2 331	443 256
Aug	44 308	-	102 316	101 541	248 166	123 890	-	372 056	68 738	2 620	443 414
Sep	43 934	-	104 163	97 676	245 772	116 636	-	362 409	68 475	2 154	433 038
Oct	43 031	-	105 775	98 422	247 228	114 550	-	361 778	72 172	2 022	435 972
Nov	46 117	-	107 170	98 028	251 315	118 644	-	369 959	82 873	1 948	454 780
Dec	50 707	-	108 445	95 815	254 967	121 151	-	376 118	80 981	2 305	459 404
1999 Jan	49 957	-	109 362	95 614	254 933	127 796	-	382 729	90 446	1 238	474 413
Feb	47 817	-	111 432	100 319	259 568	131 214	-	390 782	92 592	778	484 151
Mar	45 497	-	112 364	103 037	260 898	134 793	-	395 690	87 990	2 398	486 078
Apr	44 076	-	112 525	100 472	257 073	141 934	-	399 007	86 632	2 808	488 447
May	44 052	-	113 363	100 927	258 343	144 583	-	402 926	91 005	2 761	496 692
Jun	45 940	-	112 787	102 246	260 972	148 768	-	409 740	90 884	2 878	503 502
Jul	48 012	-	112 302	99 727	260 040	156 438	-	416 478	93 145	1 821	511 444
Aug	47 509	-	111 710	99 967	259 186	159 652	1 352	420 190	101 921	1 738	523 850
Sep	46 989	-	110 964	99 490	257 443	173 093	203	430 739	95 731	1 635	528 105
Oct	48 581	-	110 497	100 553	259 630	178 633	0	438 264	95 067	1 913	535 244
Nov	51 580	-	110 696	100 482	262 758	183 255	0	446 012	97 237	2 424	545 673
Dec	62 744	-	111 407	100 623	274 774	184 410	9 577	468 761	80 825	1 545	551 131
2000 Jan	56 633	-	112 684	100 515	269 833	195 642	10 314	475 789	80 025	1 344	557 158
Feb	54 038	-	111 881	95 575	261 495	208 838	15 510	485 842	75 355	1 271	562 468
Mar	53 255	-	111 305	96 871	261 432	213 916	13 435	488 782	79 173	1 472	569 428
Apr	53 669	-	110 937	95 190	259 796	218 314	14 508	492 619	77 535	1 537	571 690
May	52 976	-	110 443	96 435	259 854	222 660	17 791	500 305	79 125	1 303	580 733
Jun	54 697	-	111 046	94 359	260 102	231 470	29 756	521 328	65 527	1 311	588 166
Jul	57 078	-	111 006	94 589	262 673	234 418	26 687	523 778	76 893	1 313	601 984
Aug	56 626	-	110 718	96 756	264 100	237 975	24 706	526 781	82 328	1 343	610 452
Sep	59 451	-	109 496	95 815	264 762	243 407	24 038	532 207	84 754	1 714	618 675
Oct	60 166	-	108 731	96 797	265 694	250 139	24 221	540 054	88 835	1 782	630 671
Nov	63 053	-	109 263	99 306	271 622	253 491	23 674	548 787	89 900	1 824	640 511
Dec	74 352	-	111 569	96 957	282 878	253 877	18 961	555 716	95 478	1 891	653 085
2001 Jan	66 549	-	112 272	97 676	276 498	265 594	20 812	562 904	92 552	1 901	657 357
Feb	68 310	-	112 832	98 621	279 763	269 447	20 964	570 173	94 331	1 910	666 414
Mar	66 033	-	112 399	99 947	278 378	273 160	19 647	571 186	101 650	1 905	674 741
Apr	65 825	-	112 749	101 038	279 612	273 849	20 340	573 801	103 902	1 866	679 569
May	66 286	-	113 892	104 125	284 302	278 284	20 152	582 738	105 174	2 163	690 075
Jun	66 325	-	114 881	106 111	287 317	275 299	26 612	589 228	102 821	2 332	694 380
Jul	67 394	-	115 822	107 708	290 923	282 164	28 521	601 608	108 541	2 376	712 524

1/ Includes time deposits, exchange bills, mortgage notes and real estate financing notes.

2/ Excludes backing on securities primarily issued by a financial institution.

3/ Non-financial sector investments in committed operations are included in M3, as of August 1999, when the 30-day minimum term was abolished. This term was required for such operations since October 1991.