

CROATIAN NATIONAL BANK

2002

ANNUAL REPORT

2

Monetary Policy Instruments

2.1 Monetary Policy Instruments

In 2002, the implementation of monetary policy continued in conditions of a structural liquidity surplus. This means that the Croatian National Bank was primarily oriented towards sterilization instruments. The CNB used these instruments to withdraw liquidity surpluses created by foreign exchange interventions, which were aimed at easing appreciation pressures on the kuna. Owing to liquidity problems in Riječka banka, a large-scale use of secondary liquidity sources occurred in March 2002, leading to intense credit activities of the Croatian National Bank.

The key changes in the monetary policy instruments of the CNB in 2002 included the changes in the level of interest rates on CNB bills and auctions of these bills. Thus, the Lombard rate was reduced from 10% to 9.5% in April, whereas the remuneration rate for the kuna component of the reserve requirements was cut from 2% to 1.75%. The frequency of CNB bill auctions was changed in June 2002. Instead of every five weeks, auctions are again held on a weekly basis. Also, the CNB stopped issuing 70- and 105-day CNB bills. In addition, as investors' interest in T-bills with the shortest (42-day) maturity declined, the Ministry of Finance stopped issuing these bills and introduced T-bills maturing in 364 days in September. Thus, the Croatian National Bank and the Ministry of Finance made a first step towards separating a monetary policy instrument, which is concentrated on shorter maturity periods (35 days), from a public debt instrument, which is oriented towards longer maturities. Although it has a certain administrative significance for the Croatian economy, the discount rate of the CNB is not used in central bank monetary operations and is hence adjusted to market developments. This rate was thus cut from 5.9% to 4.5% in October 2002. The last change in monetary policy instruments occurred in November when the method and conditions for obtaining a short-term liquidity loan were changed in order to eliminate deficiencies in its practical use and to adjust it to the current situation in the Croatian banking system.

2.1.1 Relations with Commercial Banks

The total amount of funds from the primary issue that was extended to banks reached HRK 3.0bn in 2002, and was 4.4 times below the amount placed in 2001.

Lombard Loans

In 2002, banks and savings banks could use Lombard loans in the amount of up to 50% of the nominal value of purchased CNB bills and T-bills of the Ministry of Finance and up to 30% of the nominal value of foreign currency CNB bills, for a maximum of 15 working days in a month. The interest rate charged on this loan was 10% at the beginning of 2002 and was reduced to 9.5% at end-April.

Lombard loans used by banks and savings banks totaled HRK 2.4bn in 2002, which is only 27.2% of the total amount used in 2001. The average monthly amount of Lombard

loans used in 2002 was HRK 254.4m. However, Lombard loans were used for only 23 days in 2002, i.e. their average use was less than 2 days a month (compared with 9 days a month in 2001). A small number of days when Lombard loans were used illustrates a liquidity surplus in the system, owing to which banks did not need to borrow additionally from the central bank. The period when Riječka banka experienced liquidity problems was the only period in 2002 when Lombard loans were intensely used. Excluding the first four months of 2002, Lombard loans were used for only 3 days in 2002.

Short-Term Liquidity Loans

In contrast to 2001 when banks did not turn to the central bank as the lender of last resort, a short-term liquidity loan was used by Riječka banka in March 2002. The loan was granted on two occasions, 19 and 22 March, in the total amount of HRK 558.0m. It was used at end-March and in early April for a total of 14 days, and the average amount used was HRK 525.9m. The interest rate on the short-term liquidity loan was the interest on Lombard loans plus 0.5 percentage points for a loan utilization period of up to 3 months and 1 percentage point for longer utilization periods.

In November 2002, the CNB adopted a decision that redefined the method and conditions for granting short-term liquidity loans. The changes introduced mostly relate to the redefinition of collateral.

Repo Auctions

Despite high liquidity, nine repo auctions were held in 2001 at which a total of HRK 4.2bn was placed. By contrast, there were no repo auctions held in 2002, and there were no placements from primary issue on this basis.

Reserve Requirements

In 2002, the reserve requirement calculation rate was 19% and it was calculated on the base consisting of the kuna and foreign exchange components. 25% of the calculated foreign exchange component was allocated in kuna and added to the calculated kuna reserve requirements. Minimum 40% of the calculated reserve requirements had to be deposited in accounts with the CNB, whereas maximum 60% could be maintained by average daily balances in accounts of liquid claims.

The kuna component of the reserve requirements steadily grew over 2002, primarily owing to the growth in the calculation base, i.e. the growth in kuna and foreign exchange deposits with banks. The kuna component of the base grew from HRK 25.8bn in the December 2001 calculation period to HRK 34.9bn in the November 2002 calculation period, an increase of 35.3%. In the same period, the foreign exchange component of the calculation base rose from HRK 88.6bn to HRK 102.5bn, an increase of 15.7%. Hence, total kuna reserve requirements persistently grew over 2002, from HRK 9.1bn in January to HRK 11.5bn in December, recording an increase of 26.4%. The growth rate of kuna reserve requirements was below that of the kuna base owing to a smaller percentage growth in the foreign exchange base. A portion of the calculated foreign exchange component of the reserve requirements that is allocated in kuna rose by

16.7% from the January 2002 maintenance period to the December 2002 maintenance period, which is in proportion to the growth in the foreign exchange base. Observing the kuna component alone, the ratio between the portion allocated in a special account with the CNB and the portion maintained in settlement accounts remained almost unchanged over 2002. The average percentage of allocation went down from 72.39% in January to 71.25% in December.

The Croatian National Bank paid remuneration on the kuna component of the reserve requirements, which includes funds deposited in special reserve requirement accounts with the CNB and funds in settlement accounts that are deposited for the purpose of maintaining average balances of reserve requirements. The remuneration rate for the kuna component of the reserve requirements was 2% a year until 24 April 2002 when it was cut to 1.75% a year.

Croatian National Bank Bills in Kuna

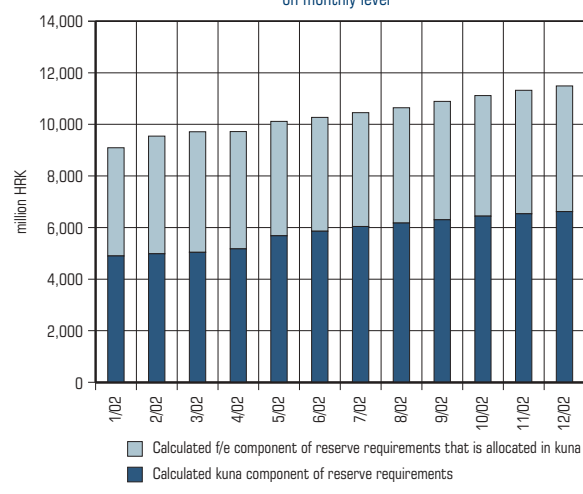
In the first half of 2002, the Croatian National Bank issued CNB bills in kuna maturing in 35, 70 and 105 days, which were sold at regular five-week auctions and at four extraordinary auctions. Starting from 26 June, auctions were held once a week, and only 35-day CNB bills were issued. The stock of purchased kuna CNB bills ranged from HRK 3.3bn to HRK 4.1bn in the first five months of 2002, and was afterward on a steady upward trend, reaching a high of HRK 5.8bn in mid-October. Notwithstanding a slight downward trend that followed, the stock of these bills remained at above HRK 5.0bn by the year-end. The average monthly stock of purchased kuna CNB bills over the observed period was HRK 4.4bn, which is an increase of 51.7% in comparison with that recorded in 2001.

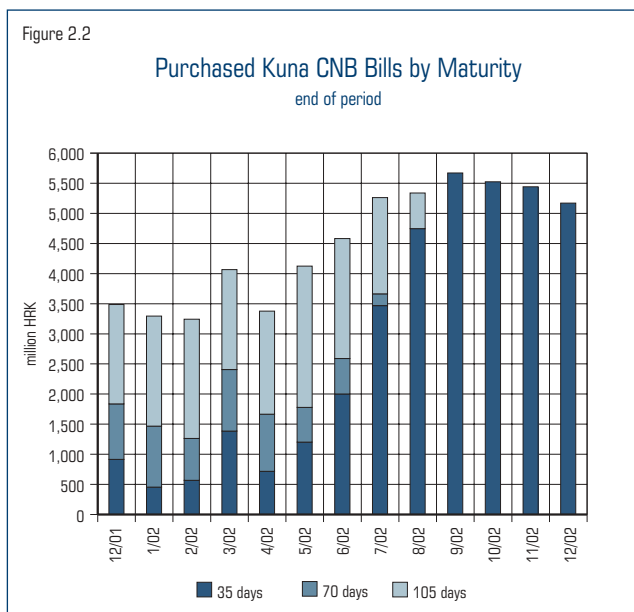
Table 2.1 Purchased Kuna CNB Bills
nominal value, end of period, in million HRK

| Year | Month | Maturity | | | Total |
|------|-----------|----------|---------|----------|---------|
| | | 35 days | 70 days | 105 days | |
| 2001 | December | 914.8 | 920.0 | 1,651.0 | 3,485.8 |
| 2002 | January | 454.5 | 1,011.8 | 1,827.0 | 3,293.3 |
| | February | 566.0 | 695.8 | 1,980.0 | 3,241.8 |
| | March | 1,386.0 | 1,020.8 | 1,660.0 | 4,066.8 |
| | April | 718.0 | 947.0 | 1,711.0 | 3,376.0 |
| | May | 1,203.0 | 574.0 | 2,348.0 | 4,125.0 |
| | June | 2,001.0 | 590.0 | 1,991.0 | 4,582.0 |
| | July | 3,467.0 | 195.0 | 1,601.0 | 5,263.0 |
| | August | 4,747.5 | – | 591.0 | 5,338.5 |
| | September | 5,671.0 | – | – | 5,671.0 |
| | October | 5,523.0 | – | – | 5,523.0 |
| | November | 5,441.0 | – | – | 5,441.0 |
| | December | 5,170.0 | – | – | 5,170.0 |

Figure 2.1

Changes and Structure of the Kuna Component of Total Reserve Requirements on monthly level





Interest rates on kuna CNB bills of all maturities followed the downward trends in interest rates in 2002. Thus, interest rates on 35-day bills were reduced from 3.72% in January to 2.00% in September, and remained around this level by end-2002. Interest rates on CNB bills with longer maturities also followed the downward trends until June when the CNB stopped issuing these bills.

Croatian National Bank Interest Rates and Remuneration

The high liquidity of the system and the interest rates fall on the money market somewhat affected central bank credit and deposit rates. Average interest rates on 35-day kuna CNB bills fell from 3.72% in January to 2.08% in December. In the period between January and June 2002 (after which bills maturing in 70 and

105 days were no longer issued), average interest rates on 70-day CNB bills declined from 4.16% to 2.76%, while those on 105-day CNB bills fell from 4.78% to 3.39%. To alleviate appreciation pressures on the domestic currency, the remuneration rate for the kuna component of the reserve requirements was cut from 2% to 1.75% in April.

Induced by the downward trend in market interest rates, as well as the decline in interest rates on CNB bills and T-bills, the Croatian National Bank lowered its credit rates in 2002. Thus the Lombard rate, which was 10% at the beginning of the year, was cut to 9.5% in April, whereas the discount rate was cut from 5.9% to 4.5% in October. Although it is not used in monetary operations, the discount rate has a certain administrative significance, and it had to be adjusted to the developments in market interest rates.

2.2 International Reserves Management in 2002

The total international reserves of the CNB increased by USD 1,181.57m in 2002, growing by 25.1%. They stood at USD 4,704.04m on the last day of 2001, whereas they were USD 5,885.61m on the last day of 2002.

The main factors contributing to the growth in total international reserves in 2002, at the year-end exchange rate, were:

□ on the inflow side:

- 1) purchases of foreign exchange from commercial banks of USD 776m;
- 2) exchange rate gains of USD 545m, arising from the growth in the value of the euro against the US dollar;

Table 2.2 International Reserves^a
end of period, in million USD

| Year | Month | Total reserves |
|------------------------------|-----------|----------------|
| 2001 | December | 4,704.04 |
| 2002 | January | 4,734.22 |
| | February | 4,749.74 |
| | March | 4,885.24 |
| | April | 5,018.54 |
| | May | 5,230.59 |
| | June | 5,601.58 |
| | July | 5,648.20 |
| | August | 5,758.09 |
| | September | 5,705.00 |
| | October | 5,715.67 |
| | November | 5,852.64 |
| | December | 5,885.61 |
| Change Dec. 2002 – Dec. 2001 | | 1,181.57 |

^a Excluding reserve position in the IMF of USD 0.2m

- 3) net increase in allocated foreign exchange reserve requirements of banks of USD 228m;
- 4) net purchases from the Ministry of Finance of USD 202m; and
- 5) income earned from the actively managed portion of the CNB's portfolio amounting to USD 142m;

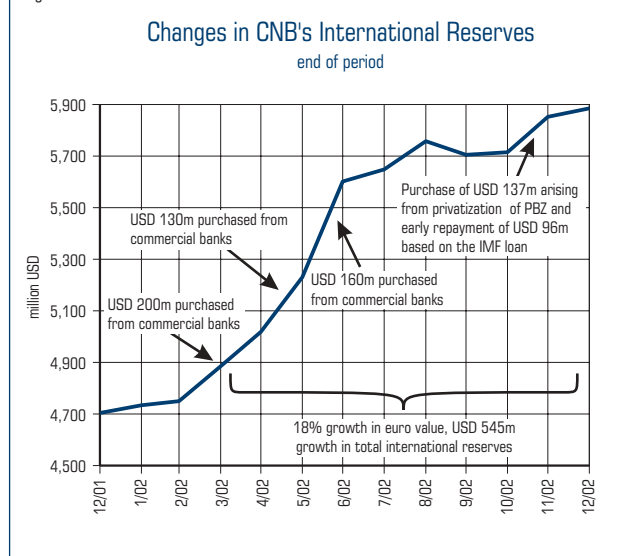
□ on the outflow side:

- 1) sales of USD 230m to commercial banks at regular auctions;
- 2) net outflows based on purchases of foreign currency CNB bills of USD 223m;
- 3) regular and early repayment of principal on IMF loans of USD 132m; and
- 4) sales of foreign exchange to Riječka banka amounting to USD 75m.

The Croatian National Bank intervened in the market by buying from and selling foreign exchange to:

1. domestic banks,
 - a) through regular auctions,
 - b) through an extraordinary sale of foreign exchange to Riječka banka, and
 - c) by a definite repurchase of foreign exchange reserve requirements (from Kaptol banka);
2. Ministry of Finance of the Republic of Croatia; and

Figure 2.3



3. foreign banks in exchange for kuna cash.

Through these transactions, the CNB purchased USD 874.49m and sold USD 270.07m worth of foreign exchange in the reporting period (Table 2.3). Transactions in the foreign exchange markets resulted in an increase of total international reserves of USD 604.43m. With net purchases of foreign exchange, the CNB issued HRK 4,756.67m on the Croatian market.

Table 2.3 Total CNB Turnover on the Foreign Exchange Market

¹ January – 31 December 2002, in million, at the exchange rate applicable on the transaction date

| | Purchase (1) | | Sale (2) | | Net | |
|--------------------------------------------------------|--------------|----------|----------|-----------|--------|----------|
| | USD | HRK | USD | HRK | USD | HRK |
| Auction | 675.69 | 5,495.21 | 201.85 | -1,658.11 | 473.84 | 3,837.10 |
| Ministry of Finance | 195.97 | 1,467.57 | 3.20 | -24.77 | 192.78 | 1,442.80 |
| Riječka banka | 0.00 | 0.00 | 65.02 | -546.27 | -65.02 | -546.27 |
| Definite repurchases based on f/e reserve requirements | 0.11 | 0.82 | 0.00 | 0.00 | 0.11 | 0.82 |
| Sale of domestic currency cash | 2.72 | 22.23 | 0.00 | -0.01 | 2.72 | 22.22 |
| Total | 874.49 | 6,985.83 | 270.07 | -2,229.16 | 604.43 | 4,756.67 |

In managing the international reserves, the Croatian National Bank is guided by the principles of security and liquidity. The managers responsible for CNB portfolio management have strictly defined guidelines (benchmark portfolios) limiting exposure to financial risks in international reserves management. The yields on CNB international reserves investments are in line with the risks assumed.

The Croatian National Bank invests international reserves funds in the following instruments:

- 1) government debt securities with fixed and variable interest rates;
- 2) central bank instruments and instruments of international financial institutions;
- 3) repurchase agreements (repo and reverse repo agreements);
- 4) deposits of commercial banks with a long history of investment grading of at least AA-;
- 5) certificates of deposit; and
- 6) cash in vault.

The investment criteria prescribe the minimum credit rating of AA- for countries in which the international reserves of the CNB are invested. On 31 December 2002, as much as 76.14% of total international reserves was invested in countries with an AAA rating.

Almost 75% of the CNB's international reserves is held in euro, whereas the remaining 25% is held in US dollars. In 2002, the CNB earned a profit of EUR 111.94m by actively managing its portfolio in EUR, whereas it earned a profit of USD 29.38m on its portfolio in USD. Total profit from the investment of net international reserves was USD 142m in 2002.

Table 2.4 Realized Income and Average Yields on CNB's Foreign Exchange Portfolios
at market value, in million EUR and USD and %

| CNB's portfolios | Realized income | Average amount invested | Annual yield rate | | | |
|------------------|-----------------|-------------------------|-------------------|------|------|------|
| | 2002 | 2002 | 2002 | 2001 | 2000 | 1999 |
| EUR | 111.94 | 2,954.14 | 3.79 | 4.63 | 4.38 | 2.81 |
| USD | 29.38 | 1,235.25 | 2.38 | 4.72 | 6.56 | 5.02 |

In 2002, the average yield on the CNB portfolio in EUR was 3.79% at the annual level, whereas the average yield on the CNB portfolio in USD was 2.38%. These yields were lower than in the previous periods owing to the global recession and cuts in the ECB and FED interest rates in 2001 and 2002, as well as the short average duration of the CNB portfolios in EUR and USD.