S – 16
December 2008

SURVEYS

Tomislav Galac • Lana Dukić

Results of the Fourth CNB Bank Survey

CROATIAN NATIONAL BANK

Results of the Fourth CNB Bank Survey

Tomislav Galac
tomislav.galac@hnb.hr

Lana Dukić
lana.dukic@hnb.hr

December 2008

CROATIAN NATIONAL BANK

Publisher:
Croatian National Bank
Publishing Department
Trg hrvatskih velikana 3, 10002 Zagreb
Phone: 385-1-4564-555
Contact phone: 385-1-4565-006
Fax: 385-1-4564-687

Website:
www.hnb.hr

Editor-in-chief:
Evan Kraft

Editorial board:
Ljubinko Jankov
Gordi Sušić
Maroje Lang
Boris Vujčić

Editor:
Romana Sinković

Translation:
Lidija Jurilj

Technical editor:
Slavko Križnjak

Printed by:
Kratis d.o.o., Zagreb

Printed in 350 copies

ISSN 1331–8586

Results of the Fourth CNB Bank Survey

Tomislav Galac and Lana Dukić

Abstract

In October and November 2004, a research team of the Croatian National Bank conducted the fourth comprehensive survey of banks operating in Croatia. The survey gathered information about bankers' estimates and views of the current situation and trends in Croatian banking and its environment, which are compared in this paper with estimates based on CNB statistical data. The main conclusion of the analysis is that silent consolidation of the banking sector has continued, mostly through bank mergers and acquisitions, while only a few banks actually exited the market. In the last two years banks have been fully dedicated to household lending and non-interest income sources in their corporate business, which is a trend that should hold steady for some time. At the same time, banks will have to make considerable efforts to improve their risk management processes as even the most advanced of them have not yet attained the level that will soon be required under the new international standards. Bankers hold that improved legal protection of creditors and coordination of monetary and fiscal policies are challenges stemming from the environment that could boost Croatian banking system development. As banks vary greatly in the range of services they offer, one should also take account of forecasts that fierce competition among banks will continue, additionally lowering the price and expand the range of their services.

JEL: D21, G21, G34, P34

Keywords: consolidation, Croatia, banking, banks

In addition to the authors, the research teams included employees of the CNB's Financial Stability Department and Research Department. Employees of the CNB's Prudential Regulation and Bank Supervision Area also assisted in the survey preparation. Several employees of the CNB's Financial Stability Department and Research Department are to be credited for processing the survey results. The fourth CNB bank survey was conducted in November and December 2004.

Contents

1 Introduction

In November 2004, a research team of the Croatian National Bank conducted the fourth comprehensive survey of banks operating in Croatia. These surveys have been conducted since 1998 in intervals of approximately 2.5 years. The purpose of the surveys is to gather those data and bankers' opinions, views and projections that are not comprehended by their regular reporting to the central bank.

The preceding CNB surveys (Galac, 2003 and Kraft, 2002) analysed the trends in the banking sector's development stage, which was then called the consolidation and market positioning stage. In 2003 and 2004, the continued consolidation process led to a further decrease in the number of banks, mostly due to formal mergers of banks within the same ownership group, as well as due to the continued exit of smaller banks from the market. However, the functioning of the banking system over the last two years has been more marked by new trends and events both in the banking system itself and in its environment.

First, the unexpectedly strong bank credit expansion in 2002 triggered a central bank response early in 2003. Assuming a continued credit expansion, the CNB was concerned about potential negative consequences of the excessively rapid credit growth, which could lead to the overheating of the economy and a sudden decrease in the quality of bank placements in the following cooling-off period. This prompted the central bank to introduce new and tighten existing monetary policy measures early in 2003 to prevent the growth rate of bank placements from exceeding the expected growth rate of their total liquid assets, which was then projected at 16% for the entirety of 2003.

Second, the slower growth in domestic sources of bank placements, coupled with the availability of relatively cheaper foreign sources, prompted a large number of banks, which at the time were still competing for larger market shares, to borrow heavily abroad. This was the first time that the banking sector became the main generator of Croatia's external debt, and the country's foreign debt indicators suddenly deteriorated over 2003. As this trend continued into the first half of 2004, in the middle of the year the CNB again responded by introducing new monetary policy measures. These measures were specifically targeted at preventing additional external borrowing by banks. Some argue that the described chain of bank actions and central bank reactions directly led to the unusual volatility of money market interest rates and spurred the rapid growth of the leasing market – new characteristics of the Croatian financial market that emerged in 2003 and still persist.

Third, notwithstanding the said monetary policy measures, to ensure timely and consistent implementation of the new banking act of July 2002, early in 2003 the central bank adopted a range of subordinate legislation that also strongly influenced bank operations. Banks were required to calculate the capital requirement for market risks in accordance with the 1996 Amendments to the Basel Capital Accord; options and embedded options were included in the calculation of a bank's foreign exchange position; banks were required to assess placement recoverability according to the provisions of IAS 39; and bank groups were subject to the CNB's supervision on a consolidated basis. Although these activities formally originated from the 2002 Banking Act provisions, their actual purpose was to improve banks' risk management in the light of preparations for the new Basel Capital Accord (Basel II) of 2004. Hence, it is obvious that bank operations will be influenced by these actions for a number of years.

Fourth, a new interest rate act, which was adopted in 2004, for the first time lays down a uniform method of penalty interest calculation and, even more importantly, puts a ceiling on contractual interest rates, which also applies to bank loans. In line with the projected continued harmonisation of Croatian legislation with EU banking regulations, the end of 2004 saw the enactment of a new deposit insurance act, which broadened the insurance coverage to include current and giro accounts of natural persons and lowered the linear premium rate banks pay to the State Agency for Deposit Insurance and Bank Rehabilitation.

Fifth, the number of non-banking financial intermediaries has grown substantially in the last two years, as has the share of total financial system assets under their control. Among these intermediaries, the strongest increase has been recorded by leasing companies, open-end investment funds and mandatory pension funds, but voluntary pension funds underperformed expectations due to regulatory rigidities, while the insurance market and assets of housing savings banks and closed-end investment funds continued to stagnate. As a result, the share of bank assets in total financial system assets slightly decreased, with the impact of the increased relative importance of non-banking intermediaries being felt both on the asset and liability side of the banking system.

And sixth, the payment system reform and the overall computerisation and internetisation of Croatian society have created new room for nonprice competition among banks. In line with the announcements from the preceding survey and data at the CNB's disposal prior to this survey, almost all large banks and several medium-sized and small banks have started offering various services related to telebanking, which has been made possible by the widespread use of the Internet and mobile phones in Croatia.

In line with the described developments, the main topics of the fourth comprehensive bank survey were: monetary policy and continued credit expansion with strong foreign borrowing of banks, innovations in bank products and services offered, continued sectoral consolidation attributable to ongoing strong competition, the impact of changes in the institutional environment and legislation on bank operations, and risk management in the context of preparations for the implementation of the revised Basel rules.

Out of the 39 banks in operation on 30 September 2004, 35 banks voluntarily participated in the survey. Out of the four banks that failed to participate, one was in the process of merging with its parent bank, another was sold to a new owner, while the remaining two were in the process of exiting the market. The questions in the first part of the survey, which was in writing and distributed by mail, required mostly quantitative answers, e.g. an estimate of the importance of various banking activities or the success of new products and services introduced.

The second part of the survey consisted of interviews conducted with bank representatives during which they answered unseen questions in the second part of the survey questionnaire. The interviews were conducted with management board members and executive directors in charge of corporate and retail banking, risk management and treasury operations. During the interviews bank representatives were prompted to give concrete answers. However, they were also encouraged to discuss other topics of importance for the Croatian banking sector today and in the future with a view to improving communication between bankers and the central bank.

The final results were obtained by combining the answers from the first and second parts of the survey questionnaire. Where appropriate, the answers were weighted by the size of each bank's assets. The results were analysed in four thematically separate chapters, which follow this introduction, with the survey conclusions given in the sixth chapter. The appendices provide tabular presentations of all answers to the questions in the first (quantitative) part of the survey and other information relevant for the interpretation of the survey results.

2 Banks' Business and Development Strategy

The survey results indicate that the strategic orientation of banks operating in the Republic of Croatia has changed over the last two years. The answers of most banks interviewed reveal that their operations are now more oriented to the corporate sector, with only a few small banks, mostly former savings banks, focusing exclusively on the household sector. Almost none of the largest banks in Croatia manifest this division, as they have always been equally dedicated to the corporate and household sectors. At first sight, these results are not in line with the CNB statistics on the amount and growth rates of household and corporate placements. More specifically, since the mid-1990s household loans have grown faster than corporate loans, and their total amount exceeded that of total corporate loans in mid-2003 and has continued to grow ever since.

Figure 1 Bank Loans, year-on-year rate of change in gross claims

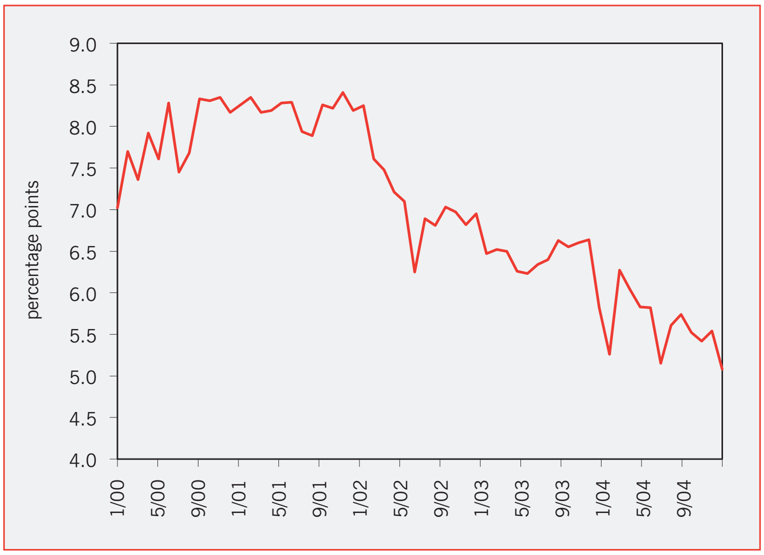
Source: CNB.

Growth rates of household loans have been higher than those of corporate loans for a number of years.

There are a number of reasons for this seeming contradiction. First, the several largest Croatian banks with a substantial share in the total assets of the Croatian banking system and a universal strategy dominate aggregate statistical data. Second, the change in the strategic orientation of banks has been relatively recent and it may not yet be evident in statistical data. However, this change has been somewhat expected and may be easily explained. After several years of outstanding growth in household financing, which proved to be a rather profitable and safe source of bank income, saturation gradually occurred – household debt reached a relatively high level,[1] which can easily decrease the recoverability of future placements and soon decelerate this sector's demand for bank loans. In addition, as the preceding survey foretold, market competition among banks is strongest in the retail financing segment, which considerably narrowed interest margins on household loans. Hence, this lending is today much less profitable than in early 2002 when bank competition began to affect household interest rates.

Figure 2 Interest Spread between Long-Term Household Loans and Foreign Currency Deposits

Interest rates on household loans have been steadily falling since early 2002, which considerably reduced the interest spread.

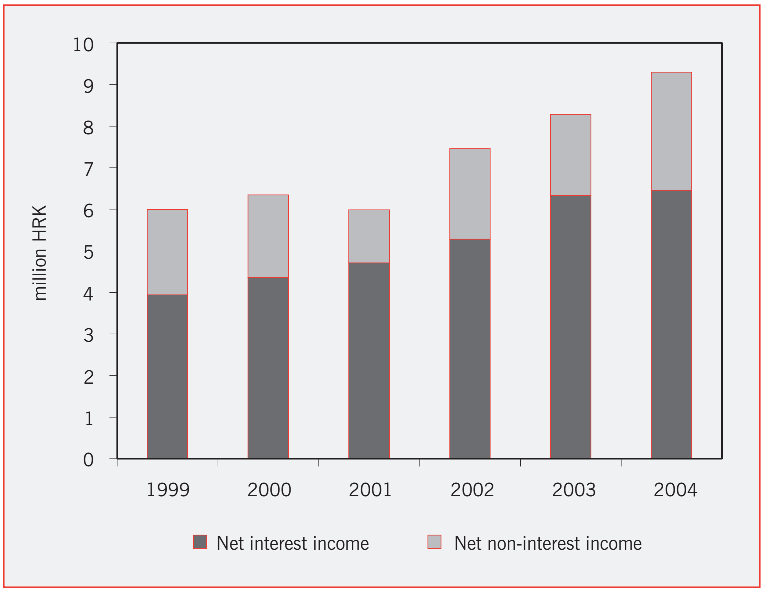


Sources: CNB and authors' calculations.

Finally, the early 2003 central bank measures to curb the credit growth and the mid-2004 measures to decrease banks' external debt additionally limited the rise in banks' interest income. To maintain their profitability at former levels, banks had to resort to non-interest income, the major part of which was accounted for by income from fees for payment operations services to corporates. As this reorientation from households to corporates was not directly linked to lending activities, it is not reflected in the relative ratio between the amounts and growth rates of loans to these two sectors. The banks' focus on corporates was additionally supported by the solid economic growth in 2003 and 2004, with trade, tourism and industrial production sectors leading the way.

1 Among comparable countries of Central and Eastern Europe, Croatia has the highest household-loans-to-GDP ratio and one of the highest growth rates of household loans. For more details, see *CNB Bulletin*, No. 94 – Box 1.

Figure 3 Banks' Net Interest and Non-Interest Income



Source: CNB.

Banks' net interest income remained flat in 2004 compared to 2003, while their non-interest income strongly increased.

Despite the prevailing opinion that, by their nature, small banks tend to focus on small companies, and large banks focus on large companies, the survey results suggest that the SME sector has become equally interesting to all banks in the last two years.[2] SMEs were picked out as the most important category within the corporate sector by almost all banks. In addition, small local banks mentioned tradesmen as their target client group, whereas medium-sized and large banks referred to large and state-owned enterprises. Due to their size and local character, it is understandable that small banks opted for SMEs. On the other hand, the large demand from small and medium-sized enterprises, the need for risk dispersion and the higher profitability than in operations involving large clients induced large banks to focus increasingly on this market segment.

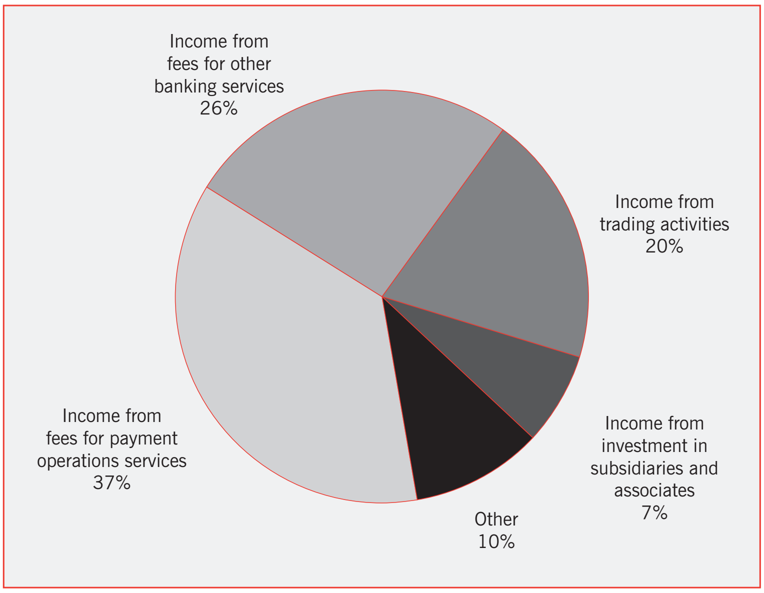
Also in contrast to the popular opinion, all bankers agreed that good clients, i.e. those that are good credit risks, are not refused loans for not having sufficient assets to be pledged as collateral. To meet the criteria for "good credit risk", good clients always need to have at least a good cash flow, high quality projects, and claims or personal property they are ready to pledge. Although this issue is rather important for the functioning of a young economy such as that of Croatia, the answers given should be taken with a grain of salt. Most banks offer uncollateralised loans to households (guarantors required) up to the amount of 10,000 euros on average. On the other hand, bankers failed to explain precisely the existence of a similar limit for corporates that would, of course, impair the relevance of the good cash flow argument.

In addition to the banks' attitude to uncollateralised loans, another strategic issue has often been raised in the last three years, i.e. since the banks' credit expansion began. This is the strategic issue of transferring credit risk from a bank's portfolio to insurance companies by contracting accounts receivable insurance

2 This claim cannot be supported by the existing CNB statistics.

Figure 4 Structure of Banks' Non-Interest Income in 2004

Fees for payment operations services account for a major share of banks' non-interest income.



Sources: CNB and authors' calculations.

policies. The survey answers suggest that loan insurance by the banks themselves has almost become cost-ineffective due to high risk premiums and good recoverability of bank claims arising from loans. This was the reason why some banks decreased the share of insured loans and some completely stopped using loan insurance. Some information indicates that insurance companies are also aware of the risks such operations entail in a small market and only one of them engages in loan insurance. On the other hand, in extending household loans (motor vehicle and housing loans) most banks accept mortgage and/or life insurance policies as collateral, provided that the policies are concluded with a first-class insurance company in line with the internal limits set for each company.

The risk dispersion strategy used by Croatian banks has not changed much since the first CNB bank survey. The geographic distribution of bank activities is correlated to their size. With the exception of several of the largest and medium-sized banks, most banks operate in only one region. Also exceptional are some very small banks that, since they mostly deal with households, operate in several neighbouring regions or throughout the country. With regard to the most important economic activity, Croatian banks are still focused mainly on financing commerce, with a large portion of their corporate business being also focused on industry and tourism. The majority of bankers stated that they usually follow demand, the sectoral distribution of bank placements thus being the outcome of the development and growth of particular branches of the economy. This survey has shown that banks' written policies still do not clearly define a strategy for geographic risk dispersion.

All but one participating bank expressed no intention to expand operations outside Croatia. However, this does not apply to their parent banks. Although bankers were understandably reluctant to answer this question, all answers suggest that their Italian and Austrian owners consider spreading into neighbouring Balkan countries as the next logical step in their regional strategy. On the other hand, most domestic banks intend to build up their business network (number of operating units) in regions where they already operate and expand it to neighbouring regions. The City of Zagreb is particularly interesting to small banks planning to go beyond the local framework due to the high concentration of companies and economic activities. Large banks are interested in Dalmatia due to its great potential for tourism and related activities as well as regions on the border of the County of Zagreb due to their possible inclusion in the expanded local market of the City of Zagreb.

Table 1 Comparison of the Currency Structure of Croatian Banks' Foreign Currency Assets and Liabilities, 31 December 2004, million kuna and %

Currency structure of assets			Currency structure of liabilities		
Currency	**Balance**	**Share**	**Currency**	**Balance**	**Share**
EUR	146,494	87.3	EUR	138,303	87.2
USD	14,361	8.6	USD	13,921	8.8
CHF	5,038	3.0	CHF	4,637	2.9
Other	1,828	1.1	Other	1,727	1.1
Total	167,721	100.0	Total	158,587	100.0

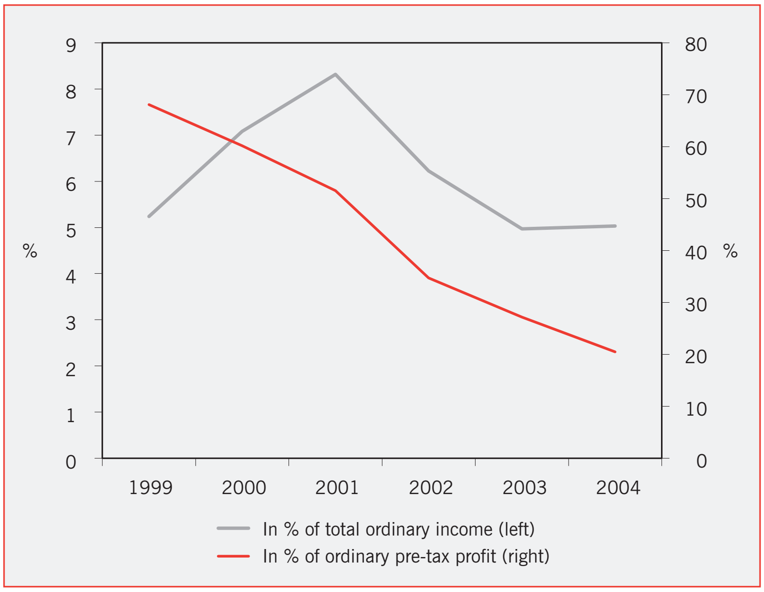
Sources: CNB and authors' calculations.

The euro largely dominates the currency structure of foreign currency assets and liabilities.

The high level of euroisation that characterises the Croatian economy is particularly evident in banking. In addition to the national currency, banks operating in Croatia mostly operate in the euro, the currency that bankers consider the most important in active bank operations. Also important is the US dollar, particularly in the coastal area, which is customarily linked to shipbuilding and maritime transport activities that generate income in that currency. Notwithstanding the fact that several banks introduced loans indexed to the Swiss franc, this currency still does not play a major role in banks' balance sheets.

Most bankers hold that the formal introduction of the euro as the national

Figure 5 Banks' Net Income from Foreign Currency Trading



Source: CNB.

Foreign currency trading still brings high profits to banks, despite the persistent multi-year downward trend in the relative importance of this net income category.

Banks have started offering non-banking products, payment operations services and derivatives trading only in the last four years.

Table 2 Banks' Products and Services

Product/service	Number of product/ service providers	Most frequent year of introduction	First time offered
Life insurance	7	2004	2003
Investment advice	9	2004	2003
Futures	4	2004	2002
Options	5	2004	2002
Domestic payment operations services	24	2002	2001
Pension fund management	5	2002	2001

Source: 2004 CNB Survey.

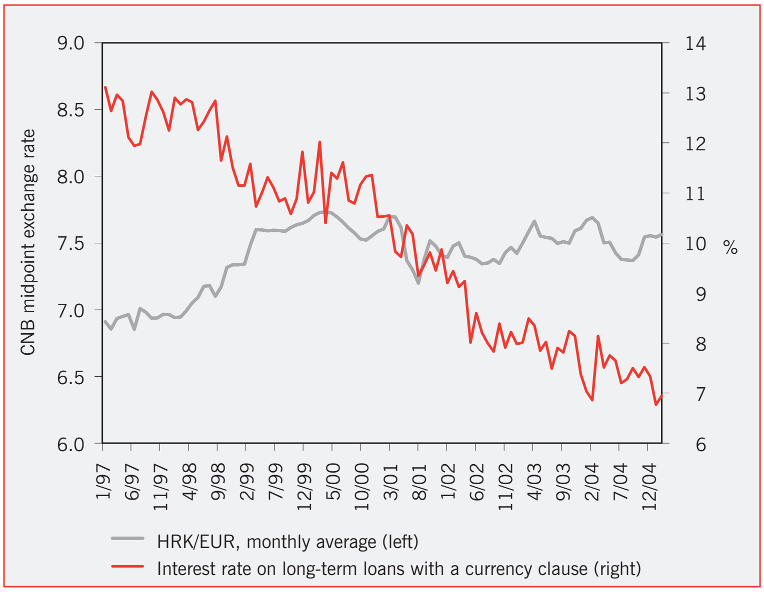
currency would not strongly affect their operations, in either the positive or negative sense. In contrast, proponents of the euro argue that simplified operations and reduced currency risk would in the long run offset the initial loss of income from exchange operations and costs of technical operational adjustments. It is interesting to note that most bankers believe that currency clauses sufficiently protect banks against currency risk, without taking account of the indirect currency risk arising from the transfer of currency risk to bank creditors or they rely on the central bank's policy of maintaining a stable exchange rate of the kuna.

Judging by the survey results, traditional lending and deposit activities have remained the most important bank activities, although various banking services have become increasingly important due to slower growth in interest income. As the desire to increase non-interest income is shared by all banks interviewed, most of them intend to increase the number and scope of services to corporates and households. Still, in terms of their strategy, banks may be divided into two groups: leaders in innovations and followers that take over services and products that have already achieved good market success.

Banks that have positioned themselves as leaders in the Croatian market have started to introduce private banking and asset management for clients and intend

A stable exchange rate of the kuna and a long downward trend in interest rates have reduced the perception of currency and interest rate risk.

Figure 6 Kuna Exchange Rate and Banks' Interest Rates



Source: CNB.

shortly to introduce new services with financial derivatives and structured financial products. On the other hand, follower banks intend to monitor what other banks are doing and adjust themselves to their clients' needs. For example, banks that have not done so before, plan shortly to provide payment operations, internet banking for retail clients, product and service packages, card operations and investment banking services. At the same time, those banks that have already introduced similar services assessed internet banking, brokerage and securities custody services as the most successful.

Just a few Croatian banks have begun to employ financial derivatives in the last two years and they are not completely satisfied with their market success so far. The most often used financial derivatives in the Croatian market are foreign exchange forwards and swaps, in which large Croatian companies that to a large extent operate with foreign partners were mostly interested. Other financial derivatives have been used only sporadically. Bankers interviewed attribute weak demand for currency and interest rate hedges to the lack of information and conservatism of most Croatian economic entities, multi-year stability of the kuna/euro exchange rate and the low level of interest rates, which reduce perception of risk from changes in foreign exchange and market interest rates.

3 Monetary Policy and Institutional Environment

Among adverse developments that bankers mentioned in the preceding surveys were: the reactionary and unpredictable character of the central bank's monetary policy, the lack of effective legal protection of creditors and poor liquidity in the financial market. Reactionary monetary policy was evident in the frequent changes in central bank instruments and the inflation of new measures. These measures were, each time, a CNB response to unfavourable trends in the financial market or undesired developments in macroeconomic indicators, to which the central bank had failed to respond by changing parameters of existing instruments, which is a standard practice worldwide. Bankers saw the lack of effective legal protection of creditors in extremely slow court proceedings with unpredictable outcomes, even in cases with a straightforward and well-documented legal background and in the equally slow enforcement of final court rulings. Bankers believe that the central bank and the Ministry of Finance both gave a negative contribution to the poor liquidity in the money and capital markets, which is characteristic for a small economy such as that of Croatia, due to the lack of coordination between their money market activities, the insufficient presence of the government in the domestic bond market and the overly passive CNB role in the money market. Bankers mentioned the lack of money market benchmark rates and the non-existence of a long-term kuna yield curve as the main consequences of poor financial market liquidity, which impede effective management of liquidity and interest rate risk.

This was the reason why bankers participating in the survey were asked about possible positive changes in monetary policy, legal protection of creditors and functioning of domestic financial markets. Most of them replied that there had been no positive changes in any of these three areas in the last three years, and many claimed that certain segments of the institutional environment had even deteriorated.

3.1 Monetary Policy

Most bankers expressed an understanding of the central bank's efforts[3] to restrain the negative macroeconomic trends but they criticised the current very complex system of reserve requirements as well as prudential and foreign exchange regulations. Furthermore, many bankers interviewed said that, notwithstanding the arsenal of measures, the CNB cannot succeed alone in curbing the negative trends in the country's balance of payments without improved coordination with a tighter fiscal policy. This mostly refers to the CNB's efforts to stabilise external debt, since many bankers who recognised the negative impact of CNB's measures on their banks' profitability nevertheless stated that they would continue to borrow abroad as long as foreign sources were relatively cheap and as much as necessary to achieve their market share target, putting profitability into the second place. Such trends are also expected by their competitors who do not intend to borrow heavily abroad as they gave priority to profitability in their business plans.

Table 3 Reasons for Using Foreign Sources to Finance Placements

Supplied answer	Number of answers	% of the number	% of assets
Domestic deposit growth is too slow	12	21	37
Maturity structure of domestic deposits is inadequate	13	22	26
Foreign sources are cheaper	9	16	13
Foreign sources are more stable (less volatile)	6	10	5
Other	16	28	18

Source: 2004 CNB Survey.

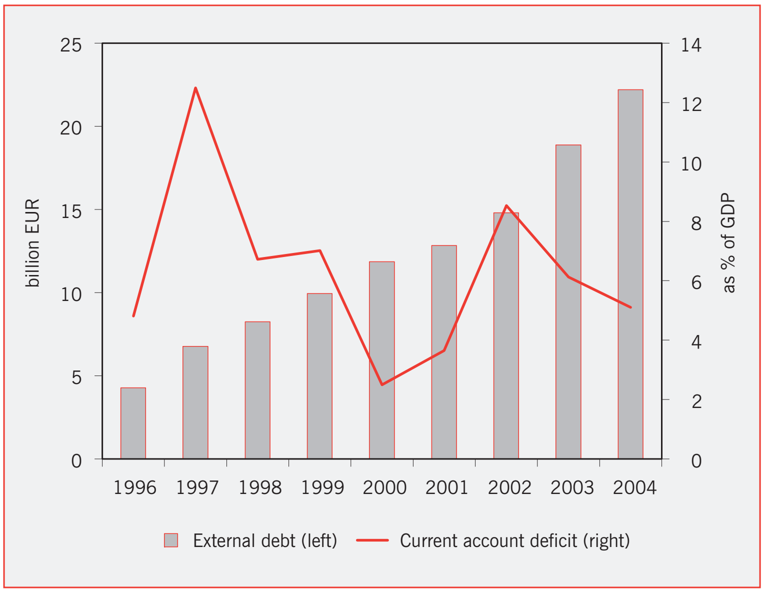
To achieve its intentions, the CNB adopted two measures in January 2003: the Decision on the purchase of compulsory CNB bills, which *de facto* taxes banks in which the increase in certain types of placements to the private non-financial sector exceeds 16% at an annual level, and the Decision on the minimum required amount of foreign currency claims, which requires banks gradually to increase their foreign currency liquidity up to the level at which 35% of their foreign currency liabilities are covered by liquid foreign currency claims.

Owing to these monetary policy measures, bank lending activities slowed down according to statistical data, but the foreign trade deficit and external debt continued growing. Although the negative trends in merchandise trade were offset by very good tourism results, which in summary terms led to a cut in the current account deficit (exchange of goods, services and income) to GDP ratio, this deficit was still much larger than in 2000 when it was the lowest ever in the post-war period. To decelerate these negative trends, the Croatian National Bank introduced a new measure in September 2003 – a gradual increase in the percentage of calculated

3 For a detailed description of the CNB's 2003 and 2004 efforts to halt the adverse trends in macroeconomic variables, see *CNB Annual Report* for 2003 and *CNB Bulletin*, Nos. 86, 91 and 93.

foreign exchange requirements allocated in kuna from 25% to 42% – the purpose was to inhibit the transfer of banks' foreign currency liabilities to kuna assets.

Figure 7 Balance of Payments and External Debt of the Republic of Croatia



Source: CNB.

The negative current account balance and external debt of the Republic of Croatia considerably increased in 2000–2004 although tourism revenues improved the current account balance in 2003 and 2004.

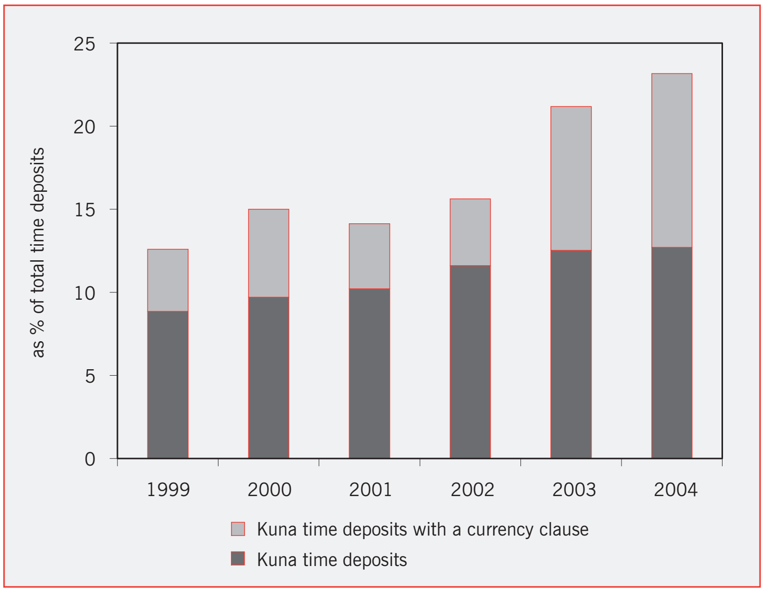
The central bank additionally tightened monetary policy in late 2003 by adopting several measures (applied as from 2004) to decrease the current account deficit and external debt. These decisions involved the following: the percentage for allocating the foreign exchange component of reserve requirements calculated on the basis of foreign exchange funds of non-residents and foreign exchange funds received from legal persons in a special relationship with a bank was raised to 100%; the minimum percentage of calculated reserve requirements that is allocated to accounts with the CNB was raised from 40% to 60%; and the number of days in which a bank may use a Lombard loan was reduced from 15 to 5 days a month. Regarding the monetary instruments that characterised 2003, it should be noted that the Decision on the purchase of compulsory CNB bills was revoked. This decision was initially introduced as a temporary monetary policy measure. However, the restrictive monetary policy continued into 2004. The Decision on the marginal reserve requirement, adopted in June, required banks to allocate as of July 2004 a marginal reserve on the cumulative increase in their foreign liabilities relative to the initial calculation period, June 2004.[4]

As expected, the Decision on the minimum required amount of foreign currency claims hit large banks the most as they had relatively large foreign currency liabilities, whereas it had no major impact on small banks as their fund sources are mostly in kuna. Banks whose coverage ratio was lower than that prescribed resorted to various methods to meet the requirements of the decision: they actively encouraged kuna savings, temporarily deposited a portion of foreign exchange

4 For a detailed description of the marginal reserve requirement (MRR), see *CNB Bulletin*, No. 97.

The share of kuna deposits with a currency clause in total deposits increased strongly in 2003 and grew slightly in 2004. In parallel to the modest increase in "pure" kuna deposits, this led to the largest decrease in the share of foreign currency deposits in total deposits in recent monetary history.

Figure 8 Kuna Deposits and Deposits with a Currency Clause



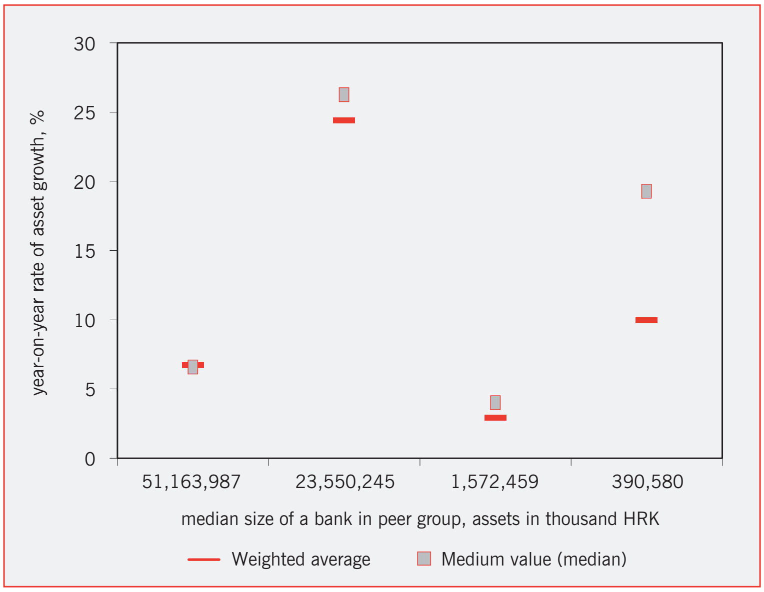
Source: CNB.

funds with their parent banks or purchased foreign exchange CNB bills in the period just before their permanent abolishment. One is forced to conclude that this measure had the strongest impact on the profitability of banks but they had no major difficulties in meeting its requirements.

On the other hand, the Decision on the purchase of compulsory CNB bills had no impact on some banks as they had no plans to increase their placements by more than 16% at an annual level. Still, the Decision hit ambitious small and large banks that were in the midst of fierce competition for the position of the third and fourth bank (in terms of asset size) in the Croatian market. The survey results confirmed what central bank analysts had already known – some banks found ways to meet the requirements of the Decision formally, but still managed to attain higher

Assets of the largest banks grew slower than assets of the smallest banks, but the ratio of the asset growth rate to bank size in the group of medium-sized banks is extremely non-linear – medium-large banks were the most aggressive, whereas medium-small banks were the least aggressive of four bank peer groups.

Figure 9 Banks' Growth – Bank Peer Groups in Terms of Asset Size



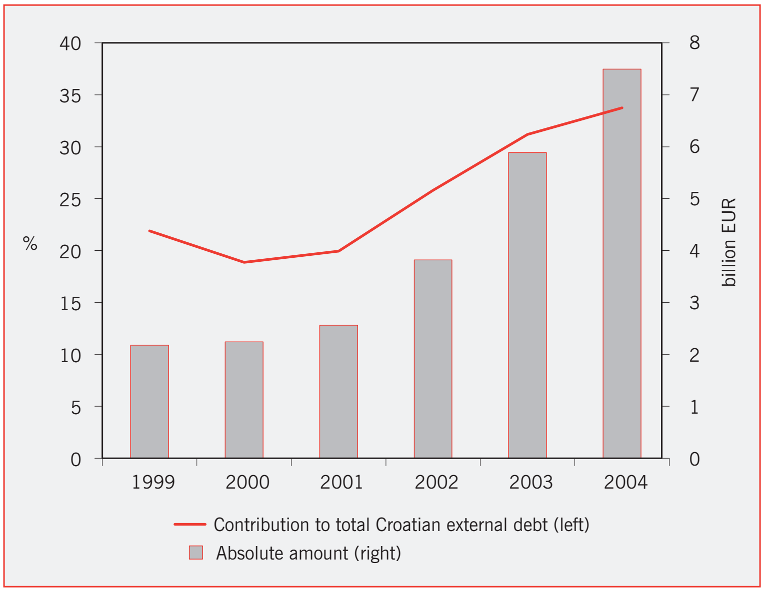
Sources: CNB and authors' calculations.

growth of certain types of placements and thus secure their market share.

In the first instance, banks restructured their placements by decreasing their securities portfolios and limits on overdraft facilities to create additional room for credit growth and oriented themselves to unlimited placements such as loans to the government. Some banks encouraged large clients (legal persons) and large projects to borrow directly abroad from their parent banks. In addition, they granted loans with shorter maturities (up to 1 year), thus achieving higher loan turnover without putting themselves into the danger of exceeding the permissible 16% growth rate. Merger with another bank also helped some banks to retain or even increase their market share despite lower than planned growth. Several bankers said that it is not easy to stop the credit machinery in full swing (particularly regarding the household sector), but some reported solitary efforts to decrease loan demand by tightening lending terms and keeping interest rates at levels higher than those of their competitors. All this being said and notwithstanding all the described ways to evade, circumvent or adjust to the Decision, several banks subordinated their financial success to the attainment of larger market shares and recorded greater than 16% growth even at the price of compulsory purchase of CNB bills.

Finally, most banks (particularly the smallest ones) were not particularly affected by the introduction of the marginal reserve requirement as they had neither borrowed nor planned to borrow abroad in the forthcoming period. In contrast, a few (mostly large) banks strongly reliant on foreign funding sources had to lower their external borrowing targets and start focusing on increasing domestic sources. As the major reasons for using foreign funding sources banks mentioned the slow growth of domestic deposits and their inadequate maturity structure, whereas a lower price of external funding sources was deemed less important. Although the marginal reserve requirement reduced the profitability of foreign borrowing, such banks claimed that domestic sources are insufficient to meet their growth target and plan to continue using foreign sources as needed. Only a few banks trans-

Figure 10 External Debt of Commercial Banks



Source: CNB.

The share of banks' external debt in total Croatia's external debt almost doubled, while the absolute amount of external debt nearly tripled in 2002–2004.

ferred the costs of the marginal reserve requirement to their clients by raising lending rates, while most banks are still ready to reduce interest margins without changing lending rates in efforts to increase their market share.

Small banks' main objection to these three decisions was that they were not selective as they equally "punished" all banks – large banks whose external borrowing and credit growth could theoretically threaten the country's macroeconomic stability and that themselves contributed to the deterioration of external debt and BOP indicators and small banks that have been additionally limited in the competition for market shares.

3.2 Judicial System

The current legal protection of creditors is neither better nor worse than three years ago, judging by the responses of the survey participants. While some believe that this is partly due to complex and confused laws, others are convinced that the laws are good while their enforcement is deficient. Poor law implementation is evident in the slow decision-taking of courts and even slower bankruptcy and foreclosure proceedings, which entail certain costs and uncertain benefits for banks. In addition to reiterating their remarks about slow court proceedings, which have not changed since the last survey, bankers this time noticed that trustees in bankruptcy have excessive powers and are slow in closing bankruptcy proceedings. For these reasons, a large number of banks successfully avoid bankruptcy proceedings by selling their claims on time, using claim settlement or selling easily foreclosed property.

While, for unknown reasons, the slowness of courts still seems to be an insoluble problem (while it should be the easiest problem to solve), the well-known problem of shortage of information about the current and potential credit obligations

Answers to the question: "Rate on a scale of 1 to 5 (1 – completely incorrect; 2 – mostly incorrect; 3 – partly incorrect/correct; 4 – mostly correct; 5 – completely correct) the correctness of the following statements on creditor protection in court practice".

Table 4 Legal Protection of Creditors

Supplied answer	Weighted average	Simple average
Court outcomes are uncertain because court officials are subject to bribery	2.8	2.6
Court outcomes are uncertain because court officials are subject to political pressure	2.5	2.7
Court outcomes are uncertain because laws are confusing	3.6	3.6
Court outcomes are uncertain because court officials are insufficiently trained	3.1	3.4
Court outcomes are uncertain because court officials in general favour certain social groups, e.g. debtors	3.0	3.5
Court proceedings are prolonged because of an insufficient number of court officials	2.7	2.9
Court proceedings are prolonged because of unnecessarily complex court procedures	3.3	4.0
Court proceedings are prolonged because the law provides for numerous delaying tactics	4.6	4.5
Court proceedings are prolonged because judges unnecessarily allow delaying tactics	4.3	4.2

Source: 2004 CNB Survey.

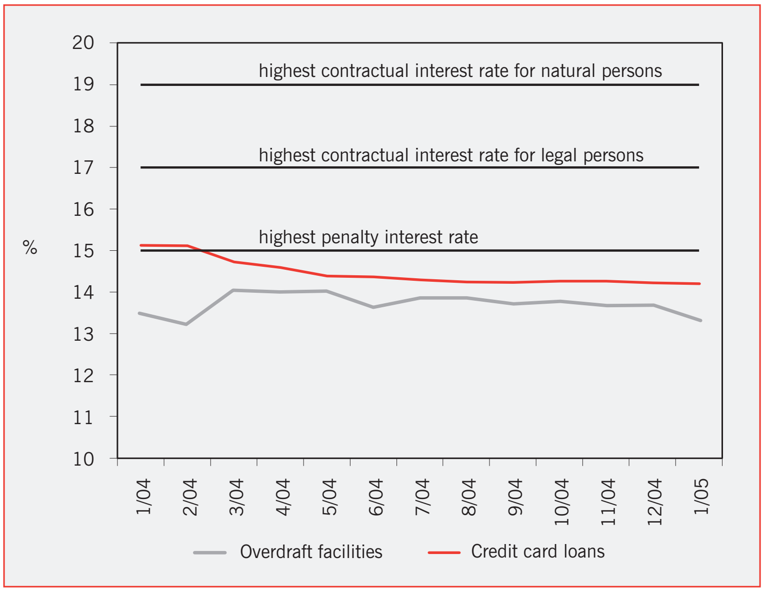
of clients should soon be solved. At end-2004, the Croatian Banking Association finally established a formal credit registry, which is common in all countries with developed financial markets. An agreement on establishing the Croatian Registry of Credit Obligations (HROK) was signed by 12 Croatian banks and its constituent assembly was held on 24 November 2004.

The credit registry should start functioning in the second half of 2005. Bankers were asked how the registry data would influence current bank policies on granting household loans. As could be predicted, bankers expect that the registry will allow for a better estimate and selection of clients, which will gradually decrease overall credit risk and the non-performing loans ratio. In addition, loan prices will probably not be differentiated depending on client creditworthiness at first. Instead, lending will probably be limited to "good" clients. This is the reason why some bankers expect that household loan growth will slow down, while others hold that the credit expansion will continue until its credit potential is fulfilled.

Bankers interviewed believe that the availability of registry data should, over time, completely eliminate the use of guarantors, which are typically used in Croatian banking for loan collateralisation, and that banks will start using classic mortgage financing. Although all bankers welcome the establishment of the HROK, some observed that the data will be complete only when the government and public utility companies join the registry. Several banks expressed their concern that the HROK could lead to the polarisation between banks that would consistently use the credit registry data and those that would not use them at all, but would knowingly grant risky loans thus endangering banking system stability.

Several acts that directly or indirectly regulate financial market relations were adopted or drafted in 2004: the Interest Rate Act (Official Gazette, 94/2004), the Deposit Insurance Act (Official Gazette, 177/2004) and the Draft Civil Obligations Act. Most bankers interviewed support the legal regulation of contractual interest rates and attempts to prevent usury, but almost all believe that this Act

Figure 11 Banks' Interest Rates on the Most Expensive Types of Loans



Source: CNB.

Banks' interest rates, even on the most expensive types of loans, are on average much below the limits set out in the Interest Rate Act.

There are only a few countries with deposit insurance schemes comparable to the Croatian scheme. Among them, the Croatian scheme is definitely one of the most expensive.

Table 5 Annual Deposit Insurance Premiums in Selected Countries

Countries with similar[a] deposit insurance schemes	Annual premium[b]
Japan	up to 0.04
Belgium	up to 0.06
Jamaica	0.1
Island	0.15
Denmark	up to 0.2
Spain	up to 0.2
Slovakia	up to 0.3
Latvia	0.3
Brazil	0.3
Czech R.	0.5
Croatia	0.8
Lithuania	1.5
Venezuela	2

[a] An explicit scheme with mandatory participation and an accumulation fund built up by regular contributions at fixed premium rates relative to the insured base, interbank deposits not included in insurance.
[b] The annual premium is expressed as a percentage of the insured base.
Source: www.worldbank.org.

approaches the issue in the wrong way. Putting a ceiling on the absolute amount of the nominal interest rate is perceived both as interfering with free market mechanisms and ineffective since the ceilings to the maximum contractual interest and penalty rate are so high that they are almost meaningless. As interest rates of participating banks are currently well below the maximum level permitted under the Interest Rate Act, this act will not affect their credit policies.

Most banks negatively reacted to the Draft Deposit Insurance Act for a number of reasons. Some banks view it as a kind of non-constitutional parastatal tax on banks and almost all of them agree that the insurance premium is too high, while the operations of the State Agency for Deposit Insurance and Bank Rehabilitation are ineffective and lack transparency. Foreign-owned banks also mentioned that a high premium puts Croatian banks at a disadvantage compared to other banks in Central and Eastern Europe. In addition, some banks hold that the premium rate should differ depending on the riskiness of a bank's operations.

In contrast with the first two acts, bankers have a poor knowledge of the Draft Civil Obligations Act or have no definite position on the issue. Several bankers observed that a part of this act regulating interest rates is in conflict with the recently adopted Interest Rate Act. The Civil Obligations Act (Official Gazette 35/2005) will enter into force on 1 January 2006, but its provisions on contractual and penalty interest rates will apply two years after its enforcement.

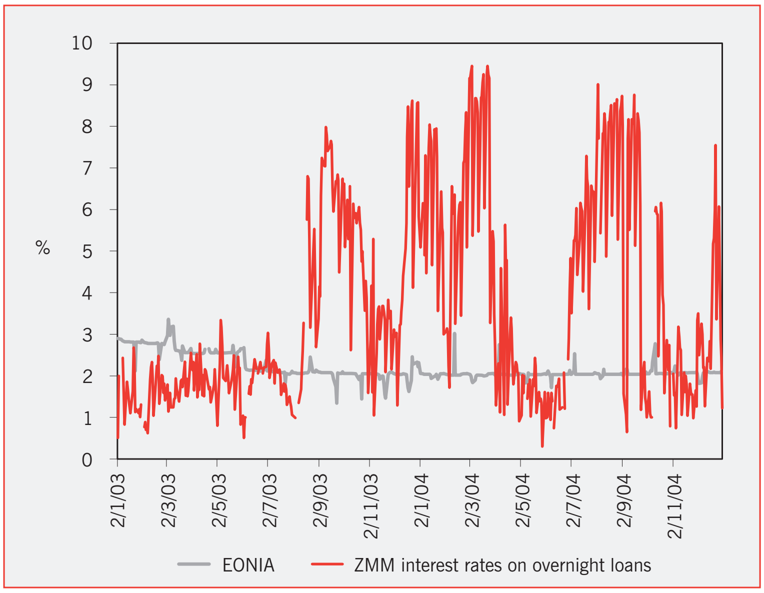
3.3 Financial Markets

During the survey interviews bankers gave strong arguments supporting their solutions to the problems of complex monetary policy and inefficient judicial system. However, they gave no specific proposal on how to address liquidity problems in the money and capital markets, which are a systematic feature of all small financial systems such as the Croatian. One gets the impression that the largest banks today routinely use international financial markets for liquidity management and protection from business risks, which allows them to circumvent this problem. For the same purpose, small banks mostly use the largest banks. Hence, domestic markets are no longer "separate" but only a small segment of the global financial market.

Many bankers hold that money market interest rates are today less valuable as benchmarks for pricing banking products than they were three years ago due to the upward trend in their volatility, which began in late 2003 and has continued to the present. Therefore, large banks usually consider only the issue price of MoF T-bills for price setting purposes, while, among foreign prices, they use EURIBOR rates of corresponding maturity. Small banks mostly follow the steps of their competitors. This is the reason why bankers believe that positive steps in this area may be expected only after the introduction of the announced open market operations of the CNB, but stress that these operations will lead to lower interest rate volatility only if the CNB does not immediately sterilise the thus-created additional liquidity.

Survey respondents were far less optimistic about solving the other problem

Figure 12 Money Market Interest Rates in the EMU Area and Croatia



Sources: Zagreb Money Market and www.euribor.org.

Volatility of Zagreb Money Market interest rates on overnight loans is much higher than the volatility of corresponding rates in the EMU area.

concerning the benchmark value of domestic rates – the extension of the kuna yield curve. In 2003 one commercial bank issued kuna bonds in the domestic market but no other bank made similar concrete plans for the foreseeable future. While some believe that the government alone could and should make the first move to extend the kuna yield curve to periods over a year, others find no solution to this problem as they cannot see the way to spur long-term investment in kuna instruments.

4 Risk Management

In the 2002 CNB survey bankers concluded that their most important risk management task in the long run will be to adjust bank operations to the new Basel Capital Accord (Basel II), which particularly implies putting in place procedures and management systems for operational and market risks, which had not been adequately managed even under the initial Basel Capital Accord (Basel I). However, bankers said that difficulties in adjusting to the CNB regulations that took them into the world of the contradictory International Accounting Standard 39 (IAS 39) were a much greater challenge in the short run.

Banks emphasized that the short time limit imposed by the CNB to adjust to this very complex standard and the required implementation of IAS 39 at the individual loan level instead of the portfolio level would considerably increase the price of the standard's implementation. In the meantime, the CNB adopted the instructions for the classification of bank placements according to the assessed degree of risk. The instructions exclude loans in the small loan portfolio from application of IAS 39 on an individual basis, which considerably lowered the price of IAS 39 application.

In early 2003, the CNB also adopted the instructions on the measurement of a bank's exposure to market risks that are aligned with the methodology set out in the 1996 Amendments to the Basel Capital Accord. Applied as from 1 January 2004, the instructions changed the method in which banks calculate their capital adequacy ratio – in addition to the capital requirement for credit risk, banks have to calculate capital requirements for various market risks.

In contrast, regulations on operational risk management have not changed much since the preceding survey. Real changes should be seen only with the beginning of implementation of operational risk management standards under Basel II. The final text of Basel II was published as late as mid-2004 and its implementation is scheduled for 2005-2010.

The adjustment of domestic banks to Basel II is one of the most important future issues. In the middle of 2004, the CNB conducted a thematic survey to gather basic information on banks' plans for Basel II implementation and on potential problem areas as well as to obtain additional information on risk management in banks. The main conclusions of this survey (CNB, 2004a) are summarised in the next four paragraphs.

First, there are large differences within the banking system with regard to the level of understanding Basel II, preparations made for and interest in its implementation. On the one hand, foreign-owned banks and large banks in general have a fair amount of knowledge on the issue, while the knowledge of small domestic banks is relatively poor.

Second, the same polarisation is evident in risk management – foreign-owned banks, either due to the pressure of parent banks or independently, took positive steps and developed their own risk assessment methodologies, while most small banks still rely exclusively on CNB regulations.

Third, a large number of medium-sized and small banks chose to implement the most advanced internal asset classification system to credit risk in accordance with Basel II. However, bearing in mind the answers to other questions in the questionnaire, one gets the impression that this attitude reflects more a desire to change the existing approach than realistic optimism regarding successful implementation of the most advanced internal asset classification system in the near future.

And fourth, in line with our expectations and the influence of parent banks, all the largest banks decided to use the most advanced measurement techniques for all banking risks.

To estimate precisely the actual knowledge of Basel II and domestic banks' readiness for its implementation, bankers were asked a series of questions about specific requirements imposed by Basel II standards. In view of the overwhelming importance of credit risk that, as expected, most bankers still perceive as the most important risk for Croatian banks, most questions related to knowledge about advanced credit risk assessment techniques.

The remaining questions related to operational risk. As in the preceding survey, bankers assessed that the importance of this risk has been increasing as it is probably the most difficult risk to measure and is therefore the least regulated risk under current risk management regulations of banks.

4.1 Credit Risk

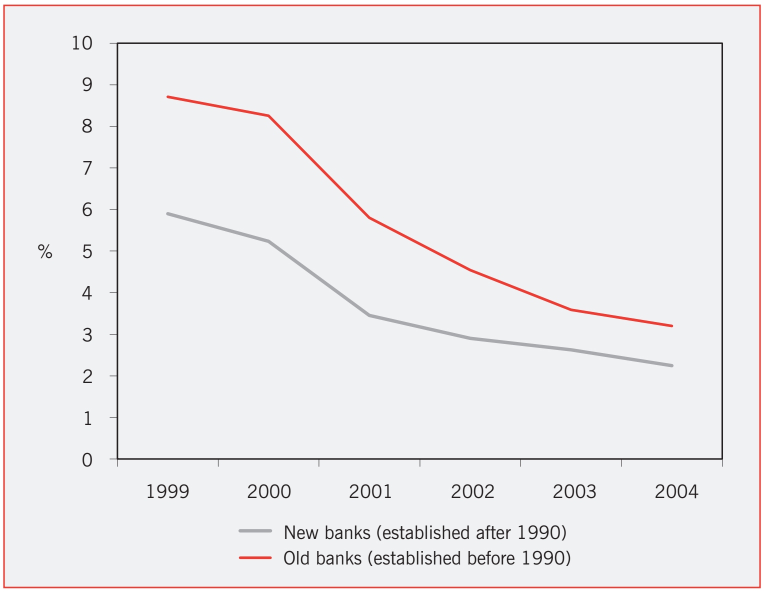
Regarding the banks' readiness to apply new credit risk management standards first analysed was the adequacy of the banks' organisational structure. It was found that in many banks the highest ranking manager responsible exclusively for credit risk was usually the director of the credit risk management department (head of the unit) within the credit risk management division (department). However, almost the same number of banks had no manager exclusively in charge of credit risk management, and in some banks there was no manager responsible for any business risk, either on an individual or a collective basis.

Banks' responses to the question on the organisational structure of credit risk management show large differences between large and small banks, as well as between small and the smallest banks. From the latters' responses one cannot discern how they currently manage credit risk under Basel I. Hence, it is certain that these banks will be unable to adhere to Basel II standards for quite some time. In the first two bank groups, even in those with a deep hierarchy, the number of employees in credit risk management units is very small (1-3 persons). This means that the quality of their Basel II implementation will mostly depend on the staff quality, level of integration of credit risk management processes into the bank's IT system and the selection of the credit risk measurement method.

The second question, which was raised to assess the banks' readiness for advanced credit risk measurement, related to the maintenance of a credit risk loss database. According to their answers, banks could be divided into two groups of approximately the same number: those that keep records but have no electronic database and those that maintain electronic databases. In the latter group we may distinguish banks whose data cover a short period from those banks that already have sufficiently long time series of data. Their problem is how to determine the length of the time series used in forecasting models as the time lag decreases the relevance of historical data for predicting future developments. Even more interesting than that are the reasons why some banks still have no database. It seems that the more conservative “new banks” (those established after 1990) mostly experienced no loss due to corporate failures, whereas some claim that household loans are over-insured in most banks. Hence, these banks’ databases, if they were maintained, would not provide sufficient information for a meaningful credit risk analysis.

In the total assets of “new banks”, value adjustments were initially much lower than those of “old banks”.

Figure 13 Value Adjustments and Provisions for Unidentified Losses



Source: CNB.

Finally, the survey also checked bankers’ knowledge of the basic terminology in the field of credit risk measurement, such as the probability of default (PD), recovery rate (R) and loss-given-default (LGD). It was established that a large majority of banks do not calculate PD and their answers suggest that some bankers do not even know the meaning of this parameter, while most of them lack a (high-quality) database. The answers of those banks that do calculate PD show that it is some 3–4% for the household sector and 5–10% for the corporate sector. It seems that these percentages are not “given” or “natural” but are mostly the result of the Croatian economic and banking development in the last 15 years.

Most banks do not calculate the recovery rate, and those that do said that it was rather high, mostly over 50%. Still, many banks stated that the covered time span was too short to be statistically relevant and that recovery is usually extremely slow, which implies that figures have to be adjusted for the time value of money. As with the PD parameter, there are indications that the answers given by some banks result from their ignorance of the terminology. However, an estimated R of over 50% is probably acceptable since most bankers interviewed reasonably explained this figure by a high level of collateralisation of most bank claims with recovery taking some 2–5 years.

Bankers were also asked a series of questions on the aspects of credit risk management that are not related to its measurement. The answers suggest that banks have most experience in evaluating pledged collateral. Most banks pay equal attention to the value and recoverability of collateral and only small loan amounts are granted without collateral. A large number of banks pointed out that court practice and debtor's "psychology" determine the marketability of certain types of collateral and that this is also taken into account in assessing the value of pledged property. The most valued types of real estate collateral are: commercial real estate, as it is easily marketable; residential real estate, due to the psychological pressure put on the borrower; and real estate on the coast due to its possible significant appreciation. However, small banks and large banks stated that anticipated abundant cash flows can sometimes replace insufficient physical collateral, with small banks applying this policy to household loans and large banks applying it to corporate loans.

In addition, banks devote considerable efforts to putting together various collateral instruments in order to find an optimum combination for both the bank and its clients. Many banks accept life insurance policies as additional insurance and accounts receivable insurance policies instead of guarantors. Many banks do not require real estate as collateral for short-term loans, but use a combination of payment instruments (bills of exchange and promissory notes), guarantors and pledged movable property (vehicles and vessels). As additional insurance, most banks accept cash deposits, while some of them also accept certain securities.

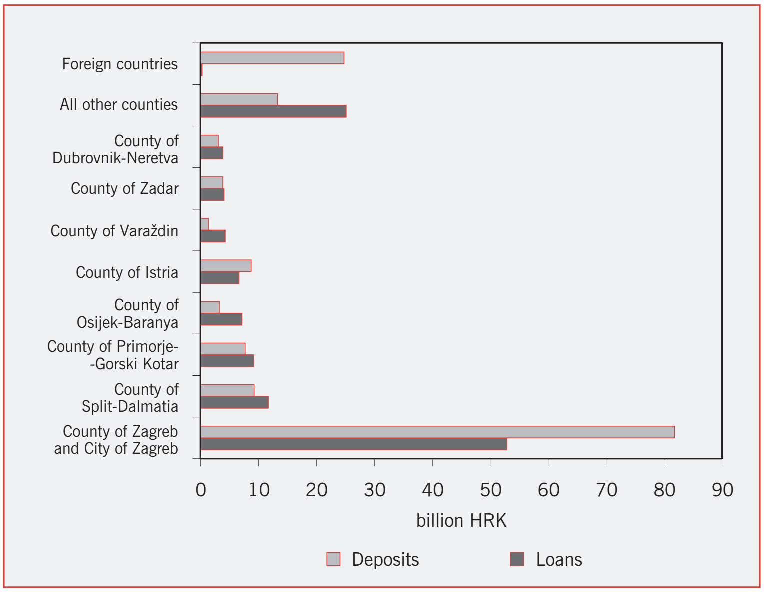
Banks have somewhat less experience with automated systems for assessing client creditworthiness. Small banks mostly do not use such systems; medium-sized banks are divided into those that are considering the use of such systems and those that use them to a certain extent, whereas large banks use them mostly for standard credit products (household loans and loans to small entrepreneurs). It is interesting to note that several banks do have automated credit processing systems but use them only as a supplementary tool in loan approval procedures. On the other hand, most banks using such systems said that they revise creditworthiness assessment on a quarterly or an annual basis at least (for long-term loans) and that these revisions affect the assessment of the client's credit risk.

The survey respondents showed least experience with credit risk dispersion. Motivated by profits, most large banks turn to the regions and activities generating the highest value added. Medium-sized and small banks have a regional or local orientation, which also predetermines the dispersion level of their portfolios. Even those banks that have set formal goals regarding dispersion stated that demand and competition prevent them from their strict pursuit. Due to all of the above, smaller banks are more exposed to microeconomic and political risks at the local level, while larger banks are more exposed to macroeconomic risks at the national and supra-national level.

In terms of organisation, it seems that banks mostly focus on loan approval processes and bad debt recovery. Although there was no specific question on the organisational structure of this business segment, many participants responded by describing organisation and procedures related to these activities when asked

Bank loans and deposits are concentrated in Zagreb.

Figure 14 Geographic Distribution of Loans and Deposits



Source: CNB.

about the organisation of credit risk management. The answers suggest that a large number of employees (mostly credit analysts) are responsible for these activities, and are mostly positioned in big and important organisational units of the bank. This is in contrast with the current importance given to credit risk measurement activities as they most often involve a small number of employees and managers, with small banks often entrusting them to credit analysts themselves.

All of the above suggests that banks are much better prepared for these aspects of credit risk management that are not associated with its measurement. This situation is likely to change radically in the future as banks approach the moment of introducing advanced credit risk measurement tools provided by Basel II.

4.2 Operational Risk

The readiness of banks to adopt the Basel II standards for operational risk management was not assessed directly. Instead, the survey analysed in detail the current situation regarding organisation and procedures for operational risk management. Bankers responded quite differently to the direct question on operational risk management methods. Most numerous were the banks where operational risk management was entrusted to the internal control and internal audit functions, followed by the banks that address operational risk by means of the “more eyes” principle, banks that fight against this risk by numerous bylaws and written procedures, and banks that mostly deal with operational risk through advanced IT systems by imposing controls and restricting individual employee rights and authorities. Only a few participants described a process of operational risk management that would, at least to some extent, comply with Basel II recommendations and even fewer stated that they would intensify their efforts to improve operational risk management within preparations for Basel II implementation.

In line with the preceding answer, the major organisational unit and the highest ranking manager entrusted with operational risk management are most often in the internal control and internal audit functions, with just a few banks having an operational risk management department or unit. Operational risk thus gets much less attention than credit risk, with the exception of a few banks where these risks receive equal attention, at least in organisational terms. This is completely in line with the bankers' opinion that credit risk is by far the most important risk Croatian banks face in their operations.

In addition, even the approach to operational risk measurement shows that this risk is less important than credit risk. Only a few banks reported that they keep records on losses arising from system and process deficiencies, inadequate procedures, and so on, and none of them had an electronic database covering longer periods. One may reasonably conclude that no bank is currently prepared to apply advanced methods of operational risk measurement.

Finally, the survey analysed the functioning of banks' internal control systems in particular business segments, i.e. control mechanisms in each business process. Apart from the "more eyes" principle, most bankers stated that they conduct both regular and unannounced checks. In loan approval processes banks rely both on limits and checks of credit officers. Large banks further improved the physical and functional independence of individual treasury operations.

With regard to automatisation of internal controls, i.e. their integration in the bank's IT system, no bank stated that its internal controls are completely automated. Even those banks where most internal controls are automated are still striving to integrate either the document circulation systems or systems for the immediate prevention of exceeding authorised limits or are focused on integrating separate internal control systems. However, there are still many banks where only the reporting function on the observance of internal controls is automated while the function of long-distance monitoring of adherence to these controls is not.

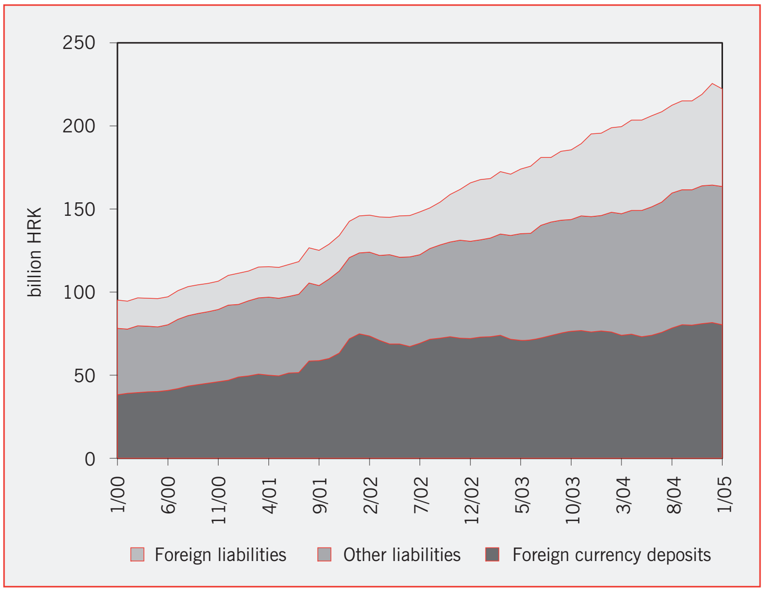
Based on the above, it may be concluded that banks are better prepared for credit risk measurement than for the implementation of advanced operational risk measurement methods, and also that managers in charge of operational risk measurement hold lower positions than those in charge of credit risk management in most banks. On the other hand, it seems that banks persistently and vigorously strive to increase the scope and level of automated internal control systems. This may in part reflect the bankers' belief that operational risk monitoring relies more on procedures and technology whereas credit risk monitoring relies more on human resources.

4.3 Other Risks

In addition to the most widespread credit risk and increasing operational risk that emerges from continuous technological advancement, Croatian banks are exposed to other types of risks. As the share of foreign exchange savings in total savings is still very high and as they are still mostly turned into kuna placements with a currency clause, banks are systematically exposed to indirect currency risk (i.e. credit risk resulting from borrowers' exposure to direct currency risk). In addition, due to a major maturity transformation of sources and the parallel much higher volatility of liabilities than assets, banks are systematically exposed to liquidity risk, which is currently deftly hidden by the structural liquidity surplus of the entire banking system. The high level of banks' foreign liabilities, which reflects this liquidity, is related to the risk of contagion, which is evident in the sensitivity of banks' foreign liabilities to the general economic and political situation in the environment.

Banks' funding sources have been rapidly growing. Since 2002, this has been mostly on account of the strong growth in foreign liabilities, which substantially offset the consequences of interrupted growth of traditional major sources of bank funds – foreign currency deposits, with other liabilities, particularly bank capital, also growing strongly since mid-2002.

Figure 15 Structure of Consolidated Bank Liabilities



Source: CNB.

Globalisation of the financial system and financial innovations are the sources of the frequent emergence of market risks related to trading in sophisticated financial instruments in international money and capital markets, including several types of interest rate risk and counterparty credit risk. It seems that the only risk that has not grown in recent years is the risk of changes in domestic interest rates since most domestic bank placements have been contracted at (immediately) variable interest rates.

More than two-thirds (in terms of value) of bank loans are within the category where bank losses would be the least in the event of adverse interest rate developments – all loans maturing within a month and loans with interest rate variable within a month belong to this category.

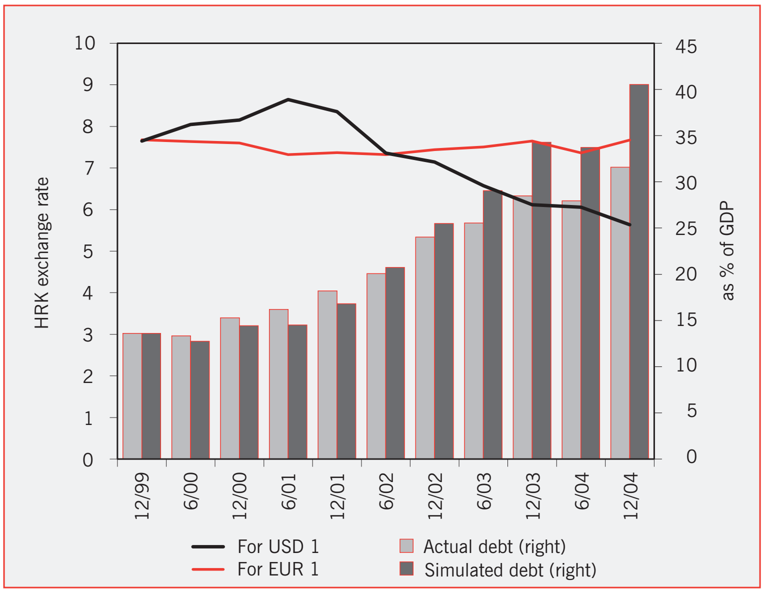
Table 6 Maturity Breakdown of Bank Loans, gross amount, as % of total loans

	Up to 1 month	1 to 3 months	3 to 12 months	1 to 2 years	2 to 3 years	Over 3 years
By remaining maturity	16.1	5.8	17.7	14.0	10.1	36.3
By interest rate variability	71.2	4.2	13.0	2.1	1.7	7.8

Sources: CNB and authors' calculations.

With regard to indirect currency risk, most banks admitted that they do not manage this risk on purpose. Due to the fact that most of their liabilities are in foreign exchange and bearing in mind the prescribed limits on exposure to direct currency risk, banks are unable to offer kuna loans not indexed to foreign currencies. On the other hand, most bank clients earn income in the domestic currency so that foreign currency-indexed loans directly expose them to currency risk. Any attempt to lower this risk would either mean a decrease in bank placements or an increase in their price which, under the current fierce competition, would probably have negative long-lasting effects on a bank's reputation. This is the reason why banks rely on the CNB's policy of maintaining a stable exchange rate.

Figure 16 Simulation of the Exchange Rate Impact on Household Debt



Sources: CNB and authors' calculations.

If the HRK/EUR exchange rate had moved in line with the USD/EUR exchange rate over the last five years, the household debt to GDP ratio, instead of its currently high level of 32%, would be as high as 40%.

Even some banks' efforts to persuade their clients to buy currency risk-hedging instruments brought no significant results, and the selection of clients with foreign currency income is rather limited. All this together prevents banks from a more active approach to decreasing indirect currency risk. In fact, almost all banks offering currency risk-hedging instruments (mostly forwards and, somewhat less, foreign exchange swaps) declared that penetration of these products has been disappointing for years, which is partly attributable to ignorance and partly to fears of potential clients. The survey participants said that penetration of interest rate risk hedges has been even worse, probably due to the fact that banks' lending rates have not grown in recent years.

As expected, detailed answers to the questions on market risks were mostly provided by the largest banks. Most of them calculate daily and monthly value-

Table 7 Market Success of Newly-Introduced Products/Services

Product/service	Weighted average	Simple average	Year of introduction		
			Mod	Min	Max
Forwards	2.9	2.5	2002	1995	2005
Futures	1.2	2.8	2004	2002	2004
Options	1.1	2.6	2004	2002	2004
Swaps	3.5	3.0	2003	1995	2005
Investment advice	2.0	2.9	2004	2003	2005
Brokerage services	3.5	3.1	2004	1993	2005
Securities custody services	4.0	3.5	2003	1996	2005
Analyses and forecasts	2.7	4.0	2001	1998	2001

Source: 2004 CNB Bank Survey.

Answers to the question: "Rate on a scale of 1 to 5 (1 – complete failure; 2 – poor success; 3 – average success; 4 – good success; 5 – complete success) the market success of newly-introduced products/services" at-risk (VaR) indicators, and many apply VaR to set limits on trading in financial markets. However, even those banks do not calculate VaR statistics for all risks, but mostly for currency risk (Mikulčić, 2001), which is understandable bearing in mind this risk's importance for Croatian banking. With regard to their readiness to calculate economic capital and the capital adequacy ratio by means of VaR statistics, many banks stated that they plan to take this step in the medium-term.

Despite their favourable attitude to VaR statistics as a new risk measurement standard, one gets the impression that the number of these banks is too large relative to the number of banks that currently calculate VaR for at least one type of risk. The latter banks admitted that the calculation of economic capital has only just began and that it would take a long time before VaR is customarily used in such calculations. One bank claimed that this is even more true for the capital adequacy calculation as the CNB should approve in advance the inclusion of the VaR standard in this calculation.

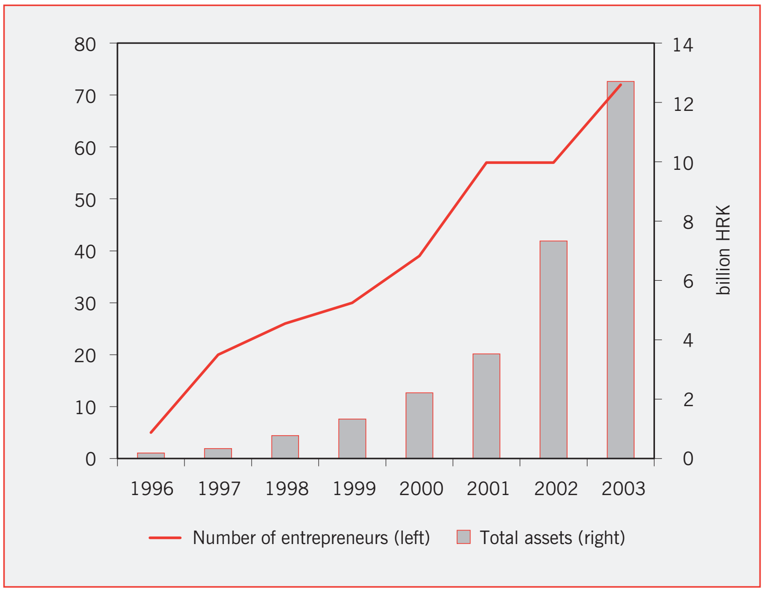
Although the survey did not contain specific questions on liquidity and contagion risks, bankers were expected to comment on these risks, at least in the context of assessing money market functioning and bank owners' readiness to help their Croatian subsidiaries should they experience liquidity problems. However, only one bank assessed liquidity risk as being important, with most banks stating that they expect money market liquidity to be even higher once the central bank begins open market operations as they should ensure that liquidity risk is kept at a minimum even in the case of a liquidity squeeze. Also, as in the preceding survey, most foreign-owned banks stated that they did not use liquidity loans from their parents in daily operations, but that parent banks would readily assist them in liquidity emergency situations that could not be addressed through the domestic money market. As other banks do not view foreign loans as liquidity loans none of them mentioned the possible contagion effect as a potential threat to bank liquidity.

5 Market Competition

The survey results suggest that the fierce competition among banks that began in 2000 has continued, with the recent development of non-banking financial intermediaries exposing them to a new source of competition. Although most banks claimed that they still do not feel competition from non-banking financial intermediaries, it may be expected that competition will increase with the steady growth of this sector. Several bankers stated that they face the strongest competition from other financial intermediaries on the deposit side, mostly on account of investment funds, which took over a part of corporate deposits and increased their price.[5] The strongest, even if not very troublesome, competitors to the banks on the lending side are leasing companies. They took over a large portion of loans to the non-financial sector, particularly in 2003 when the Decision on the purchase of compulsory CNB bills was in force. Still, the major obstacles to more intense com-

5 For a description of trends in banks' interest rates on corporate time deposits, see *CNB Bulletin*, No. 102 – Box 1.

Figure 17 Assets and Number of Leasing Companies in Croatia



Sources: FINA and authors' calculations.

Leasing companies have recorded the strongest growth among non-banking financial intermediaries in Croatia.

petition between banks and the non-banking financial sector are the direct and indirect ownership linkages between most non-banking financial intermediaries and the banks themselves.

Regarding competition for larger market shares, banks still mostly compete with other banks. Bankers almost unanimously said that competition is present in all business segments, but is strongest in the retail segment. This additionally explains the banks' intention to concentrate more on corporate financing in the future. In addition to the household sector, several banks mentioned small and medium-sized enterprises, which have recently become a target client group for both small and the largest banks, and the segment of large corporates where competition arises from the broad range of funding sources at their disposal.

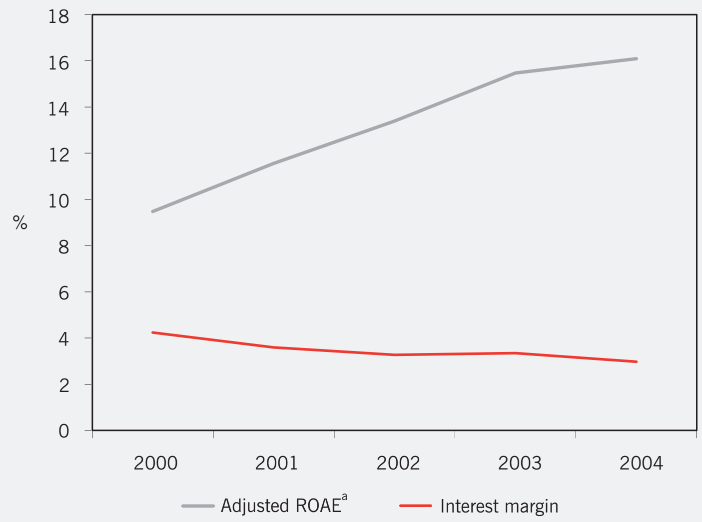
While small and medium-sized banks could not decide in which business segment they feel least competition, large banks mentioned several such areas. They mostly involve products and services that entail substantial financial and technological investment, such as structured financing products for corporate clients and long-term project financing.

More than half of banks (accounting for 98% of total assets) expect that competition among banks in the Croatian market will further intensify in the next two years. The impact of competition will be mostly reflected in a continued decline in banks' lending rates, lower interest margins, increased efficiency, and the introduction of new and improved quality of existing products and services. It is interesting that, on the whole, banks assessed that competition positively affected their profitability despite a decrease in interest margins.

The readiness of banks to continue competing is confirmed by the expectations of most banks interviewed that their market share will grow or at least stay the same in the next two-year period (2005 and 2006). Bankers believe that independent survival is a realistic option for almost two-thirds of banks in the same period, whereas several large banks plan to take over other domestic banks.

A multi-year trend of slightly decreasing bank interest margins has been accompanied by a parallel major increase in their owners' profits.

Figure 18 Interest Margin and Return on Equity



[a] Excludes extraordinary income and expenditure items that are usually included in ROAE.

Sources: FINA and authros' calculations.

Table 8 What market share do you expect your bank to hold in 2005–2006?

Supplied answer	Number of answers	% of the number	% of assets
Much higher	3	9	1
Somewhat higher	22	65	70
About the same	7	21	29
Somewhat lower	0	0	0

Source: 2004 CNB Survey.

The number of banks expecting to remain independent in the market after 2007 is somewhat lower, whereas the probability of a takeover of another domestic bank is much lower. This suggests that the consolidation process in the Croatian banking market, albeit slower, has not yet come to an end, the number of banks in Croatia being expected to continue falling. This is also in line with the prevailing opinion of the survey participants (accounting for 96% of total assets) that the current number of banks in the Croatian market is too large.

To maintain or strengthen their market position in the next two years banks

Table 9 Bank's Strategic Development Plan (probability of the scenarios supplied)

Scenario	Weighted average		Simple average	
	Before 2007	As of 2007	Before 2007	As of 2007
Independent survival	44.67	36.06	64.00	53.09
Merger with a domestic bank	2.42	2.48	7.79	7.06
Takeover by a domestic bank	2.52	2.59	5.59	5.59
Takeover of a domestic bank	24.83	2.21	4.56	2.06
Merger with a foreign bank	1.59	2.71	0.74	1.62
Takeover by a foreign bank	4.53	5.61	8.79	7.94
Takeover of a foreign bank	18.32	1.14	2.21	1.76
Other	0.15	0.12	3.09	3.24

Source: 2004 CNB Survey.

plan to increase the number of: business units (28 banks, holding 95% of total banking system assets), ATMs (26 banks, holding 99% of the assets) and employees (24 banks, holding 60% of the assets). In addition, most banks plan to increase the number of their products and services (particularly of for-fee services and products), additionally decrease their lending rates, increase their fees and commissions, as well as further broaden the range of for-fee services. Bankers predict that their currently most important operations (lending and deposit activities with the private non-financial sector and payment operations within the country and abroad) will retain their top position in the near future. In addition, securities trading, asset management and financial derivative activities will be increasingly important.

Table 10 How much corporate demand for bank loans do you expect in 2005–2006?

Supplied answer	Number of answers	% of the number	% of assets
Much more	1	3	0
Somewhat more	20	61	76
About the same	9	27	15
Somewhat less	2	6	8
Much less	0	0	0

Source: 2004 CNB Survey.

Notwithstanding rapid household loan growth in the last three years, most banks interviewed hold that household credit potential has not yet been fully used. About a third of banks (holding 50% of total assets) expect that household loan demand will continue growing, whereas most other banks expect it to hold steady in the next two years. With regard to corporate financing, as much as two-thirds of banks (holding 76% of total assets) expect that corporate loan demand will grow.

Table 11 How much household demand for bank loans do you expect in 2005–2006?

Supplied answer	Number of answers	% of the number	% of assets
Much more	2	6	0
Somewhat more	10	29	52
About the same	14	41	25
Somewhat less	7	21	22
Much less	0	0	0

Source: 2004 CNB Survey.

Spurred by competition, Croatian banks have considerably broadened the range of products and services offered over the last two years. In addition to new services such as payment operations services for clients, many banks have introduced internet banking, investment banking and securities custody services.

About two-thirds of banks provide internet banking services and most of the remaining banks are in the process of introducing these services or plan to introduce them shortly. The level and range of services included in internet banking vary from one bank to the next: some banks provide these services only to corporate clients, whereas others offer a large variety of such services to both legal and natural persons. All banks that have introduced internet banking services are satisfied with their success and expect further strong growth in the number of users, which currently ranges between 200 and 200,000 users – natural persons, and between 100 and 70,000 users – tradesmen and legal persons.

In contrast with internet banking, mobile phone banking services have so far been offered by only one Croatian bank, which is also one of the first Central and Eastern European banks offering this service. The service provides the option of cashless payments for goods and services via mobile phones by debiting the client's bank account or card. Other banks have shown no interest in introducing this service, probably due to its modest market success so far. About half of the banks offer the service of SMS banking, i.e. the option to obtain information on the balance and changes in a bank account via SMS messages. Some banks pointed out that this service is not strategically important but they offer it for purely promotional reasons to keep up with other banks.

6 Conclusions

Several conclusions may be drawn from the presented results of the fourth CNB bank survey. Some relate to the actual course and causes of recent events and processes that occurred in the past or are still present in the banking system. Other conclusions refer to indications of possible Croatian banking developments in the medium-term.

In discussing development processes in Croatian banking and its environment, it should be said that there have been no major changes since the first CNB banks survey with regard to inefficient risk dispersion strategies. The geographic distribution of banks' activities is proportionate to their size, whereas the structure of their placements by economic activity is the outcome of the development and (potential) growth of individual economic branches.

In addition to the national currency, the euro still dominates the asset side of all banks' portfolios. Bankers believe that currency clauses provide sufficient protection against currency risk while in managing indirect currency risk they continue to rely on the central bank's policy of maintaining a stable exchange rate of the kuna.

In contrast, the strategy regarding the sectoral dispersion of risks is more prominent: almost all the largest Croatian banks have considered and still consider households and corporates equally important, which is reflected in relatively equal shares of these two sectors in the structure of bank loans. The sectoral dispersion of risks is less evident in small and medium-sized banks that are traditionally more oriented to the corporate sector and in several smallest banks whose active operations involve only the household sector.

Although they have become aware of the specific risk of insufficient dispersion, banks still do not address this risk directly, but only within the process of managing other risks in which it is indirectly manifested. Among these risks, banks still view credit risk as the most important risk in their operations. The survey results also indicate that banks are much better prepared for those aspects of credit risk management that are not related to its measurement. Many banks stated that they would increase their capacities for precise credit risk measurement within preparations for the implementation of Basel II.

It may be concluded that no bank is yet ready to start applying advanced methods of operational risk measurement and only a few of them declared that they would get themselves ready for these methods in preparing for Basel II implementation.

As expected, market risks are monitored on a daily basis only by the largest banks, which are most exposed to these risks. However, even these banks do not calculate advanced risk indicators for all market risks. The most widespread is advanced measurement of currency risk, which is completely in line with this risk's relative importance in Croatian banking.

Among adverse developments that bankers mentioned in the preceding surveys were: the reactionary and unpredictable character of the central bank's monetary policy, the lack of effective legal protection of creditors and poor liquidity in the financial market. A large majority of the survey participants consider that there have been no positive changes in any of these three areas in the last three years, and many claim that certain segments of the institutional environment have even deteriorated.

Bankers believe that, notwithstanding the arsenal of measures, the CNB cannot succeed alone in curbing the negative trends in the country's balance of payments without improved coordination with a tighter fiscal policy. As the major reasons for their own contribution to these developments, which is evident in banks' strong external borrowing, bankers mentioned the slow growth of domestic deposits and their inadequate maturity structure. Furthermore, bankers admit that CNB measures indeed lowered the profitability of external borrowing, but stress that domestic funding sources are insufficient to finance target growth and that they would continue to use foreign sources as needed.

In addition to reiterating their remarks about slow court proceedings, which have not changed since the last survey, bankers this time repeatedly noticed that, in their opinion, trustees in bankruptcy have excessive powers and are slow in closing bankruptcy proceedings. It is encouraging that bankers assessed potentially more serious problems such as corruption, political pressure and inefficiency of courts as less relevant. This suggests that the main problems which banks encounter in the judicial system can actually be solved by reasonable efforts and costs.

Banks expect that the use of credit registry (HROK) data will allow for a better estimate and selection of clients, which will gradually decrease overall credit risk and the non-performing loans ratio, provided that all banks use available data reasonably.

Bankers argue that the ceiling on the absolute amount of the nominal interest rate under the new Interest Rate Act is interfering with free market mechanisms and ineffective anyway since the ceilings to the maximum contractual interest and penalty rate are so high that they are almost meaningless. For various reasons, most banks negatively reacted to the Draft Deposit Insurance Act. All banks agreed that the insurance premium is too high, while the operations of the State Agency for

Deposit Insurance and Bank Rehabilitation are ineffective and lack transparency.

Money market interest rates are today less valuable as benchmarks for pricing banking products than they were three years ago due to the upward trend in their volatility, which began in late 2003 and continued to the present. Positive steps in this area may be expected only after the introduction of the announced open market operations of the CNB, but only if the CNB does not immediately sterilise the thus-created additional liquidity. Banks wait for the government to take the first step towards the extension of the kuna yield curve, although some of them cannot see the way to spur long-term investment in kuna instruments.

The survey results indicate that banks still feel no competition from non-banking financial institutions. However, competition is expected to intensify since it is certain that a part of this sector not owned by the banks themselves will continue developing. Competition among banks themselves is evident in all business segments, and it is strongest in the retail segment. Competition is expected to become increasingly fierce in the next two years, and its impact will be mostly reflected in a continued decline in banks' lending rates, lower interest margins, increased efficiency, and the introduction of new and improved quality of existing products and services.

Various banking services have become increasingly important due to slower growth in interest income. Many banks that have not done so before plan to provide payment operations services, internet banking services for retail clients, product and service packages, card operations and investment banking services in the near future.

As in the preceding survey, banks attribute weak demand for currency and interest rate hedges to the lack of information and conservatism of most Croatian economic entities, multi-year stability of the kuna/euro exchange rate, and the seemingly unstoppable downward trend of all interest rates. Still, no bank intends to exclude such products from its range, and some of the banks that did not offer such products intend to start offering them to their clients.

The survey results suggest that the consolidation process in the Croatian banking market, albeit slower, has not yet come to an end, the number of banks in Croatia being expected to continue falling in the next few years.

It also seems that household credit potential has not yet been fully used. About a third of banks expect that household loan demand will continue growing, whereas most other banks expect it to hold steady in the next two years. With regard to corporate financing, two-thirds of banks expect corporate loan demand to continue growing.

Should bankers' forecasts for the medium run be realised, market consolidation of the banking system may be expected to continue, funding sources will become even cheaper and the range of banking services will further expand. All this will support the continued strong growth in lending activities of banks, which will be increasingly oriented to households and propulsive economic activities and regions. Also, one may expect the continued conflict between banks on the one side and government and public bodies on the other side over different approaches to monetary policy goals and methods as well as financial system regulation and oversight. On the positive side, this could aid further development of the Croatian institutional framework, which would equally support market freedom on the one hand and market discipline and social responsibility on the other, thus creating a safe and competitive financial system that would spur economic growth and improve living standards. It is very likely that banks will not rely less on the policy of a stable exchange rate and low level of global interest rates in the medium-term. This means that there are no signs that Croatian banks could soon decide to rely more on market methods of managing the indirect currency risk and liquidity risk that could arise from contractions in international capital markets.

Finally, it is very probable that the next stage of development in Croatian banking will be largely characterised by attempts to eliminate frictions between the often opposite goals of banks, business, monetary authorities, households and the government such as profit, cheap financing, macroeconomic stability, higher living standards and rapid economic growth.

References

EURIBOR, website sponsored by the FBE and ACI, www.euribor.org.

Galac, Tomislav (2005): *Results of the Third CNB Bank Survey: Croatian Banking in the Consolidation and Market Positioning Stage, 2000 – 2002*, Croatian National Bank, Surveys, S-14, December.

Croatian National Bank (2004a): *Rezultati upitnika o novom Bazelskom sporazumu (Basel II)*, PDF, www.hnb.hr.

Croatian National Bank (2004b): *Istraživanje o funkcioniranju platnog prometa u zemlji*, PDF, www.hnb.hr.

Croatian National Bank, *Bulletin*, Nos. 80, 83, 86, 88, 91, 94, 97 and 99.

Croatian National Bank, *Banks Bulletin*, Nos. 5, 6 and 9.

Croatian National Bank, *Annual Report*, 1996-2003.

Croatian Banking Association, various materials, official website www.hub.hr

Kraft, E. (2002): *Foreign Banks in Croatia: Another Look*, Croatian National Bank, Working Papers, W-10, December.

Mikulčić, D. (2001): *Value at Risk (Rizičnost vrijednosti) – Teorija i primjena na međunarodni portfelj instrumenata s fiksnim prihodom*, Croatian National Bank, Pregledi, P-7, August.

Official Gazette, various issues, internet edition www.nn.hr.

World Bank, *Deposit Insurance Around the World: A Data Base*, XLS, www.worldbank.org.

Appendix 1 Questions and Answers in the First Part of the Survey Questionnaire

1. Assess the approximate percentage of classic financing (share in balance sheet total) for the following categories of your bank's clients:

Category	Weighted average		Simple average		Min	Max	Min	Max
	Current situation	Target/ forecast	Current situation	Target/ forecast	Current situation		Target/ forecast	
Companies from the owner's home country (for foreign-owned banks)	1.6	1.6	0.5	0.5	0.0	10.0	0.5	6.0
Other foreign/international companies	1.0	1.2	0.7	0.8	0.5	15.0	0.5	14.0
Best domestic companies (blue chips)	3.3	2.8	2.4	2.6	1.0	15.0	1.0	15.0
Large domestic companies	12.4	9.9	8.6	7.3	1.0	28.0	1.0	22.0
Medium-sized enterprises	15.2	15.1	15.9	16.4	3.0	50.0	3.0	40.0
Small enterprises	8.9	10.0	17.5	19.3	0.5	49.0	3.5	50.0
Freelancers and tradesmen	3.3	4.2	6.2	9.7	0.5	23.0	2.0	57.0
Individuals excluding freelancers and tradesmen	44.4	45.8	38.3	35.7	5.0	100.0	5.0	100.0
Other	9.7	9.3	9.5	8.1	1.7	51.6	1.0	44.0

2. Assess the approximate percentage of classic financing (share in balance sheet total) for the following activities of your bank's clients:

Activity	Weighted average		Simple average		Min	Max	Min	Max
	Current situation	Target/ forecast	Current situation	Target/ forecast	Current situation		Target/ forecast	
Foreign direct investment in Croatia	0.4	0.9	0.2	0.3	0.1	2.0	1.0	5.0
Foreign portfolio investment in Croatia	0.1	0.1	0.0	0.1	0.0	0.6	1.0	1.0
Export activities	2.5	4.1	3.5	6.6	0.1	30.0	1.0	35.0
Import activities	3.1	3.2	3.7	4.6	0.5	15.0	0.5	20.0
Purchase of fixed capital/ modernisation	17.6	16.5	15.4	16.4	3.0	44.6	2.0	45.5
Purchase of working capital	18.0	16.3	25.9	22.6	4.0	71.0	6.0	70.0
Corporate restructuring incl. domestic mergers and takeovers	0.8	0.8	1.5	1.6	0.1	10.0	0.5	10.0
Households – "real" housing loans	11.3	11.1	5.6	6.4	1.0	21.0	2.0	22.0
Households – other immovable and movable property	14.1	13.1	7.3	6.6	0.5	43.0	1.0	50.0
Households – all-purpose loans	13.9	15.9	25.1	21.9	1.0	100.0	5.0	100.0
Foreign direct investment by Croatian firms abroad	0.1	0.9	0.0	0.3	0.1	0.5	1.0	5.0
Foreign portfolio investment by Croatian firms abroad	0.0	0.0	0.0	0.1	0.0	0.0	0.0	2.0
Other	10.2	9.2	8.9	6.8	1.0	52.7	2.0	49.0

3. Why do you use foreign sources to finance your placements?

Supplied answer	Number of answers	% of the number	% of assets
Domestic deposit growth is too slow	12	21	37
Maturity structure of domestic deposits is inadequate	13	22	26
Foreign sources are cheaper	9	16	13
Foreign sources are more stable (less volatile)	6	10	5
Other	16	28	18

4. Rate on a scale of 1 to 5 (1 – completely unimportant; 2 – less important; 3 – average importance; 4 – above-average importance; 5 – extremely important) the importance of each listed category of banking activities for your bank:

Category	Weighted average		Simple average	
	Current situation	Target/ forecast	Current situation	Target/ forecast
Lending and deposit activities with private non-financial sectors	4.7	4.8	4.6	4.8
Lending to the government and local self-government	3.6	4.2	2.6	3.2
Lending to public enterprises and enterprises in majority state ownership	3.7	3.6	2.3	2.5
Lending to financial institutions	2.3	2.1	2.3	2.5
Domestic payment operations services	4.5	4.7	4.0	4.6
External payment operations services	4.7	4.7	4.0	4.6
Trading foreign means of payment	4.1	4.1	3.2	3.5
Trading risk-free short-term securities	3.2	3.8	2.5	3.2
Money market interbank trading	4.0	3.9	3.1	3.2
Operating leasing	2.3	3.1	1.6	2.1
Financial leasing	2.4	3.3	1.7	2.3
Bond trading	3.0	3.8	2.2	3.0
Share trading	1.9	2.3	1.6	2.3
Derivatives trading	2.0	3.4	1.5	2.2
Asset management	2.3	3.5	1.9	2.7
Commission business and mandated operations	1.8	2.1	2.4	2.8
Life/non-life insurance activities	1.9	2.8	1.5	2.2
Pension insurance activities	2.2	3.0	1.4	1.8
Brokerage services	2.3	2.8	1.8	2.5
Other	1.0	1.5	2.4	3.5

5. Assess the probability of the following scenarios for your bank's development:

Scenario	Weighted average		Simple average	
	Before 2007	As of 2007	Before 2007	As of 2007
Independent survival	44.7	36.1	64.0	53.1
Merger with a domestic bank	2.4	2.5	7.8	7.1
Takeover by a domestic bank	2.5	2.6	5.6	5.6
Takeover of a domestic bank	24.8	2.2	4.6	2.1
Merger with a foreign bank	1.6	2.7	0.7	1.6
Takeover by a foreign bank	4.5	5.6	8.8	7.9
Takeover of a foreign bank	18.3	1.1	2.2	1.8
Other	0.1	0.1	3.1	3.2

6. What market share do you expect your bank to hold in 2005–2006?

Supplied answer	Number of answers	% of the number	% of assets
Much higher	3	9	1
Somewhat higher	22	65	70
About the same	7	21	29
Somewhat lower	0	0	0
Much lower	1	3	0

7. What are your plans for the two-year period 2005-2006? In each answer, please circle or underline a more probable scenario (e.g. increase/decrease):

Scenario	Number of answers		% of the number		% of assets	
	+	–	+	–	+	–
Decrease/increase household financing relative to corporate financing	18	14	56	44	77	23
Increase/decrease the number of operating units	28	6	82	18	95	5
Increase/decrease the total number of employees	24	11	69	31	60	40
Increase/decrease the total number of ATMs	26	1	96	4	100	0
Increase/decrease the total number of e-users	32	0	100	0	100	0
Increase/decrease the total number of m-users	22	1	96	4	100	0
Decrease/increase lending rates	1	29	3	97	8	92
Decrease/increase commissions and fees	10	23	30	70	21	79
Decrease/increase the number of for-fee products and services	34	0	100	0	100	0
Increase/decrease the number of products/services	34	0	100	0	100	0
Increase/decrease advertising	33	0	100	0	100	0
Offer faster/slower services	33	0	100	0	100	0
Increase/decrease the range of IT systems developed within the bank	22	5	81	19	86	14
Increase/decrease the use of outsourced analytical and information services	24	9	73	27	81	19
Increase/decrease the number of proposals for bankruptcy filed against debtors	7	20	26	74	42	58

8. Rate on a scale of 1 to 5 (1 – complete failure; 2 – poor success; 3 – average success; 4 – good success; 5 – complete success) the market success of newly-introduced products/services and explain briefly the reasons for success or failure.

Product/service	Number of product/service providers	Success of introduction (weighted average)	Success of introduction (simple average)	Year of introduction		
				Mod	Min	Max
Forwards	10	2.9	2.45	2002	1995	2005
Futures	4	1.2	2.75	2004	2002	2004
Options	5	1.1	2.60	2004	2002	2004
Swaps	9	3.5	3.00	2003	1995	2005
Financial leasing	6	2.5	3.67	2003	1996	2003
Operating leasing	4	2.1	4.00		1997	2003
Factoring	19	1.4	3.29	2000	1998	2004
Forfeiting	9	0.8	2.67	2003	1998	2005
Domestic payment operations services	24	3.8	4.29	2002	2001	2004
Cash and asset management	7	2.8	4.71	2003	1990	2003
Private banking	8	2.4	3.50	2004	1998	2004
Personal banking	16	4.1	3.94	2003	1990	2005
E-banking	22	4.3	3.80	2003	1999	2004
M-banking	7	1.7	3.43	2004	1998	2004
Call deposits	11	1.9	4.36	1992	1873	2000
Call loans	10	1.3	4.60	1990	1990	2004
Revolving credit cards	11	2.7	3.55	2001	1999	2005
Open savings	14	1.9	5.00	2002	1992	2005
Rental savings	22	3.2	4.50	1997	1990	2002
Life insurance	7	1.7	3.00	2004	2003	2005
Investment advice	9	2.0	2.89	2004	2003	2005
Brokerage services	14	3.5	3.14	2004	1993	2005
Securities custody services	13	4.0	3.54	2003	1996	2005
Pension fund management	5	3.3	4.60	2002	2001	2002
Analyses and forecasts	5	2.7	4.00	2001	1998	2001
Other	1	1.0	4.00	2000	2000	2000

9. The current number of banks in the Croatian market is:

Supplied answer	Number of answers	% of the number	% of assets
Much larger than the optimum	3	9	22
Larger than the optimum	18	53	74
Optimum	8	24	2
Smaller than the optimum	3	9	1
Much smaller than the optimum	1	3	0

10. Competition among banks in the Croatian market in 2005-2006 will be:

Supplied answer	Number of answers	% of the number	% of assets
Much stronger	6	18	11
Somewhat stronger	18	53	87
About the same	9	26	2
Somewhat weaker	0	0	0
Much weaker	0	0	0

11. Rate on a scale of 1 to 5 (1 – very positive; 2 – moderately positive; 3 – neutral; 4 – moderately negative; 5 – very negative) the impact of competition in the Croatian banking system on the following processes/trends (a positive impact adds to the trend and a negative impact acts in the opposite direction):

Processes/trends	Weighted average		Simple average	
	2000–2004	2005–2006	2000–2004	2005–2006
Decrease in the level of lending rates	1.4	1.7	1.6	2.0
Increase in the level of deposit rates	2.5	2.5	3.1	3.1
Decrease in the level of fees and commissions	1.5	1.5	2.0	2.0
Interest margin compression	1.7	1.8	2.0	2.1
Increase in the number of products and services subject to fees and commissions	1.4	2.0	1.4	1.9
Increased bank profitability	2.2	2.6	2.4	2.6
Increased bank efficiency	1.6	1.5	1.6	1.5
Improvement of central bank regulations	2.5	2.2	2.3	2.3
Improvement of other financial system regulations	2.4	2.4	2.2	2.2
Introduction of numerous new banking products/services	1.1	1.3	1.1	1.4
Improved quality of existing products/services	1.1	1.1	1.3	1.3
Computerisation	1.9	1.8	1.5	1.4
More detailed and precise credit policies	2.1	2.1	1.8	1.7
Improved credit risk management	1.9	1.9	1.6	1.5
Beginning of managing other risks	2.2	1.9	1.9	1.5
Stronger marketing of banking products	1.2	1.2	1.4	1.4
Enhanced banking sector stability	2.0	2.1	1.8	1.8
More active foreign exchange market	2.0	1.9	1.8	1.7
More active money market	2.3	2.2	1.7	1.7
More active capital market	2.4	2.0	2.1	1.7

12. Compared with 2004, how much competition will banks face from non-banking financial institutions not owned by the banks themselves in 2005–2006?

Supplied answer	Number of answers	% of the number	% of assets
Much more	7	21	12
Somewhat more	19	56	75
About the same	6	18	5
Somewhat less	1	3	8
Much less	0	0	0

13. Describe your current lending terms for legal persons

Factor/term	Proposed answers (a–e)	Mod	% of the number
Number of years for which financial statements are required	<3; 3; >3	b	48
Frequency of client and potential client visits and the most common reason for visits	never; sometimes; regularly	b	60
Availability of long-term loans (over 2 years)	no; yes; only CBRD; only local government; only foreign credit lines	b	82
Most frequent ratio of collateralised tangible assets to loan amount	<2; 2; >2	a	50
Availability of loans without tangible or financial collateral	yes; no; only credit lines	a	77
Minimum number of guarantors required		0	53
Ratio of guarantor income to loan payment		3	75
Required business relationship with the bank for long-term loans	yes; no; for some purposes	a	70
Duration of a typical loan approval procedure	<1 week; 1–2 weeks; >2 weeks	b	60
Do courts pass judgements faster than two years ago?	faster; slower; the same	c	80
Have you ever succeeded in foreclosing and selling property?	yes; no; irrelevant	a	83
Average time needed for foreclosure and sale of property	<6 months; 6–12 months; 1–2 years; >2 years	d	53

14. How much corporate demand for bank loans do you expect in 2005–2006?

Supplied answer	Number of answers	% of the number	% of assets
Much more	1	3	0
Somewhat more	20	61	76
About the same	9	27	15
Somewhat less	2	6	8
Much less	0	0	0

15. What percentage of non-performing corporate loans do you expect in 2005–2006?

Supplied answer	Number of answers	% of the number	% of assets
Much higher	1	3	0
Somewhat higher	4	12	29
About the same	16	47	29
Somewhat lower	9	26	38
Much lower	3	9	4

16. Describe your current lending terms for natural persons

Factor/term	Proposed answers (a–e)	Mod	% of the number
Number of months in permanent employment required for special-purpose loans		12	41
Availability of long-term loans (over 2 years)	no; yes; only car loans; only housing loans; car and housing loans	b	83
Most frequent ratio of collateralised tangible assets to loan amount	<2; 2; >2	a	60
Availability of loans without tangible or financial collateral	yes; no; only overdraft facilities	a	85
Minimum number of guarantors required		1	52
Ratio of guarantor income to loan payment		3	79
Use of automated loan approval system	yes; no; not on an individual basis	b	70
Required exclusive relationship with the bank for long-term loans	yes; no; only for some purposes	b	53
Duration of a typical loan approval procedure	<1 week; 1–2 weeks; >2 weeks	a	65
Do courts pass judgements faster than two years ago?	faster; slower; the same	c	79
Have you ever succeeded in foreclosing and selling property?	yes; no; irrelevant	a	71
Average time needed for foreclosure and sale of property	<6 months; 6–12 months; 1–2 years; >2 years	d	53

17. How much household demand for bank loans do you expect in 2005-2006?

Supplied answer	Number of answers	% of the number	% of assets
Much more	2	6	0
Somewhat more	10	29	52
About the same	14	41	25
Somewhat less	7	21	22
Much less	0	0	0

18. What percentage of non-performing household loans do you expect in 2005-2006?

Supplied answer	Number of answers	% of the number	% of assets
Much higher	1	3	11
Somewhat higher	16	47	24
About the same	8	24	21
Somewhat lower	6	18	41
Much lower	2	6	3

19. Rate on a scale of 1 to 5 (1 – completely unimportant; 2 – less important; 3 – average importance; 4 – above-average importance; 5 – extremely important) the importance of the method used to assess client creditworthiness:

Assessment method	Weighted average		Simple average	
	Legal persons	Natural persons	Legal persons	Natural persons
Assets	4.0	4.0	4.1	3.8
Assessment of a client's character	4.3	3.6	4.5	4.0
Loyalty to the bank	2.9	2.8	3.6	3.1
Capital strength of a client	4.0	–	4.1	–
Income strength of a client	4.8	4.9	4.6	4.8
Business recommendations	2.7	–	3.2	–
Private recommendations	1.5	1.8	2.4	2.6
Investment project quality	4.8	3.5	4.5	3.8
Management quality in a client's firm	4.8	–	4.6	–
Mortgage value	3.6	4.3	4.0	4.3
Income/capital strength of guarantors	2.8	4.0	3.7	4.3
Share of down payment	3.9	3.2	3.8	3.5
Other	2.5	1.7	4.9	4.4

20. Rate on a scale of 1 to 5 (1 – completely incorrect; 2 – mostly incorrect; 3 – partly incorrect/correct; 4 – mostly correct; 5 – completely correct) the correctness of the following statements on creditor protection in court practice

Statement	Weighted average	Simple average
Court outcomes are uncertain because court officials are subject to bribery	2.8	2.6
Court outcomes are uncertain because court officials are subject to political pressure	2.5	2.7
Court outcomes are uncertain because laws are confusing	3.6	3.6
Court outcomes are uncertain because court officials are insufficiently trained	3.1	3.4
Court outcomes are uncertain because court officials in general favour certain social groups, e.g. debtors	3.0	3.5
Court proceedings are prolonged because of an insufficient number of court officials	2.7	2.9
Court proceedings are prolonged because of unnecessarily complex court procedures	3.3	4.0
Court proceedings are prolonged because the law provides for numerous delaying tactics	4.6	4.5
Court proceedings are prolonged because judges unnecessarily allow delaying tactics	4.3	4.2
Other	0.0	5.0

Appendix 2 Answers to Selected Questions in the Second Part of the Survey Questionnaire

1. Do you still consider credit risk as the most important risk in your operations and why?

	Number of banks
Yes	32
No	2

2. Do you maintain a database on credit risk losses? If yes, what period of time does it cover?

	Number of banks	1–2 years	3–4 years	5 or more years
Yes	16	1	6	9
– of which: electronic database	5	0	3	2
No	18			

3. Do you calculate the probability of default (PD)? In historical terms, what are your PDs for exposures to households and corporates?

	Number of banks	Households	Corporates
Yes	9	1% – 5%	3% – 10%
No	25		

4. Do you calculate the recovery rate (R)? In historical terms, what are your recovery rates for exposures to households and corporates?

	Number of banks	R
Yes	6	50%+
No	26	

5. To what extent and in what way has the required application of IAS 39 and the 1996 Amendments to the Basel Capital Accord affected the method in which you classify placements according to risk categories?

	Number of banks
Decrease in provisions	9
Increase in provisions	6
No major impact	9
I do not know	4

6. Have you established an internal client assessment system for loan approval procedures?

	Number of banks
Yes	15
Being established, to be applied as of 2005	7
No	11

7. Do you calculate VaR values for some/all market risks (which ones) and do you use them as internal limits?

	Number of banks	Only for currency risk	For currency and interest rate risk	For all risks
Yes	8	5	1	2
No	28			

8. Do you plan to use own VaR values to calculate the capital adequacy ratio and in what time frame?

	Number of banks
Yes	6
Yes, but not in a short time	9
No	19

9. In what way do you manage operational risk (you may select more than one answer)?

	Number of banks
Prescribed procedures	13
Internal control	12
IT-protection	12
Management measures	4
Collective responsibility (the "more eyes" principle)	4
External audit	3
None	2

10. Do you maintain a database on losses arising from system and process deficiencies, inadequate procedures, etc? If yes, what period of time does it cover?

	Number of banks	1–2 years	3–4 years	5 or more years
Yes	6	3	2	1
No	27			

11. In what way does your internal control system function in individual business segments, i.e. what control mechanisms are in place for each business process (lending, domestic and external payment operations, treasury operations, securities trading for clients, mandated operations)?

	Number of banks
Internal control and audit	14
Procedures and limits	11
Regular controls	8
Collective responsibility (the "more eyes" principle)	6
Additional checks, unannounced	6
Other	8

12. To what extent have internal controls been integrated into your bank's IT system and how is this manifested?

	Number of banks
To a large extent	6
To some extent	21
Not yet integrated	7

13. How will the use of credit registry (HROK) data affect the increase in household loans, their price, the non-performing loans ratio and your bank's current credit policies applied to households in general?

	Number of banks
Lower interest rates	14
Lower costs for the bank	15
Decrease in the number of loans	7
Price differentiation	4
Improved client discipline	3
Other	9

14. Do you offer currency risk-hedging instruments to your clients and if so, which instruments?

	Number of banks	FX forwards	FX swaps
Yes	13	11	2
No	21		

15. Do you offer interest rate-hedging instruments to your clients and if so, which instruments? Are you satisfied with penetration of these products and why?

	Number of banks	IR swaps
Yes	7	7
No	27	

16. Do you use instruments for credit risk transfer, which instruments (sale, packaging, insurance, swaps) and why?

	Number of banks	Loan insurance	Receivables sale
Yes	10	5	5
No	24		

17. Do you have direct access to international money markets? Do you count on these markets in daily/weekly/monthly liquidity planning?

	Number of banks
Has access	15
– of which: uses it in liquidity planning	7
No access	19

18. Do the overnight ZMM interest rate and the overnight ZIBOR today have more or less benchmark value than two years ago? What market rates do you consider as benchmarks and for what purposes?

	Number of banks
No kuna benchmark rate	26
Both rates are used as benchmarks	6
Only the rate on T-bills is used as the benchmark rate	2

19. Does your bank intend to issue kuna-denominated securities?

	Number of banks
Yes	1
Perhaps	2
No	31

20. What impact do you expect the CNB's open market operations to have on domestic money market liquidity and/or volatility of short-term interest rates? What indirect macroeconomic and financial effect do you expect open market operations to have?

	Number of banks
Reduced volatility of money market interest rates	16
Increased kuna liquidity	8
Lower money market interest rates	2
No impact	2
I don't know	9
Other	4

21. Do you currently provide or intend to provide shortly e-banking services?

	Number of banks
Yes	23
Planned for 2005	7
No, not yet planned	4

Appendix 3 Calculation of Total Credit Risk-Weighted Assets

Prior to changes	After changes (as of 1 January 2004)
Definition	
off-balance sheet derivatives not included	off-balance sheet derivatives included
Balance sheet assets	
A 0% risk weight	
claims on the government of the Republic of Croatia and on the governments of the OECD countries with remaining maturity up to three years	claims on the government of the Republic of Croatia and on the governments of the OECD countries
A 20% risk weight	
claims on the government of the Republic of Croatia and on the governments of the OECD countries with remaining maturity of more than three years	claims on the government of the Republic of Croatia and on the governments of the OECD countries
	claims on regional governments or local authorities of the Republic of Croatia and the OECD member countries
A 50% risk weight	
claims on domestic banks and banks of the OECD member countries	
A 100% risk weight	
	prepayments and other income where the bank is unable to determine the counterparty
Risky off-balance sheet items	
A 0% credit conversion factor	
guarantees and other commitments of the Republic of Croatia	guarantees and other commitments of the government of the Republic of Croatia, multilateral development banks, the European Investment Bank and other institutions as prescribed by the CNB
undrawn credit facilities with an original maturity of up to and including one year	undrawn credit facilities which may be cancelled unconditionally at any time without notice
A 20% credit conversion factor	
short-term irrevocable documentary letters of credit and confirmed documentary letters of credit	documentary letters of credit in which underlying shipment serves as collateral and other self-liquidating transactions
A 50% credit conversion factor	
performance guarantees and other contingent liabilities serving as collateral for third-party financial obligations	documentary letters of credit which are issued and confirmed and are not covered by the 0% and 20% credit conversion factors
	warranties and indemnities, and guarantees not having the character of credit substitutes
	asset sale and repurchase agreements defined in the Instructions for the uniform implementation of the Decision on the capital adequacy of banks (Official Gazette 195/2003 and 39/2004)
	irrevocable standby letters of credit not having the character of credit substitutes
A 100% credit conversion factor	
undrawn credit facilities with an original maturity of more than one year	payment guarantees, irrevocable standby letters of credit and similar instruments having the character of direct credit substitutes
	endorsements on bills not bearing the name of another bank

	transactions with recourse
	assets purchased under outright forward purchase agreements
	forward forward deposits
	the unpaid portion of partly-paid shares and securities
Items not included in credit risk-weighted assets	
claims and contingent liabilities secured by the bank's own and preference shares	claims and contingent liabilities secured by the bank's hybrid or subordinated instruments to the amount these instruments are included in supplementary capital
loans for the purchase of the bank's shares	outstanding balances on loans extended by the bank for the purchase of the bank's shares, as well as the amount of guarantees for such loans

Appendix 4 Calculation of Banks' Regulatory Capital

Prior to changes	After changes (as of 1 January 2004)
Component parts of and deduction items from a bank's share (core) capital	
Component parts of share (core) capital	
paid-in capital arising from the sale of own shares except cumulative preference shares	paid-in capital arising from the sale of own shares except cumulative preference shares
reserves	reserves
retained profit from previous years	retained profit from previous years
current year profit	current year profit
capital gains made from trading in the bank's own shares	capital gains made from trading in the bank's own shares
reserves for own shares	reserves for own shares
Deduction items from share (core) capital	
losses from previous years	losses from previous years
current year losses	current year losses
capital loss made from trading in the bank's own shares	capital loss made from trading in the bank's own shares
intangible assets such as goodwill, licenses, patents and trademarks	intangible assets such as goodwill, licenses, patents and trademarks
acquired own shares, except cumulative preference shares (Articles 233, 237 and 238 of the Companies Act)	acquired own shares, except cumulative preference shares (Articles 233, 237 and 238 of the Companies Act)
outstanding balances on loans extended by the bank, either directly or indirectly, for the purchase of the bank's shares, except cumulative preference shares, or the amount of guarantees issued for such loans	outstanding balances on loans extended by the bank, either directly or indirectly, for the purchase of the bank's shares, except cumulative preference shares, or the amount of guarantees issued for such loans
Component parts of and deduction items from a bank's supplementary capital (supplementary capital I and supplementary capital II)	
Component parts of supplementary capital (supplementary capital I)	
paid-in capital arising from the sale of the bank's cumulative preference shares	paid-in capital arising from the sale of the bank's cumulative preference shares
specific reserves for unidentified losses	specific reserves for unidentified losses
hybrid instruments	hybrid instruments
subordinated instruments	subordinated instruments
	Supplementary capital II shall consist of subordinated instruments defined as financial instruments, irrespective of their form or denomination, which are issued for raising funds.
Deduction items from supplementary capital (supplementary capital I)	
acquired own cumulative preference shares	acquired own cumulative preference shares
the amount of specific reserves that exceeds 1.50% of total credit risk-weighted assets	the amount of specific reserves that exceeds 1.25% of total credit risk-weighted assets
the amount of subordinated instruments that exceeds 50% of core capital	the amount of subordinated instruments that exceeds 50% of share capital
claims secured by hybrid or subordinated instruments	claims secured by hybrid or subordinated instruments
outstanding balances on loans extended by the bank for the purchase of the bank's cumulative preference shares	outstanding balances on loans extended by the bank for the purchase of the bank's cumulative preference shares

Deduction items from gross regulatory capital	
direct and indirect investments of the bank and legal persons controlled by the bank in shares and other financial instruments included in another bank's regulatory capital	direct and indirect investments in other banks and financial institutions amounting to over 10% of such banks' and financial institutions' capital direct and indirect investments in other banks and financial institutions of up to 10% of the regulatory capital of the bank whose regulatory capital is being calculated
claims on and contingent liabilities towards legal persons under direct or indirect control of the bank or connected persons, provided that these claims or contingent liabilities are established under terms which are more favourable than the terms usually offered by the bank, or more favourable than the terms obtained in the financial markets for comparable operations, or if such terms are not in line with the principles of safe and sound banking practices	claims on and contingent liabilities towards legal persons under direct or indirect control of the bank or connected persons, provided that these claims or contingent liabilities are established under terms which are more favourable than the terms usually offered by the bank, or more favourable than the terms obtained in the financial markets for comparable operations, or if such terms are not in line with the principles of safe and sound banking practices
claims and contingent liabilities secured by other banks' shares which are not quoted on official stock exchanges	claims and contingent liabilities secured by other banks' shares which are not quoted on official stock exchanges

The following Surveys have been published since 2000:

No.	Date	Title	Author(s)
S–1	March 2000	Banking Sector Problems: Causes, Solutions and Consequences	Ljubinko Jankov
S–2	April 2000	Banking System in 1998	
S–3	December 2000	The Lending Policies of Croatian Banks: Results of the Second CNB Bank Interview Project	Evan Kraft with Hrvoje Dolenec, Mladen Duliba, Michael Faulend, Tomislav Galac, Vedran Šošić and Mladen Mirko Tepuš
S–4	December 2000	What Has Been the Impact of Foreign Banks in Croatia	Tomislav Galac and Evan Kraft
S–5	September 2001	Currency Crises: Theoretical and Empirical Overview of the 1990s	Ante Babić and Ante Žigman
S–6	April 2002	An Analysis of the Operation of Building Societies in the Republic of Croatia	Mladen Mirko Tepuš
S–7	April 2002	Ten Years of Transition Central Banking in the CEE and the Baltics	Warren Coats and Marko Škreb
S–8	May 2002	Fiscal Consolidation, External Competitiveness and Monetary Policy: A Reply to the WIIW	Evan Kraft Tihomir Stučka
S–9	November 2004	Survey and Analysis of Foreign Direct Investment in the Republic of Croatia	Alen Škudar
S-10	February 2005	Does Croatia Need Risk-Based Deposit Insurance Premia?	Tomislav Galac
S-11	February 2005	How Can Croatia's Deposit Insurance System Be Improved?	Michael Faulend and Evan Kraft
S-12	April 2005	An Analysis of Housing Finance Models in the Republic of Croatia	Mladen Mirko Tepuš
S-13	July 2005	EU Criteria with Special Emphasis on the Economic Convergence Criteria – Where is Croatia?	Michael Faulend, Davor Lončarek, Ivana Curavić and Ana Šabić
S-14	December 2005	Results of the Third CNB Bank Survey: Croatian Banking in the Consolidation and Market Positioning Stage, 2000 – 2002	Tomislav Galac
S-15	November 2008	Results of the Fifth CNB Bank Survey	Lana Ivičić, Mirna Dumičić, Ante Burić, Ivan Huljak

Guidelines to Authors

In its periodical publications *Working Papers, Surveys and Discussion Papers,* the Croatian National Bank publishes scientific and scholarly papers of the Bank's employees, visiting scholars, and other associate contributors.

After the submission, the manuscripts shall be subject to peer review and classification by the Manuscript Review and Classification Committee. The authors shall be informed of the acceptance or rejection of their manuscript for publication within two months following the manuscript submission.

Manuscripts are submitted and published in Croatian and/or English language.

Manuscripts submitted for publication should meet the following requirements:

Manuscripts should be submitted via e-mail, in magnetic or optical storage media, accompanied by one printed paper copy. The acceptable text format is Word.

The first page of the manuscript should contain the article title, first and last name of the author and his/her academic degree, name of the institution with which the author is associated, author's co-workers, and the complete mailing address of the corresponding author to whom a copy of the manuscript with requests for corrections shall be sent.

Additional information, such as acknowledgments, may be included in the first page. If this information is extensive, it is preferred to incorporate it within the text, whether at the end of the introductory section or in the special section preceding the list of references.

The second page should contain the abstract and the key words. The abstract is required to be explicit, descriptive, written in third person, consisting of not more than 250 words (maximum 1500 characters). The abstract should be followed by maximum 5 key words.

A single line spacing and A4 paper size should be used. The text must not be formatted, apart from applying bold and italic script to certain parts of the text. Titles must be numerated and separated from the text by a double line spacing, without formatting.

Tables, figures and charts that are a constituent part of the paper must be well laid out, containing: number, title, units of measurement, legend, data source, and footnotes. The footnotes referring to tables, figures and charts should be indicated by lower-case letters (a,b,c…) placed right below. When the tables, figures and charts are subsequently submitted, it is necessary to mark the places in the text where they should be inserted. They should be numbered in the same sequence as in the text and should be referred to in accordance with that numeration. If the tables and charts were previously inserted in the text from other programs (Excel…), these databases in the Excel format should also be submitted (charts must contain the corresponding data series).

The preferred formats for illustrations are EPS or TIFF with explanations in 8 point Helvetica (Ariel, Swiss). The scanned illustration must have 300 dpi resolution for gray scale and full color illustration, and 600 dpi for lineart (line drawings, diagrams, charts).

Formulae must be legible. Indices and superscript must be explicable. The symbols' meaning must be given following the equation where they are used for the first time. The equations in the text referred to by the author should be marked by a serial number in brackets closer to the right margin.

Notes at the foot of the page (footnotes) should by indicated by Arabic numerals in superscript. They should be brief and written in a smaller font than the rest of the text.

References cited in the text are listed at the last page of the manuscript in the alphabetical order, according to the authors' last names. References should also include data on the publisher, city and year of publishing.

Publishing Department maintains the right to send back for the author's revision the accepted manuscript and illustrations that do not meet the above stated requirements.

Printed paper copies and diskettes containing manuscript files shall not be returned.

All contributors who wish to publish their papers are welcomed to do so by addressing them to the Publishing Department, following the above stated guidelines.

The Croatian National Bank publications:

Croatian National Bank – *Annual Report*
Regular annual publication surveying annual monetary and general economic developments as well as statistical data.

Croatian National Bank – *Semi-annual Report*
Regular semi-annual publication surveying semi-annual monetary and general economic developments and statistical data.

Croatian National Bank – *Quarterly Report*
Regular quarterly publication surveying quarterly monetary and general economic developments.

Banks Bulletin
Publication providing survey of data on banks.

Croatian National Bank – *Bulletin*
Regular monthly publication surveying monthly monetary and general economic developments and monetary statistics.

Croatian National Bank – *Working Papers*
Occasional publication containing shorter scientific papers written by the CNB employees, visiting scholars and associate contributors.

Croatian National Bank – *Surveys*
Occasional publication containing papers of informative and surveying character written by the CNB employees, visiting scholars and associate contributors.

Croatian National Bank – *Discussion Papers*
Occasional publication containing discussion papers written by CNB employees, visiting scholars and associate contributors.

The Croatian National Bank also issues other publications such as, for example proceedings of conferences organized or co-organized by the CNB, books and papers or books and papers translations of special interest to the CNB as well as other similar publications.

ISSN 1332–2184