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CROATIAN NATIONAL BANK

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## Abstract

In April and May 2007, a research team of the Croatian National Bank conducted the fifth comprehensive survey of banks operating in the Republic of Croatia to gather the bankers' estimates and views of the current situation and trends in Croatian banking and its environment. In 2005 and 2006 banks were equally dedicated to household and corporate financing and, in a setting of ongoing strong market competition, limits on foreign borrowing and credit growth, made considerable efforts to maintain their profitability at high levels. The survey results suggest that a renewed focus on the household sector and a further expansion of chargeable products and services offered are to be expected in 2008 and 2009. The consolidation of the banking industry is also expected to continue, albeit at a somewhat slower pace than in the last few years.

**JEL:** D21, G21, G34, P34

**Keywords:** banks, Croatia, market competition, consolidation

# Contents

# 1 Introduction

In April and May 2007, a research team of the Croatian National Bank conducted the fifth comprehensive survey of banks operating in the Republic of Croatia to gather data and bankers' opinions, views and predictions that are not comprehended by their regular reporting to the central bank. The survey analysed banking sector trends in the period since the previous survey (conducted in 2004) to early 2007, and bankers' expectations for 2008 and 2009.

The preceding CNB survey (Galac and Dukić, 2004) reviewed the trends in the development stage of the banking sector in 2002-2004, which was marked by rapid credit growth and considerable net foreign borrowing of banks. Assuming a continued credit expansion of banks, the Croatian National Bank was concerned about its potential negative consequences and responded by introducing systemic measures to curb the credit and external debt growth of banks. Together with efforts to slow down external debt growth, monetary policy in 2005 and 2006 was marked by the introduction of new, more flexible instruments, the most important of which were reverse repo auctions of Ministry of Finance treasury bills, which strengthened banks' liquidity management capacity. In addition, several prudential regulations were amended in 2006 with a view to reducing risks in conditions of rapid credit growth. The major consequence of these amendments has been stronger bank recapitalisation. Despite these monetary policy measures, banks continued their strong lending activities in a stable monetary and macroeconomic environment, retaining high profit and considerably increasing their domestic funding sources.

Banks continued to compete strongly on the lending side and increasingly on the deposit side as well. Also, boosted by positive trends in the domestic capital market, non-banking financial intermediaries have emerged as major competitors to banks, particularly in raising household funds. As a result, the share of bank assets in total financial system assets fell below 80%, with the strongest increase being recorded by open-end investment funds and mandatory pension funds, whereas the shares of insurance companies, housing savings banks and closed-end investment funds held steady. Banks undertook a number of measures to maintain high profitability: they restructured their funding sources, actively encouraged domestic savings, and turned even more to non-interest income and nonprice competition.

In line with the described developments, the main topics of the fifth bank survey were: monetary policy and a continued credit expansion with strong foreign borrowing of banks, innovations in their business policies and practices, as well as services and products offered, the impact of changes in the institutional and market environment on bank operations, and risk management in the context of further preparations for the implementation of the revised Basel rules.

All the 33 banks in operation on 31 March 2007 voluntarily participated in the survey. 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 where they answered questions not given beforehand. The interviews were conducted with management board members and executive directors in charge of corporate and retail banking, risk management and treasury operations. In addition to answering the concrete questions in the second part of the survey, the bankers were encouraged to discuss other topics of importance for the Croatian banking sector with a view to improving communication between banks and the central bank.

The final results were obtained by combining the answers from the first and second parts of the survey. 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 appendix provides a tabular presentation of all answers to the questions in the first (quantitative) part of the survey.

## 2 Monetary Policy and Strategic Orientation of Banks

In the period since the last survey, the CNB continued with measures that were mainly designed to mitigate the negative impact of rising bank placements on additional external debt and BOP deficit growth, real estate price developments, and excessive domestic consumption directly linked to import growth. In this regard, the CNB mostly relied on measures to slow down banks' foreign borrowing and repeatedly raised the cost of borrowing by introducing new and amending existing monetary policy measures. In addition, the 2005 monetary policy was marked by the introduction of open market operations that provided banks with a regular means of ensuring the liquidity needed to meet their payment obligations on a weekly basis and enabled them more easily to fulfil the obligation to maintain the required reserves in their accounts with the CNB.

A measure limiting foreign borrowing by banks was introduced in 2004 in the form of a marginal reserve requirement on the increase in banks' foreign liabilities. In 2005, it was tightened on two occasions by an increase in the reserve rate: it was raised from 24% to 30% in March, and to 40% in June. Early in 2006, the rate was raised to 55% and the calculation base was broadened. In February 2006, the central bank introduced a special reserve requirement, which was set at 55% on banks' liabilities arising from issued securities. This was to eliminate the possibility that banks – by selling securities to foreign banks or clients that raised funds abroad for that purpose – might avoid the allocation of marginal reserve requirements. To ensure the funds needed for loan financing, banks restructured their liabilities by substituting a large portion of their foreign currency liabilities by kuna liabilities with a currency clause for which they were not required to maintain the minimum amount of foreign currency claims. Hence, in September 2006 the central bank amended the Decision on the minimum required amount of foreign currency claims to include kuna liabilities with a currency clause in total foreign currency liabilities. Notwithstanding the said measures, bank placement growth gained momentum in 2006, which prompted the central bank to introduce a measure requiring banks to purchase CNB bills for 50% of the amount for which their credit growth exceeded the 12% ceiling set for 2007. The 2006 adjustments in monetary policy instruments were accompanied by amendments to several prudential regulations. The Decision on the classification of placements and contingent liabilities of banks and the Decision on the capital adequacy of banks were thus amended in the second half of the year. The most important changes were the inclusion of currency-induced credit risk in credit risk and the introduction of risk weights on banks' foreign currency-denominated or indexed claims to borrowers with an unhedged currency position.

Central bank measures that strongly influenced bank operations in 2005-2007 were covered by many of the survey questions regarding bank strategies and business policies. To some extent, the differences between the answers of large and small banks, and foreign- or domestic-owned banks were expected. Despite being aware that the banking sector has been the main generator of external imbalances in recent years, small banks expressed dissatisfaction with non-discriminatory monetary and prudential measures stating that these measures mostly affect small banks that have not yet gone through the business expansion period.

Banks mostly understand the central bank's motives for adopting such measures and to a large extent agree that external debt and BOP indicators are a cause for concern. In contrast, the majority of banks, holding over 75% of banking sector assets, believe that the annual credit growth rate of over 20% does not threaten Croatian financial system stability, while their views on the increase in total debt of all sectors at rates exceeding 10% a year are different: 20 banks with 37% of banking sector assets believe such growth would be dangerous, whereas the remaining banks believe the opposite.

**Table 1** In your opinion, does the aggregate annual growth rate of bank credit of over 20% threaten Croatian financial system stability?

| | Number of answers | % of the number | % of assets |
|---|---|---|---|
| 1. Yes | 15 | 45 | 25 |
| 2. No | 17 | 52 | 75 |

Source: 2007 CNB Survey.

Large and small banks have rather disparate views on rapid credit growth in 2004-2006. Large banks believe that they are only intermediaries who, faced with large loan demand (particularly from the household sector), try to meet this demand by borrowing abroad. They consider that the measures would yield much better results if monetary and fiscal policies acted in concert and affected all sectors, and not the banking sector alone.

In the middle of the first half of 2007, almost half the banks, including all large and several medium-sized banks, assessed that the 12% annual credit growth rate is sufficient and that the measure on the compulsory purchase of CNB bills

**Table 2** In your opinion, does the annual growth rate of total external debt of all sectors of over 10% threaten Croatian financial system stability?

| | Number of answers | % of the number | % of assets |
|---|---|---|---|
| 1. Yes | 20 | 61 | 37 |
| 2. No | 12 | 36 | 62 |

Source: 2007 CNB Survey.

imposed on banks whose credit growth exceeds 12% in 2007 presents no actual restriction.

Banks' answers to the question on the impact of marginal reserve requirements (MRR) on their operations mostly depended on the structure of their funding sources. This measure above all affected bank profitability and its consequences were mostly felt by large banks, all of which are owned by foreign banks and largely rely on foreign funding sources. The measure also affected small banks taken over by foreign owners as they planned to finance aggressive growth by borrowing from parent banks under favourable terms. As the measure significantly raised the cost of foreign funding, banks turned to domestic sources, which slowed down their foreign borrowing. The 2006 increase in the MRR rate to 55% prompted the recapitalisation of some banks and a stronger orientation to more profitable activities such as household financing, whereas large banks encouraged their large corporate clients to borrow directly from their parent banks. In addition, several banks claimed that the price increase of funding sources caused by this measure is one of the reasons for the end of the several-year downward trend in lending rates. Only some small banks restricted their lending activities due to this measure. Despite all this, in the competition for larger market shares, banks continued to raise funds abroad in 2005 and 2006, notwithstanding the lower profitability of such financing.

Most banks were not particularly affected by special reserve requirements as they had no plans to issue securities. However, due to this measure, four large banks gave up planning or opportunity evaluation of issuing debt securities. The measure strongly hit only one bank, which had begun the bond issuance process prior to this measure's adoption. As the process could not be stopped, the bank incurred unexpected costs. Several banks expressed their concern that this measure would decelerate further Croatian capital market development. This is rather unlikely as the target buyers of such securities were to be mostly parent banks of Croatian banks, i.e. these securities were not primarily intended for trading in the domestic capital market. Still, some banks plan to raise funds by issuing debt securities in the period up to 2009: four banks (with 42% of banking sector assets) plan to issue kuna bonds and three banks (with 18% of banking sector assets) plan to issue euro bonds. In addition, several banks plan to raise short-term funds in the capital market: four banks (with 18% of total banking sector assets) plan to issue commercial bills in kuna and two banks (with 18% of the assets) plan to issue commercial bills in euro.

Almost all banks consider that the minimum foreign-currency liquid asset requirement (FX LAR) of 32% is too high, with several banks also holding that currency risk in Croatia is overestimated and presents no major threat to the banking sector. In this context, banks mostly rely on the CNB's policy of maintaining a stable exchange rate of the kuna against the euro and only some of them actively seek to protect themselves from direct or currency-induced credit risk (CICR).[1] However, bank operations were influenced not so much by the current FX LAR but more by the broadening of the FX LAR calculation base to include currency-indexed instruments. As this prompted banks to replace indexed deposits by pure kuna deposits, it mostly affected those banks that previously encouraged kuna savings indexed to foreign currencies and that had to change their business strategy in a relatively short time. Several banks stated that this measure decreased their lending activities as they had to allocate more funds to maintain the minimum required foreign currency liquidity ratio.

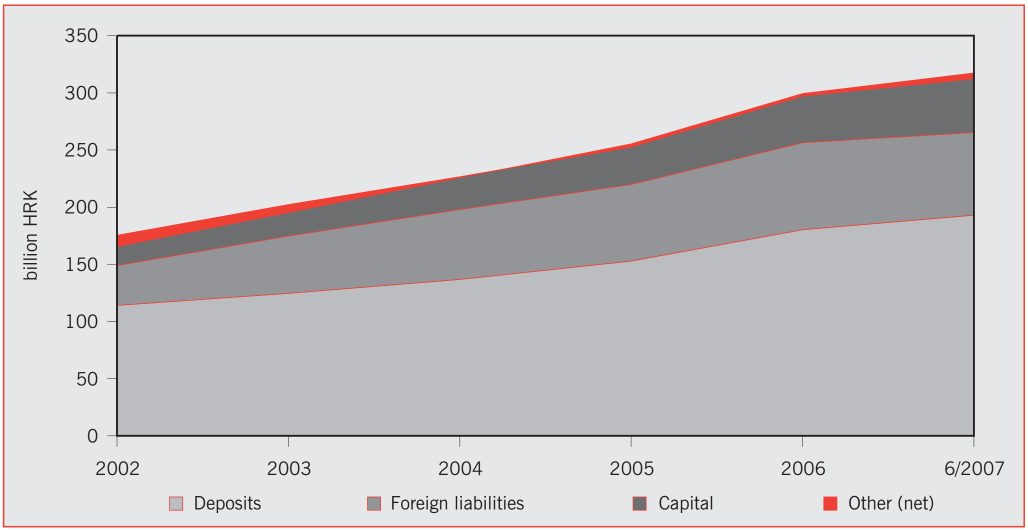
Most banks stated that their operations were not strongly affected by the amendments to the Decision on the classification of placements and contingent liabilities of banks and the Decision on the capital adequacy of banks. These amendments mostly led to a one-off decrease in the capital adequacy ratio (CAR) of banks, with the CAR of small and medium-sized banks being less affected as it was well above the legally prescribed minimum. Only one small bank experienced a considerable decline in the CAR, which resulted in its recapitalisation and final sale. Several large banks were recapitalised (although not primarily due to these amendments) and most banks increasingly turned to kuna operations.

The mentioned 2006 regulatory changes spurred a major wave of bank recapitalisation: balance-sheet capital in the sector was 33.8% larger at end-2006 than at end-2005, mostly on account of a 43.9% increase in share capital. Following 13 bank recapitalisations in 2006, survey results suggest that 17 banks expect to be recapitalised in 2007, 11 banks in 2008 and four in 2009, with several banks planning recapitalisation in a number of steps in several consecutive years. In addition to adjusting to central bank measures, the process of bank recapitalisation was strategically motivated as some banks increased their capital to be able to continue their credit expansion.

In the face of restrictive CNB measures and in efforts to additionally accelerate credit growth and thus maintain or increase their market shares, banks embarked on a number of activities to secure the funding needed for placements. In addition to foreign borrowing, the basis for bank lending activities consisted of additional capital injections and household and corporate deposits. In particular, together with higher interest rates in the eurozone in 2006, the central bank measures additionally raised the cost of foreign funding, which prompted commercial banks actively to encourage domestic sectors' savings.

1 This attitude of banks prompted the CNB to adjust prudential regulations as described in the following section.

**Figure 1** Structure of Bank Liabilities




Source: CNB.

Only 13 banks, holding 4% of total banking sector assets (i.e. small banks), stated that they do not use foreign funding sources. As in the previous survey, the remaining banks repeated the two most quoted reasons for foreign funding: inadequate maturity structure of domestic deposits – 15 banks (accounting for 94% of banking sector assets) gave this reason for their almost exclusive reliance on foreign sources for long-term placements, whereas 13 banks (accounting for 74% of total banking sector assets) stated that domestic deposit growth was not sufficiently rapid to meet their placement growth target. Some banks also said that external were more stable than domestic funding sources (8 banks with a 40% share in total assets) and that these sources had in the past been more favourable in terms of price (6 banks holding 6% of total assets).

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

| | Number of answers | % of the number | % of assets |
|---|---|---|---|
| Maturity structure of domestic deposits is inadequate | 15 | 45 | 94 |
| Domestic deposit growth is too slow | 13 | 39 | 73 |
| Foreign sources are more stable (less volatile) | 8 | 24 | 40 |
| Foreign sources are cheaper | 6 | 18 | 6 |
| We do not use foreign funding sources | 13 | 39 | 4 |
| Parent has surplus funds it wishes to invest at a profit | 1 | 3 | 0 |

Note: You may select more than one answer.
Source: 2007 CNB Survey.

New financing options for banks will be provided by the Securitisation Act, which is scheduled to enter the parliamentary procedure in 2008. Although opinions remain divided over the impact of securitisation on the dynamics and level of Croatia's external debt, it will undoubtedly boost further development of the Croatian capital market. As a rule, large banks are keenly interested in securitising their assets, primarily housing and mortgage loans, but will wait for the Act's adoption to make specific plans. Small banks and the majority of medium-sized banks have still not considered this option, as few of these banks have pools of long-term claims that would be suitable for securitisation.

## Banking Sector Development and Market Positioning of Banks

At the end of the fist half of 2007, there were six large banks, four medium-sized banks and 23 small banks operating in Croatia, and their shares in total banking sector assets were 79.8%, 12.4% and 7.8%, respectively. Seventeen banks were in domestic ownership and 16 were foreign-owned. The latter banks held as much as 90.8% of total bank assets at end-June 2007. To the question regarding the optimum banking sector structure, most of the survey participants (20 banks with 93% of total banking sector assets) responded that the current number of banks is still somewhat larger than the optimum. Hence, the prevalent opinion is that banking sector consolidation and a reduction in the number of banks will continue, which is in line with global and regional trends.

**Table 4** Banks' Ownership Structure and Their Share in Total Banking Sector Assets, end of period

| | 12/2003 | | 12/2004 | | 12/2005 | | 12/2006 | | 6/2007 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Number of banks | Share | Number of banks | Share | Number of banks | Share | Number of banks | Share | Number of banks | Share |
| Domestic ownership | 22 | 9.0 | 22 | 8.7 | 20 | 8.7 | 18 | 8.9 | 17 | 9.2 |
| Domestic private ownership | 20 | 5.6 | 20 | 5.6 | 18 | 5.3 | 16 | 4.9 | 15 | 4.7 |
| Domestic state ownership | 2 | 3.4 | 2 | 3.1 | 2 | 3.4 | 2 | 4.0 | 2 | 4.5 |
| Foreign ownership | 19 | 91.0 | 15 | 91.3 | 14 | 91.3 | 15 | 91.1 | 16 | 90.8 |
| Total | 41 | 100.0 | 37 | 100.0 | 34 | 100.0 | 33 | 100.0 | 33 | 100.0 |

Source: CNB.

Most banks assessed that they would manage to survive alone in the market up to the end of 2009. Large banks mostly believe in their independent survival, with only a minor possibility of a merger with or takeover by a foreign bank. In addition to independent survival, medium-sized banks mentioned the possibility of a merger with another domestic bank, while small banks stated that, in addition to independent survival, their takeover by a domestic or foreign bank was the most likely scenario. These answers suggest that the consolidation process in the Croatian banking market, albeit much slower, has not yet come to an end so that the number of banks in Croatia is expected to continue falling in 2008 and 2009.

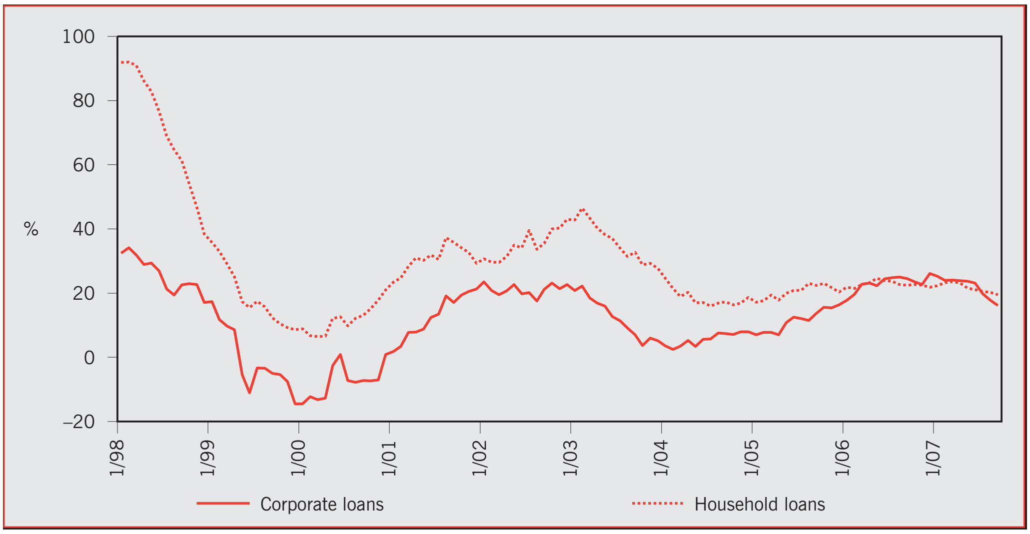
Some bankers believe that the Croatian banking sector will in future consist of about ten universal banks, closely linked to small banks specialising in particular types of activities. Some participants stressed the lack of specialised banks as a problem that needs solving in the medium run and see it as a good opportunity to strengthen the market role of some small banks. Regarding bank size, the general attitude is that there is sufficient room in the market for both large and small banks. Still, many medium-sized and small banks expressed their dissatisfaction and concern regarding, as they believe, an excessive share of foreign banks in the domestic market, which have had control of over 90% of assets of the Croatian banking sector for a number of years, and believe that the remaining domestic banks should stay in domestic ownership. Bankers who see no problem in the current ownership structure (mostly large banks) believe that foreign banks have strongly boosted the quality of Croatian banking and the development of the rest of the domestic financial industry, and that they should not be viewed as a threat to the domestic economy as long as they operate safely and soundly. This is supported by the fact that the banking sector is one of the most advanced sectors of the Croatian economy, which banks almost unanimously attributed to (along with bank rehabilitation) the ownership transformation, from state to private ownership, and even more from domestic to foreign ownership, resulting in a large amount of knowledge accumulation and improved governance. However, opinions are divided over the impact of this strong and developed banking sector on the development of the rest of the economy. Some banks, and large banks in particular, hold that the banking sector has strongly spurred the development of the rest of the economy since banks – as intermediaries between supply and demand – provided liquidity to the economy, introduced a range of new products and services into the market, contributed to the reduction of the grey economy, and directly or indirectly enabled new job creation. On the other hand, there is a question of whether banks could have done much more for domestic economic development as they mostly followed the interests of their owners and their overall priority was profitability, which led to consumption and imports being favoured over production. Hence, many survey participants reproach large foreign-owned banks for heavy consumption financing that spurred the development of the prevalent consumerist mentality of Croatian citizens.

Banks' strategic goals regarding the geographic diversification of activities show that most banks operating in Croatia have no plans to spread their operations across the border, with the exception of some large banks that, following their foreign owners, plan to transfer some operations into neighbouring countries. This restriction of banking activities to the domestic market is understandable since all large and some medium-sized banks are members of European banking groups that already operate in neighbouring countries' markets. Almost all small banks, which have heretofore operated in one or two regions, stated that they intend to keep the same coverage mostly on account of their size. Still, several small banks have medium-term plans to spread their activities to the city of Zagreb and its surroundings, which have the highest economic potential and purchasing power, as well as to some larger coastal towns.

## 3 Banks' Business Policies and Practices

Responses given in the last CNB survey in 2004 suggested a shift in banks' strategic orientation to the corporate sector, although this was not supported by statistical data on amounts and growth rates of household and corporate placements. However, corporate placements indeed picked up considerably in mid-2005 and their annual growth rate had already equalled that of household placements by early 2006 and even exceeded it in the second half of the year. The most recent survey shows that most large and medium-sized banks are still equally oriented to households and corporates, whereas small banks chose various strategies regarding this issue – from those completely dedicated to households (particularly banks that previously operated as savings banks) to those predominantly dealing with companies (mostly banks that have positioned themselves as so-called second banks to small and medium-sized companies in their region).

**Figure 2** Annual Growth Rates of Bank Loans to Households and Corporates




Source: CNB.

Bankers interviewed expect that the 2008 increase in the banking services market will be based equally on the household and corporate sectors. More specifically, 14 banks holding 87% of banking sector assets expect that household loan demand will level off, whereas some small banks (15 banks holding 12% of banking sector assets) project demand growth. Expectations regarding corporate loan demand are somewhat different: 21 banks holding 64% of banking sector assets expect corporate demand to grow, while 11 banks with 36% of banking sector assets expect that it will mostly hold steady. Such answers suggest that bankers expect that loan market growth will continue at almost the same rates as before.

**Table 5** How much corporate and household demand for bank loans do you expect in 2008-2009?

| | Corporates | | | Households | | |
|---|---|---|---|---|---|---|
| | Number of answers | % of the number | % of assets | Number of answers | % of the number | % of assets |
| 1. Much more | 2 | 6 | 1 | 2 | 6 | 1 |
| 2. Somewhat more | 19 | 58 | 63 | 15 | 45 | 12 |
| 3. About the same | 11 | 33 | 36 | 14 | 42 | 87 |
| 4. Somewhat less | 0 | 0 | 0 | 1 | 3 | 0 |
| 5. Much less | 0 | 0 | 0 | 0 | 0 | 0 |

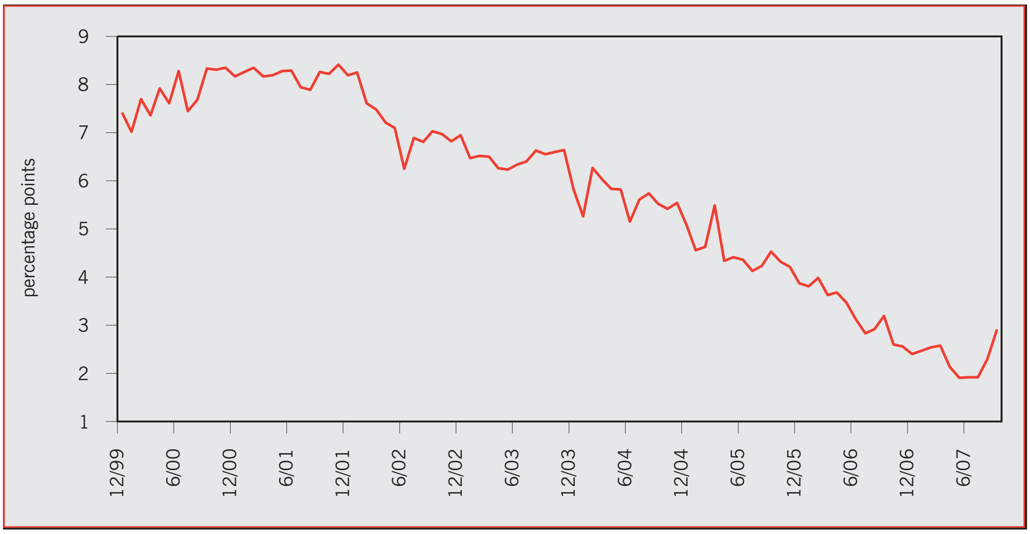
Source: 2007 CNB Survey.

However, central bank measures adopted at end-2006, aimed at curbing excessive credit growth and containing the related external imbalances, could affect the sectoral distribution of loans; banks predict that the share of household loans will increase in the period up to 2009, whereas the share of corporate loans will slightly diminish, particularly in the segment of financing large corporations (which have more alternative funding sources available), with the share of loans to small and medium-sized companies even expected to increase slightly. This strategy is in line with expectations since household placements present a highly profitable and safe source of bank income. However, the currently high ratio of household debt to disposable income and the start of the functioning of the Croatian Registry of Credit Obligations (HROK) present certain limitations to continued rapid growth in loans to this sector.

Banks will try to earn most of their income by income from fees. Specifically, in view of the reduction in interest income caused by the interest spread narrowing in recent years, banks have for some time focused on developing for-fee products and services. In 2005 and 2006, in addition to large banks, small and medium-sized banks began to develop internet banking, payment operations and card operations, which they see as the major sources of their non-interest income. Also, the responses given suggest that many banks that did not do so in the past now plan to start selling insurance policies as well as providing investment banking, brokerage, custody and private banking services in an effort to expand the range of products and services as much as possible.

Credit and deposit activities with private non-financial sectors will stay the most important business line for most banks in the period up to 2009. All banks regardless of their size attributed equal importance to payment operations services within the country and abroad. In 2008, large banks and several medium-sized banks will increasingly focus on activities related to the capital market (trading for clients, investment portfolio management and advice), whereas most small banks find such activities less attractive. The rising importance of investment banking and capital market participation is an understandable strategic decision of large banks. This decision is based, among other factors, on the usually above-average success of products and services in this business segment, with the greatest market success, according to bank estimates, being recorded by investment and pension fund management and underwriting government and corporate securities.

**Figure 3** Spread between Interest Rates on Long-Term Household Loans and Foreign Currency Deposits

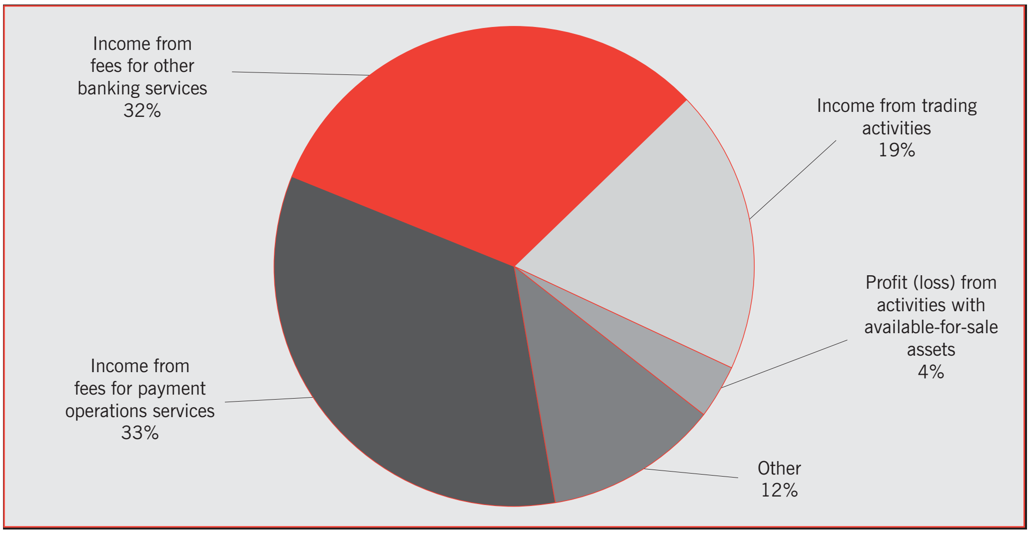



Source: CNB.

Personal and private banking, structured products for retail clients, product packages for retail and corporate clients, brokerage services, securities custody services and life insurance sales have achieved the expected market success. Hence, it is not surprising that the number of banks offering such services considerably increased in the period from 2004 to early 2007. In contrast with foreign exchange swaps and forward agreements, which are offered by 12 and 15 banks respectively (accounting for 81% and 91% respectively of total banking sector assets), whose success was also estimated to be in line with expectations, other financial derivatives are still not sufficiently interesting to bank clients. The ten banks (holding some 60% of total banking sector assets) that offered such products assessed that their market success was below expectations. As in the preceding survey, banks attribute persistently weak demand for currency risk hedging instruments to the lack of information and conservatism of most Croatian economic entities as well as to several-year stability of the kuna/euro exchange rate. Almost all banks offering interest rate risk hedges to clients agree that the interest for such products is weak, probably also due to the fact that banks' lending rates have not grown in recent years. 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 providing them to their clients.

In addition, below-average success has been achieved by structured products for corporate clients, investment advice services, analyses and forecasts, and revolving credit cards. Finally, the range of products and services offered by banks, as well as the number of banks offering certain products and services increased considerably in the period between 2004 and 2007.

**Figure 4** Structure of Banks' Non-Interest Income in 2006

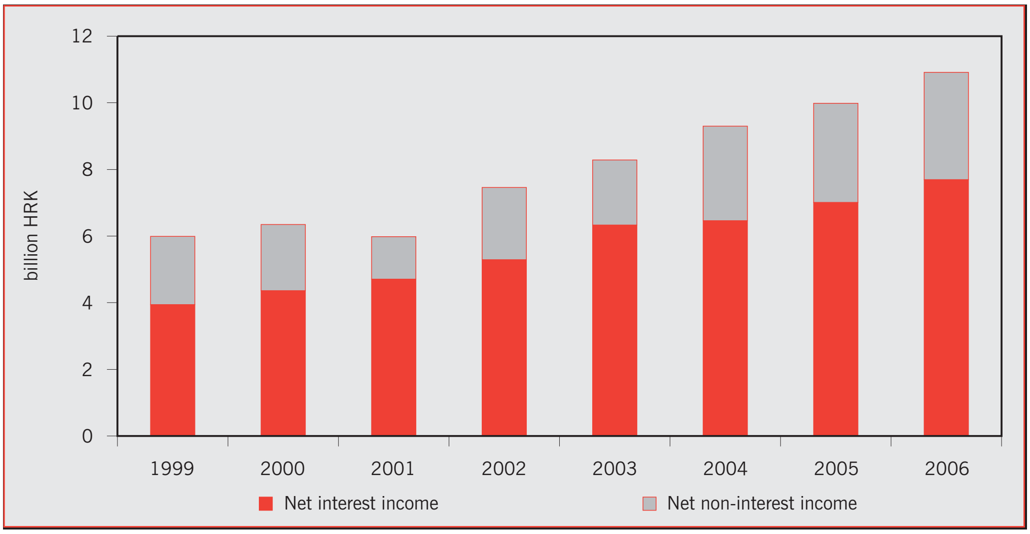



Source: CNB.

Banks' plans for the period up to 2009 include a further expansion of the product and service range (particularly of for-fee services and products), larger investments in IT systems, a broadening of the business network, and an increase in the number of employees and advertising costs. All this underlies the expectations of most banks that the number of their clients will grow, particularly of those using electronic and telephone banking as well as mobile phone banking services.

About half of the banks plan to increase fees and commissions, while lending and deposit rates, according to their answers, should stay approximately the same as in 2007. The exception is a group of medium-sized banks that foresee an increase in deposit rates in 2008.

**Figure 5** Banks' Net Interest and Non-Interest Income




Source: CNB.

With regard to their credit policy, the lending terms of almost all banks have somewhat eased compared with the previous survey, particularly for the household sector. This may be explained in two ways. First, market competition among banks in the period between the two surveys was mostly directed toward this sector and the relaxation of credit policy was only one of the methods banks used to attract new clients. Second, banks developed credit controls and procedures for corporate clients much earlier, as their creditworthiness is much more easily assessed, which means that there was more room to improve the policies applied to the household sector. In the period since 2004, most banks have reduced collateral-to-loan ratios for housing and mortgage loans, the number of guarantors required for larger amounts of loans and the minimum guarantor income-to-loan-payment ratio, with medium-sized banks also reducing the minimum borrower income-to-loan-payment ratio. With regard to the corporate sector, credit policies have been relaxed only in medium-sized banks: the duration of a typical loan approval process has been reduced; availability of corporate loans without tangible or financial collateral has increased, whereas the ratio of collateralised tangible assets to loan amount has been reduced. Such a relaxation of requirements to qualify for a loan at the level of the entire banking sector could lead to increased credit risk.

Fierce competition among banks has led to new products and an expansion of banking business that made products and services available to most client categories. Nevertheless, bankers believe that there is still room for improvement in certain business segments. This primarily refers to personal and internet banking, and simplification and shortening of loan approval procedures since many clients still voice red-tape complaints. As an example of a client group in the household sector still lacking adequate access to banking products and services, banks mentioned individuals who fail to meet formal requirements such as permanent employment status. In the corporate sector, banks most often mentioned start-up projects. Such projects mostly involve innovators lacking capital who present a considerable risk for banks as they usually have no adequate collateral. As the labour market is becoming increasingly flexible, many banks expect that temporarily employed individuals will in future be treated almost equally to those in permanent employment. In the corporate segment, some banks, particularly the medium-sized ones, see ample room for expansion in the area of lending to trades and small entrepreneurs, agriculture and tourism.

The answers of most bankers suggest that their strongest competitors are still other banks and that they expect this competition to intensify. This could be explained by the desire to attain the best possible market position prior to Croatia's entry into the EU. Most banks (26 banks accounting for some 90% of banking sector assets) believe that competition will be somewhat or much stronger in 2008-2009.

**Table 6** Competition among banks in the Croatian market in 2008 and 2009 will be:

| | Number of answers | % of the number | % of assets |
|---|---|---|---|
| 1. Much stronger | 12 | 36 | 31 |
| 2. Somewhat stronger | 14 | 42 | 59 |
| 3. About the same | 5 | 15 | 9 |
| 4. Somewhat weaker | 1 | 3 | 0 |
| 5. Much weaker | 0 | 0 | 0 |

Source: 2007 CNB Survey.

The readiness of banks to continue competing strongly is confirmed by the expectations of most banks interviewed (22 banks holding together 76% of banking sector assets) that their market share will grow in 2008, whereas slightly less than a third of banks (9 banks accounting together for 23% of banking sector assets) believe their market share will remain about the same as at end-2006. Only one small bank expects that its market share will slightly decrease.

**Table 7** What share do you expect your bank to hold in the banking market up to 2009 compared with the current situation?

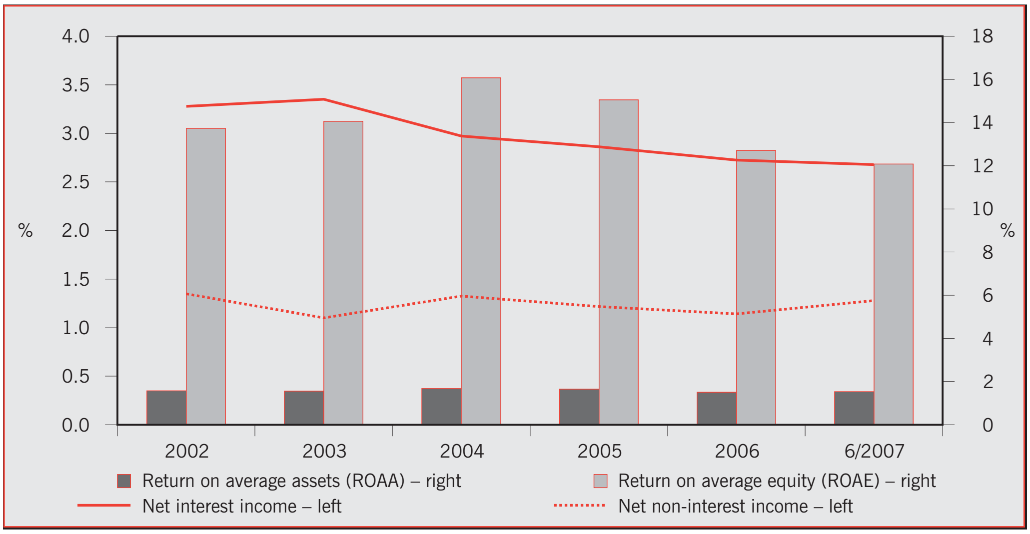
| | Number of answers | % of the number | % of assets |
|---|---|---|---|
| 1. Much higher | 3 | 9 | 1 |
| 2. Somewhat higher | 19 | 58 | 75 |
| 3. About the same | 9 | 27 | 23 |
| 4. Somewhat lower | 1 | 3 | 0 |
| 5. Much lower | 0 | 0 | 0 |

Source: 2007 CNB Survey.

Banking sector competition has strongly influenced bank operations in recent years. Banks mentioned as the most direct consequence of this the lower interest margins and profitability since, in conditions of growing competition for market shares, they have reduced lending rates, whereas deposit rates, which were stagnant for quite some time, have even started to grow since early 2006. Market competition has led to stronger marketing of banking products and services, the introduction of many new products and improved quality of existing products and services. Other consequences of competition that banks mentioned were: a more active capital market, reduction in fees and commissions, increased efficiency and improved risk management of banks.

However, in contrast with the surveys of 2002 and 2004 when banks saw other banks as almost the only competitors, nearly all banks in the present survey confirmed that non-banking financial institutions have become important competitors. Although the Croatian financial system remains dominated by banks, their share in total financial system assets has been steadily falling in recent years. Banks face the strongest competition from other financial intermediaries on the deposit side, i.e. in raising funds, as investment funds “snatched away” from banks a part of their deposit base in 2005 and 2006. This reallocation of savings has been understandable and expected, underpinned by the country's political and economic stability and a several-year trend of rising capital market returns. As a result, the net assets of investment funds, which have become increasingly attractive for household and corporate investment, increased by 254% between end-2004 and end-2006 and by another 68% in the first half of 2007. Banks consider leasing and factoring companies as their most important competitors on the lending side. Bearing in mind ownership linkages between banks and rapidly growing non-banking financial intermediaries, banks were asked to assess competition from non-banking financial institutions that are not owned by the banks themselves. This was necessary to distinguish between real competition from other financial intermediaries and apparent competition from companies linked with banks in terms of ownership. In particular, an increase in assets of another financial intermediary does not necessarily imply a reduction in a bank's market share if the two belong to the same financial group. A total of 20 banks, controlling 81% of banking sector assets, assessed their competition with those intermediaries as moderate; six banks, holding 17% of assets, find this competition negligible, and six banks with only 1% of banking sector assets consider it important. Still, the majority of banks, holding 78% of banking sector assets, expect competition from these intermediaries to increase by 2009.

**Figure 6** Interest Margin, ROAA and ROAE




Sources: CNB and authors' calculations.

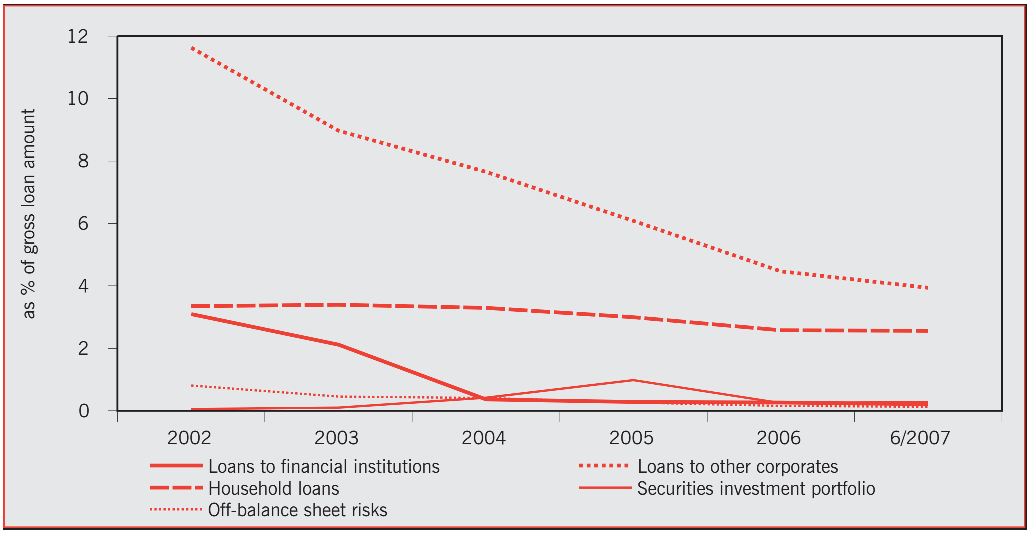
## 4 Risk Management

In the previous survey bankers concluded that their major task regarding risk management will be to adjust their operations to the new Basel Capital Accord (Basel II), with most of them showing a relatively low level of knowledge on the issue. The present survey shows considerable improvements in this area, but differences may still be observed regarding actual steps taken, as foreign-owned banks have made more significant progress than domestic banks, which are still mostly in the stage of preparation and approach selection. The same division is obvious in the risk management process itself as most small banks rely heavily on CNB methodologies, whereas foreign-owned banks have also developed their own risk assessment methods.

### Credit Risk

Although banks' reports have for quite some time shown an upward trend in the quality of placements, credit risk is a major risk for banks, both generally speaking and in the Croatian banking sector. For example, the ratio of value adjustments and provisions for identified losses to total placements and contingent liabilities went down from 2.3% at end-2005 to 1.7% at end-June 2007, mostly on account of improvements in the assessed quality of bank loans to other corporates and non-residents. However, one should take into account that these indicators witness the quality of older loans, whereas the quality of placements made in 2006 and 2007 will become evident only in the future.

**Figure 7** Value Adjustments on Loans, end of period




Source: CNB.

Changes in banks' credit risk management in the period between the last two surveys mostly relate to the preparations for Basel II implementation. Accordingly, large banks have developed ex-ante risk management models and improved client evaluation models. Medium-sized banks are in various stages of implementing the Basel II standards, with most advanced of them introducing direct credit monitoring and applications for calculating creditworthiness. Progress has also been made by most small banks, which improved their credit portfolio analyses.

To assess their readiness for advanced credit risk measurement techniques, banks were asked about their databases on credit risk loss experience. In this context, as in the previous survey, banks could be divided into those that keep electronic databases (though there are large differences in the length of the period for which data are collected) and those that maintain technically simpler databases, i.e. manually kept records. All banks that did not have an organised database on credit risk losses at the time of the survey intend to develop such a base in the future. The survey results indicated an increase in the number of banks calculating basic indicators in the field of credit risk measurement, such as the probability of default (PD), recovery rate (R) and loss-given-default (LGD). Some banks even stated the average historical value of these indicators for various types of household and corporate loans. With regard to the household sector, the probability of default is the lowest for housing loans, the recovery rate is the lowest for personal overdrafts and highest for housing loans, while the loss-given-default rate is the lowest for housing loans and highest for overdraft facilities. Regarding corporate clients, these indicators are almost the same for short- and long-term loans.

Compared with the previous survey, banks' organisational structure has improved noticeably – formerly there were no managers responsible exclusively for credit risk management. This survey showed that many banks have established a separate credit risk management unit, the staffing of which depends on the bank size and management's perception of the importance of this risk.

Banks were also asked about credit risk management methods in relation to its transfer by means of sale, product or service packages, insurance, swaps, etc. The answers suggest that banks have a fair amount of experience with credit insurance, although it may be generally said that they rarely use such instruments. Large banks also use, albeit rarely, other credit risk-transfer methods such as participation in a group, derivatives on a consolidated level, etc.

Compared with the former surveys, there are many innovations in the institutional framework today that encourage banks to improve their risk management. In May 2007, almost all banks that founded the Croatian Registry of Credit Obligations (HROK) began using the reports on their clients' credit obligations. When asked about the correlation between the early functioning of the HROK and credit risk, all banks responded that the availability of these data would probably decrease the percentage of non-performing loans in total loans. They also expect that the HROK will positively affect loan approval and client monitoring processes and improve client discipline, with differentiation of loan prices depending on client quality recognised as a potential long-term consequence. Some banks believe that the very availability of HROK data could slow down the rise in bank placements to households.

## Operational Risk

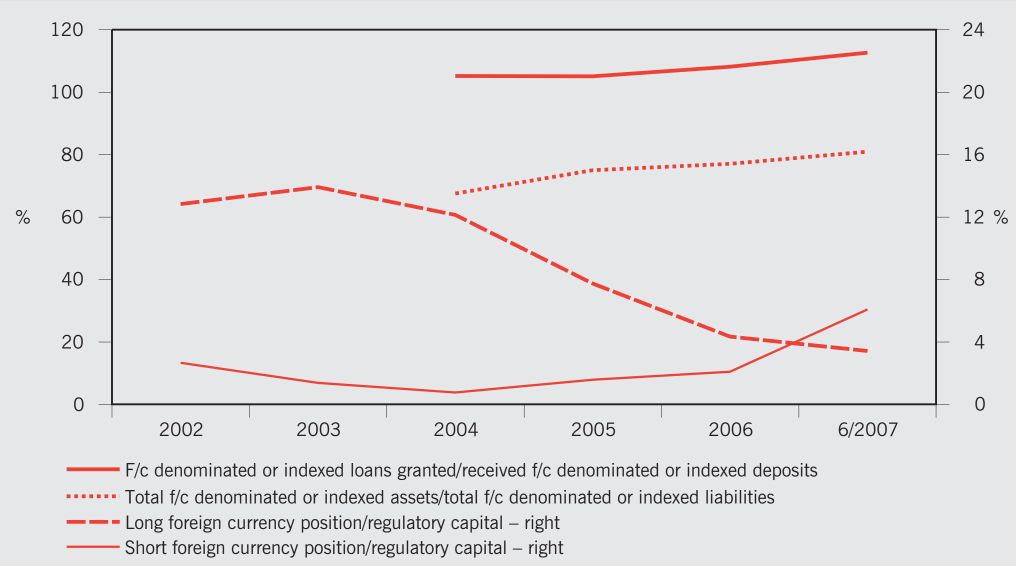
Looking at the answers in the most recent survey, one gets a general impression that Croatian banks have made no significant progress in applying the Basel II standards for operational risk management, implying that banks should have in place and ensure the proper functioning of processes to identify and assess, control and mitigate operational risk to the extent possible. What and how much has been done depends above all on a bank's size and ownership. Many banks, including one large and one medium-sized bank, have not yet begun to identify and asses this risk. The main source of operational risk data are employee and internal loss data, and the methods most often used for operational risk identification and assessment are self-assessment and mapping. About a third of banks began maintaining a database on operational risk losses (system and process deficiencies, inadequate procedures, and so on), for which only two large banks have orderly databases for the period since 2001 and 2002 respectively. As these data are still incomplete it is impossible to draw conclusions on the total loss amount and number of loss events, though some general relations and trends may be perceived. It should be said that these data show that operational losses have been grouped into several business lines and activities, e.g. retail banking. As major problems in operational risk identification and assessment, banks mentioned insufficient staff expertise, difficulties in operational risk identification and the lack of documentation on business processes. Most of the banks that have, at least to some extent, systematically managed operational risk are currently focused on this risk's initial identification and assessment and still have to embark on the stage of its continued monitoring and the upgrading of advanced techniques suitable for managing various risk profiles.

Only a few banks stated in the survey that they have a separate department or office for operational risk management. In most cases the main organisational unit in charge of this kind of risk management is an integral part of the internal control unit. In addition, banks have outsourced certain tasks related to the management of some types of this risk, such as the protection of IT systems and telecommunications. Hence, one may conclude that banks have made much more progress in credit risk measurement and assessment than in the implementation of advanced operational risk management methods, as well as that managers in charge of credit risk management in most banks hold higher positions than those in charge of operational risk management. This may be partly attributed to the prevalent opinion of most bankers that operational risk monitoring relies more on procedures and technology whereas credit risk monitoring relies more on human resources.

## Other Risks

In addition to credit and operational risk, banks are subject to other risks. In a highly euroised economy such as that of Croatia, banks are under the systemic and constant impact of direct and indirect currency risk. Also, due to a significant maturity transformation of funding sources, liquidity risk is also present, although it is currently hidden due to structural liquidity surplus of the entire banking system.

**Figure 8** Main Indicators of Banking Sector Currency Exposure, end of period




Source: CNB.

The frequent emergence of certain market risks, such as those related to trading in advanced financial instruments in international money and capital markets, and of certain types of interest rate and credit risks, is related to the globalisation of the financial system and financial innovations, which increase banks' exposure to these risks. 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 variable interest rates.

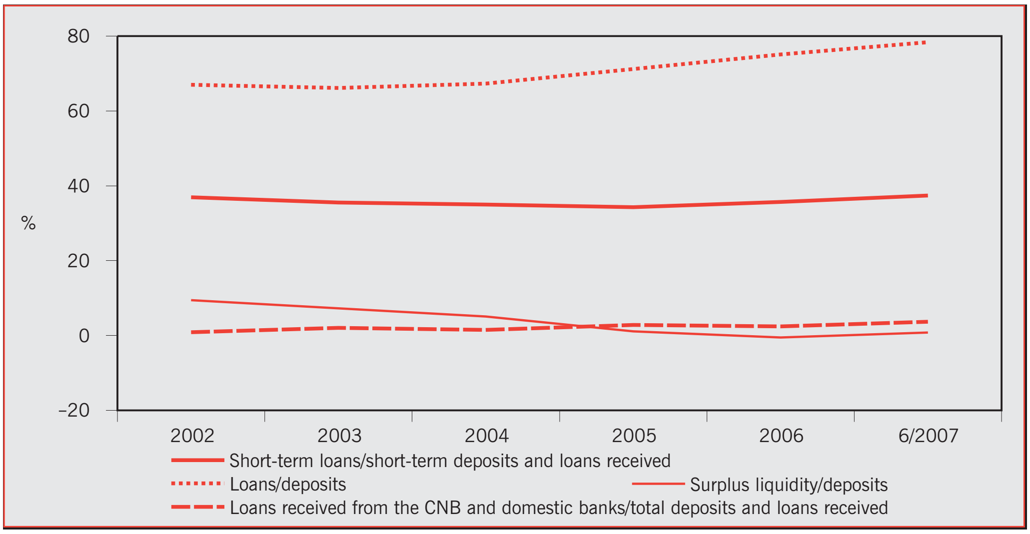
**Table 8** Maturity Breakdown of Bank Loans, gross amount, as % of total loans

| | Up to 1 month | 1 to 3 months | 3 to 12 months | 1 to 3 years | Over 3 years |
|---|---|---|---|---|---|
| By remaining maturity | 12.5 | 5.9 | 18.2 | 22.1 | 41.2 |
| By interest rate variability | 73.4 | 4.8 | 16.7 | 2.1 | 3.0 |

Sources: CNB and authors' calculations.

When asked about the impact of gradually rising interest rates in the eurozone on their business policies, large and medium-sized banks said that this impact is above all evident in the increased price of foreign funding, which is partly reflected in the price increase of EURIBOR-linked loans. More specifically, due to competition pressures, banks themselves assumed a portion of the interest rate increase in 2005 and 2006. Small banks have not been directly influenced by rising interest rates in the eurozone.

**Figure 9** Main Liquidity Indicators of the Banking Sector




Source: CNB.

In accordance with the former practice in this and similar surveys, precise answers to the questions on market risks were mainly provided by large banks. Most of them calculate VaR indicators (usually for currency risk), which is understandable bearing in mind this risk's importance for domestic banking. The results obtained are most often used for internal analyses, while some banks also use them to set limits on trading in financial markets. The situation is very good in medium-sized banks as well – all banks within the group calculate this indicator, except one bank that intends to do so in the future, whereas most small banks do not calculate VaR indicators.

# 5 International, Financial and Institutional Environment

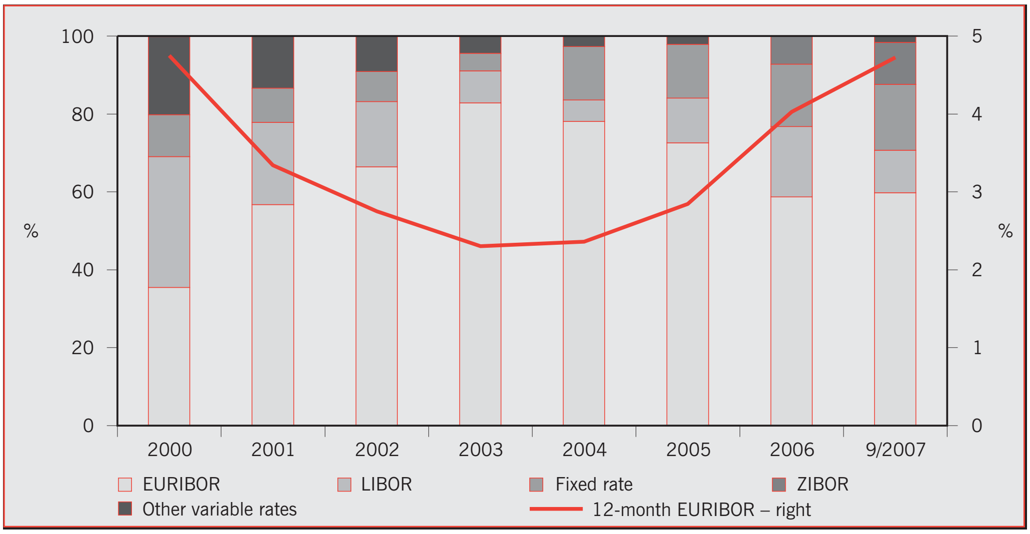
## EU Accession Process

In 2008 and 2009, banking operations in Croatia will be also greatly affected by the Croatian EU accession process, which necessitates many changes in the institutional environment and strictly market conditions of operation. Bankers expect mostly positive changes during this process, particularly mentioning enhanced transparency and harmonisation with the European market. They also consider that EU accession will add to the knowledge base of both bankers and regulators. On the other hand, banks are aware of high and unavoidable adjustment costs, with large banks stressing the issue of double reporting and an excessive regulatory burden in general. The reserved attitude of small banks to the continued accession process should be linked with a substantial share of administrative costs in total expenses as any adjustment to regulatory changes leads to relatively high costs, whereas they expect most problems in business computerisation.

Some small and medium-sized banks predict that after EU accession domestic banks in foreign ownership will sooner or later become branches of foreign parent banks in order to avoid CNB regulations and operating costs. This would lead to a situation in which more than 90% of banking sector assets would be controlled by foreign bank branches. In such circumstances, the domestic regulator would either become superfluous or its scope of operations would be significantly reduced. On the other hand, almost all large banks agree that this is a rather unlikely scenario despite the tightening of CNB measures. Specifically, there are a number of reasons why parent banks would not profit from the conversion of subsidiary banks into branches: they would be subject to the same rules on the minimum capital adequacy ratio and there are also issues relating to taxes and deposit insurance. This is supported by the fact that none of the banks from new EU Member States where the banking sector's ownership structure is similar to that in Croatia has been converted into a branch. This is also the conclusion of the World Bank research paper on the chosen type of foreign banks' organisational form when operating in Latin America and Central Europe. Subsidiaries are the preferred organisational form in countries that have lower corporate taxes and relatively higher economic risks compared with the parent bank's home country. This is also the case in Croatia as compared with Austria, Italy and France – the home countries of parent banks of the largest Croatian banks. In addition, the size and retail business orientation are also positively correlated with a preference for subsidiaries over branches.

Interest rate developments in the eurozone strongly affected Croatian banks' operations in 2005 and 2006 owing to the ownership structure of the Croatian banking system and substantial foreign financing. As foreign-owned banks often obtain funds from their parent banks or members of the same banking group, their funding costs often depend on the level of the benchmark interest rate of corresponding maturity, most often EURIBOR. Banks that have not borrowed abroad are not directly affected by this increase. However, they have to keep up with the competition with regard to deposit rate developments.

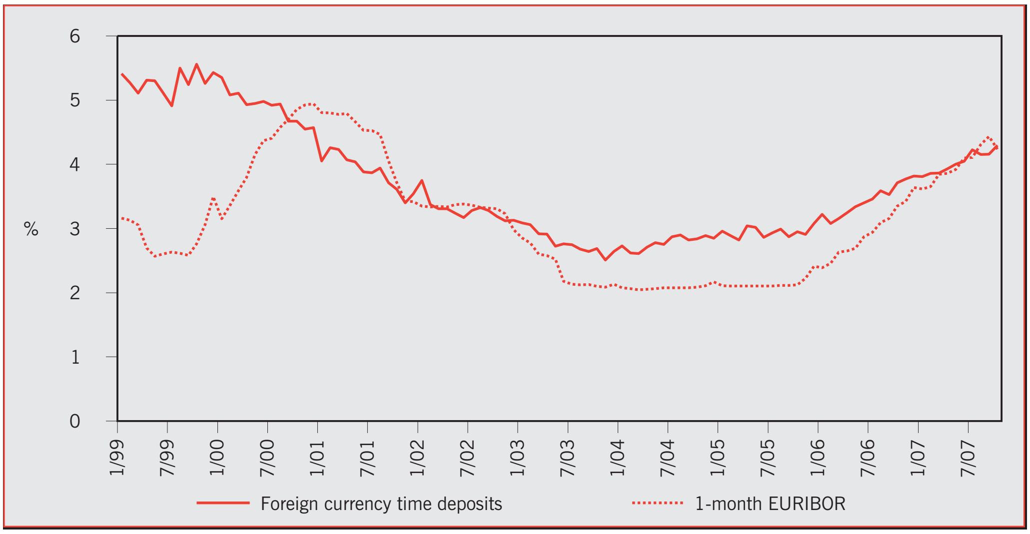
**Figure 10** Benchmark Rates on Banks' Foreign Borrowing and Changes in EURIBOR – Key Benchmark Rate




Sources: CNB Foreign Credit Relations Statistics and www.euribor.org.

Although interest rates on household deposits in Croatia are not directly linked to EURIBOR, interest rates on foreign currency household deposits followed its movements to some extent in 2004-2007. It is interesting to note that one large bank announced the introduction of household deposits with interest rates formally linked to EURIBOR, which would be an unprecedented practice in Croatia.

**Figure 11** Weighted Interest Rate on Foreign Currency Time Deposits Received and EURIBOR




Sources: CNB and Bloomberg.

## Development of Other Financial Intermediaries in the Croatian Market

Although total bank assets have steadily grown, the period between 2004 and mid-2007 was marked by a fall in the share of bank assets in total financial system assets, from 81.4% to 73.8%, which was due to the strong development of non-banking financial intermediaries, in particularly investment and pension funds, and leasing companies. The survey participants expect this trend to continue as the financial markets mature, but point out that banks will nonetheless stay the most important intermediaries, as in most European countries.

All bankers agreed that it is necessary to adopt appropriate regulations for other financial intermediaries that, due to the lack of adequate regulations, are often unfair competitors to banks, particularly leasing and factoring companies. This is primarily the result of the institutional framework – while banks operate under rather strict limitations, their competitors (particularly factoring companies) are only loosely regulated. For example, a factoring company is allowed to raise unlimited funds from its foreign owner and offer the same products as banks, whereas such bank behaviour is heavily punished by central bank measures. Banks complained in the survey that they cannot compete with such products, as the prices of their funding sources are much higher.

Regarding the future of savings banks, almost all bankers agreed that their outlook for the future is not optimistic in view of the high requirements that existing savings and loan associations have to meet (share capital of HRK 8m and a more

**Table 9** Asset Structure of Financial Intermediaries in Croatia, end of period

| | 12/2004 | | | 12/2005 | | | 12/2006 | | | 6/2007 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Amount | % | Number | Amount | % | Number | Amount | % | Number | Amount | % | Number |
| 1. Banks | 225,546.17 | 81.4 | 45 | 255,319.78 | 78.6 | 39 | 299,258.14 | 76.3 | 38 | 317,235.89 | 73.8 | 33 |
| 2. Open-end investment funds (net assets) | 4,867.83 | 1.8 | 37 | 9,196.01 | 2.8 | 49 | 16,474.31 | 4.2 | 59 | 26,932.12 | 6.3 | 84 |
| 3. Closed-end investment funds[a] | 1,194.01 | 0.4 | 4 | 3,816.62 | 1.2 | 5 | 5,504.20 | 1.4 | 8 | 7,134.20 | 1.7 | 9 |
| 4. Insurance companies[b] | 14,406.54 | 5.2 | 26 | 16,563.15 | 5.1 | 25 | 19,378.88 | 4.9 | 24 | 21,120.36 | 4.9 | 22 |
| 5. Housing savings banks | 4,976.56 | 1.8 | 4 | 5,844.23 | 1.8 | 4 | 6,152.26 | 1.6 | 5 | 5,912.22 | 1.4 | 5 |
| 6. Mandatory pension funds (net assets) | 7,913.24 | 2.9 | 4 | 11,714.26 | 3.6 | 4 | 15,919.42 | 4.1 | 4 | 18,713.67 | 4.4 | 4 |
| 7. Voluntary pension funds (net assets) | 96.92 | 0.0 | 8 | 227.78 | 0.1 | 13 | 457.64 | 0.1 | 16 | 602.80 | 0.1 | 16 |
| 8. Leasing companies | 16,492.72 | 6.0 | 37 | 20,403.79 | 6.3 | 36 | 27,074.54 | 6.9 | 37 | 30,217.39 | 7.0 | 54 |
| 9. Savings and loan associations[b] | 1,502.89 | 0.5 | 111 | 1,652.89 | 0.5 | 116 | 1,997.30 | 0.5 | 109 | 2,065.33 | 0.5 | 104 |
| Total | 276,997 | 100.0 | | 324,739 | 100.0 | | 392,217 | 100.0 | | 429,934 | 100.0 | |
| Note: | | | | | | | | | | | | |
| [a] o/w: War Veterans' Fund | | | | 2,100 | 0.6 | 1 | 2,988 | 0.9 | 1 | 3,445 | 0.8 | 1 |
| [b] CNB estimate | | | | | | | | | | | | |

Sources: CNB, HANFA and MoF.

complex infrastructure). Therefore, bankers do not view the beginning of savings banks' operations as a threat to their own market positions. In addition, the costs of managing a financial institution (and banking institution in particular) have a large fixed component, which will play a relatively larger role in small intermediaries. Hence, it is unrealistic to suppose that these intermediaries will be more favourable for clients than banks. Banks also expect that, thanks to the key role of tradition in banking, savings banks will hardly manage to take over long-term bank clients and mostly agree that these intermediaries could become an expensive alternative to less creditworthy clients. However, some banks mentioned that newly-created savings banks will facilitate the entry of new foreign banks in the domestic market. In that case, they could be transformed into real banks with a certain amount of foreign owner investment.

According to banks, housing savings banks also face a bleak future, particularly since the government incentive has been cut from 25% to 15% of the deposited funds. They also believe that housing savings have become less attractive to individuals due to their increased interest in investment funds.

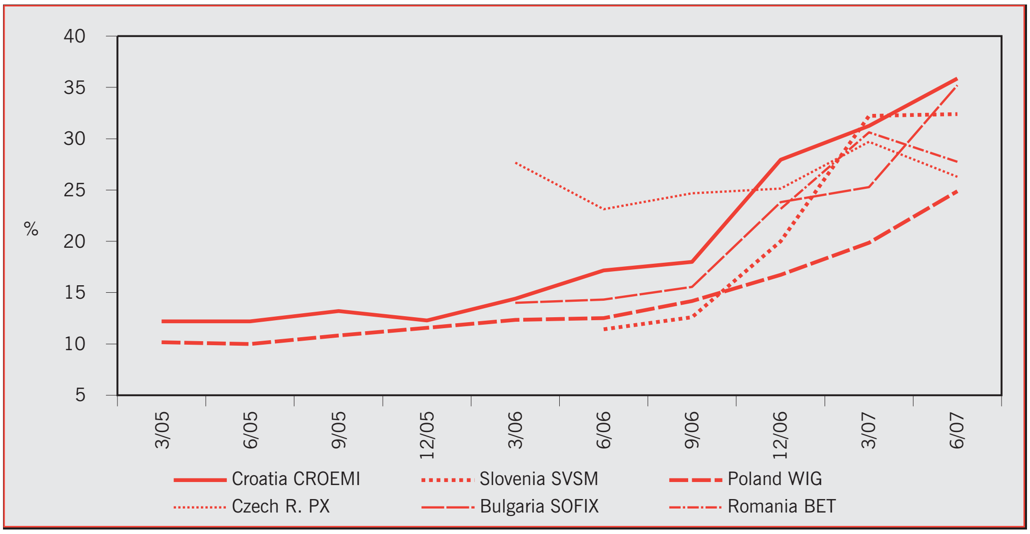
As in other Central and Eastern European countries, the life insurance segment is much less developed that in older EU Member States. Banks see this as the consequence of Croatian citizens' mentality – due to historical circumstances, they are still not aware of the importance of long-term savings for the future and prefer to invest in residential real estate. Bankers also mentioned living standards that are much lower than those in developed countries and leave no funds available for investment in this type of financial product. Nevertheless, bankers believe that this financial market segment will develop, although it would be unrealistic to expect major changes in the short-run, partly due to high returns that could be achieved by direct and indirect capital market investments. The former development of life insurance has also been affected by fiscal policy via tax deductions, although bankers believe that policy results would have been much better if the rules did not change so often. In addition, the increase in the number of life insurance policies was also boosted by the banks themselves when they began to accept such policies as collateral for loans.

### Securities Market Development

As could be expected, only large banks and several medium-sized banks answered the question on their role in the development of the domestic securities market. On the whole, these banks see as their major contributions: the transfer of knowledge on financial economics and modern banking from developed markets to the domestic market, participation in the issuance of government and corporate bonds and public share offers, and the establishment of the first investment funds. In addition to current activities, banks intend to focus more on investment banking and portfolio management in the future. They also expect that the rising trend of domestic corporate security issuance will hold steady as will their role in this segment, particularly since most small banks lack the capacity for such operations. Some banks referred to their contribution to the creation of the single Croatian stock exchange and all bankers unanimously agreed that the process of merging the Varaždin and Zagreb Stock Exchange in March 2007 was one of the basic preconditions for a more rapid and dynamic development of the domestic capital market. Advantages of the unified stock exchange that were mentioned include simplified trading, lower costs for brokerage houses and increased liquidity, with the additional advantage being the fact that data on all issuers, securities, quotations, market prices and turnovers can be found in one place. The survey participants expect that more efficient, cheaper and transparent trading will make the Zagreb Stock Exchange (ZSE) more competitive as regards the European market and increase its level of recognition worldwide, which in turn could make it even more attractive to foreign institutional investors. The existence of the single stock exchange is also expected to boost domestic investors' activities. Some banks view this merger as an overture to the ZSE merger with another Central European stock exchange, while most of them believe that it will not happen in the foreseeable future, as it would also be, at least partly, a political decision.

Although other transition countries also recorded rising turnovers and above-average growth rates of stock exchange indices and although bankers mention that the price increase of some shares has been based on the high quality and successful business performance of the related companies, almost all bankers interviewed agree that there are many shares whose prices are overblown. Bankers attribute this to high liquidity on the one hand, which also adds to speculative activities and, on the other hand, to market shallowness and the lack of blue chip shares. The possible existence of a "price balloon" is also suggested by the value of some fundamental indicators for many shares that are unsustainable in the long-run, such as a high price to earnings ratio.

**Figure 12** Trends in Price to Earnings Ratios on Selected Stock Exchanges




Sources: Bloomberg and RBA.

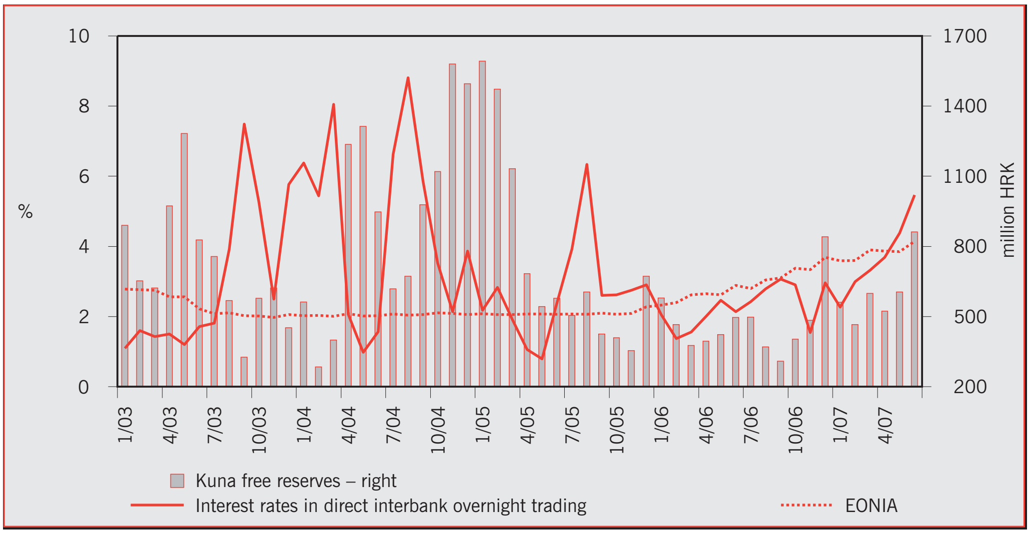
Under the impact of the strong capital market development in the previous period, many small investors chose to invest independently into shares, particularly after the sale of Pliva d.d. shares and the successful public offer of INA shares. Most banks expect this trend to continue and to be additionally boosted by the successful continuation of T-HT privatisation. Some banks are surprised by, and expressed their concern at, the enthusiasm of small investors who, despite a relatively low level of expertise in this area, opt to invest considerable funds in the capital market. The growing number of independent investors was the reason why some banks expanded their product range to include margin loans where equities are used as collateral. However, as the share of margin loans in total loans is still negligible, a potential plunge in share prices would not significantly affect the operation of banks offering such loans.

Another trend marked 2006 and the first half of 2007 – increased corporate interest in raising funds by issuing debt securities – corporates decide to issue bonds or commercial bills with increasing frequency. Although this is a way to avoid bank loans, banks (mostly large ones) actively participate in arranging these issues and see intensified corporate participation in the capital market as no threat to their business plans. Also, as this form of fund raising is chosen mostly by large corporates, this trend in no way threats the plans of the banks dealing mostly with small and medium-sized companies.

## Money Market Developments

The most important event in the Croatian money market since the last survey was the introduction of the central bank's open market operations in April 2005, coupled with a further adjustment of monetary policy instruments in November of the same year, which reduced the volatility of money market interest rates. Nevertheless, these rates are still much more volatile than the corresponding rates in the EU, which bankers attribute to a shallow and inefficient market, the imbalance between supply and demand, as well as the positioning of banks during the reserve requirement maintenance periods and their adjustment to monetary policy measures. Another problem banks face is that offsetting is not allowed at reverse repo auctions. This forces banks to have at their disposal the entire amount borrowed in the previous period on each Wednesday before the auction only to obtain the same amount back later in the afternoon. Although the system is highly liquid on most occasions, increased demand by one or several large banks usually leads to a rise in interest rates on a day before the auction date.

**Figure 13** Overnight Interest Rates and Liquidity of Banks




Sources: CNB and ECB.

Nevertheless, banks' responses suggest that reverse repo auctions of the central bank have improved their liquidity management, particularly in large and medium-sized banks that mostly rely on these auctions in monthly and weekly liquidity planning and in exceptional circumstances of a liquidity shortage. Although the central bank's repo rate is very stable, it cannot be considered as the benchmark rate. The rate achieved in interbank trading is viewed as the key kuna benchmark rate, whereas LIBOR and EURIBOR are used as benchmark rates for placements in euro.

**Table 10** Do you consider these market rates benchmark rates (1: yes; 2: no)?

| Interest rate | Weighted average | | | |
|---|---|---|---|---|
| | All banks | Large banks | Medium-sized banks | Small banks |
| Achieved in the ZMM | 1.9 | 2.0 | 1.2 | 1.2 |
| EONIA | 1.7 | 1.7 | 2.0 | 1.8 |
| ZIBOR | 1.3 | 1.2 | 1.5 | 1.3 |
| Achieved in direct interbank trading | 1.2 | 1.2 | 1.2 | 1.5 |
| LIBOR | 1.0 | 1.0 | 1.0 | 1.2 |
| EURIBOR | 1.0 | 1.0 | 1.0 | 1.0 |

Source: 2007 CNB Survey.

Large and medium-sized banks mostly rely on international money markets, particularly in making longer-term liquidity management plans, such as quarterly and annual plans. Similar responses were obtained regarding the reliance on parent banks – medium-sized banks rely the most on their parent banks.

As there are two ways of trading in the domestic money market – direct interbank trading and indirect trading via the Zagreb Money Market (ZMM), banks were asked about the factors considered when deciding on the type of trading. Large banks prefer direct trading due to more favourable price terms and larger volumes of trading, although they mentioned that in situations in which they cannot satisfy their needs in the interbank market they turn to trading via the ZMM. Small banks mostly use ZMM services, but occasionally trade directly, depending on available limits that other participants put on them.

**Table 11** To what extent do you count on international money markets in regular liquidity planning and management of your bank (1: not at all; 2: to some extent; 3: to a large extent)?

| Bank's liquidity planning horizon | Weighted average | | | |
|---|---|---|---|---|
| | All banks | Large banks | Medium-sized banks | Small banks |
| Daily | 2.0 | 2.0 | 2.5 | 1.1 |
| Weekly | 2.2 | 2.2 | 2.5 | 1.1 |
| Monthly | 2.3 | 2.4 | 2.5 | 1.2 |
| Quarterly | 2.7 | 2.9 | 2.3 | 1.2 |
| Annual | 2.7 | 2.9 | 2.6 | 1.2 |
| In exceptional circumstances of a liquidity shortage | 2.3 | 2.4 | 2.2 | 1.2 |

Source: 2007 CNB Survey.

## Real Estate Market Developments

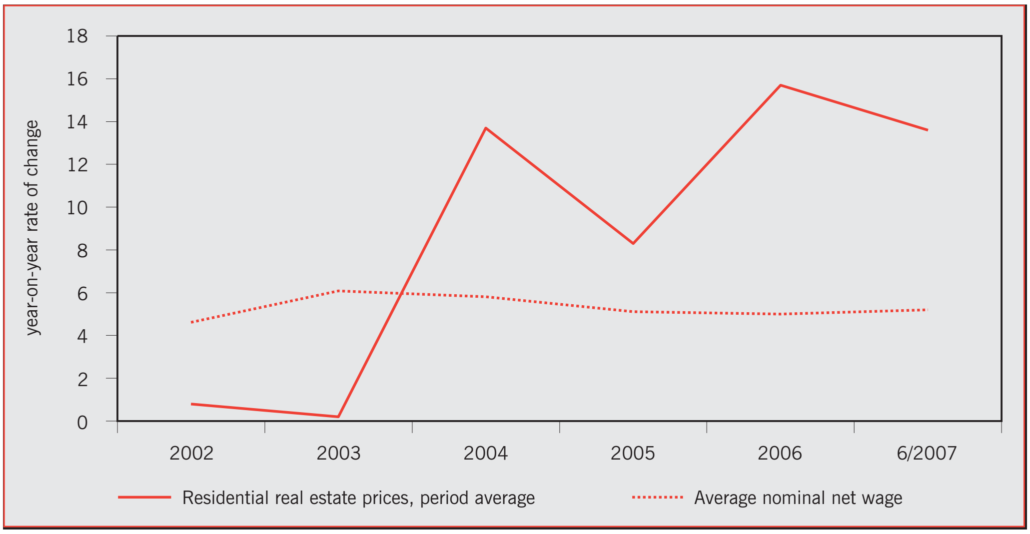
In parallel to the upsurge in share prices, Croatian real estate prices have also recorded high growth rates in recent years. In terms of the hedonic real estate price index (HREPI),[2] which, in addition to the price of a square meter of floor space, takes into account qualitative characteristics of the real estate, the strong upward trend in real estate prices, which began in 2004, continued in the first part of 2007 when their year-on-year rate of change was 13.6%.

On the whole, bankers believe that the robust growth in real estate prices in Croatia has been influenced by several factors: increased demand and weak supply due to insufficient construction in 1990-2002, particularly during the war, and the long-lasting undervaluation of existing real estate. As the time of Croatia's accession to the EU draws nearer, many bankers estimate that real estate prices will be affected by the market being opened to foreigners, particularly real estate prices in the coastal area. More than half of banks believe that real estate prices are already overblown but stress that potential price deflation would not have major adverse implications for their operations as they assess real estate value prudently in a loan approval procedure, and the real estate in question is usually not the only collateral used. The bankers who believe there is a price balloon attribute its existence to the increased loan availability (foreign banks are at the forefront of credit expansion),

2 CNB calculations based on data of *Burza nekretnina.*

expectations of strong demand after Croatia's accession to the EU and similar movements in other transition countries, while some also mention the existence of a powerful construction lobby that has increased its margins several times. A minority of banks believe that, in view of the prolonged undervaluation of real estate, there is no price balloon and project that real estate prices will grow further as the moment of Croatia's accession to the EU comes closer.

**Figure 14** Average Real Net Wage and Residential Real Estate Prices




Sources: CNB and CBS.

## Judicial System

As in the previous survey, most bankers declared there had been no positive changes in court practice or the protection of banks as creditors. They point out that due to the bureaucratization and inefficiency of courts, court proceedings still last for a very long time and that it is extremely difficult or almost impossible to collect claims. They also believe that the system in general favours debtors over creditors and that the social element often prevails over the legal element. Some bankers think that improved regulations would solve most problems, but there are many who hold that the existing regulations are not bad, but are not adequately implemented. They particularly expressed their dissatisfaction with judges who allow excessively long court proceedings. They also mentioned that the Act on Foreclosure is changed too often and assess that most of its amendments have not improved their position in court proceedings.

As a major problem bankers also mentioned the inadequate education of some judges and court officials in banking and economic issues in general, and several bankers suggested that some judges ought to specialise in this type of procedure.

**Table 12** To what extent do you agree with the following statements (1: fully; 2: to some extent; 3: not at all)?

| Statement | Weighted average | | | |
|---|---|---|---|---|
| | All banks | Large banks | Medium-sized banks | Small banks |
| Court outcomes are uncertain because court officials are prone to bribery | 2.1 | 2.1 | 2.4 | 2.2 |
| Court outcomes are uncertain because court officials are subject to political pressure | 2.4 | 2.5 | 2.0 | 2.0 |
| Court outcomes are uncertain because laws are confusing | 2.1 | 2.2 | 1.8 | 1.9 |
| Court outcomes are uncertain because court officials are insufficiently trained | 1.9 | 1.9 | 1.8 | 2.1 |
| Court outcomes are uncertain because court officials in general favour certain social groups, e.g. debtors | 1.7 | 1.6 | 2.4 | 1.8 |
| Court proceedings are prolonged because of insufficient number of court officials | 2.7 | 2.7 | 2.3 | 2.3 |
| Court proceedings are prolonged because of unnecessarily complex court procedures | 1.9 | 1.8 | 2.3 | 1.7 |
| Court proceedings are prolonged because the law provides for numerous delaying tactics | 1.7 | 1.7 | 1.7 | 1.6 |
| Court proceedings are prolonged because judges unnecessarily allow delaying tactics | 1.3 | 1.2 | 1.7 | 1.6 |

Source: 2007 CNB Survey.

# 6 Conclusion

Results of the fifth CNB bank survey yield several conclusions about events and processes that marked the banking sector in 2005 and 2006 and indicate the possible direction of banking sector development in the next medium-term period. In the stable macroeconomic environment of 2005 and 2006, banks used favourable economic developments and managed to attain high growth rates of assets and relatively high profitability despite central bank measures to curb lending and foreign borrowing. In contrast with the preceding survey, bankers are aware of the adverse impact of credit growth on the increase in external debt and BOP deficit and understand the CNB's motives to restrain the negative trends in the country's external imbalances. They admitted that the set of monetary and prudential measures indeed reduced their profitability. Competition among banks is still observable in all business segments and is expected to become even tighter in 2008. Most banks hold that they would manage to survive alone in the market and slightly increase their market share. On the other hand, several banks anticipate the possibility of a merger with another domestic bank or takeover by a domestic or foreign bank. Hence, it may be said that the consolidation process in the Croatian banking market, albeit slower, has not yet been completed.

The strategy regarding the sectoral dispersion of risks in the next medium term will remain mostly the same: almost all large and some medium-sized banks still consider households and corporates equally important, with some medium-sized banks and small banks traditionally focusing more on one sector or the other. Banks expect household loan demand to stay the same in 2008. In contrast, as much as two thirds of banks expect that corporate loan demand will grow. Nevertheless, banks stated that, owing to a combination of central bank measures that have negatively affected their profitability, they will strive to increase household financing more than corporate financing.

In the face of limits on credit growth and margin compression, various services have become increasingly important in the banks' business strategy as they try to compensate for some decrease in income by non-interest income. In addition to credit and deposit activities with the private sector, banks mentioned as particularly important payment operations within the country and abroad, accounting for about a third of banks' total non-interest income. Many banks will in future increasingly focus on activities related to the capital market, which is understandable since they themselves assessed that the success of these products and services has been beyond expectations. As in the preceding survey, banks attribute ongoing weak demand for currency and interest rate hedges to the lack of information and conservatism of most Croatian economic entities as well as the years-long stability of the kuna/euro exchange rate.

The management of credit risk, which banks again mentioned as the most important business risk, has considerably improved compared with the previous survey, particularly regarding its organisational aspect. In addition, within preparations for Basel II implementation, some banks have developed more precise credit risk measurement and intend to continue with its refinement. In contrast, it seems that considerably less progress has been made in operational risk management. The majority of banks that to some extent, systematically manage this risk still focus on its identification and assessment, and plan to begin with its ongoing monitoring and advanced management in the future. As expected, market risks are monitored on a daily basis only by large and some medium-sized banks, which are most exposed to these risks. Among these banks, the most widespread is advanced measurement of currency risk, which is completely in line with this risk's relative importance in Croatian banking.

Owing to the robust development of non-banking financial intermediaries in recent years, banks have started to feel competition from these institutions, whereas as late as 2004 banks viewed this competition as negligible. This rivalry is mostly reflected in fund raising since investment funds and, more recently, direct capital market investments of individuals, have taken away a part of the deposit base. Banks agree that such trends will continue in the future, but expect that they will nevertheless remain the most dominant financial intermediaries in the Croatian market.

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

| 1. What is the current and target share (in %) of classic financing (loans) for the following categories of your bank's clients? | Current situation | | | | Target up to end-2009 | | | |
|---|---|---|---|---|---|---|---|---|
| Activity | Min | Weighted average | Simple average | Max | Min | Weighted average | Simple average | Max |
| Companies from the owner's home country (for foreign-owned banks) | 0.0 | 0.8 | 0.3 | 10.0 | 0.0 | 0.6 | 0.2 | 5.0 |
| Other foreign or international companies | 0.0 | 0.6 | 0.2 | 5.0 | 0.0 | 0.9 | 0.4 | 5.0 |
| Large domestic companies | 0.0 | 15.4 | 11.3 | 66.0 | 0.0 | 12.4 | 8.4 | 30.0 |
| Medium-sized companies | 0.0 | 18.7 | 17.0 | 63.1 | 0.0 | 19.0 | 17.5 | 40.0 |
| Small companies | 0.0 | 9.1 | 21.8 | 74.3 | 0.0 | 10.1 | 21.2 | 70.0 |
| Freelancers and tradesmen | 0.0 | 3.2 | 6.2 | 24.0 | 0.0 | 3.6 | 7.9 | 25.0 |
| Individuals excluding freelancers and tradesmen | 9.0 | 45.3 | 39.8 | 96.0 | 9.0 | 47.6 | 36.2 | 65.0 |
| Government | 0.0 | 6.0 | 1.7 | 10.0 | 0.0 | 4.6 | 1.4 | 8.1 |
| Other | 0.0 | 1.0 | 0.7 | 4.0 | 0.0 | 1.5 | 0.8 | 10.0 |

| 2. Why do you use foreign sources to finance your placements? | Number of answers | % of the number | % of assets |
|---|---|---|---|
| Maturity structure of domestic deposits is inadequate | 15 | 45 | 94 |
| Domestic deposit growth is too slow | 13 | 39 | 73 |
| Foreign sources are more stable (less volatile) | 8 | 24 | 40 |
| Foreign sources are cheaper | 6 | 18 | 6 |
| We do not use foreign funding sources | 13 | 39 | 4 |
| Parent has surplus funds it wishes to invest at a profit | 1 | 3 | 0 |

Note: You may select more than one answer.

| 3. Does your bank intend to issue debt securities in 2007-2009? | Bonds | | | Commercial bills | | |
|---|---|---|---|---|---|---|
| | Number of answers | % of the number | % of assets | Number of answers | % of the number | % of assets |
| Yes, in kuna | 4 | 12 | 42 | 4 | 12 | 18 |
| Yes, in euro | 3 | 9 | 18 | 2 | 6 | 18 |
| No, neither in kuna nor in euro | 27 | 82 | 58 | 27 | 82 | 58 |

| 4. What market share do you expect your bank to hold up to end-2009 compared with the current situation? | Number of answers | % of the number | % of assets |
|---|---|---|---|
| 1. Much higher | 3 | 9 | 1 |
| 2. Somewhat higher | 19 | 58 | 75 |
| 3. About the same | 9 | 27 | 23 |
| 4. Somewhat lower | 1 | 3 | 0 |
| 5. Much lower | 0 | 0 | 0 |

| 5. Assess on a scale of 1 to 3 (1: irrelevant; 2: average relevance; 3: above-average relevance) the importance of each listed category of banking activities in view of the current and future investment in human resources and tangible resources for the development of each business activity. | Current situation (weighted average) | | | | Target/expectations up to 2009 (weighted average) | | | |
|---|---|---|---|---|---|---|---|---|
| Activity | All banks | Large banks | Medium-sized banks | Small banks | Weighted average | Large banks | Medium-sized banks | Small banks |
| Credit and deposit activities with private non-financial sectors | 2.7 | 2.6 | 3.0 | 2.8 | 2.7 | 2.6 | 3.0 | 3.0 |
| External payment operations services | 2.7 | 2.8 | 2.2 | 2.7 | 2.7 | 2.7 | 2.7 | 2.9 |
| Domestic payment operations services | 2.7 | 2.7 | 2.8 | 2.7 | 2.7 | 2.7 | 3.0 | 2.9 |
| Trading in foreign means of payment | 2.4 | 2.4 | 2.2 | 2.1 | 2.5 | 2.7 | 1.7 | 2.4 |
| Lending to public enterprises and enterprises in majority state ownership | 2.3 | 2.4 | 2.0 | 1.7 | 2.3 | 2.4 | 2.2 | 1.9 |
| Trading in interbank money market | 2.3 | 2.3 | 2.0 | 2.1 | 2.3 | 2.3 | 2.0 | 2.2 |
| Lending to central and local government | 2.0 | 2.1 | 2.0 | 1.6 | 2.2 | 2.3 | 1.8 | 1.9 |
| Financial leasing | 1.9 | 2.0 | 1.6 | 1.1 | 2.1 | 2.2 | 1.6 | 1.5 |
| Operating leasing | 1.9 | 2.0 | 1.6 | 1.0 | 2.1 | 2.2 | 2.2 | 1.4 |
| Pension insurance activities | 1.9 | 2.1 | 1.0 | 1.1 | 2.0 | 2.1 | 1.5 | 1.5 |
| Trading in the capital market for clients | 1.9 | 1.9 | 1.9 | 1.5 | 2.5 | 2.6 | 2.2 | 2.2 |
| Investment portfolio management | 1.8 | 2.0 | 1.3 | 1.5 | 2.5 | 2.6 | 1.8 | 2.2 |
| Investment advice | 1.8 | 1.9 | 1.3 | 1.4 | 2.4 | 2.5 | 2.0 | 2.3 |
| Economic, business and financial analyses for clients | 1.8 | 2.0 | 1.2 | 1.3 | 2.2 | 2.3 | 2.0 | 1.8 |
| Money market trading for clients | 1.8 | 1.9 | 1.5 | 1.3 | 2.3 | 2.4 | 1.7 | 2.1 |
| Life/non-life insurance activities | 1.6 | 1.7 | 1.5 | 1.7 | 2.0 | 2.0 | 1.8 | 1.9 |
| Lending to financial institutions | 1.6 | 1.7 | 1.5 | 1.5 | 1.6 | 1.7 | 1.5 | 1.7 |
| Derivatives trading for clients | 1.6 | 1.7 | 1.5 | 1.1 | 2.3 | 2.4 | 2.0 | 2.0 |
| Commission business and mandated operations | 1.5 | 1.5 | 1.5 | 1.6 | 1.6 | 1.5 | 1.7 | 2.0 |

| 6. Assess the probability (in %) of the following scenarios for your bank's development up to end-2009. | Weighted average | | | |
|---|---|---|---|---|
| | All banks | Large banks | Medium-sized banks | Small banks |
| Independent survival | 85 | 92 | 69 | 57 |
| Merger with a domestic bank | 4 | 0 | 24 | 5 |
| Takeover by a domestic bank | 2 | 1 | 0 | 14 |
| Takeover of a domestic bank | 2 | 1 | 6 | 5 |
| Merger with a foreign bank | 2 | 3 | 0 | 0 |
| Takeover by a foreign bank | 4 | 4 | 0 | 16 |
| Takeover of a foreign bank | 0 | 0 | 0 | 2 |

| 7. What are your plans for the period up to end-2009? In each answer, select the most probable scenario (1: a decrease; 2: no change; 3: an increase). | Weighted average | | | |
|---|---|---|---|---|
| | All banks | Large banks | Medium-sized banks | Small banks |
| Number of e-banking users | 3.0 | 3.0 | 3.0 | 3.0 |
| Number of for-fee products and services | 3.0 | 3.0 | 3.0 | 3.0 |
| Total number of products and services | 3.0 | 3.0 | 3.0 | 3.0 |
| Investment in IT development | 3.0 | 3.0 | 3.0 | 3.0 |
| Number of ATMs | 3.0 | 3.0 | 3.0 | 2.9 |
| Number of users of SMS/phone banking | 3.0 | 3.0 | 3.0 | 2.8 |
| Number of business units | 2.9 | 3.0 | 2.8 | 2.7 |
| Number of employees | 2.9 | 3.0 | 2.5 | 2.5 |
| Number of m-banking users | 2.9 | 2.9 | 2.8 | 2.6 |
| Advertising costs | 2.9 | 2.9 | 2.8 | 2.9 |
| Ratio of household financing to corporate financing | 2.5 | 2.6 | 2.4 | 2.2 |
| Commissions and fees | 2.4 | 2.4 | 2.5 | 2.5 |
| Costs of outsourced analytical and information services | 2.4 | 2.4 | 2.5 | 2.6 |
| Lending rates | 2.0 | 2.0 | 2.2 | 1.7 |
| Number of proposals for bankruptcy filed against debtors | 2.0 | 2.0 | 1.8 | 2.0 |
| Deposit rates | 1.9 | 1.8 | 3.0 | 1.9 |

| 8. What are your plans regarding bank recapitalisation? | Number of answers | % of the number | % of assets |
|---|---|---|---|
| Bank was recapitalised in 2006 | 13 | 39 | 62 |
| Bank will be recapitalised in 2007 | 17 | 52 | 64 |
| Bank will be recapitalised in 2008 | 11 | 33 | 27 |
| Bank will be recapitalised in 2009 | 4 | 12 | 0 |
| Recapitalisation is not planned | 4 | 12 | 4 |

Note: You may select more than one answer.

**9. Assess on a scale of 1 to 5 (1: beyond expectations; 2: as expected; 3: below expectations; 4: it's too soon to assess; 5: not offered) the market success of listed products and services and explain briefly the reasons for success or failure.**

| Product/service | Number of product/service providers | % of assets of product/service providers | Success of introduction (weighted average) | Success of introduction (simple average) |
|---|---|---|---|---|
| Investment fund management | 12 | 81 | 1.1 | 1.9 |
| Underwriting of government securities | 12 | 86 | 1.3 | 1.8 |
| Pension fund management | 9 | 76 | 1.4 | 1.8 |
| Underwriting of corporate securities | 11 | 85 | 1.6 | 2.1 |
| Product packages for retail clients | 20 | 90 | 1.7 | 2.1 |
| Foreign exchange swaps | 12 | 82 | 1.7 | 1.8 |
| Personal banking | 23 | 95 | 1.7 | 2.3 |
| E-banking | 29 | 99 | 1.8 | 2.3 |
| Securities custody services | 17 | 87 | 1.9 | 2.3 |

| | | | | |
|---|---|---|---|---|
| Brokerage services | 19 | 94 | 2.0 | 2.3 |
| Financial leasing | 11 | 77 | 2.0 | 2.3 |
| Structured products for retail clients | 23 | 86 | 2.0 | 2.3 |
| Operating leasing | 11 | 77 | 2.0 | 2.6 |
| Rental savings | 28 | 96 | 2.0 | 2.0 |
| Life insurance sale | 16 | 89 | 2.0 | 2.5 |
| Forward agreements | 15 | 91 | 2.0 | 2.4 |
| Product packages for corporate clients | 18 | 71 | 2.0 | 2.5 |
| Private banking | 14 | 81 | 2.1 | 2.6 |
| Forfeiting | 16 | 60 | 2.3 | 1.9 |
| M-banking | 9 | 50 | 2.3 | 2.6 |
| Factoring | 26 | 86 | 2.4 | 2.2 |
| Cash and asset management | 21 | 92 | 2.5 | 2.5 |
| Revolving credit cards | 17 | 93 | 2.6 | 2.6 |
| Analyses and forecasts | 13 | 77 | 2.6 | 2.8 |
| Interest rate swaps | 9 | 60 | 2.6 | 2.3 |
| Interest rate futures | 8 | 58 | 2.6 | 2.2 |
| Investment advice | 16 | 88 | 2.9 | 3.0 |
| Structured products for corporate clients | 23 | 84 | 2.9 | 2.6 |
| Currency futures | 8 | 59 | 3.0 | 3.2 |
| Options | 10 | 49 | 3.4 | 2.5 |
| Interest rate forwards | 6 | 43 | 3.6 | 3.5 |

| **10. The current number of banks in the Croatian market is:** | **Number of answers** | **% of the number** | **% of assets** |
|---|---|---|---|
| 1. Much larger than the optimum | 2 | 6 | 18 |
| 2. Larger than the optimum | 18 | 55 | 75 |
| 3. Optimum | 11 | 33 | 6 |
| 4. Smaller than the optimum | 1 | 3 | 0 |
| 5. Much smaller than the optimum | 0 | 0 | 0 |

| **11. Competition among banks in the Croatian market in 2008 and 2009 will be:** | **Number of answers** | **% of the number** | **% of assets** |
|---|---|---|---|
| 1. Much stronger | 12 | 36 | 31 |
| 2. Somewhat stronger | 14 | 42 | 59 |
| 3. About the same | 5 | 15 | 9 |
| 4. Somewhat weaker | 1 | 3 | 0 |
| 5. Much weaker | 0 | 0 | 0 |

**12. Assess on a scale of 1 to 3 (1: adds to the trend; 2: no impact; 3: acts in the opposite direction) the impact of competition in the Croatian banking sector on the following trends.**

| | **Impact of competition up to 2007** | | **Continuation of the 2007 trend** | |
|---|---|---|---|---|
| **Processes/trends** | **Weighted average** | **Simple average** | **Weighted average** | **Simple average** |
| Stronger marketing of banking products | 1.0 | 1.0 | 1.0 | 1.0 |
| Interest margin compression | 1.0 | 1.1 | 0.8 | 0.7 |

| 12. Assess on a scale of 1 to 3 (1: adds to the trend; 2: no impact; 3: acts in the opposite direction) the impact of competition in the Croatian banking sector on the following trends. | | | | |
|---|---|---|---|---|
| | Impact of competition up to 2007 | | Continuation of the 2007 trend | |
| **Processes/trends** | **Weighted average** | **Simple average** | **Weighted average** | **Simple average** |
| More active capital market | 1.0 | 1.1 | 1.0 | 1.0 |
| Decrease in the level of fees and commissions | 1.1 | 1.4 | 0.9 | 0.7 |
| Introduction of new banking products/services | 1.1 | 1.0 | 1.0 | 0.9 |
| Improved quality of existing products/services | 1.1 | 1.0 | 1.0 | 1.0 |
| Decrease in the level of lending rates | 1.1 | 1.1 | 0.5 | 0.5 |
| Increased efficiency of banks | 1.1 | 1.2 | 0.9 | 0.9 |
| Improved management of other risks | 1.2 | 1.3 | 1.0 | 1.0 |
| Improved credit risk management | 1.2 | 1.3 | 0.9 | 0.9 |
| Increase in the level of deposit rates | 1.2 | 1.3 | 0.8 | 0.8 |
| More active foreign exchange market | 1.2 | 1.1 | 0.9 | 0.9 |
| More active money market | 1.2 | 1.2 | 0.8 | 0.9 |
| Enhanced banking sector stability | 1.3 | 1.5 | 0.7 | 0.8 |
| Advancement of other financial system regulations | 1.4 | 1.4 | 1.0 | 0.9 |
| Increase in the number of products and services subject to fees and commissions | 1.4 | 1.2 | 0.9 | 0.9 |
| Advanced central bank regulations | 1.5 | 1.5 | 0.7 | 0.8 |
| Higher bank profitability | 2.5 | 1.9 | 0.8 | 0.7 |

| 13. How much competition do banks today face from non-banking financial institutions not owned by the banks themselves? | Number of answers | % of the number | % of assets |
|---|---|---|---|
| 1. Negligible | 6 | 18 | 17 |
| 2. Moderate | 20 | 61 | 81 |
| 3. Significant | 6 | 18 | 1 |

| 14. Compared with the current situation, how much competition will banks face from non-banking financial institutions not owned by the banks themselves in the period up to end-2009? | Number of answers | % of the number | % of assets |
|---|---|---|---|
| 1. Much more | 7 | 21 | 36 |
| 2. Somewhat more | 19 | 58 | 42 |
| 3. About the same | 5 | 15 | 14 |
| 4. Somewhat less | 1 | 3 | 8 |
| 4. Much less | 0 | 0 | 0 |

| 15. How much corporate demand for bank loans do you expect in 2008 and 2009? | Number of answers | % of the number | % of assets |
|---|---|---|---|
| 1. Much more | 2 | 6 | 1 |
| 2. Somewhat more | 19 | 58 | 63 |
| 3. About the same | 11 | 33 | 36 |
| 4. Somewhat less | 0 | 0 | 0 |
| 4. Much less | 0 | 0 | 0 |

| 16. What percentage of non-performing corporate loans do you expect in 2008 and 2009? | Number of answers | % of the number | % of assets |
|---|---|---|---|
| 1. Much higher | 0 | 0 | 0 |
| 2. Somewhat higher | 3 | 9 | 11 |
| 3. About the same | 22 | 67 | 64 |
| 4. Somewhat lower | 6 | 18 | 25 |
| 5. Much lower | 1 | 3 | 0 |

| 17. How much household demand for bank loans do you expect in 2008 and 2009? | Number of answers | % of the number | % of assets |
|---|---|---|---|
| 1. Much more | 2 | 6 | 1 |
| 2. Somewhat more | 15 | 45 | 12 |
| 3. About the same | 14 | 42 | 87 |
| 4. Somewhat less | 1 | 3 | 0 |
| 4. Much less | 0 | 0 | 0 |

| 18. What percentage of non-performing household loans do you expect in 2008 and 2009? | Number of answers | % of the number | % of assets |
|---|---|---|---|
| 1. Much higher | 2 | 6 | 11 |
| 2. Somewhat higher | 9 | 27 | 34 |
| 3. About the same | 16 | 48 | 44 |
| 4. Somewhat lower | 5 | 15 | 10 |
| 5. Much lower | 0 | 0 | 0 |

| 19. Is there a separate organisational unit in your bank providing advice to legal persons on the use of EU pre-accession funds? | Number of answers | % of the number | % of assets |
|---|---|---|---|
| 1. No, and we do not plan to establish such a unit | 16 | 48 | 7 |
| 2. No, but we plan to establish such a unit | 11 | 33 | 40 |
| 3. Yes, there is | 5 | 15 | 53 |

| 20. What is your current credit policy to households compared with 2004 (1: relaxed; 2: the same; 3: tighter)? | Weighted average | | | |
|---|---|---|---|---|
| Lending terms | All banks | Large banks | Medium-sized banks | Small banks |
| Most frequent collateral to loan ratio for housing and mortgage loans | 1.2 | 1.1 | 1.0 | 2.0 |
| Number of guarantors required for larger loan amounts | 1.2 | 1.2 | 1.0 | 1.7 |
| Ratio of guarantor income to loan payment | 1.4 | 1.3 | 1.7 | 1.7 |
| Duration of loan approval procedures for other long-term loans | 1.5 | 1.5 | 1.6 | 1.6 |
| Ratio of borrower income to loan payment | 1.6 | 1.6 | 1.2 | 1.7 |
| Number of months in permanent employment to calculate average income | 1.7 | 1.6 | 1.7 | 2.1 |
| Duration of a loan approval procedure for a typical housing loan | 1.8 | 1.8 | 1.6 | 1.7 |
| Required busines relationship with the bank for long-term loans | 1.9 | 1.9 | 2.0 | 1.9 |

| 21. What is your current credit policy to legal persons compared with 2004 (1: relaxed; 2: the same; 3: tighter)? | Weighted average | | | |
|---|---|---|---|---|
| **Lending terms** | **All banks** | **Large banks** | **Medium-sized banks** | **Small banks** |
| Duration of a loan approval procedure for a typical loan | 1.5 | 1.5 | 1.4 | 1.7 |
| Minimum number of guarantors required | 1.6 | 1.6 | 1.5 | 1.9 |
| Ratio of guarantor income to loan payment | 1.6 | 1.6 | 1.5 | 2.2 |
| Availability of loans without tangible or financial collateral | 1.6 | 1.7 | 1.0 | 2.1 |
| Most frequent ratio of collateralised tangible assets to loan amount | 1.7 | 1.7 | 1.2 | 2.0 |
| Required busines relationship with the bank for long-term loans | 1.8 | 1.6 | 2.4 | 2.1 |
| Number of years for which financial statements are required | 1.9 | 1.9 | 2.0 | 2.2 |

| 22. In your opinion, does the aggregate annual growth rate of bank credit of over 20% threaten Croatian financial system stability? | Number of answers | % of the number | % of assets |
|---|---|---|---|
| 1. Yes | 15 | 45 | 25 |
| 2. No | 17 | 52 | 75 |

| 23. In your opinion, does the annual growth rate of total external debt of all sectors of over 10% threaten Croatian financial system stability? | Number of answers | % of the number | % of assets |
|---|---|---|---|
| 1. Yes | 20 | 61 | 37 |
| 2. No | 12 | 36 | 62 |

| 24. To what extent do you agree with the following statements (1: fully; 2: to some extent; 3: not at all)? | Weighted average | | | |
|---|---|---|---|---|
| **Statement** | **All banks** | **Large banks** | **Medium-sized banks** | **Small banks** |
| Court outcomes are uncertain because court officials are prone to bribery | 2.1 | 2.1 | 2.4 | 2.2 |
| Court outcomes are uncertain because court officials are subject to political pressure | 2.4 | 2.5 | 2.0 | 2.0 |
| Court outcomes are uncertain because laws are confusing | 2.1 | 2.2 | 1.8 | 1.9 |
| Court outcomes are uncertain because court officials are insufficiently trained | 1.9 | 1.9 | 1.8 | 2.1 |
| Court outcomes are uncertain because court officials in general favour certain social groups, e.g. debtors | 1.7 | 1.6 | 2.4 | 1.8 |
| Court proceedings are prolonged because of insufficient number of court officials | 2.7 | 2.7 | 2.3 | 2.3 |
| Court proceedings are prolonged because of unnecessarily complex court procedures | 1.9 | 1.8 | 2.3 | 1.7 |
| Court proceedings are prolonged because the law provides for numerous delaying tactics | 1.7 | 1.7 | 1.7 | 1.6 |
| Court proceedings are prolonged because judges unnecessarily allow delaying tactics | 1.3 | 1.2 | 1.7 | 1.6 |

| 25. Have reverse repo auctions of the central bank contributed to improved liquidity management of your bank in the last two years; i.e. to what extent do you count on these auctions in liquidity planning (1: not at all; 2: to some extent; 3: to a large extent)? | Weighted average | | | |
|---|---|---|---|---|
| **Bank's liquidity planning horizon** | **All banks** | **Large banks** | **Medium-sized banks** | **Small banks** |
| Daily | 2.0 | 2.0 | 2.0 | 1.4 |
| Weekly | 2.2 | 2.4 | 1.8 | 1.5 |
| Monthly | 2.3 | 2.5 | 2.2 | 1.5 |
| Quarterly | 1.9 | 2.0 | 2.2 | 1.4 |
| Annual | 1.6 | 1.6 | 1.9 | 1.5 |
| In exceptional circumstances of a liquidity shortage | 2.3 | 2.4 | 2.2 | 1.8 |

| 26. To what extent do you count on international money markets in regular liquidity planning and management of your bank (1: not at all; 2: to some extent; 3: to a large extent)? | Weighted average | | | |
|---|---|---|---|---|
| **Bank's liquidity planning horizon** | **All banks** | **Large banks** | **Medium-sized banks** | **Small banks** |
| Daily | 2.0 | 2.0 | 2.5 | 1.1 |
| Weekly | 2.2 | 2.2 | 2.5 | 1.1 |
| Monthly | 2.3 | 2.4 | 2.5 | 1.2 |
| Quarterly | 2.7 | 2.9 | 2.3 | 1.2 |
| Annual | 2.7 | 2.9 | 2.6 | 1.2 |
| In exceptional circumstances of a liquidity shortage | 2.3 | 2.4 | 2.2 | 1.2 |

| 27. To what extent do you count on your parent bank in liquidity planning and management of your bank (1: not at all; 2: to some extent; 3: to a large extent)? | Weighted average | | | |
|---|---|---|---|---|
| **Bank's liquidity planning horizon** | **All banks** | **Large banks** | **Medium-sized banks** | **Small banks** |
| Daily | 1.8 | 1.8 | 2.4 | 1.2 |
| Weekly | 1.8 | 1.8 | 2.4 | 1.2 |
| Monthly | 2.1 | 2.1 | 2.8 | 1.2 |
| Quarterly | 2.8 | 2.9 | 3.0 | 1.2 |
| Annual | 2.6 | 2.6 | 3.0 | 1.2 |
| In exceptional circumstances of a liquidity shortage | 2.6 | 2.7 | 2.7 | 1.5 |

| 28. Do you consider these market rates benchmark rates and if so for what purpose (1: yes; 2: no)? | Weighted average | | | |
|---|---|---|---|---|
| **Interest rate** | **All banks** | **Large banks** | **Medium-sized banks** | **Small banks** |
| Achieved in the ZMM | 1.9 | 2.0 | 1.2 | 1.2 |
| EONIA | 1.7 | 1.7 | 2.0 | 1.8 |
| ZIBOR | 1.3 | 1.2 | 1.5 | 1.3 |
| Achieved in direct interbank trading | 1.2 | 1.2 | 1.2 | 1.5 |
| LIBOR | 1.0 | 1.0 | 1.0 | 1.2 |
| EURIBOR | 1.0 | 1.0 | 1.0 | 1.0 |

| 29. Do you agree with the following statements about banks' behaviour on the money market (1: yes; 2: no)? | Weighted average | | | |
|---|---|---|---|---|
| **Statement** | **All banks** | **Large banks** | **Medium-sized banks** | **Small banks** |
| Taking account of ZMM fees, interest rates on trading surplus liquidity with and without ZMM intermediation are approximately the same | 1.4 | 1.4 | 1.5 | 1.5 |
| Even taking account of ZMM fees, interest rates on trading surplus liquidity are higher without ZMM intermediation because individual transactions are much larger, which results in the risk premium on liquidity and (or) exposure | 1.7 | 1.7 | 1.5 | 1.7 |
| Large banks use the ZMM as an intermediary to borrow funds when they cannot satisfy their needs in direct interbank trading | 1.2 | 1.3 | 1.0 | 1.1 |
| Large banks use the ZMM as an intermediary to place funds when they cannot place total surplus liquidity in direct interbank trading | 1.7 | 1.9 | 1.0 | 1.1 |
| Large banks use the ZMM as an intermediary to borrow funds when the price is favourable | 1.1 | 1.1 | 1.2 | 1.1 |
| Large banks use the ZMM as an intermediary to place funds when the price is favourable | 1.4 | 1.5 | 1.2 | 1.2 |
| Large banks mostly do not use the ZMM as an intermediary to borrow funds due to the above mentioned reasons | 1.6 | 1.7 | 1.6 | 1.5 |
| Large banks use the ZMM as an intermediary to place funds due to the above mentioned reasons | 1.7 | 1.7 | 2.0 | 1.4 |

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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.

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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).

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