



### FINANCIAL STABILITY REPORT

1.2004

Sources: the Central Statistical Bureau of Latvia, the Financial and Capital Market Commission, the Latvian Leasing Association, LURSOFT (Database of the Republic of Latvia Register of Enterprises) and the Bank of Latvia.

Charts have been compiled on the basis of data provided by the Bank of Latvia (Charts 1–14, 17, 21, 23–30, 34 and 35), the Financial and Capital Market Commission (Charts 15, 16, 18–20 and 22), the Central Statistical Bureau of Latvia (Charts 31–33 and 35) and the Latvian Leasing Association (Charts 34–37). Tables have been compiled on the basis of data provided by the Bank of Latvia (Tables 1–4 and 6), the Financial and Capital Market Commission (Table 5 and 6), European Central Bank, the Central Statistical Bureau of Latvia and the Latvian Leasing Association (Table 6).

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#### **EXECUTIVE SUMMARY**

Additionally stimulated by accession to the EU on May 1, 2004, Latvia's economy continued to develop buoyantly in the first half of 2004. There was a significant growth in almost all major sectors of the economy: industry, trade and construction. In June, the Bank of Latvia revised upwards the gross domestic product (GDP) forecast for 2004, from 7.0% to 7.5%. High activity related to the EU accession, changes in tax rates and a rise in fuel prices underlay an increase in consumer prices, with the average annual inflation reaching 5.1% in the first half of the year. Inflation was affected by the supply side factors and high domestic demand. Although economic development in Europe remained moderate, Latvia's foreign trade expanded rapidly in the first half of 2004. Exports to the new EU Member States increased considerably; nevertheless, imports continued to expand at a more rapid pace than exports, pushing up the foreign trade deficit. The growing inflation and current account deficit in combination with a rapid expansion of lending aggravates Latvia's macroeconomic risks. In order to promote a balanced long-term development of the Latvian economy and prevent aggravation of the existing macroeconomic risks and appearance of new risks, the Bank of Latvia raised the refinancing rate by 0.5 percentage point (to 3.5%) as of March 11.

Credit risk in the corporate sector remained unchanged due to a favourable economic situation, better financial indicators of businesses and sectoral diversification of the banks' loan portfolio. Nevertheless, a further increase of banks' exposure to the real estate will deepen the banks' vulnerability to potential fluctuations of the real estate market prices and demand.

Household lending related credit risk grew as a result of a rapid increase in the household debt, its currency composition and the fact that the major share of loans is granted at floating interest rates. The risk is contained by the ability of the major part of borrowers to absorb both the inevitable rise in interest rates and the potential US dollar appreciation, as the banks grant loans mainly to medium and high income households. Moreover, paying a certain commission to the bank, the customer can change the loan currency or extend its maturity by reducing the monthly payments, if necessary.

The credit risk associated with loans to non-residents is relatively low, as the banks' exposure to such customers is insignificant. Moreover, such loans have been mainly granted to residents of countries that have been rated similar to Latvia or low-risk.

With the expansion of lending, net interest income and net commissions of banks increased rapidly. The banks' cost efficiency indicators improved as well, as their income grew much faster than expenditure.

The outstanding amount of non-performing non-bank loans increased; nevertheless, in comparison with the end of June 2003, the quality of the banks' assets continued to improve reflecting favourable economic conditions and the overall lending expansion.

The capital adequacy ratio (CAR) was slightly lower than at the end of June 2003 but it was higher in comparison with the end of 2003.

Banks' foreign exchange risk exposure remained limited because of the balanced currency composition of their assets and liabilities. Therefore, the banks' open currency positions, restricted also by requirements governing the banking activities, were modest, the same as in 2003.

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Slight deterioration of the short-term liquidity was caused by a steep rise in demand deposits in lats made by domestic private enterprises and households in combination with expanding long-term loans granted in lats.

Leasing growth rate remained moderate. New participants entered the market, increasing competition among the leasing companies. With the consumer goods and passenger car leasing expanding, the share of loans to households in the total leasing portfolio grew.

### 1. EXTERNAL ECONOMIC ENVIRONMENT AND ECONOMIC DEVELOPMENTS IN LATVIA

# Although the economic growth in Europe remained moderate, Latvia's foreign trade grew rapidly, with exports to the new EU Member States expanding significantly.

Although the global economic development was rather vigorous and balanced in the first quarter, in accordance with the published second quarter data, the GDP growth rate of the three largest developed world economies and their groups (the US, Japan and the euro area) was still lower than forecast. That was affected by oil prices which reached an all time high on the global market in the second quarter, adversely influencing the purchasing power of households and shrinking the private demand in many regions of the world. The adverse effects of the high oil prices mostly affected the US households, and the private demand in the euro area and Japan also grew at a less rapid pace than predicted.

In the second quarter, the US GDP grew by 3.3% (adjusted preceding quarter figure -4.5%). The slowdown of the GDP growth rate was driven by a considerable decrease in private demand in spring 2004, mainly due to rising inflation, including the escalation of the oil prices that had a particularly adverse effect on inflation in the US. As opposed to the European countries where, due to the complex taxation system, the price of fuel at fuel stations does not directly depend on the global prices of crude oil, the US fuel prices are more sensitive to changes in the crude oil prices. Deceleration of the private demand can be partly explained by a gradual fading of the 2003 tax cuts effects as well. In the second quarter, the GDP growth was largely driven by expansion of exports and climbing domestic investment, whereas growth of private consumption was insignificant. June was an especially unsuccessful month for the US economic growth: after an increase at the beginning of the year and in the first two months of the second quarter, the industrial output shrank. In June, the non-farm payroll data were weaker than forecast. Nevertheless, many indicators, including producer confidence survey data, suggested that the unsuccessful development in June could be considered a mere pause, and analysts believe that the overall US economic development prospects are good. Taking into account these trends, the US Federal Reserve base rate was raised by 25 percentage points to 1.25% on June 30, and further increases could follow by the end of the year.

The euro area economies recover slowly and disparities among countries still prevailed. The growth rate of the French economy was the highest among the largest euro area countries. In the second quarter, Germany improved its quarter-onquarter economic indicators as well. The GDP growth of France was mainly driven by the development of private demand, whereas that of Germany was still supported by net exports, with the export growth exceeding that of the imports. The euro area GDP growth was primarily determined by external demand (positive contribution of net exports) rather than the domestic demand whose impact was negligible. In the first half of 2004, the UK economic growth remained vigorous, and the Bank of England raised the refinancing rate three times (in February, May and June, by 25 basis points each time) to reach 4.5%, with a view of dampening the economic growth. Sweden also experienced expansion of the economic activity.

In May 2004, eight Central and East European (CEE) countries – the Czech Republic, Hungary, Poland, Slovakia, Slovenia, Latvia, Lithuania, and Estonia – joined the EU. Despite deteriorating external conditions (rising oil prices), economic upturn continued in these countries, manifested in increased industrial output and exports. At the same time, all CEE countries suffered from growing inflation, partly driven by the EU accession related factors: tax rates changes, expanded demand for some commodities. The increase of consumer prices was mostly driven by the rising fuel prices. Unemployment rate declined in all countries, although remaining very high in the majority of countries. At the end of June, Estonia, Lithuania and Slovenia joined the Exchange Rate Mechanism II (ERM II) which is the first step towards participation in the Economic and Monetary Union (EMU) and introducing the single European currency, the euro.

The economic activity of Estonia was promoted by both expansion of exports and robust growth of domestic demand. Lithuania's economic growth was driven by an increase in demand, especially for building materials, household appliances and clothing; Lithuania's retail trade continued to grow. Lithuania's housing loans market continued to develop buoyantly, driven by the economic development and improved living standards as well as favourable lending conditions. Due to the financial problems of the Russian oil company *Yukos*, oil transportation through Butinge terminal decreased considerably; therefore, *Mažeikių nafta* revised the 2004 forecasts for oil exports through Butinge terminal down by a quarter.

In the first half of 2004, Russia's economic development remained dynamic, primarily driven by a notable expansion of exports in the second quarter, which fuelled the development of other sector as well. The robust domestic demand and pickup of investment underlay economic development. Russia's inflation, however, remained high and consumer price rise continued to be above 10%. The decision of the Russian Central Bank, taken at the beginning of May, to revoke the licence of Sodbiznesbank, which was charged with money laundering and terrorist financing, the self-liquidation of Kredittrast and the announcement by Russia's 22nd largest bank Guta-bank about suspending disbursement of bank deposits caused a confidence crisis in the Russian banking sector. In order to help the banks overcome the new problems, the Russian Central Bank made a decision to reduce the minimum reserve ratio from 7.0% to 3.5% in July, thus providing liqudity to the banks. Bank liquidity problems raised concerns about the possibility of a larger banking crisis; therefore, the credit institutions restricted their lending and tightened lending standards. The limiting of lending could dampen the rapid development of construction, as the Russian construction companies use bank loans quite extensively. The situation with the oil company Yukos, charged with using off-shore schemes to evade taxes, remains unresolved. Despite the problems in the Russian banking system and the stock market turbulence, Russia's Economic Development Ministry revised the GDP growth forecast for 2004 upwards from 6.6% to 6.7%.

In the first half of 2004, Latvia's economy continued to develop buoyantly, additionally stimulated by Latvia's accession to the EU on May 1, 2004. There was a significant growth in almost all major sectors of the economy: industry, trade and construction. In June, the Bank of Latvia revised the GDP growth forecast for 2004 upwards from 7.0% to 7.5%. High activity related to the EU accession, changes in tax rates and a rise in fuel prices underlay an increase in consumer prices, with the average annual inflation reaching 5.1% in the first half of the year. Inflation was affected by the supply side factors and high domestic demand. Although economic development in Europe remained moderate, Latvia's foreign trade expanded rapidly. Exports to the new EU Member States increased considerably; yet imports continued to expand at a more rapid pace than exports, causing a rise in the foreign trade deficit. Increase of inflation and current account deficit in combination with a rapid expansion of lending aggravates Latvia's macroeconomic risks. In order to promote balanced long-term development of the Latvian economy and prevent aggravation of the existing macroeconomic risks and formation of new risks, the Bank of Latvia raised the refinancing rate by 0.5 percentage point (to 3.5%) as of March 11.

#### **2. BANK CREDIT RISK**

### EU accession related temporary rise in demand for some commodities accelerated the growth rate of lending, especially to households.

At the end of June, loans to residents (except transit credits) reached 3 119.5 million lats or 46.3% of GDP. The loan portfolio was still dominated by loans to non-financial enterprises (1 751.8 million lats) but their share was declining due to the rapidly growing lending to households (private persons and non-profit institutions serving households) which stood at 994.4 million lats at the end of June. Almost all banks increased their exposure to households, and for four banks it exceeded 20% of their assets (see Table 1). Thus, the structure of the Latvian banks' loan portfolio is beginning to increasingly resemble that of the euro area banks, where loans to households exceed loans to non-financial enterprises.

#### Table 1

BREAKDOWN OF BANKS BY EXPOSURE TO ECONOMIC SECTORS (at end of June 2004 {at end of June 2003}; %)

	<10	10-20	>20
Loans to enterprises	10 {7}	5 {8}	7 {7}
Loans to households	13 {13}	5 {6}	4 {3}
incl. loans for house purchase	15 {18}	5 {2}	2 {2}
Loans to non-bank financial institutions	20 {19}	2 {3}	0 {0}

The growth rate of lending accelerated slightly in the first half of 2004 (see Chart 1), driven by the temporary, EU accession related expansion in demand for some commodities, favourable economic conditions and lending terms (including persistently low interest rates) and the rise in construction activity. Mortgage lending posted the most rapid growth (see Chart 2) and acquired the leading position in



the banks' loan portfolio in the first half of 2004. Mortgage lending growth rates gradually decelerated (79.4% at the end of June;  $\{94.6\%\}^1$ ), reflecting base effect. By the end of the year, the growth of lending is likely to slow down. It will be affected not only by the base effect but also by the rise in interest rates and the Bank of Latvia's minimum reserve ratio to 4% from July 24.



At the end of June, loans to domestic non-financial enterprises stood at 26.0% {22.0%} of GDP. In comparison with the end of June 2003, loans to domestic enterprises increased by 33.4%. Higher investment in infrastructure, the rise in office and residential building construction and the increased number of tourists facilitated a rapid increase of lending to real estate, renting and business activities, construction, and hotels and restaurants (see Table 2). Loans to services sectors (public administration and defence, compulsory social insurance, education, health and social care) grew at an especially fast rate, whereas the share of trade and manufacturing in the loan portfolio continued to shrink. Provided that those tendencies persist, loans to real estate, renting and business activities could exceed the loans to manufacturing before the end of 2004. A further increase of banks' exposure to the real estate will deepen the banks' vulnerability to potential fluctuations of the real estate market prices and demand, as the real estate collateral provides a channel for real estate prices to promote lending expansion, which, in turn, pushes these prices up.

#### Table 2

#### LOANS GRANTED TO ENTERPRISES OF

**SOME ECONOMIC SECTORS** (at end of June 2004 {at end of June 2003}; %)

	Annual growth	Share in loans granted to non-financial enterprises	Share in banks' total assets
Agriculture, hunting and forestry	32.7 {39.7}	6.3 {6.2}	1.7 {1.7}
Manufacturing	14.2 {19.1}	16.7 {19.2}	4.4 {5.2}
Construction	37.1 {30.9}	8.8 {8.4}	2.3 {2.3}
Wholesale and retail trade	17.3 {20.4}	22.8 {25.5}	6.1 {6.9}
Hotels and restaurants	47.0 {0.9}	3.6 {3.2}	0.9 {0.9}
Transport, storage and communication	20.6 {28.3}	10.0 {10.8}	2.7 {2.9}
Real estate, renting and business activities	65.6 {95.4}	15.8 {12.5}	4.2 {3.4}
Other services sectors*	126.4 {101.6}	7.2 {4.1}	1.9 {1.1}

\* Public administration and defence, social insurance, education and health and social work.

 $^1\left\{\right\}$  – indicator of the corresponding period of the previous year.

The currency composition of loans granted to enterprises suggests that the share of the US dollar loans (28.6%; see Chart 3) is rather small and on a decline. Larger US dollar share could prevail in loans to the transport sector and partly to manufacturing enterprises (manufacture of food, chemical, machinery and equipment), actively operating on the CIS markets and transacting mostly in the US dollars. Real estate related sectors also continue to use the US dollar quite extensively; however, as real estate companies suggest, its importance has begun to wane with a more frequent use of the euro and the lats in transactions. A slight decline in lending in lats can also be observed. Lending in euro, however, grew rapidly in May and June and exceeded 30% of the new loans (see Chart 4). This is a positive trend, considering the planned re-pegging of the lats in 2005. Corporate sector foreign exchange risk is limited and is not expected to aggravate. In view of the actual and expected rapid economic growth, the corporate sector segment displays no increase in the credit risk.



At the end of June, loans to domestic households stood at 14.8% {9.3%} of GDP. Those loans expanded by 79.2% over June 2003. Loans to households were dominated by lending for house purchase (66.0% {61.1%}). Exposure to households increased for almost all banks, with the overall banking sector exposure reaching 15.3% of total assets.

One of the main risks in lending to households is related to the currency composition of the loans granted. Unlike the loans to enterprises, the currency composition of the loans to households is clearly dominated by the US dollar, which accounts for almost half of the loans to households (see Chart 5). The share of the US dollar is larger in lending for house purchase, which primarily consists of longterm loans (see Chart 6). The share of the euro was relatively small but growing and accounted for over 20% in the currency composition of the new loans in May and June (see Chart 7), with the share of the lats shrinking. This is a positive trend, considering the expected re-pegging of the lats.

The currency composition of loans to households is determined not only by the low interest rates on US dollar loans and the fact that this currency dominated in

100 CURRENCY COMPOSITION OF LOANS GRANTED TO DOMESTIC HOUSEHOLDS 80 (in the first half of 2004; at end of period; %) 60 40 20 0 IV VI Π Ш V 700 CURRENCY COMPOSITION OF LOANS 600 500 345.8 400 300 137.6 200 48.2 100 20.4 0 Overdraft Loans for hous Consumer credit and other loans purchase 100 CURRENCY COMPOSITION OF NEW LOANS 80 60 40 20 Ω

100

80

60

40

20

0

700

600

500

400

300

200

100

0

100

80

60

40

20

Δ

VI

savings and on the real estate market since the early 1990's, but also by the lats peg to the SDR basket of currencies, which proved successful in limiting the lats fluctuations against the US dollar rate since 1994. With changing the lats peg, those fluctuations could increase considerably. In order to hedge risks, banks suggest their customers to avoid currency mismatch, setting higher margins and requiring higher downpayment in case of currency mismatch. If the currency risk is especially high, the banks lower the loan ceilings.

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At the end of June, loans to non-bank financial institutions were 4.6% {4.4%} of GDP, which is 16.3% higher year-on-year. Several large and medium-sized banks engage in lending to domestic non-bank financial institutions, and some of them hold shares in these financial institutions as well. Since the majority of those loans were granted directly to leasing companies, the performance of leasing companies has been analysed in a separate Section of this Report.

At the end of June, loans to non-resident non-banks were 7.1% {4.3%} of GDP (86.3% higher year-on-year). Loans to the new EU Member States' (Estonia, Malta, Lithuania, Cyprus, Poland and Hungary) residents expanded rapidly (see Charts 8 and 9), accounting for almost a half of loans to non-residents at the end of June. Loans to residents of other countries and groups of countries grew moderately, and the banks' exposure to those loans decreased (see Table 3). Overall credit risk associated with non-residents is relatively low, as the banks' exposure to those

Chart 5











Chart 7

GRANTED TO DOMESTIC HOUSEHOLDS (in the first half of 2004; %)

LVL
EUR
USD
Other



customers is insignificant (7.4% of total assets) and mainly relates to residents of countries rated low risk or similar to Latvia.

### Table 3

BREAKDOWN OF BANKS BY EXPOSURE TO NON-RESIDENT NON-BANKS (at end of June 2004 {at end of June 2003}; %)

	<5	5-10	>10
New EU Member States	19 {20}	2 {1}	1 {1}
EU-15	22 {21}	0 {1}	0 {0}
CIS	22 {22}	0 {0}	0 {0}
USA	19 {17}	3 {4}	0 {1}
Total non-residents	14 {15}	3 {3}	5 {4}

#### Box 1. Stress tests of the banks' loan portfolio

Stress testing of a financial instruments portfolio is a widely prevalent method of measuring various risks. **Stress tests** are a range of techniques used to assess vulnerability of a financial instruments portfolio to major changes in macroeconomic environment or to exceptional but plausible events. Their results allow to identify major risks and evaluate the potential losses incurred. Stress tests usually estimate either the impact of change in a single underlying risk factor (sensitivity analysis) or the effect of a simultaneous move in several underlying risk factors (scenario analysis).

An important indicator characterising the financial stability is the banks' capacity to absorb the potential losses incurred by increasing credit risks using their capital. With the help of a stress test, it is possible to gain an understanding as to how big are the losses that banks are able to absorb before their CAR falls below the minimum capital requirement established in Latvia (10% of the banks' risk-weighted assets). Bank losses manifest themselves in the stress test as a need to make additional provisions<sup>1</sup> for the non-performing loans the amount of which and, consequently, also their share

<sup>1</sup> In calculations, the banks' capital and risk-weighted assets are reduced by the amount of additional provisions to be made.

in total loans increases due to rising credit risk.<sup>1</sup> Stress test results of the Latvian banks' loan portfolios (see Chart 10) suggest that if, for example, the share of nonperforming loans in total loans of the Latvian banks grew by 3 percentage points, the CAR of four banks would fall below the required 10% at the end of the second quarter (the size of additional capital required to meet the minimum capital requirement, however, would be relatively small).



Adjusting the stress test results in accordance with the share of assets of banks in the total banking sector assets confirms that, for example, in the above-mentioned case where the share of non-performing loans in total loans of the Latvian banks grew by 3 percentage points, the assets of those four banks, whose CAR would fall below the required 10% at the end of the second quarter, would comprise 23% of the total banking sector assets.

The adjusted stress tests results indicate that a rise in the share of non-performing loans under 3 percentage points has no significant impact on the banking sector, because the assets of the two banks experiencing difficulties in meeting the minimum capital requirement at the share of non-performing loans growing by 2 percentage points do not comprise even 5% of the total banking sector assets and these banks are not systemically important. Moreover, with the share of non-performing loans growing by 2 percentage points, the CAR of both banks would still meet the European standards (above 8%).

As the share of non-performing loans in the total banking sector loans stood at 1.4% at the end of the second quarter, one may conclude that **the Latvian banks would have** no serious problems in absorbing a potential rise in credit risk resulting in an expansion of the non-performing loans by about 2.5 times.

The financial vulnerability of banks to a potential overall credit risk rise decreased in comparison with the end of 2003, mainly because the capital adequacy of the banks was higher at the end of the second quarter than at the end of 2003.

Using stress tests, it is possible to estimate the effect of not only a general increase of the credit risk but also the impact of specific shocks on the Latvian banks (see Table 4).

Comparison of the stress test results for various specific shocks (see Chart 11) yields that, as a result of the so far rapid expansion of mortgage lending to households, the highest financial vulnerability of the Latvian banks in the event of a potential credit risk increase is related to the loans to households for house purchases. The second most significant potential vulnerability factor is the credit risk rise in the most important sectors servicing the domestic market (domestic shock).

Although, in the event of both these specific shocks, the banks whose assets comprise

<sup>&</sup>lt;sup>1</sup> Calculations assume that with the non-performing loans increasing, the share of the three non-performing loan categories (substandard, doubtful and lost loans) in non-performing loans of each bank does not change or the substandard, doubtful and lost loans (the total of which comprises the non-performing loans) of each bank grow in proportion to the growth on non-performing loans simulated in the stress test.

#### Table 4

#### SPECIFIC CREDIT RISK SHOCKS USED IN STRESS TESTS AND PARAMETERS THEREOF

Types of scenarios	Parameters of scenarios
Domestic shock	20%* of loans to the major domestic market oriented sectors (construction, trade, real estate, renting and other business activity) become non-performing loans.
External shock	20% of loans to the major foreign markets oriented sectors (manufacturing and transport, storage and communication) become non-performing loans.
Real estate shock	20% of loans to real estate, renting and other business activity become non-performing loans.
Real estate shock affecting households	20% of loans to real estate, renting and other business activity and household loans for house purchase become non-performing loans.

\* This and the other shock parameters are based on an assumption that the rise in the share of non-performing loans consists of a proportionally equal increase in all three categories of non-performing loans (substandard, doubtful and lost loans).



more than a half of the banking sector assets would incur losses preventing them from meeting the minimum capital requirement, the CAR of the banks, with some exceptions, would be higher than 8%.

As in the case of a general increase of credit risk, overall the financial vulnerability of banks to potential specific credit risk shocks decreased in comparison with the end of 2003.

Calculation of the ratio of the total losses caused by various shocks to the total banking sector assets (see Chart 12) suggests that the losses caused by the specific credit risk shocks to the banks would be relatively small and would not exceed 2% of the total banking sector assets. The amount of additionally required capital to meet the minimum capital requirement would also be quite insignificant, if compared to the total capital of the Latvian banking sector worth more than half a billion lats (see Chart 13).





It should be noted that the potential losses that could be incurred by a real estate shock affecting households have increased in comparison with the beginning of 2004. This can be primarily attributed to the buoyant development of mortgage lending and the growing share of loans to households for house purchase in the banks' loan portfolios.

#### **3. THE OVERALL MARGIN**

### The widening of the overall margin reflects changes in the statistical methodology rather than aggravation of risks or weakening of competition.

After stabilisation of the overall interest rate margin in 2003, it grew rapidly from an average of 3.3 percentage points in the first half of 2003 to an average of 4.5 percentage points in the first half of 2004 (see Chart 14). The increase, growing from 2.8 percentage points to 3.8 percentage points, was the steepest for the household lending margin. The corporate lending margin went up from 2.5 percentage points to 3.1 percentage points. Such a jump in the lending margins, starting from January 2004, was not directly related to any changes in competition circumstances or higher risks. The interest rate margins increased mainly because a new interest rate statistics methodology, harmonized with the European Central Bank (ECB) practice, was introduced in Latvia in January 2004. The most important differences in comparison with the previous methodology are as follows:



1. The range of counterparties has been narrowed down: as opposed to the preceding years, business with non-bank financial institutions has been excluded; therefore, the average lending interest rates increased.

2. The application of effective and annualised interest rates has been changed: starting from January, interest rates are calculated based on the discounted value

<sup>&</sup>lt;sup>1</sup> All margins are calculated on new business in lats. Overall margin has been calculated by subtracting the average deposit rate from the lending rate with a fixed maturity. The margin on total loans, loans granted to private persons and enterprises has been calculated by subtracting the reference rate (the value of average 3-month money market index (RIGIBOR 3M) for the given period) from the relevant lending rates. Margin on deposit rates has been calculated by subtracting the average deposit rate from the reference rate (the value of average 3-month money market index (RIGIBID 3M) for the given period).

of the future cash flows of the loan or deposit. Therefore, when interest payments are made more often than just once a year, as is usually the case with loans, the reported interest rate tends to increase. When the interest payments are made less often than once a year, as is often the case with deposits where interest is paid on maturity, the resulting interest rate is lower.

The widening of the interest margin on loans in spring 2004 was also slightly affected by considerably more active demand for consumer credit, on which the banks usually apply a higher risk premium, while the demand for short-term financing with favourable interest rates (e.g. against securities) was substantially lower. As the Bank of Latvia raised the refinancing rate, the interest rates on consumer credit picked up notably, rising by more than 2 percentage points in June in comparison with the beginning of the year. The raise of the refinancing rate had a positive effect on the deposit interest rates as well.

Generally, the overall margin was volatile in the first half of 2004, with a slight narrowing in June. With the lending expansion continuing, banks increasingly carried out marketing campaigns, offering lower interest rates as well as various advantages concerning drawdown and repayment of loans (quicker document processing, lower commissions, loan holidays etc). This points to stiff competition, especially in household lending. Nevertheless, no further reduction of the interest rate margins can be expected in the nearest future, as the interest rate margin on loans in the corporate segment has already reached the level of the euro area (see Box 3), whereas in the household segment it will remain above that of the euro area, because the majority of Latvia's residents have no credit history.

#### 4. BANK PROFITABILITY

#### With the lending expansion continuing, net interest income of banks increased and profitability indicators improved.

In the first half of 2004, with the banks' income growing faster than expenditure profit increased by 50.5% year-on-year and reached 49.5 million lats after taxes. Thus, the banks' return on equity (ROE) improved and reached 19.6%  $\{16.3\%\}$ . The banks' return on assets (ROA) also increased to 1.6%  $\{1.4\%\}$  (see Chart 15).



In the first half of 2004, the ratio of written-off loans to capital and reserves shrank (written-off loans amounted to 2.8 million lats or were 24.5% less year-on-year).

The ROE by groups of banks varied in the first half of 2004 (see Chart 16). A higher ROE was still characteristic mainly of large banks<sup>1</sup> and medium-sized niche

<sup>1</sup> Large banks – with assets exceeding 400 million lats, medium-sized banks – with assets within the range of 100 million lats to 400 million lats and small banks – with assets below 100 million lats.

banks. For the medium-sized universal and small banks it was lower than the overall in the banking sector. Nevertheless, for a part of the medium-sized universal banks the ROE improved significantly year-on-year as the increase in operating costs was much slower and the rise in net interest income and net commissions steeper. For the majority of banks the ROE was above 15% and the market share of such banks exceeded 70% (see Table 5).



Table 5

BREAKDOWN OF BANKS BY GROUP BASED ON THEIR PROFITABILITY RATIOS (in the first half of 2004)

Return on equity (%)	Market share of banks in total assets (%)	Number of banks
4	4.9	4
≥5–10	4.9	2
≥10–15	19.5	4
≥15–20	32.4	7
≥20	38.3	5

The growth of the total interest income of the banking sector was the fastest (by 27.3% in comparison with the first half of 2003), largely driven by expanding loans to non-banks. The interest income from securities grew by 18.8% and the interest income from claims on credit institutions and the central bank increased by 15.1%.

The interest expenditure increased, mainly on account of a rise in interest expenditure on liabilities to credit institutions and central banks by 27.1% and on debt securities by 18.5%. Although the non-bank deposits expanded by 31.7%, interest expenditure on non-bank deposits grew only by 6.3% year-on-year, due to lower interest rates on deposits in the OECD currencies than in 2003.

Net interest income increased by 37.5% and accounted for 38.7% of total income (see Chart 17).



<sup>1</sup> Return on equity (ROE) has been calculated based on the "Regulation on the Preparation of Public Quarterly Reports of Credit Institutions" of the Financial and Capital Market Commission.

Net commissions and fees grew by 22.7% and amounted to 21.6% {19.9%} of total income.

The income from foreign currency trading grew by 7.5%, driven by the exchange rate volatility of major currencies and increasing trading turnover. In the first half of 2004, the share of net income from foreign currency trading and income from foreign currency revaluation in total income increased to 8.1%.

With the number of branches and employees growing, banks' operating costs increased (by 14.7%, including a rise of 18.3% in personnel wages and salaries). The share of operating costs and amortisation of intangible assets in total income picked up slightly as well (to 45.2% {44.3%}).

Banks' income grew more markedly than expenditure (by 19.3% and 12.5%, respectively). The cost-to-income ratio<sup>1</sup> improved, reaching 59.0% {64.2%}. Changes in the cost-to-income ratio by banks suggest that the cost efficiency ratio for the majority of banks was improving and the cost efficiency of almost all large banks was higher than the banking sector average.

#### The share of non-performing non-bank loans in total non-bank loans decreased.

The outstanding amount of non-performing loans to non-banks expanded by 12.5% in comparison with the first half of 2003. Nevertheless, the favourable economic conditions and expanding loans supported the improvement of the quality of banks' assets: the ratio of non-performing non-bank loans net of specific provisions to banks' capital and reserves contracted to 1.0% {1.7%} (see Chart 18). The ratio of non-performing loans and specific provisions to total loans granted to non-banks also continued to decline and at the end of June 2004 stood at 1.4% {1.8%} and 1.2% {1.5%}, respectively.



#### 5. BANK CAPITAL ADEQUACY

### The level of bank capitalisation improved slightly in comparison with the end of 2003.

At the end of June 2004, the CAR was slightly lower than at the end of June 2003 (12.1%) but it had improved in comparison with the end of 2003 (see Chart 19). The average CAR of large banks was still lower, whereas that of the small and medium-sized banks continued to shrink, approaching the CAR of the large banks. Thus, the CAR of small and medium-sized banks was 13.8% {14.7%} at the end

<sup>&</sup>lt;sup>1</sup> The cost-to-income ratio has been calculated based on the ECB methodology: (operating costs + intangible asset and fixed asset depreciation and disposal + other ordinary expenditure)/(net interest income + income from dividends + net commissions and fees + profit/loss from trades of financial instruments + financial instrument revaluation result + other ordinary income) x 100.



of June 2004, whereas that of the large banks was 11.2% {11.6%}. 12 banks reported the CAR of 10%-15% (see Chart 20).

#### 6. FOREIGN EXCHANGE RISK OF BANKS

#### Foreign exchange risk remained limited because of the balanced currency composition of the banks' assets and liabilities.

In comparison with the preceding year, the US dollar stabilised against the euro in the first half of 2004, ending its downward trend on the foreign exchange market. Because of the lats peg to the SDR currency basket, the lats exchange rate against each of the above currencies displayed similar trends (see Chart 21).



These foreign exchange market developments had no significant impact on the banks' foreign exchange risk. Although more than two thirds of the banking sector liabilities are in the US dollars and euro, the banks' exposure to foreign exchange risk is limited due to the balanced currency composition of the banks' assets and liabilities. Therefore, the banks' open currency positions restricted also by requirements governing the banking activities were small, similarly as in 2003 (see Chart 22).



Although the developments on the foreign exchange market had no significant impact on the direct exchange rate risk of banks, the overall effect on the Latvian banking sector was positive: it diminished the indirect exchange rate risk caused by the impact of exchange rate fluctuations on the financial position of the banks' customers, which, in turn, may affect the banks' credit risk. The euro appreciated significantly in 2003, but in the first half of 2004 it slightly depreciated. Therefore, the notable increase in the monthly interest payments on loans granted in euro to the banks' customers earning income in lats was no longer evident in the first half of 2004. This reduced the banks' credit risk relating to loans granted in euro, which accounted for 23% of the loans to Latvian residents at the end of June 2004.

## Box 2. Using the Value-at-Risk method and stress tests in measuring foreign exchange risk

In order to obtain quantitative estimates of banks' foreign exchange risk it is useful to apply VaR (Value-at-Risk) methodology. VaR is a financial risk measure, the value of which reflects the maximum expected losses on a financial instruments portfolio over a certain period of time with a given probability (see Chart 23).



In applying **the VaR method** to assess foreign exchange risk of Latvian banks, the above-mentioned financial instruments portfolio was created from the banks' open currency positions in two major foreign currencies (the US dollar and the euro). The exchange rates of both currencies against the lats were used as the market variables whose changes affect the portfolio value. The profit or losses on the portfolio should be interpreted as the banks' profit or losses as a result of the US dollar and euro revaluation.

VaR results<sup>1</sup> of individual Latvian banks vary widely depending on the size of their US dollar and euro open positions. At the end of June, the expected 10-day losses of

<sup>&</sup>lt;sup>1</sup> VaR has been obtained based on open currency positions in euro and the US dollar of individual banks at the end of each month. Calculations use the historical daily exchange rate changes within one year prior to VaR evaluation date (last day of the relevant month).

the bank having the largest foreign exchange risk as a result of the US dollar and euro fluctuations with a 99% probability did not exceed 108 thousand lats (see Chart 24), whereas those of <sup>3</sup>/<sub>4</sub> of the Latvian banks did not exceed 11 thousand lats.



In comparing the foreign exchange risks in various size banks, it is useful to express VaR as a ratio of each bank's capital (see Chart 25). Overall, with 99% probability the expected 10-day losses of the Latvian banks as a result of the euro and US dollar fluctuations do not exceed 0.3% of their capital. Moreover, for <sup>3</sup>/<sub>4</sub> of the banks the losses are under 0.12%. In the first half of 2004, the ratio of VaR to the individual bank's capital has remained broadly unchanged, which suggests that the banks' foreign exchange risk has also remained roughly the same.



Using the stress tests to assess foreign exchange risk of the Latvian banks, similarly as in the case of VaR, the banks' open currency positions in two major foreign currencies (the US dollar and the euro) were used as the financial instruments portfolio. The objective of the stress test was to estimate the potential losses of the Latvian banks in the event of the US dollar depreciating by 10% against the euro<sup>1</sup> (as was the case in the last two months of 2003).

The stress test results show that, for example, at the end of June, the biggest potential losses that could be incurred by any of the Latvian banks were 190 thousand lats (see Chart 26), whereas <sup>3</sup>/<sub>4</sub> of the Latvian banks would not suffer losses bigger than 10 thousand lats in the event of the US dollar depreciation. Overall, looking at the potential losses of individual banks as a ratio of their capital, the impact of a 10% drop in the US dollar/euro exchange rate on profit or loss of the Latvian banks would be within 0.45% of their capital (see Chart 27), whereas for a half of the banks the sensitivity against the US dollar depreciation would be within 0.1% of their capital. The results of the stress test do not point to any significant changes in the banks' foreign exchange risk in the last half-year and suggest that the impact of the foreign exchange risk is limited.

<sup>&</sup>lt;sup>1</sup> The impact of the US dollar and euro exchange rate fluctuations on the lats exchange rate against the mentioned currencies has been estimated based on the lats peg to the SDR currency basket.

100

50

#### Chart 26

SENSITIVITY OF LATVIAN BANKS TO THE US DOLLAR DEPRECIATION AGAINST THE EURO BY 10% (in thousands of lats)



#### Chart 27

- Maximum

Median

3rd quartile

----- 1st quartile

SENSITIVITY OF LATVIAN BANKS TO THE US DOLLAR DEPRECIATION AGAINST THE EURO BY 10% (% of capital and reserves)



#### 7. BANK LIQUIDITY

100

50

### With the growth rate of lending remaining high, the liquidity of banks servicing residents deteriorated.

The Latvian banking sector is characterised by high liquidity ratios, considerably exceeding the minimum  $(30\%^1)$  stipulated by the Financial and Capital Market Commission. At the end of the second quarter, the liquidity ratio of the banking sector stood at 54.0% {57.9%}; nevertheless, with the exposure to non-banks increasing, liquidity of the banks servicing residents deteriorated.

To assess the banks' liquidity ratio by currency and group of banks, *a short-term liquidity ratio*<sup>2</sup> was calculated. It declined slightly during the year and stood at 62.3% {66.3%} at the end of the second quarter (see Chart 28). Despite of the drop, the liquidity ratio remained high. The share of liquid assets<sup>3</sup> in total assets shrank to 32.6% {34.7%} (see Chart 29), mainly driven by a rapid pickup in loans



<sup>1</sup> The total of assets with less than 30 days to maturity may not be less than 30% of the total of liabilities with 30 days to maturity.

<sup>2</sup> Short-term liquidity ratio = liquid assets/demand liabilities (to banks and non-banks) x 100.

<sup>3</sup> Liquid assets = vault cash + claims on central banks and other credit institutions + central government fixed income debt securities.



granted to non-banks. Looking at the short-term liquidity ratio by currency, it is obvious that the overall liquidity ratio was influenced by deterioration of the lats liquidity ratio. The latest was driven by a slower increase in liquid assets due to lending expansion.

With the growth of lending, *the non-bank loan-to-deposit ratio* rose to 82.9% {73.9%} at the end of the second quarter. For resident transactions, this ratio was 148.8% {140.4%}. Banks mainly financed loans granted to residents, using resident deposits and foreign bank loans. Lending expansion was additionally fuelled by the banks' growing capital as well. Since June 2003, banks' capital and reserves had increased by 23.0%. With loans granted to the new EU Member States expanding significantly, the non-residents loan-to-deposit ratio reached 21.3% {14.7%}.

Looking at the short-term liquidity spectrum by bank groups (see Chart 30), it is evident that large banks, some medium-sized banks and one small bank have higher liquidity risk. These banks mainly grant loans to resident non-banks. The liquidity of other banks is much higher than the banking sector average, and the liquidity risk is minimal.



#### 8. FINANCIAL VULNERABILITY

### The financial vulnerability of trade and manufacturing decreased, whereas the real estate leverage increased.

In 2003, the non-financial enterprises sector continued to develop buoyantly and its key financial ratios improved (see Chart 31). A robust economic growth and favourable business environment were also reflected in the increase in the number of business start-ups (in 2003, 22.4% according to the data of the Register of Enterprises of the Republic of Latvia) for the first time since 1992. In the first half of 2004, the number of newly registered businesses was by 29.6% higher than the number of business start-ups year-on-year.



In 2003, corporate profit increased by more than 40%, which was largely determined by the results of the JSC *Latvijas Kuģniecība*. Of the major sectors, only the profit of electricity, gas and water supply shrank, due to losses of heating companies of some municipalities.

Preliminary data indicate that in the first half of 2004 the profit of the major sectors reached the same high level year-on-year; however, the return on sales declined slightly almost in all sectors, reflecting a steeper increase in the cost of sales.

Growth in the corporate assets accelerated, mainly driven by the current assets. The increase was more rapid in the most liquid current assets: short-term financial investment and the cash component in the corporate assets grew (growth of the current account balances of enterprises with the banks accelerated), and liquidity improved in almost all sectors.

Rapidly increasing profit underpinned a decrease in leverage in the major branches of the corporate sector (see Chart 32). Average debt-to-equity improved in all major sectors, except the less indebted sectors (electricity, gas and water supply; and transport, storage and communication) as well as real estate. Nevertheless, the average debt-to-equity ratio of the non-financial enterprises sector deteriorated determined by the developments in the above-mentioned branches.



Growing profits caused an improvement in the *wholesale* and *retail trade* enterprises' debt-to-equity ratio for the second successive year.

The debt-to-equity ratio of *manufacturing* also continues to improve, mainly driven by a sharp increase in the capital of *woodworking* and a reduction in the debt of *manufacture of wearing apparel, dressing and dyeing of fur, publishing, printing and reproduction of recorded media* and *manufacture of machinery and equipment n.e.c.* 

The development of industry and trade as well as the flourishing housing demand triggered a rapid growth of *real estate* companies. In 2003, investment of the sector's

<sup>1</sup> Debt-to-equity ratio is the ratio of debt to equity; liquidity: current assets to short-term liabilities; return on sales: pre-tax profit to sales.

enterprises in land plots and houses picked up rapidly. The expansion of mortgage lending and low interest rates supported the demand for *real estate* as well as facilitated growth of supply, partly financed by bank loans to *real estate* developers, resulting in an increase of debt.

With profit growing fast, the average interest coverage ratio<sup>1</sup> of the Latvian enterprises, including trade, manufacturing and construction sector enterprises, improved considerably (see Chart 33). The interest coverage ratio of *real estate*, in turn, went down due to the rising debt.



### The foreign exchange risk of households is contained as the majority of loans are granted to high and average income households.

In the first half of 2004, the net financial position of households continued to decrease, albeit remaining positive (see Chart 34). Although the rate of growth for household loans will gradually decline and there is a tendency for the growth rate of deposits to accelerate driven by the increasing wellfare of the population and hiking interest rates, the net financial position will continue to deteriorate in the next years as the household debt is growing faster than savings.



At the end of June, the household debt consisting of liabilities to banks, leasing companies and credit unions stood 76.6% higher year-on-year and had reached 15.6% {10.0%} of GDP (see Chart 35). This figure is low in comparison with other countries; e.g. the relevant figure of the euro area exceeds 50% of GDP<sup>2</sup>. Nevertheless, the rapid accumulation of debt points to growing risks in this segment. In the first half of 2004, household interest payments were 42.2% higher year-on-year, and a more rapid rise can be expected, given the growing interest rates on loans and accumulating debt.

Taking into account the currency composition of the household debt and particularly lending for house purchase (see Chapter "Bank Credit Risk") and that the

<sup>&</sup>lt;sup>1</sup> Interest cover ratio is the ratio of profit to interest payments.

 $<sup>^{2}\,\</sup>mathrm{EU}$  Banking Sector Stability. ECB. November 2003. July 2003 data.



majority of loans are contracted at floating interest rates, one can conclude that the last developments on the global financial markets (raising the US base interest rate on June 30, August 10 and September 21, 2004) and repegging the lats from the SDR currency basket to the euro in January, 2005, will increase the foreign exchange and interest rate risks of the households. Nevertheless, the risk is limited for the majority of borrowers as the banks mainly grant loans to high and average income households which will be able to absorb both the inevitable rise in interest rates and potential appreciation of the US dollar. A steep US dollar appreciation and rising interest rates, in turn, may force relatively low income households, currently constituting a small part of the borrowers to review their expenditure. Risks are limited also by the fact that paying certain commissions to the bank, the customer can change the loan currency or extend the maturity by reducing the monthly payments, if necessary.

### Box 3. Latvia and the euro area: comparison of the key financial stability indicators

Comparing the development of the main financial stability indicators of Latvia with that of the euro area, it is obvious that those indicators have improved significantly in the last four years with the economic development and growing bank competition. The debt-to-GDP ratio of Latvian non-financial enterprises is still higher than in the euro area. This is determined by the high share of trade in the corporate sector; in 2003, trade accounted for 18.1% of the total value added, whereas in Germany, France and Spain, the largest euro area countries the share was 10.5%, 9.8% and 10.9%, respectively. This particular sector is characterised by a high level of debt in all countries. Since 2000, with corporate profit increasing, their debt slightly declined. At the same time, the household debt grew; nevertheless, in Latvia it is still considerably lower than in the euro area, because household lending and, in particular, mortgage lending started to develop in Latvia in the last years. This is confirmed also by a higher lending margin for household loans. The lack of credit history does not permit application of lower risk premiums on household loans; nevertheless, there is a significant improvement in comparison with 2000. Although the lending margin calculation methodology may differ, the data suggest that the interest rate margin for loans granted to enterprises is approaching that of the euro area. This could point to similar bank competition conditions in Latvia and the euro area as well as a decline in the risk premium for corporate loans, taking into account the strong profit growth in the last years. The quality of the Latvian banks' assets, that has improved significantly since 2000, is high comparing with the euro area and partly reflects also the high growth rate of lending. The CAR in Latvia has shrunk in the last years with the development of lending and is close to the euro area average. Taking into account the rapid expansion of lending, a further reduction of the CAR would be undesirable as it would impair the banks' ability to absorb the potential shocks. The ROE of the Latvian banks is higher because of higher lending margins, rapidly increasing volumes and slower growth of expenditure. The banks' cost-to-income ratio in Latvia is currently lower than in the euro area, pointing to high cost efficiency of the banks and competitiveness on the European market.

#### Table 6

KEY FINANCIAL STABILITY INDICATORS OF LATVIA AND THE EURO AREA

	Latvia, 2000	Latvia, the first half of 2004	Euro area*
Debt of non-financial enterprises** (% of GDP)	88.8	88.1***	63.5
Household debt (% of GDP)	3.4	15.6	51.5
ROE (%)	18.6	19.7	8.6
Cost-to-income ratio (%)	67.5	59.0	66.0
Non-performing and supervised loans (% of total outstanding)	6.7	2.2	3.1
CAR (%)	14.3	12.1	12.3
Overall margin at the end of period (in percentage points)	6.4	4.1	3.5
Margin on loans granted to households at the end of period (in percentage points)	7.3	4.4	2.2
Margin on loans granted to enterprises at the end of period (in percentage points)	5.3	3.0	3.0
Total margin on loans at the end of period (in percentage points)	5.5	3.6	2.5

\* EU Banking Sector Stability. ECB. November 2003. July 2003 data.

\*\* Debt reported on balance sheets of Latvian non-financial enterprises.

\*\*\* 2003.

#### 9. LEASING COMPANIES

#### Leasing companies expanded their operation.

In the first half of 2004, the leasing service providers improved their financial position, although the recent expansion of the leasing portfolio was moderate in comparison with the especially rapid expansion in the preceding periods. Development of the leasing services was driven by the relatively low interest rates as well as the robust domestic demand and overall economic development fuelling investment in technologies, equipment etc. Leasing market development was affected also by the entrance of new participants, promoting competition, pushing down the service prices and improving the service quality.

At the beginning of 2004, several leasing companies joined the Latvian Leasing Association: limited liability company *Hanza Līzings*, limited liability company *Unilīzings* and limited liability company *Nordea Finance Latvia* were joined by limited liability company *Hipolīzings* and limited liability company *Vereinsleasing Riga*. Both new members of the Latvian Leasing Association are bank subsidiaries. The limited liability company *Hipolīzings* is a subsidiary of the JSC *Latvijas Hipotēku un zemes banka* founded on January 22, 2003, whereas the limited liability company *Vereinsleasing Riga* has been founded by *Vereins- und Westbank AG* and *Hanseatishe Leasing GmbH*. Some new leasing companies have started business as well: in January 2004, the JSC *NORD/LB Latvija* registered a subsidiary, JSC *NORD/LB Līzings*.

In the first half of 2004, the leasing companies mostly financed purchases of transport vehicles (passenger cars as well as commercial vehicles; see Chart 36). Leasing services were used relatively less for purchasing manufacturing and industrial equipment as well as real estate. Car purchase leasing has become popular because it is widely advertised by the service providers, and the convenience of this service becomes an important factor with the living standards improving and the income growing. With the growing attractiveness of bank loans due to low interest rates, real estate leasing becomes less attractive.



In the last year, consumer goods leasing and ships, airplanes and other transport vehicles leasing expanded considerably (by 121.8% and 771.8%, respectively). Nevertheless, this is a rather new segment, and not all participants of the Latvian Leasing Association provide such services. Consumer goods leasing (purchases of household appliances, furniture and other household goods), in turn, is becoming popular among residents. Consumer goods leasing is a fast growing segment of the leasing portfolio; nevertheless, as the value of consumer goods is lower than the value of manufacturing equipment or commercial vehicles, its share in portfolio is low.

Looking at the leasing companies leasing portfolio based on the lessee's economic sector, an important role is played by transport, storage and communication, manufacturing as well as trade companies (see Chart 37). Leasing used by households is also growing every quarter. At the end of June 2003, leasing provided to households comprised 13.7% of the leasing companies' portfolio, whereas at the end of June 2004 17.0%. Fishing, mining and quarrying, financial intermediation, electricity, gas and water supply companies, and hotels and restaurants account for a considerably smaller share of the leasing portfolio.



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