BANKA SLOVENIJE

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FINANCIAL STABILITY REPORT

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ABSTRACT

For empirical purposes financial stability is defined as a situation in which the components of the financial system, such as financial markets, financial institutions and financial infrastructure, function without systemic disruptions, and in which each component of the financial system provides the greatest possible degree of flexibility in responding to any shocks that occur. The aim of the Financial Stability Report is, on the basis of the available data, to assess the robustness of the financial system, particularly the banking sector, and to draw attention to systemic risks that could affect several financial institutions and thus hinder effective financial intermediation.

Slovenia's membership of the EU has intensified the level of international connections between the Slovenian financial system and foreign financial institutions and the level of interconnection between various institutions within the domestic financial system. The higher level of international connections and connections between sectors is bringing about a redistribution of risks between financial institutions and the appearance of new systemic risks. It should be added that, in the circumstances of Slovenia's upcoming adoption of the euro, international financial flows leading to specific structural changes in the Slovenian financial system are strongly intensifying, and attention is drawn to these below. Some of these risks will become permanent features as Slovenia converges with and enters the eurozone. In order to ensure financial stability it will be necessary to constantly monitor them and to respond appropriately.

External risk factors in the financial system

Among the external risk factors in the Slovenian financial system examined is the rise in domestic institutions' borrowing abroad. The rapid growth in borrowing abroad by the banking sector is increasing the relative sensitivity of Slovenian banks to developments on the European financial market, particularly to the financial markets of EU member-states in which the creditor banks operate. Non-monetary financial institutions also borrow more abroad than from domestic banks, leasing companies in particular, and to a lesser extent the insurance sector. Any economic imbalance abroad or other economic factors that could result in a rise in foreign interest rates would be relatively rapidly reflected in higher financing costs for Slovenian financial institutions.

Alongside borrowing abroad by domestic entities, there is also a pronounced trend of rising investment abroad by domestic institutions. Owing to the rapid growth in investments in foreign securities by the financial sector, which exceeded 103% at the end of 2004, Slovenian non-monetary financial institutions are becoming increasingly sensitive to movements in stock market indices on foreign capital markets. Despite rapid growth at the end of 2004, the proportion of foreign securities did not exceed one-fifth in any of the more important segments of the financial sector. Last year the portfolio of foreign securities remained relatively diversified among various national capital markets in Europe. In seeking higher returns Slovenian investors have been expanding their investments in equity securities in the former Yugoslavia relatively rapidly since the middle of 2004. In the first months of this year such investments accounted for 27% of all residents' investments in foreign securities.

Domestic risk factors in the financial system

Alongside external risk factors in the Slovenian financial system, there is also a need to examine certain key domestic factors.

Credit risk at banks: Slovenia joining the EU and later the ERM 2 exerted a beneficial influence on the assessment of economic trends and consequently brought about a lowering of credit risk at banks.

In the context of rising economic growth, the nominal convergence of interest rates, which was most pronounced in 2003 and the first half of 2004, led to high growth in bank lending to companies and in particular to households last year. Despite high lending growth banks are optimistic in assessing credit risk, which is reflected in the decline in the proportion of bad loans in the bank portfolio and the decline in the special provisions created. The optimism in the assessment of credit risk last year came from the favourable economic trends and the increased competition on the bank lending market. Should economic conditions deteriorate, banks would be faced with longer delays in loan repayment and an increase in the proportion of bad loans in their portfolios. The slight fall in risk premiums within the lending rates charged to their customers by banks in the last year would not allow an increase in special provisions without bank performance suffering.

Exchange rate risk: in terms of currency structure, foreign currency loans are rising most rapidly, although banks have succeeded in managing or reducing exchange rate risk by shortening the long open foreign exchange position, partly by making use of foreign currency sources of financing abroad and partly by making outright sales from foreign exchange swaps with the Bank of Slovenia. However exchange rate risks in the form of a short foreign exchange position are increasing in the corporate sector, and in the event of adverse movements in the economy and significant tolar depreciation these could be reflected in an increase in credit risk at banks.

Interest rate risk: among banking risks interest rate risk is growing in importance, as a result of the increase in the proportion of long-term loans with a variable interest rate, while the proportion of bank assets accounted for by long-term deposits shrinks. This process has led to an increasing gap between the average period over which lending rates are changed and the average period over which deposit rates are changed, and for this reason the exposure to the risk of a rise in interest rates faced by banks increased last year.

Bank solvency: despite rapid lending growth banks maintained solvency at an adequate level, having raised their capital adequacy by the end of 2004 through recapitalisations, the issue of subordinated debt and the issue of hybrid instruments.

Interconnections between sectors: owing to the decline in interest rates at banks last year, savings have migrated into alternative forms. There has been a particular increase in mutual fund assets, premiums paid into life insurance and premiums paid into voluntary supplementary pension insurance. In order to mitigate the effect on their performance of the rapid decline in the net interest margin, banks have become more active in other areas of finance. Via equity investments in investment fund management companies, banks controlled 40% of total investment fund assets by the end of 2004. Banks also held significant capital investments in leasing companies, with the companies under majority bank ownership accounting for 23% of all leasing business last year. The number of banks authorised by the Bank of Slovenia to broker the sale of insurance policies and mutual fund investment coupons has also risen. The rise in links between companies in various segments of the financial sector has also opened up the possibility of risk transfer between various financial entities. At the same time there is a growing danger of infection of financial entities in the realisation of risks, and the need for consolidated monitoring of related parties is thus also growing.

* * *

Based on the figures to the end of March 2005, it can be said that the banking sector remains relatively stable, but, in the light of the increase in interest rate risk, the decline in secondary liquidity and the relatively optimistic assessment of credit risk, banks are becoming more sensitive to potential unfavourable economic developments or unforeseen economic shocks.

EXECUTIVE SUMMARY

The banking sector's profits rose more sharply in 2004 than in the previous year, and were up 13.3% in real terms, which saw banks increase their level of operating returns. The reason was high growth of 18.7% in non-interest income. Particularly, net income from financial transactions rose sharply, banks being able to generate these primarily thanks to rising prices on the capital market in the first half of the year. Net non-interest income, which last year surpassed 40% of banks' gross income, is less predictable than net interest income, particularly net income from financial transactions, and is more dependent on market conditions. Banks' operating results are thus becoming more variable.

Net interest income fell last year owing to the sustained decline in the net interest margin. In one year it declined by 0.4 percentage points to 2.8%. The nominal convergence of interest rates, which was most intensive in the first half of the year, was reflected in lending rates falling faster than deposit rates, with the spread between the calculated lending and deposit rates falling by 0.3 percentage points. The relatively rapid decline in deposit rates only ceased in the second half of 2004, when some interest rates had become negative ex post in real terms, which still poses a threat to banks maintaining stable sources of financing in the long term. At banks this was reflected in the continuing modest growth in deposits by non-bank sectors of 7.0%. Banks themselves also contributed to the undesirable process of the shortening of average maturity periods by setting a falling time structure curve on deposit rates in the first months of 2004. As a result the proportion of banks' total assets accounted for by deposits by non-bank sectors fell by just under 3 percentage points.

Together with high economic growth of 4.6%, the stable tolar exchange rate after Slovenia joined the ERM 2, and the increase in domestic spending, the nominal convergence of interest rates helped to create conditions for high growth in bank lending, which almost reached 20% last year and is still rising. The proportion of bank's total assets accounted for by loans to non-bank sectors rose by 3.7 percentage points. The fall in the interest margin compelled banks to seek to aggressively increase their share of the lending market, at which banks under majority foreign ownership were most successful, increasing their market share by 2.5 percentage points.

The success of banks under majority foreign ownership in increasing their market share lay in their easier, cheaper access to foreign currency resources abroad. This pattern was followed by other banks last year, which saw the proportion of total assets accounted for by foreign resources rise to 18% at an annual growth rate of 39%. It was only in this manner that banks could compensate for the slow growth in domestic deposits in the context of high lending activity. Last year there was a final shift in banks' balance sheet management away from the more active management of assets seen in the period of high capital inflows between 2000 and 2002 and towards the more active search for resources abroad and additional accumulation of capital to achieve high lending growth. This was also reflected in the relatively sharp decrease of 7 percentage points in banks' secondary liquidity to 15% of total assets. Bank liquidity nevertheless remains at a satisfactory level.

High lending growth, for which banks also prepared with recapitalisations and issues of hybrid instruments, did not increase the total of large exposures, this remaining at the average level of the previous five years, 196% Banks' exposure to customers classed as suppliers of cyclical consumer goods and to the households fell by 1 percentage point last year, but it still represents a significant 44% of total credit exposure. The counter-cyclical sensitivity of Slovenian banks' portfolio thus remains relatively high.

Despite relatively high lending growth and the decline in the proportion of banks total assets accounted for by securities, which together brought about an 18% rise in classified claims, banks' special provisions rose by just 4.3%, thus reducing the coverage of classified assets by 0.7 percentage points to 5.2%.

Banks are optimistic in rating the credit risk of their customers, with the proportion of claims given the lowest risk grade of A rising most, by 0.8 percentage points to 81.7%. By contrast the proportion of non-performing claims (D and E) fell by 0.7 percentage points to 3% of risk-adjusted claims. In addition, in 2004 banks made the largest reduction in their coverage of claims with special provisions for Categories C and D. That credit risk is not worsening is confirmed by the relatively stable risk premiums on the interest rates that banks charged customers in the various categories last year, which are even falling on some types of loan.

The favourable economic conditions and business optimism can also be seen in the increase in unsecured loans approved by banks in 2004. Some 63.4% of the loans made by the group of largest banks last year were unsecured (including those with bills pledged as collateral). However new forms of collateral are also appearing, and the proportion of loans secured with more than one form of collateral simultaneously is rising. This is reducing banks' dependence in the movement of credit risk on liquidity alone, and the price of an individual form of asset. Banks still have 60% of households' loans secured with insurance companies, 73% of which are with a single insurance company. Although insurance companies' claims ratio from this improved strongly last year, and it is not a significant form of insurance for insurance companies, the high level of concentration of insurance for households' loans at insurance companies is a potential flashpoint of systemic risk for banks that could be realised in worsened economic circumstances.

With the tolar exchange rate stable and foreign currency interest rates lower than tolar interest rates, there was a rapid increase in corporate foreign currency lending in 2004, at an annual growth rate of 45%, and in household foreign currency lending. While banks' foreign currency assets had risen to 35.5% of total assets by the end of the year, the rise in banks' foreign currency liabilities was even faster, as they reached 38% of total liabilities. However it is felt that banks' exposure to exchange rate risk is moderate and manageable, as banks closed their open foreign exchange position in 2004 by selling foreign currency to the Bank of Slovenia. With the Bank of Slovenia joining the ERM 2 and setting the tolar parity level against the euro in June 2004, the institutional conditions of business for banks became more transparent, as the Bank of Slovenia thereby committed itself to upholding the rules of the exchange rate mechanism and to maintaining the stability of the exchange rate. Banks' open foreign exchange position closed substantially last year, but is still long in the amount of 26% of capital. It was found that banks under majority foreign ownership almost completely closed their open foreign exchange positions in 2004 using Bank of Slovenia foreign exchange swaps, while banks under majority domestic ownership used foreign exchange swaps to switch from a short to a long open foreign exchange position.

Banks are exposed to increasing risk via their customers. The short open position maintained by companies, increasing since 2000, had reached 9.4% of their assets by 2003, or 21% of capital. During tolar depreciation the open foreign exchange position would open further and would increase companies' net indebtedness as expressed in tolars. Last year there was a large rise in banks' exposure in foreign currency clauses tied to the Swiss franc. This currency risk does not represent a major risk to banks, owing to the relatively small 4% of the foreign currency clause sub-balance for which it accounts, but given the relatively high volatility of the Swiss franc, risks can be realised with customers.

Among banking risks, interest rate risk is becoming more pronounced and unfavourable. The gap between the average period of change in lending rates on one hand and deposit rates on the other has lengthened in the course of a year from four months to six months. This is primarily the result of loan maturity periods lengthening and deposit maturity periods shortening. Large banks are most exposed to interest rate risk, with their average period of change in lending rates exceeding that of deposit rates by more than nine months, while for small banks and foreign banks the discrepancies are just 4.6 and

3.1 months respectively. Taking the average period for a change in interest rates for the end of 2004, the banking sector is increasingly exposed to the risk of a rise in interest rates. However an improvement in interest rate risk, or at least an end to the unfavourable trend, can be expected, as since the end of 2003 the proportion of newly approved loans with a variable interest rate has been increasing, reaching 41.1% by the end of the year.

Bank solvency remains at a satisfactory level, but increased lending has brought a need for banks to recapitalise. Capital adequacy had risen slightly by the end of 2004 to 11.8%, although Tier 1 capital adequacy continues to deteriorate. Intense competition to increase the share of the lending market forced banks to optimise their capital management. Small banks were the least successful in this, and their capital adequacy declined most, to 11.7%. Supplementary capital rose as a proportion of regulatory capital to 34%, primarily at the expense of an increase in subordinated debt, which at some banks already represents a limit on the possibility of increasing capital adequacy, and at the expense of a sharp increase in the volume of hybrid instruments issued, which were uncommon in the past.

As a result of bank activities, risk-adjusted assets rose by almost 19%, the structure also changing in favour of an increase in the proportion of market-risk-adjusted items at the expense of a decline in the other two proportions, those of credit-risk-adjusted and exchange-rate-risk-adjusted items.

Owing to the decline in interest rates on bank deposits, non-monetary financial intermediaries also grew in importance in 2004. In addition to rises in share prices on the capital market, another factor in the 14% increase in the assets of investment funds was high net inflows into mutual funds, which amounted to SIT 81 billion. The assets of the latter increased by 126% over the year. It is of slight concern that the net inflows into mutual funds in 2004 accounted for almost 21% of the annual volume on the Ljubljana stock exchange, which given the existing structure in the investments of domestic mutual funds points to the significant influence that they exert over the movement of stock exchange prices. Last year mutual funds increased the proportion of their investments in foreign securities by a large 7 percentage points to 16% of total assets. The continuing rapid increase in mutual funds' investments abroad and the corresponding lower demand for domestic shares could have a significant impact in lower growth in the stock exchange indices in the future.

A downturn in indices on the domestic capital market could partly bring about a deterioration in insurance companies' profits. The large proportion of insurance companies' investments in domestic securities that account for 17% of the total market capitalisation of all securities on the Ljubljana stock exchange demands that insurance companies also seek opportunities for capital investment abroad in order to increase their risk diversification. Despite a decline in net profit in 2004 the insurance sector continues to perform well, having expanded collected premiums by 12%, maintained a high coverage of technical provisions by assets covering technical provisions of 111%, and increased the surplus of capital over the minimum required capital by an additional SIT 3 billion.

With the decline in interest rates and increased lending by banks, the household sector is taking on more debt. The same holds for the corporate sector, whose net borrowing from Slovenian banks rose from the equivalent of 17% of GDP to 21% over the year.

I. THE MACROECONOMIC ENVIRONMENT

1 ECONOMIC TRENDS AND THE INTERNATIONAL CLIMATE

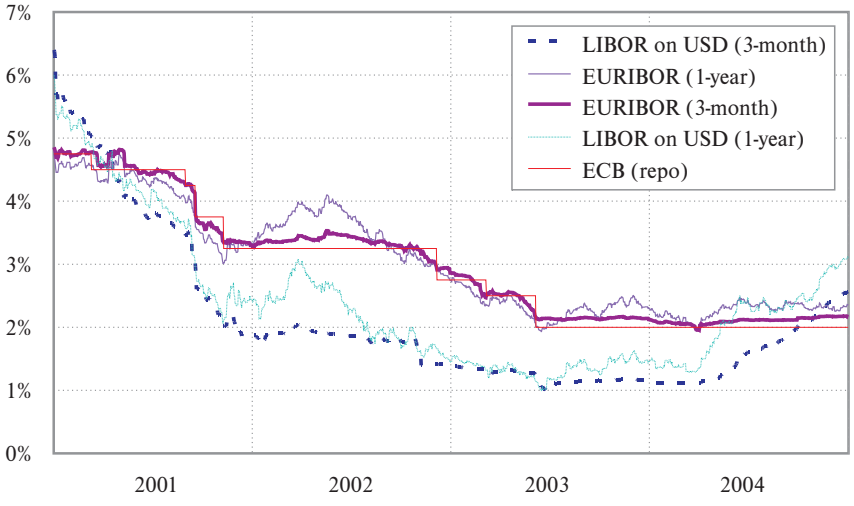
1.1 The International Environment

Economic growth in the eurozone strengthened by 0.5 percentage points in 2004 to 2.0%. After economic growth in the USA and Japan strengthened in 2003, both economies also recorded faster economic growth last year. Economic growth in Slovenia's trading partners, in particular France, Austria and Germany, increased in line with economic growth throughout the EU. Eastern European countries also recorded higher economic growth than in 2003.

Inflation in the eurozone averaged 2.1% in 2004, thus remaining at a similar level to the previous year. Year-on-year inflation in the eurozone had risen to 2.5% by the end of May 2004, but fell back to just over 2% by the end of the year. The rise in inflation was expected, given the effects of rising oil prices on world markets. In the USA inflation rose 0.4 percentage points from 2003 to 2.7%. The oil price remains a significant risk factor for rising inflation. It averaged USD 38.3 per barrel in 2004, one-third more than 2003. In January and February 2005 it rose strongly again, passing the USD 50 mark again by the end of February. A continuation of the rising trend owing to uncertainty on the supply side, with increased demand, could trigger further inflationary pressures around the world.

After last June the Fed raised its key interest rate five times, the rate reaching 2.25% by the end of December. The reasons cited for the interest rate rise were moderate economic growth and improved conditions on the labour market. For the moment interest rates remain unchanged in the eurozone , as it is still felt that given the slow pace of the recovery of the European economy the current interest rates pose no threat to inflation targets. The ECB refinancing rate has thus remained unchanged since June 2003 at 2%. Neither do long term interest rates show any expectations of a significant rise in the near future.

Figure 1.1: Leading interest rates: Libor and ECB refinancing rate



Source: Bank of Slovenia, ARC

The euro appreciated against the dollar last year. At the beginning of 2004 the euro stood between USD 1.25 and USD 1.3, but had fallen below USD 1.2 by May. It then strengthened sharply to USD 1.36 in the latter months of the year, the main factors in this being rising oil prices and the high budget deficit

in the USA. Growth in stock exchange indices in recent months points to the dollar rising moderately against the euro.

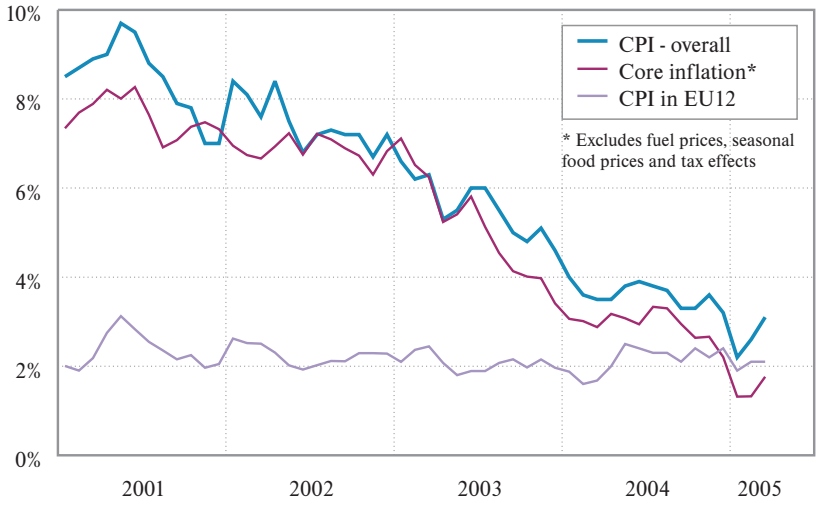
1.2 Inflation Trends and Economic Activity in Slovenia

Inflation trends in Slovenia

The gradual fall in inflation in Slovenia continued in 2004. Year-on-year growth in prices fell below 4% at the beginning of the year, and then fluctuated between 3% and 4% for the majority of the year. It fell further to 3.2% in December 2004. The fall in inflation was sustained, with all the most important equilbiria in the economy being maintained. There was a moderate current account deficit of 0.9% of GDP in 2004, while at 1.4% of GDP the budget deficit did not transgress the Maastricht criteria. General government debt remains low at 26.1% of GDP.

The coordinated action by the Bank of Slovenia and the Slovenian government was significant in reducing inflation. Prior to entering the ERM 2 in June 2004 the central bank administered a policy based on adjusting interest rates to the needs of a sustained reduction in inflation. By exerting influence on the right level of real interest rates and gradually stabilising the exchange rate it eased inflationary pressures of a monetary nature and pressures from aggregate demand. The government also controlled the rise in administered prices, and eased the transmission of high oil prices on the world market to domestic prices by making acyclical adjustments in excise duties on refined petroleum products.

Figure 1.2: Inflation in Slovenia and the EU



Source: Bank of Slovenia, ARC

Owing to current deflation in December 2004 and January 2005 the year-on-year inflation rate fell further to reach 2.2%. The factors that will affect the movement of inflation in the months ahead remain the same as last year. Externally, rises in oil prices and the possible rise of the dollar against the euro could have an unfavourable effect on the movement of prices, while domestically the main risks come from possible excessive spending owing to low interest rates and the stable tolar/euro exchange rate. Increased competition in certain sectors of the economy and the additional freeing of the flow of goods owing to the abolition of customs duties after Slovenia joined the European Union were reflected in a temporary fall in inflation. The movement of administered prices and, in particular, slow growth in wages and social transfers will be vital to the movement of inflation in the months ahead.

Economic activity in Slovenia

At 4.6% economic growth in Slovenia in 2004 was the highest recorded since 1999. Domestic spending continued to strengthen last year, with the largest rise of 9.1% being recorded by gross investment spending, although the growth rate fell in the final two quarters of 2004. The rise in investment spending last year was the result of strong activity in housebuilding and an increase in inventories. Household spending maintained a relatively lively current rate of growth of 3.5% for the whole year. The main engine of economic growth was the positive trade balance in the second half of the year. However the balance over the year as a whole was still negative, although less than in 2003.

Table 1.1: Annual growth in GDP and GDP components (%)

	2001	2002	2003	2004	2004			
					Q1	Q2	Q3	Q4
Real GDP	2.7	3.4	2.3	4.6	4.1	4.9	5.0	4.3
Household spending	2.3	0.4	2.9	3.5	4.0	3.4	3.5	3.2
General government spending	3.9	2.5	1.9	1.6	-0.1	1.5	2.5	2.6
Investment spending	-4.3	6.6	8.8	9.1	9.6	13.8	7.9	5.1
Exports of goods and services	6.3	6.8	3.1	12.5	9.1	14.5	13.3	13.3
Imoorts of goods and services	3.0	4.8	6.4	12.3	10.0	15.6	12.1	11.6
Net exports*	1.7	1.0	-2.0	-0.2	-0.7	-1.2	0.4	0.5

Note: * in percentage points
Source: Statistical Office of the Republic of Slovenia (SORS), Bank of Slovenia ARC calculations

Outlook

Economic growth in 2005 should be similar to last year, while inflation should fall significantly by the middle of the year. Both will be affected by external factors, domestic conditions, and the response of economic policy to these. The principal external factors affecting inflation are the rise in oil prices and commodities prices, and the movement of the dollar against the euro. With its stimulation of export demand, economic recovery in the EU will be important to economic growth in Slovenia.

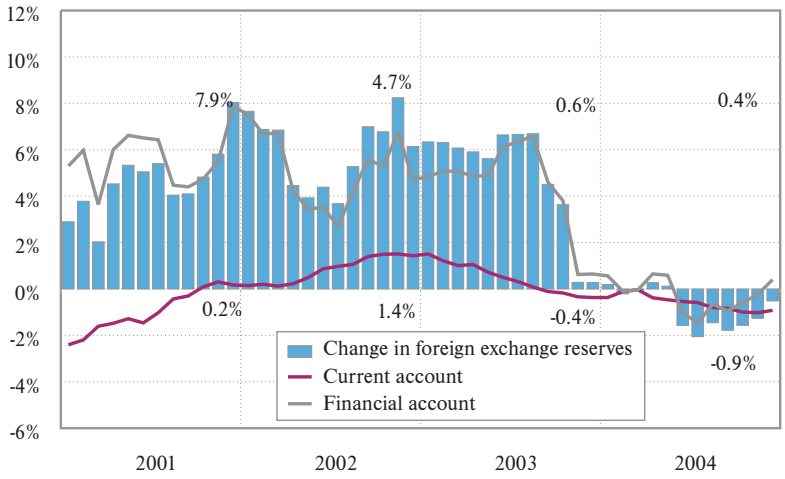
Growth in household spending is the important factor in domestic spending. This is linked to greater purchases of consumer durables in the context of a fixed exchange rate and low interest rates on bank deposits and loans, and increased investments in housebuilding. At the same time growth in general government spending remains modest. Cuts in interest rates could bring further pressure for higher spending and a deterioration in the balance of payments.

After Slovenia joined the ERM 2 in June 2004 monetary policy began to focus on meeting the criterion of exchange rate stability, which placed the principal burden of reducing inflation on fiscal policy and incomes policy. Excessive spending and pressures for higher wages and social transfers are most likely to be factors in inflationary pressures that could make it more difficult to meet the Maastricht criteria.

1.3 Balance of Payments

There was a slight current account deficit for the second successive year, a figure of 0.9% of GDP being recorded last year. The main factors in the widening of the deficit by 0.5 percentage points were the deficit in trade in goods in the light of higher domestic spending, unfavourable price movements on foreign markets, and a decline in the surplus in transfers. There was a large surplus in trade in services, and labour and capital expenditure were lower.

Figure 1.3: Current account and financial account as proportion of GDP (average for previous 12 months)



Source: Bank of Slovenia

The financial account surpluses in the last two years have fallen significantly from previous years. The surplus in 2004 was estimated to have been just 0.4% of GDP, the reason for the low level being low foreign direct investments in Slovenia and the rise in private sector financial outflows to the rest of the world, particularly through investments in foreign securities.

Table 1.2: Net flows in capital financial account (EUR millions)

				last 12 months
	2002	2003	2004	February 2005
1. Current account	330	-91	-238	-281
- % GDP	1.4	-0.4	-0.9	-1.1
2. Financial account	1,107	159	105	221
- % GDP	4.7	0.6	0.4	0.8
of which private sector	1,297	185	352	536
Capital transfers	-163	-164	-189	-191
Direct investments	1,582	-115	21	-33
Investments in securities	-117	-125	-265	-290
Net trade credits	-42	-55	-36	-82
Net loans	667	988	1,391	1,488
Bank deposits	130	428	236	464

Note: Signs: inflows or increase in liabilities (+), outflows or increase in claims (-)
Source: Bank of Slovenia, ARC calculations

In the financial account all the more important items of claims against the rest of the world increased in 2004, with the exception of foreign direct investments abroad. Investments in foreign securities (portfolio investments abroad) tripled, which was the result of changes in the structure of the domestic financial market. The rise in lending from abroad through trade credits was the result of above-average growth in exports to less wealthy regions. Financial outflows from consumers and purchases of foreign currency continue to show sustained growth.

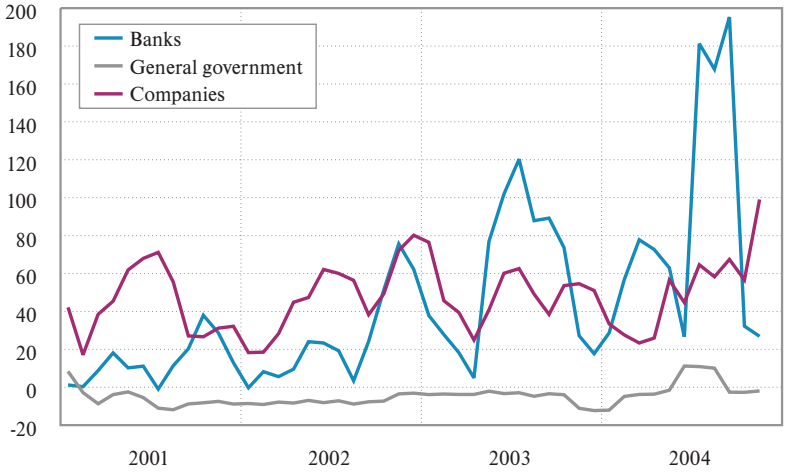
In terms of liabilities to the rest of the world, borrowing abroad by banks and companies remained high last year, particularly towards the end of the year. Inflows from direct investments by non-residents were

up EUR 123 million from 2003, but were still a fraction of those in 2001 and 2002, as there were no major acquisitions or investments by non-residents.

Banks' and companies' liabilities to the rest of the world

The currency structure of the lending market changed last year in favour of foreign currency loans, with the tolar lending market continuing its contraction. Foreign currency lending to non-bank sectors is growing in importance to domestic banks. Last year there were SIT 261.6 billion of foreign currency loans, some 77.5% of the net increase in lending[1] of SIT 337.5 billion, taken out at Slovenian banks by companies. Taking total corporate lending of SIT 510.8 billion into consideration, including loans taken out abroad, foreign currency accounted for 85%. Last year Slovenian banks increased their borrowing from banks abroad, this being linked to the relatively weak growth in deposits by non-bank sectors. Banks directed funds from abroad into corporate foreign currency lending, thus financing higher economic activity. The ratio between corporate financing inside and outside Slovenia fell slightly last year. Companies found approximately two-thirds of the increase in lending in Slovenia, and the remainder abroad. Slovenian banks and companies borrowed abroad at relatively favourable interest rates last year. On average banks concluded agreements for long-term foreign currency loans at an interest rate of 2.4%, and companies at 2.7%.

Figure 1.4: Bank, corporate and government liabilities to rest of world (EUR millions; 3-month sliding average)



Source: Bank of Slovenia, ARC

Prevalence of corporate foreign currency lending

Table 1.3: Net loans to banks and companies inside and outside Slovenia (SIT billions)

	1999	2000	2001	2002	2003	2004
Companies* inside Slovenia	105	162	229	114	312	338
.....of which tolars	50	96	140	7	139	76
.....of which foreign currency	55	66	89	107	173	262
Companies abroad	92	133	108	133	133	173
Banks abroad	47	63	33	76	154	226
Total (companies and banks)	244	359	370	322	600	736

Note: * excludes other financial organisations
Source: Bank of Slovenia

[1] Corporate borrowing at domestic banks involves a change in loan stock, while corporate borrowing at banks abroad involves flows from the financial account.

The high current rate of growth in corporate foreign currency lending in 2004 raised the proportion of bank lending to non-bank sectors accounted for by foreign currency loans. From 37% in January 2004, it had reached almost 48% by March 2005. The importance of household lending is also growing, as a significant proportion of newly approved household lending in recent months has been in foreign currency, and the year-on-year growth is extremely high. However stock of foreign currency lending still only accounts for a very low proportion of all lending to the household sector: just 3.9% in February 2005. With corporate foreign currency lending prevalent at domestic banks, corporate borrowing directly from banks abroad also rose strongly in the final months of 2004 in particular. Of the total increase in corporate lending from domestic and foreign banks in 2004, just 15% was in tolars.

1.3.1 Country Risk

International agencies' credit ratings for Slovenia have improved throughout recent years. The reasons are the well-diversified and open economy, political stability, its membership of the EU and Nato, the low budget deficit and public debt, the equilibrium in the balance of payments and the low level of external debt. The last improvement in country risk ratings came before Slovenia joined the ERM 2. With inflation falling rapidly, S&P forecasts that, together with Estonia and Lithuania, Slovenia will be among the first of the new EU member-states to adopt the euro before 2008.

S&P upgraded its rating for Slovenia to AA-/A-1+ from A+/A-1 in June 2004. In upgrading its ratings for eight of the accession countries Moody's upgraded Slovenia from A2 to Aa3. Slovenia is now one grade ahead of the Czech Republic, Estonia and Hungary, and two ahead of Latvia, Poland and Slovakia.

Among the factors that will see Slovenia's rating improve further, Moody's cites successful participation in the ERM 2 and adoption of the euro, the continuation of restrictive wage policy to hold wage growth behind growth in productivity and thus to raise the competitiveness of the economy, and measures to bring about a reduction in the structural fiscal deficit.

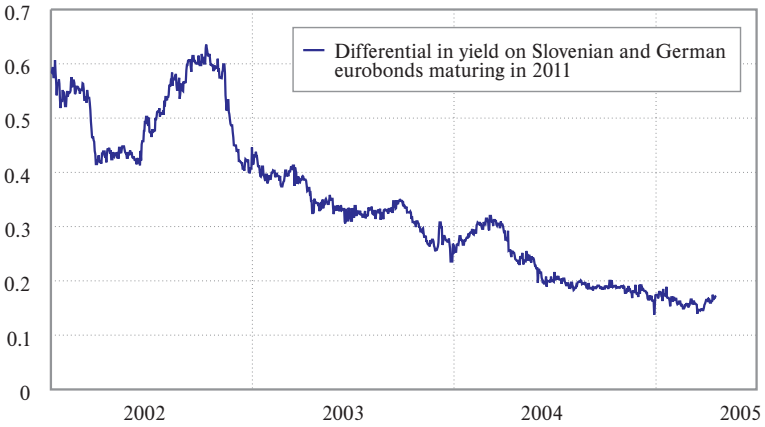
Factors that could act in the opposite manner, i.e. a downgrading, include a further loss in competitiveness together with a deterioration in the fiscal position owing to ineffective pension reform and disadvantageous demographic trends, and ineffective targeting of social transfers, which would increase general government debt. Other adverse factors include further cuts in interest rates after ERM 2 entry, which would act to increase domestic spending should economic policy fail to respond correctly to this process.

Country risk premium on Slovenian government eurobonds

There has been a trend of a declining country risk premium for the last two years. The basic reasons for the decline in the premium are the same as those for the upgrading in country risk. Having shown a falling trend in the period to the middle of 2004, the spread in yield between investments in domestic eurobonds maturing in 2011 and the comparable German bonds has stalled around 0.16 percentage points in recent months.

Slovenia's country risk premium on this instrument is at a similar level to that of Estonia, and is lower than some of the other new EU member-states. Hungary (0.23), Cyprus (0.31) and Poland (0.23) all have higher risk premiums. In the months since EU entry, the risk premiums of all the new member-states have fallen.

Figure 1.5: Country risk premium for Slovenian government eurobonds maturing in 2011 in percentage points



Source: Bank of Slovenia, ARC

II. NON-FINANCIAL INSTITUTIONS

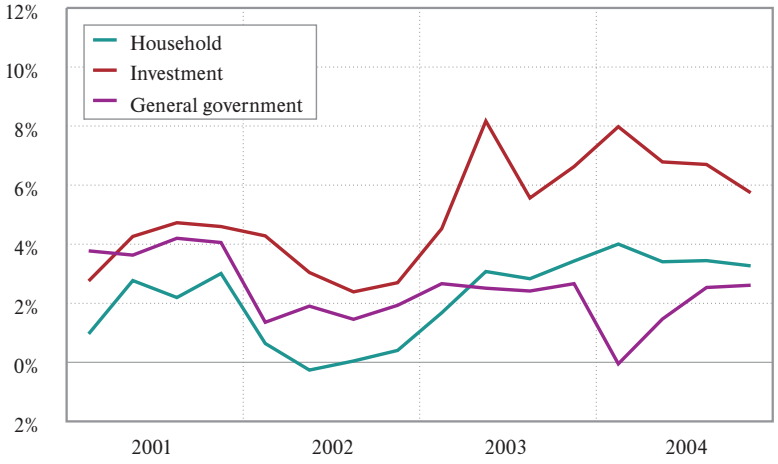
2 HOUSEHOLD SECTOR

2.1 Consumer Spending

Consumer spending began to strengthen back in the second quarter of 2003. It remained at a relatively high level in 2004, ending the year 3.5% higher than the previous year. There are several factors affecting the rise in consumer demand:

- the trend of significant cuts in bank interest rates, as a result of the nominal convergence of domestic interest rates, is an incentive against bank saving and an incentive in favour of taking out loans
- the stability and predictability of the exchange rate led to higher consumption of imported goods
- at the beginning of last year consumers had relatively low levels of debt with banks, the cycle of loan repayments from previous years having ended[2]
- the release of funds saved in the first generation of the national housing saving scheme brought increased demand for housing and for purchases of consumer durables

Figure 2.1: Year-on-year growth in domestic spending



Source: Bank of Slovenia

Given the increase in the current account deficit and the potential risk that rising consumption could bring about higher prices, particularly if supported by wage growth, it should be noted that consumption in previous years was relatively low, as it coincided with extremely low growth in household lending until the middle of 2003.

2.2 National Housing Saving Scheme

In 1999, via the Housing Fund of the Republic of Slovenia, the government began using the National Housing Saving Scheme (the NSVS) as an instrument of housing policy to exert a positive influence on long-term saving and to expand the amount of long-term housing credit available. In 2004 the first

[2] Just prior to the introduction of VAT in 1999, households made major purchases of consumer durables, borrowing heavily from banks.

generation of five-year NSVS contracts matured, but owing to the altered circumstances on the market it was found that the amount of funding exploited on the basis of the scheme was significantly less than expected. The altered circumstances made such forms of lending less attractive to banks and consumers. There was no new scheme offered in 2004 as there were in the previous four years. The reasons were the high interest rates that banks would have to pay savers under the terms of the scheme, and the obligation for banks to repay the premiums to the government if the saver does not opt to take out a housing loan after the saving period ends.

Maturity of first generation five-year NSVS contracts in 2004 and disbursement of loans

The first generation of the NSVS, which had involved 19,635 savers since July 1999, matured in June 2004. By the end of the saving period a total of SIT 43 billion had been mobilised from money paid in, interest and government premiums.

Table 2.1: Saving within National Housing Saving Scheme as at end of 2004 (SIT billions)

	Saving term	Number of savers	Money saved			
			payments	premiums	interest	total
1. 1999 scheme (remaining)	5 years	649	483	186	510	1,179
	10 years	1,819	3,175	289	801	4,265
	Total	2,468	3,658	476	1,311	5,445
2. 2000* scheme	5 years	11,395	14,871	1,193	2,296	18,359
	10 years	1,226	1,494	148	285	1,927
	Total	12,621	16,365	16,365	16,365	16,365
Other three schemes	5 years	37,822	29,633	1,782	2,937	34,353
	10 years	3,086	2,567	184	301	3,047
	Total	40,908	32,200	1,967	3,238	37,400
All schemes	5 years	49,866	44,987	3,162	5,743	53,892
	10 years	6,131	7,236	621	1,387	9,239
	Total	55,997	52,223	3,783	7,130	63,131
Total (%)	5 years	89.1	86.1	83.6	80.5	85,4
Total (%)	10 years	10.9	13.9	16.4	19.5	14.6

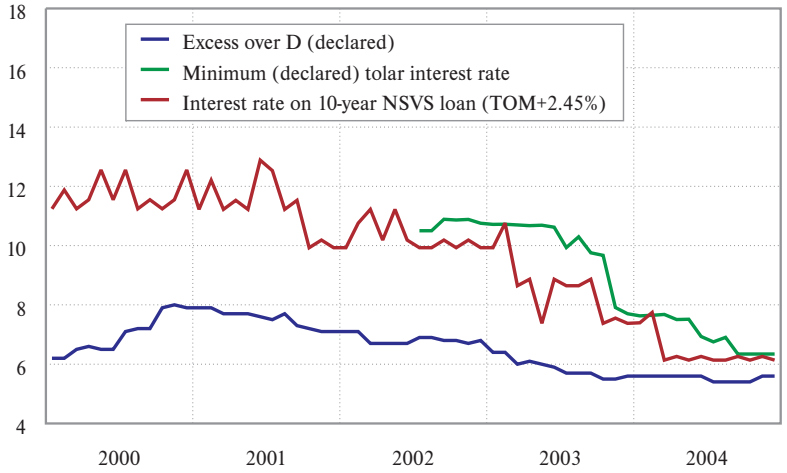
Note: * scheme matures in 2005
Source: Bank of Slovenia

With an anticipated exploitation rate of 70%[3] for housing loans in the amount of SIT 90 billion, total bank lending would have been SIT 63 billion. In actuality the amount of lending taken up was significantly less, a total of only SIT 10 billion of such lending having been approved on the basis of the scheme by the end of 2004. The reasons are primarily as follows:

– Owing to competition on the market banks began to offer household lending that was comparable or even more favourable than the NSVS loans. Some savers favoured loans that were not tied to the NSVS, but were merely ordinary bank loans
– Given the average amount saved, which was approximately two batches of SIT 1.8 million of savings, or an additional SIT 3.6 million of potential lending, and the price of housing, it can be assumed that this level of funding is insufficient to purchase an average dwelling. Some of the savings were probably diverted to consumer spending, which recorded a relatively high rate of growth last year

[3] This is the proportion of savers that would opt for housing loans according to a survey conducted in 2004.

Figure 2.2: Comparison of household interest rates on housing loans



Source: Bank of Slovenia

In order to reduce the impact of government housing policy measures on banks' balance sheets and the interest rate level, in the future it would make sense to examine the possibility of direct subsidisation of interest rates for bank housing loans, the subsidy only going to individuals that meet the social criteria set by the relevant ministry or the Housing Fund. It will also be necessary to further address housing issues by adopting a law on mortgage bonds and municipal bonds.

Under the current conditions (March 2005), NSVS savers can take out housing loans with banks at an interest rate of 4.9%, or banks offer a five- to ten-year housing loan with a foreign currency clause at an interest rate of the 3-monthly EURIBOR plus 2.5 to 3.0 percentage points. The average interest rate on foreign currency loans in the first quarter of 2005 was slightly higher at 5.7%. The terms for taking personal loans are thus similar for the two types of lending. In the event of a future rise in the EURIBOR and a further decline in inflation in Slovenia, housing loans under the NSVS terms could be slightly more favourable.

The maturity of the first NSVS had little significant effect on bank deposits. Demand deposits rose as a proportion of total deposits by 1.5 percentage points in June 2004, but it should be borne in mind that the savings deposits from the first NSVS accounted for a relatively small proportion of total deposits: just 2% of total deposits by non-bank sectors.

The growth in housing prices indicates that the real estate market had probably already anticipated the release of the first NSVS funds by 2003 or the end of the first quarter of 2004, as the rise in housing prices had slowed slightly by the end of 2004.

Given the current low level of interest rates, the TOM indexation clause for the other four schemes is a disruptive factor for banks in formulating competitive interest rates for such deposits and loans. Owing to discrepancies between the maturities of the deposits and loans, certain banks could be exposed to a minor temporary liquidity risk. On the basis of the NSVS savers take out loans with a maturity period double that of the period of saving, but savers did not take out loans under the terms of the first scheme in significant numbers. The subsequent schemes are smaller, and therefore do not present any significant systemic risk to the banking system.

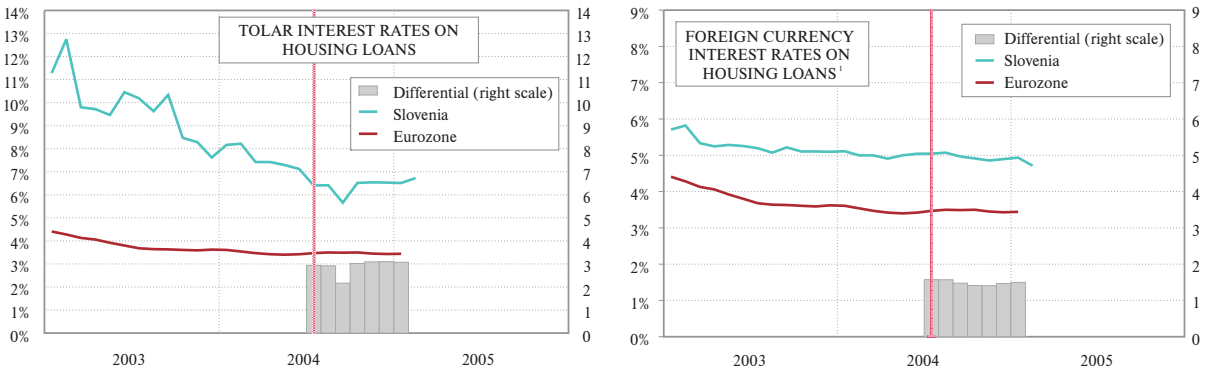
Figure 2.3: Year-on-year rise in housing prices in Ljubljana

Source: Slonep, Bank of Slovenia calculations

Convergence of interest rates on housing loans

There was a clear trend of falling interest rates on tolar housing loans in 2003 and the first half of 2004. In 2003 the average nominal interest rate was close to 10%, but it had fallen to 7.6% by the first half of last year. After Slovenia joined the ERM 2 the interest rate on such loans stabilised around 6% in the second half of last year. On average it is still approximately 3 percentage points higher than comparable interest rates in the eurozone for bank customers there.

Figure 2.4: Comparison of Slovenian interest rates for household housing loans with eurozone interest rates[4]



Note: Includes interest rates for foreign currency loans and interest rates for loans with foreign currency clause
Source: Bank of Slovenia (Financial Statistics), Bank of Slovenia ARC

The aforementioned differential in interest rates is lower for foreign currency housing loans, where it is just above 1 percentage point. Thanks to the current price benefits of foreign currency loans and low interest rates on European financial markets, household foreign currency lending is growing in importance.

[4] The figures for the eurozone relate to loans concluded at a variable interest rate (irrespective of loan term), and loans whose interest rates are fixed for no more than one year. The figures for Slovenia have been adjusted using the ECB methodology.

Mortgage Lending in Slovenia

The possibilities of adequately providing long-term financing for housing through bank loans are limited. If banks lack sufficient long-term resources, it is impossible to guarantee adequate long-term (a term of 30 years for example) housing loans. With a fixed lending rate, long-term housing loans are too risky an investment for a bank, both from the point of view of a change in market interest rates and in terms of liquidity risk. The bank could avoid the liquidity risk if housing loans were transferable and sellable.

In Slovenia there is not yet any systemic legal basis for issuing mortgage bonds. The development of mortgage banking, which is one of the instruments of the financial market, was set as a long-term target to be met by 2007 in the government's development strategy of 2004. Mortgage lending is to become the basic source of financing for real estate, and a law on mortgage bonds and municipal bonds is therefore being drawn up.

The new arrangements envisage a pledge on commercial real estate, on housing and on housing under construction. The aim of the new mortgage bond and municipal bond system is to introduce the lien or cover bond instrument in Slovenia, a security of very high credit quality. In the majority of European countries this is close to government securities in quality.

Mortgage banking would allow banks to:

1. transfer housing loans secured with a mortgage to another bank, and on this basis to obtain money for new loans (refinancing), or
2. issue their own bonds, thus obtaining new funds.

By selling mortgage loans to another bank, a bank would improve its liquidity, reduce its interest rate risk and release capital. By issuing bonds a bank would obtain long-term resources, thus improving the maturity structure of its liabilities and reducing the risk arising from maturity mismatch for assets, e.g. mortgage loans for housing, and for liabilities (sources of financing). Bonds also represent a very attractive and suitable investment for institutional investors such as insurers and pension funds that have long-term assets at their disposal and are also seeking a safe investment. For these reasons mortgage bonds facilitate long-term housing loans with a relatively favourable interest rate.

It could be said that for the moment Slovenia has not yet seen real mortgage loans. What is currently called a mortgage loan is actually a housing loan secured by a mortgage* on real estate. One obstacle to the development of mortgage banking in Slovenia is the relatively large proportion of real estate that is not yet entered in the land register. Given the inefficiency in the foreclosure of mortgages, a feature of housing lending in Slovenia is the widespread use of loan insurance at insurance companies. Insurance companies set banks strict criteria for approving loans and usually limit the loan insurance to ten years. But housing loans must be very long-term. Loans secured with a mortgage generally have longer terms, a lower interest rate and a higher loan principal, and the procedure for obtaining them is therefore significantly more difficult. There are two problems in mortgage-secured lending. The first is the failure of the land register to be up-to-date and to accurately reflect the actual situation, while the second is the length of the judicial proceedings for foreclosure of a mortgage.

* * *

Analyses show an increase in the proportion of housing loans secured with real estate collateral. According to figures from bank surveys, at the end of 2004 household loans secured with a property pledge accounted for 22.2% of secured loans, up 5.9 percentage points from the end of March 2004 when it accounted for 16.3%. Looking at the proportion of household loans secured with a property pledge to total household loans, it rose from 14.0% at the end of March 2004 to 18.7% at the end of the year.

* Note: A mortgage is a pledge on real estate. A pledge is the right of the pledge creditor to be repaid a secured claim, in the event of failure to repay the claim, together with interest and costs from the value of the property subject to the pledge ahead of all the plegde's other creditors (Code of Property Law).

Table 2.2: Overview of proportion of secured and unsecured household lending

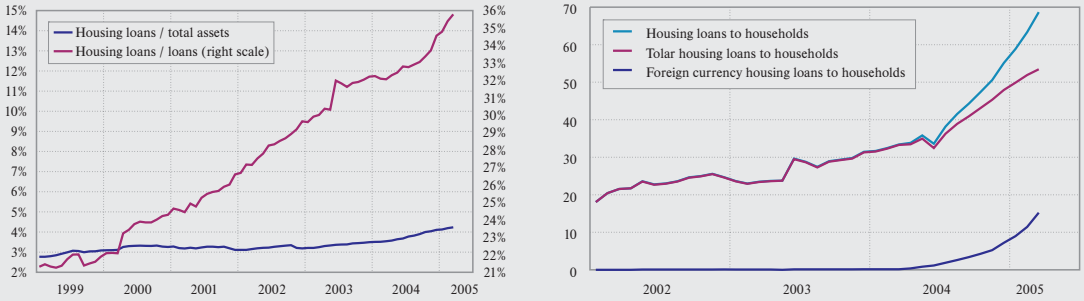
	3/31/2004	12/31/2004
Secured household loans	85.7%	84.5%
- of which secured with property lien	16.3%	22.2%
Unsecured household loans	14.3%	15.5%

Source: Bank surveys

Banks are granting increasing benefits to customers that secure loans with a mortgage. If a loan to purchase real estate is secured with a mortgage on the real estate, in determining credit-worthiness the bank takes other income into consideration in addition to wages and pensions. The bank sets the size of a loan on the basis of the ability to pay, and this can reach up to 55% of the monthly wage, depending on income, but on housing loans with a pledge on real estate the monthly annuity can also reach up to 60%. It is also possible for a bank to pay out an approved loan in full in cash, if the borrower is building or renovating the real estate in question; a borrower purchasing the real estate receives 20% of the approved sum in cash. The repayment term of loans secured by a pledge on real estate is 20, 25 or even 30 years. The costs of taking out the loan are partial.

The proportion of total assets accounted for by housing loans to households has been slowly but steadily rising since the end of 2002, when it stood at 3.2%. By the end of March 2005 housing loans accounted for 4.2% of total assets, and 35.8% of all household lending. Throughout the period between May 2002, when households were first able to borrow foreign currency from banks, and the middle of 2004, the proportion of household lending in foreign currency was negligible. Between July 2004, after Slovenia joined the ERM 2, and the end of March 2005, the net flow of household loans in foreign currency grew to eight times its previous volume at SIT 19.2 billion. Approximately 80% of household foreign currency lending is housing loans.

Figure 2.5: Housing loans as proportion of total assets and total household lending, and net flow of household loans in SIT billion (12-month moving sum)



Source: Bank of Slovenia

Table 2.3: Proportion of household loans secured by lien on real estate

	Of all household loans	Of all housing loans to households	Of all non-housing loans to households
2003	20.3%	45.6%	2.6%
2004	19.8%	37.7%	3.1%
2005 (Jan-Mar)	21.8%	40.0%	5.0%
Average	20.3%	40.7%	3.1%

Source: Bank of Slovenia

The proportion of new loans to households** that were secured with a mortgage stood at 21.8% in the first quarter of 2005. Primarily it is housing loans that are secured with a mortgage. Some 40.7% of housing loans are secured with a mortgage, while this proportion is much lower for non-housing loans at 3.1%.

** Note: Based on loans approved since the beginning of 2003 at eight banks: Abanka Vipa, Banka Celje, SKB, Banka Koper, Gorenjska banka, Bank Austria, NLB, NKBM.

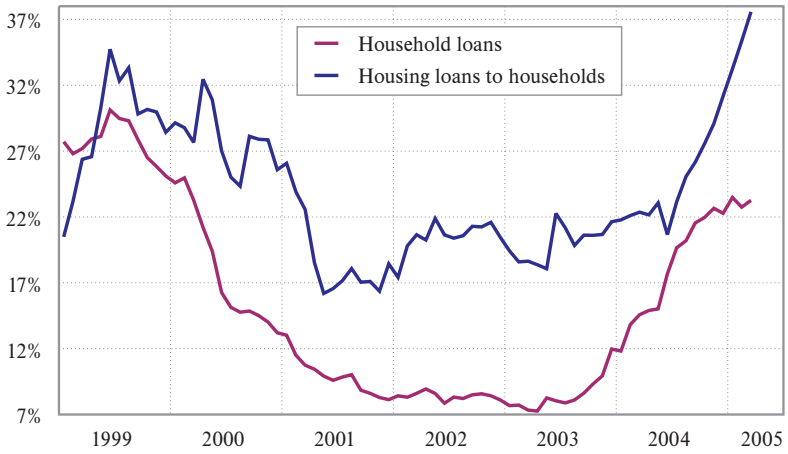
Looking in terms of currency, the proportion of foreign currency loans secured with a mortgage is higher than the amount of tolar loans. All housing loans in Swiss francs are mortgage loans, while non-housing loans have other forms of collateral

* * *

The proportion of all housing loans from Slovenian banks accounted for by those secured with a mortgage is rising. Banks are thus opting to secure housing loans using mortgages. It is felt that the proportion will continue to rise, and will approach the numbers seen in more developed European countries. There housing loans are mainly secured with a mortgage alone, which represents the cheapeest and most effective security in systems with a well-ordered land register and a smoothly functioning system of execution.

2.3 Household Borrowing at Banks

Figure 2.6: Year-on-year growth in household lending



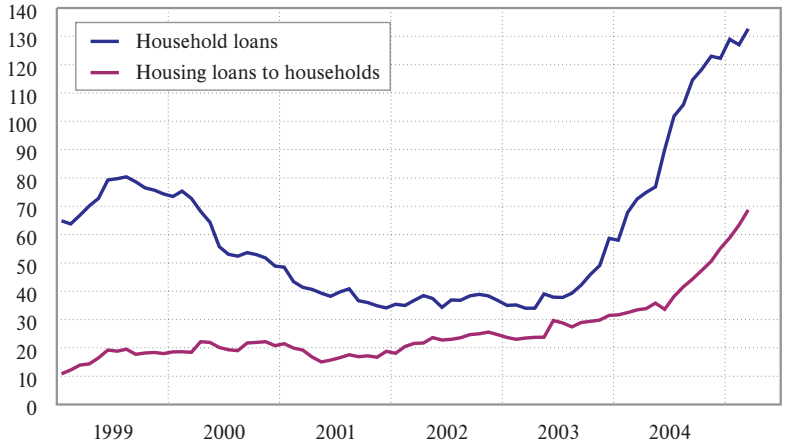
Source: Bank of Slovenia

The annual rate of growth in household lending rose throughout 2004. In August it passed 20%, and remained between 22% and 23% in the months leading up to March 2005. Housing loans made a significant contribution to the rise in household lending, but household lending for other purposes also rose rapidly. In 2004 growth in housing loans to household averaged 6.5 percentage points more than growth in household loans overall. The proportion of household lending accounted for by housing loans has been increasing for the last five years, reaching 34.6% by the end of 2004, up 2.4 percentage points from 2003. There were several factors in this lively growth in household lending:

- strengthened economic growth
- the low level of interest rates, which is encouraging consumer spending
- low household borrowing in recent years, and the consequent rise in credit-worthiness among the public
- the flexibility of banks' consumer and housing loan offers, lower costs and simpler loan procedures.

Last year the net rise in household lending totalled SIT 122 billion, compared with just SIT 59 billion in 2003. The net flow of household lending (newly approved loans) in 2004 is comparable to that in 1999, when household lending rose by SIT 74.3 billion[5], although the rate of growth then was close to 30%.

Figure 2.7: Net flow of household lending and housing lending in SIT billions (12-month sliding total)

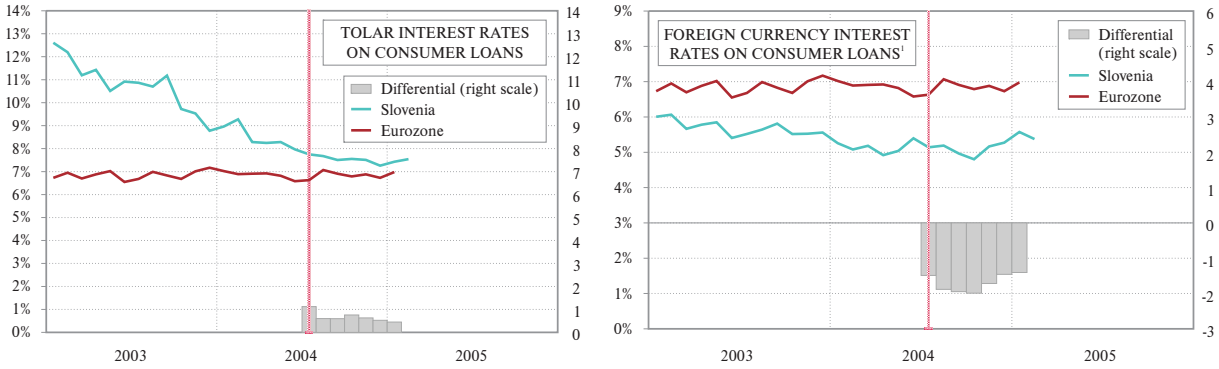


Source: Bank of Slovenia

In recent months pure foreign currency loans to households have grown in importance. The majority of these are approved for housing. While the volume of foreign currency lending was negligible in 2003, last year it accounted for 13% of lending.

Convergence of interest rates on consumer loans

Figure 2.8: Comparison of Slovenian interest rates for consumer loans with eurozone interest rates



Note: Includes interest rates for foreign currency loans and interest rates for loans with foreign currency clause
Source: Bank of Slovenia (Financial Statistics), Bank of Slovenia ARC

In the last two years there has also been a clear process of nominal convergence of interest rates in the area of consumer lending. After the decline in interest rates in 2003 and the first half of 2004, the differential between interest rates on consumer loans in Slovenia and the eurozone fell below 1 percentage point. Foreign currency consumer loans in Slovenia are even available at more favourable prices than consumer loans in the eurozone. This is a reflection of the aggressive policy of household lending in Slovenia, particularly that allowing foreign banks to increase their market shares.

[5] Allowing for a 40% cumulative increase in prices between 1999 and 2004, the sum is equivalent to SIT 104 billion in 2005.

2.4 Forms of Financial Assets and Net Household Borrowing at Banks

Household financial assets,[6] which comprise bank deposits, household claims in the form of equity and debt securities, investments in mutual fund investment coupons, household investments in foreign securities, life insurance and voluntary supplementary pension insurance held by households at insurance companies and voluntary supplementary pension insurance at pension companies and mutual pension funds, rose by 18.7% last year.

Although households hold the majority of their financial assets in bank deposits, the proportion of the total that they account for is decreasing. In 2004 it fell by 1.6 percentage points to 57.7%. The proportion of the other important form of saving, domestic shares and bonds, fluctuated between 28% and 29% last year. Household assets in alternative forms (mutual funds, direct investments in foreign securities, life insurance, voluntary supplementary pension insurance) are increasing. Last year the proportion accounted for by these forms rose by 1.9 percentage points to 14.2%. The majority of the liabilities disclosed by households are bank loans. The liabilities do not include liabilities from leasing and household borrowing from lenders other than banks.

Table 2.4: Forms of household financial assets (SIT billions)

	Household bank deposits	Shares and bonds	Mutual funds	Investments abroad	Life insurance	Supplementary pension insurance	Total assets
Dec. 00	1,274	691	10.7	0.7	86.8	-	2,063
Jun. 01	1,432	453	11.0	1.0	-	-	1,898
Dec. 01	1,731	663	14.7	1.4	116.2	5.0	2,531
Jun. 02	1,824	885	32.8	2.4	131.7	-	2,875
Dec. 02	1,944	1,000	55.4	4.6	150.9	18.8	3,174
Jun. 03	2,032	1,008	62.4	7.5	164.5	-	3,274
Dec. 03	2,097	921	93.1	12.1	182.9	39.7	3,347
Jun. 04	2,153	1,031	155.5	22.8	207.7	61.7	3,632
Dec. 04	2,292	1,118	210.1	29.0	232.6	90.5	3,972

Source: KDD, Securities Market Agency, Bank of Slovenia, Agency for Insurance Supervision

Table 2.5: Structure of household financial assets, and household financial assets as proportion of GDP

	Household bank deposits	Shares and bonds	Mutual funds	Investments abroad	Life insurance	Supplementary pension insurance	Total assets	
							proportion	% GDP
Dec. 00	61.7	33.5	0.5	0.0	4.2	-	100.0	48.9
Jun. 01	75.5	23.9	0.6	0.1	-	-	100.0	42.4
Dec. 01	68.4	26.2	0.6	0.1	4.6	0.2	100.0	53.4
Jun. 02	63.4	30.8	1.1	0.1	4.6	-	100.0	57.3
Dec. 02	61.3	31.5	1.7	0.1	4.8	0.6	100.0	59.7
Jun. 03	62.1	30.8	1.9	0.2	5.0	-	100.0	59.3
Dec. 03	62.7	27.5	2.8	0.4	5.5	1.2	100.0	58.2
Jun. 04	59.3	28.4	4.3	0.6	5.7	1.7	100.0	60.8
Dec. 04	57.7	28.2	5.3	0.7	5.9	2.3	100.0	64.9

Source: KDD, Securities Market Agency, Bank of Slovenia, Agency for Insurance Supervision

[6] Only pure financial assets are included, not real estate or holdings of foreign cash. Liabilities do not include liabilities from leasing or liabilities from various forms of lending from companies other than banks.

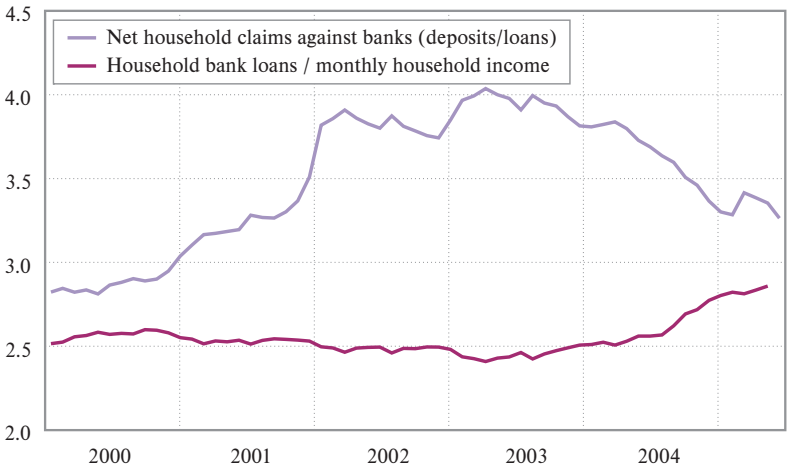
Household financial assets were equivalent to 64.9% of GDP last December, up 4.1 percentage points from the previous year. Financial assets were equivalent to 139% of annual disposable household income[7] in 2004, up 11 percentage points from 2003.

Table 2.6: Bank loans and deposits (SIT billions)

	Household bank loans (1)	Household bank deposits (2)	Net household bank savings (2-1)	Net savings (% GDP)
Dec. 00	419.2	1273.6	854.4	20.1
Jun. 01	436.5	1432.1	995.6	22.1
Dec. 01	453.3	1730.9	1277.6	26.8
Jun. 02	470.8	1823.7	1353.0	26.8
Dec. 02	490.1	1944.1	1454.0	27.4
Jun. 03	508.6	2032.0	1523.3	27.6
Dec. 03	548.7	2097.4	1548.7	27.0
Jun. 04	598.6	2153.1	1468.0	26.0
Dec. 04	671.0	2291.7	1528.1	26.2

Source: Bank of Slovenia

Figure 2.9: Net household claims against banks (deposits / balance of loans taken out) and ratio of household borrowing to average monthly wage



Source: Bank of Slovenia

The ratio of the balance of household bank loans to the average monthly household income has risen in the last year and a half, having reached 2.8 at the end of 2004 in comparison with its minimum of 2.4 in 2002. The same is true of ratio of the balance of household loans to the average wage, which rose to 6.2 in 2004, having stood at 5.3 at the end of 2002.

The decline in interest rates, which was reflected in a lower current rate of growth in household deposits at banks and lively household borrowing, also led to a reduction in the coefficient of net household claims against the banking sector. Household deposits grew at an average year-on-year rate of 6.6% last year, and household loans at a rate of 18%.

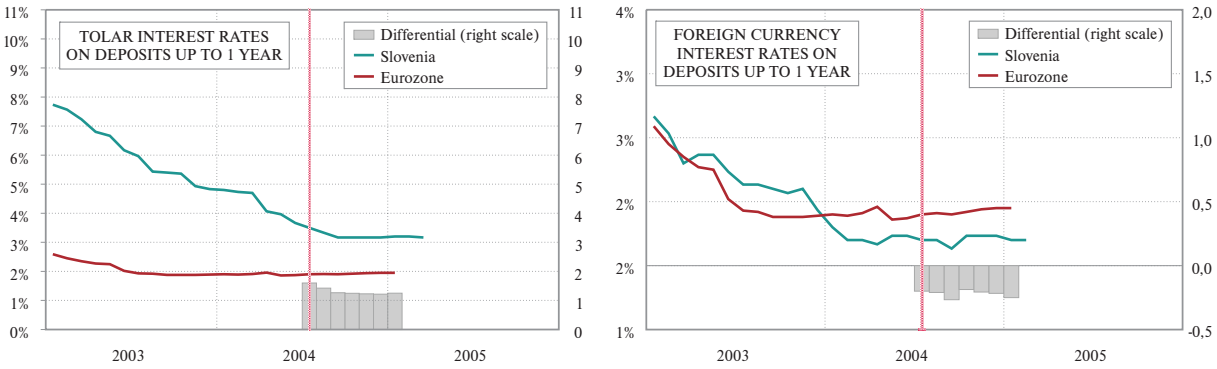
[7] Disposable household income comprises net wages paid, other employment earnings and social security benefits.

Convergence of interest rates on bank deposits

There was also a clear process of nominal convergence in interest rates on bank deposits. For short-term tolar deposits, which are predominant among bank deposits, the level of interest rates had approached 3% by the end of 2004, and was still slightly more than 1 percentage point above interest rates on bank deposits in the eurozone. However the differential between domestic and foreign interest rates for foreign currency deposits of the same maturity periods is negative.

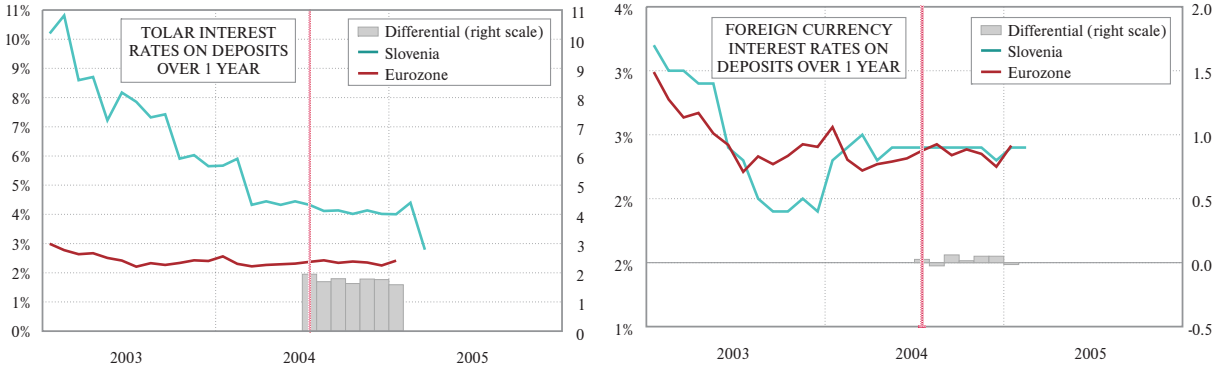
The level of tolar interest rates at domestic banks for deposits of more than one year stabilised around 4% after Slovenia joined the ERM 2. There was an additional fall in the first quarter of 2005. There is almost no differential between interest rates on long-term foreign currency deposits in Slovenia and those in the eurozone.

Figure 2.10: Comparison of Slovenian interest rates on deposits of up to one year with interest rates in eurozone



Source: Bank of Slovenia (Financial Statistics), Bank of Slovenia ARC

Figure 2.11: Comparison of Slovenian interest rates on deposits of more than one year with interest rates in eurozone



Source: Bank of Slovenia (Financial Statistics), Bank of Slovenia ARC

3 CORPORATE SECTOR

3.1 Financing of Companies at Domestic Banks and Net Borrowing by Companies

Corporate lending

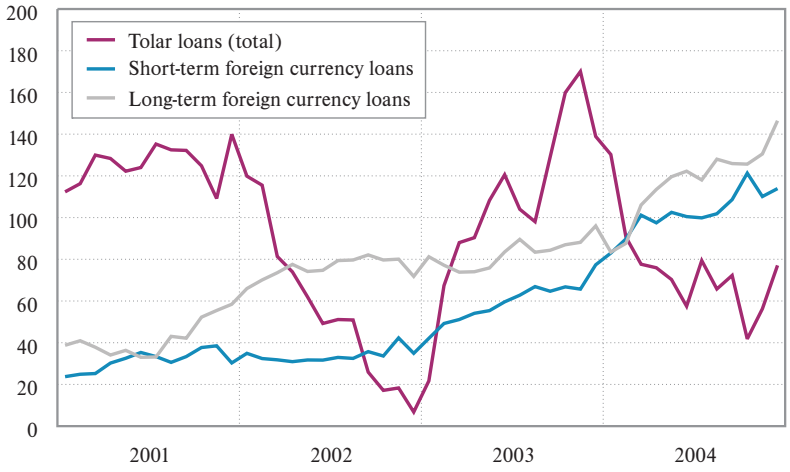
Corporate lending began growing in 2003. It had a strong growth rate throughout 2004, with an average of 20.1%. The increase in corporate lending is the result of a more vibrant economy. Most companies are financing their growing operations with foreign currency loans from domestic banks. Domestic banks accounted for two-thirds of the net increase in company lending last year. Foreign loans represented the remaining third.

Table 3.1: Corporate financing at banks and abroad (SIT billions)

	1999	2000	2001	2002	2003	2004
Domestic corporate* loans	105	162.2	228.7	113.5	312.3	337.5
.....of which in tolars	49.8	95.9	139.9	6.8	138.9	75.9
.....of which in foreign currency	55.2	66.4	88.8	106.7	173.4	261.6
Corporate borrowing abroad	91.6	133	108.1	132.5	133.4	173.3
Total	196.6	295.2	336.8	246	445.7	510.8
Structure of borrowing	100%	100%	100%	100%	100%	100%
in Slovenia	53%	55%	68%	46%	70%	66%
abroad	47%	45%	32%	54%	30%	34%
Currency structure	100%	100%	100%	100%	100%	100%
tolars	25.3%	32.5%	41.5%	2.8%	31.2%	14.9%
foreign currency	74.7%	67.5%	58.5%	97.2%	68.8%	85.1%

Note: * excludes other financial organisations.
Source: Bank of Slovenia

Figure 3.1: Net flow[8] of domestic bank loans to companies (SIT billions; 12-month moving average)



Source: Bank of Slovenia

During 2003 and the first quarter of 2004, external borrowing by companies was gradually replaced by domestic bank loans. This was the result of the fall in domestic interest rates and the withdrawal of the last remaining restrictions on domestic foreign currency lending in autumn 2003. There was an increase

[8] Figures for foreign loans show flows, while figures for domestic loans shows changes in stock.

in external borrowing last year in addition to domestic foreign currency corporate borrowing, whose average annual growth last year was 45%. Foreign currency borrowing accounted for 85% of corporate lending last year. Tolar borrowing was lower at annual growth 11%.

Corporate borrowing at banks

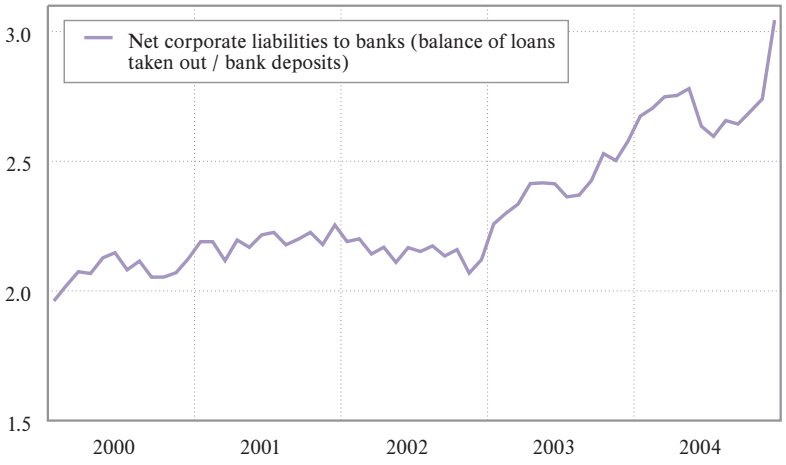
Table 3.2: Corporate loans and deposits at banks (SIT billion)

	Corporate bank loans (1)	Corporate bank deposits (2)	Net corporate borrowing at banks (1-2)	Net borrowing (% GDP)
Dec. 00	938.3	441.8	496.5	11.7
Jun. 01	1048.5	473.2	575.3	12.8
Dec. 01	1167.1	517.7	649.4	13.6
Jun. 02	1204.2	555.7	648.5	12.9
Dec. 02	1282.8	605.0	677.8	12.8
Jun. 03	1467.6	608.1	859.5	15.6
Dec. 03	1596.9	619.6	977.3	17.1
Jun. 04	1748.1	663.3	1084.8	18.2
Dec. 04	1930.3	633.9	1296.4	20.9

Source: Bank of Slovenia

Over the last two years, growing economic activity has seen increased net corporate borrowing at banks. The ratio of corporate bank loans to bank deposits stood at 2.6 at the end of 2003, but had risen to over 3.0 by the end of last year. Over the last four years net corporate borrowing at banks as a proportion of GDP rose by 9 percentage points to 20.9%.

Figure 3.2: Ratio of net corporate borrowing at banks (balance of loans taken out / deposits)



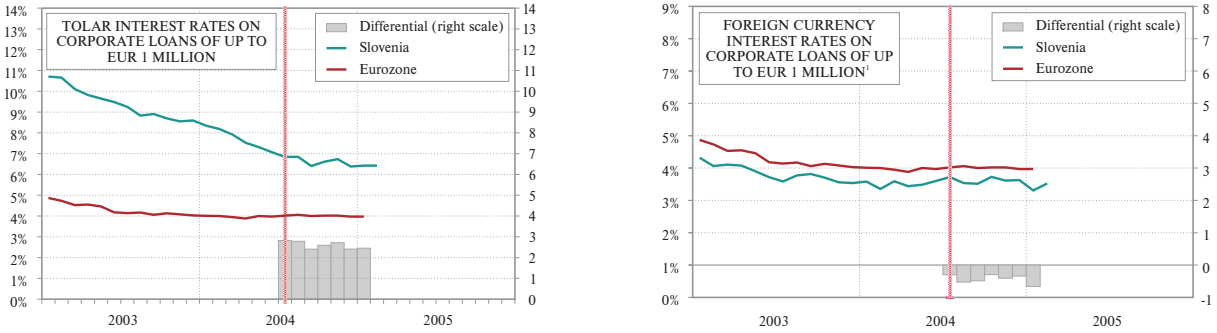
Source: Bank of Slovenia

3.2 Comparison of Domestic and Foreign Interest Rates on Corporate Lending

A comparison between interest rates on domestic tolar loans, interest rates on loans with a foreign currency clause, and interest rates in the euro area shows that the differential between interest rates has decreased until Slovenia joined the ERM 2.

Convergence of interest rates in corporate lending

Figure 3.3: Comparison between interest rates on loans in Slovenia and in the eurozone



Note: interest rates on foreign currency loans and loans with a foreign currency clause
Source: Bank of Slovenia (Financial Statistics), ARC

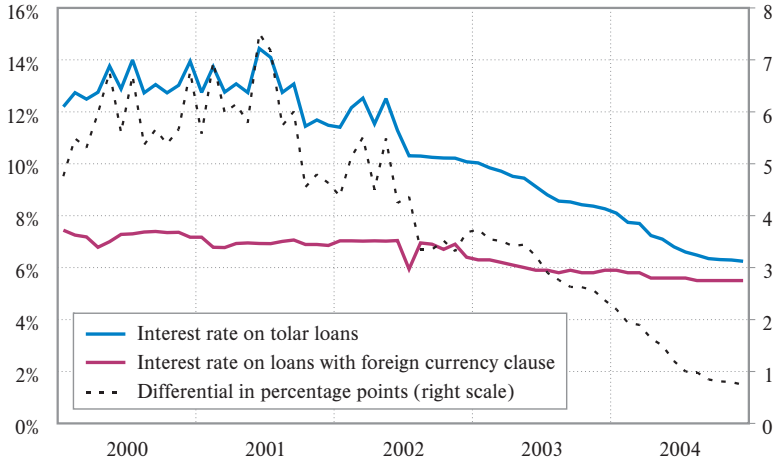
There was a rapid fall in interest rates or nominal convergence in the period leading up to mid-2004. After Slovenia joined the ERM 2, the differential between interest rates on tolar loans and loans in the eurozone fell to below 3 percentage points, reaching 2.4% at the end of 2004.

By contrast interest rates on foreign currency loans were even lower than those offered by European banks in the eurozone.

Interest rates in Slovenia and abroad

Most of the loans granted by domestic banks to companies were foreign currency loans. Long-term foreign currency loans accounted for almost 44% of the increase in domestic borrowing in 2004. All loans taken out abroad were also long-term loans.

Figure 3.4: Comparison between corporate financing costs for short-term tolar loans at minimum interest rate and loans with foreign currency clause from Slovenian banks



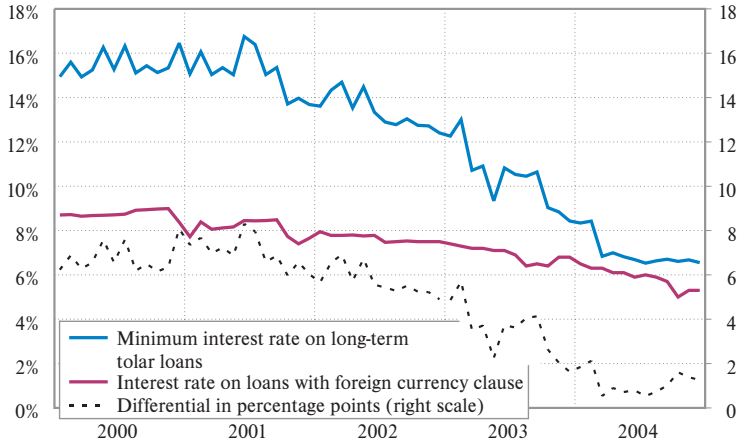
Source: Bank of Slovenia

A comparison between the minimum interest rate on short-term loans and the interest rate on loans with a foreign currency clause shows that the differential between the two fell in the first half of the year from 2.4 to 1.2 percentage points. There was further fall to 0.7 percentage points in the second half of last year. Most of the short-term borrowing was in tolars, given the small differential between

short-term tolar loans and foreign currency loans. The smaller differential in the first six months was also the result of slower depreciation of the exchange rate and the fact that banks and industry expected Slovenia to join the ERM 2 relatively soon. A further fall in the last few months of the year coincided with the increasing confidence in the stability of the tolar against the euro being maintained.

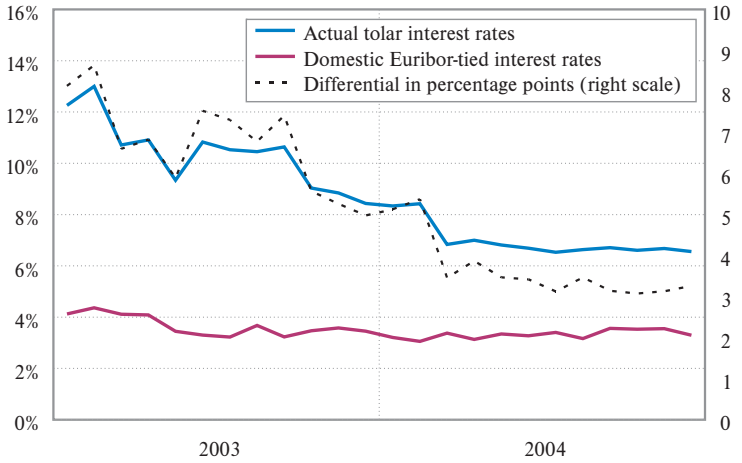
Comparing the minimum interest rates on long-term tolar loans and interest rates on loans with a foreign currency clause, with tolar interest rates falling since mid-2001 the differential between the two continued to close, and had reached a mere 0.5 percentage points by July 2004. Over the next few months the differential increased slightly, with interest rates on loans with a foreign currency clause falling faster than interest rates on tolar loans.

Figure 3.5: Comparison between corporate financing costs for long-term tolar loans at minimum interest rate and loans with foreign currency clause from Slovenian banks



Source: Bank of Slovenia

Figure 3.6: Comparison between actual corporate financing costs for long-term tolar loans and EURIBOR-tied foreign currency loans from Slovenian banks



Source: Bank of Slovenia, ARC

Foreign currency loans account for the majority of corporate foreign currency financing. A comparison between interest rates on long-term tolar loans and EURIBOR-tied foreign currency loans illustrates clearly the motives behind foreign currency borrowing by companies in Slovenia.[9] At the end of

[9] The calculation of the actual interest rates for loan agreements is based on reports submitted by eight banks.

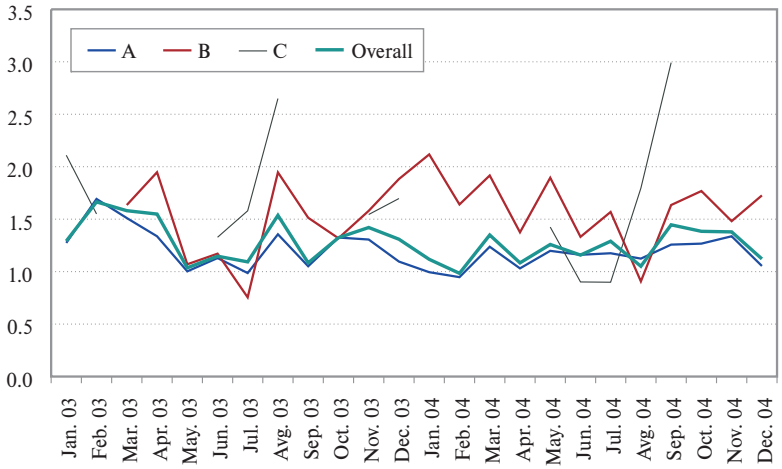
December 2004 the interest rates on domestic foreign currency loans were 3.3%, 3.4 percentage points lower than interest rates on long-term tolar loans. The average differential between the two interest rates last year was about 3.7 percentage points, which encouraged most companies to take out foreign currency loans. This was also brought about by expectations of low depreciation of the tolar exchange rate during the first half of the year, Slovenia's entry into the ERM 2 in June 2004, and expectations among businesses that the euro would be adopted relatively soon, at the beginning of 2007.

Companies were able to borrow abroad at lower interest rates than those on domestic tolar and foreign currency loans. The average interest rate on borrowing abroad last year was just 2.7%, 0.3 percentage points higher than the interest rate on borrowing abroad by banks. Comparing the minimum interest rates for long-term tolar corporate loans in Slovenia and the interest rates for borrowing abroad, the differential was more than 4 percentage points, averaging 4.4 percentage points last year.

The most favourable loans for Slovenian companies in 2004 were foreign loans with a 2.7% interest rate, followed by domestic foreign currency loans with a 3.3% interest rate. The least favourable were tolar loans with an interest rate of 6.7%.

Risk premiums for domestic foreign currency bank loans in terms of borrower's credit rating

Figure 3.7: Risk premiums over EURIBOR for foreign currency investment loans in terms of customer credit rating (percentage points)



Source: Bank of Slovenia

A comparison between interest rates on long-term foreign currency loans to customers with different credit ratings illustrates the differences between credit risk premiums at domestic banks and shows that the quote for the average premium in this segment of the loans market has been relatively stable over the last two years. The average quote last year was 1.3 percentage points higher than the 3-month EURIBOR, down 0.1 percentage points from 2003. The quoted risk premium for Category A ranged from 0.9 to 1.3 percentage points last year (averaging 1.1 percentage points), down 0.2 percentage points from 2003. The quote for Categories B and C was 1.6 percentage points. The movement in Category B, which fluctuated between 2.1 and 0.9 percentage points, indicates that the variability of the premiums for this category is greater than those for Category A. However, premiums did not increase in 2004, which reflects a stable credit risk assessment.

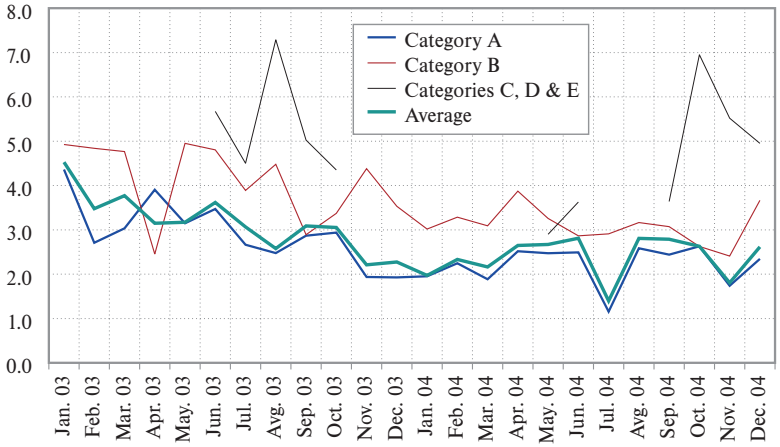
More stable still is the premium over the EURIBOR for short-term foreign currency loans. The premium was 1 percentage point for Category A last year and 1.4 percentage points for Categories B, C and D. There was no increase in risk premiums towards the end of 2004.

A comparison between premiums over the EURIBOR for short-term and long-term loans shows that there was almost no difference between the two last year. The parity between the premiums from the two segments of the foreign currency market is an indication of strong competition.

Risk premiums for domestic tolar bank loans in terms of borrower's credit rating

In the long-term loans segment of the market, the risk premiums were relatively stable, breaking the downward trend from 2003. The average premium over the 3-month SITIBOR[10] in 2004 was 2.4 percentage points, down 0.8 percentage points from 2003. In the last few months of 2004 the premium fluctuated between 1.8 and 2.8 percentage points over the 3-month SITIBOR, with relatively big differences between premium quotes for individual risk categories. Last year the average quote for Category A premiums was 2.2 percentage points over the SITIBOR, that for Category B was 3.1 percentage points, and those for Categories C, D and E were 4.6 percentage points.

Figure 3.8: Risk premiums over 3-month SITIBOR for tolar loans in terms of customer credit rating (percentage points)



Source: Bank of Slovenia

The risk premium for short-term tolar loans was 0.6 percentage points lower than for long-term tolar loans at 1.8 percentage points last year. It fell only slightly last year (0.1 percentage points) in comparison with the average premium over the SITIBOR the previous year. Last year the average quote was 1.7 percentage points for Category A, 2.1 percentage points for Category B, and 2.2 percentage points for Categories C, D and E. Premiums for short-term loans in the last quarter of 2004 fell slightly.

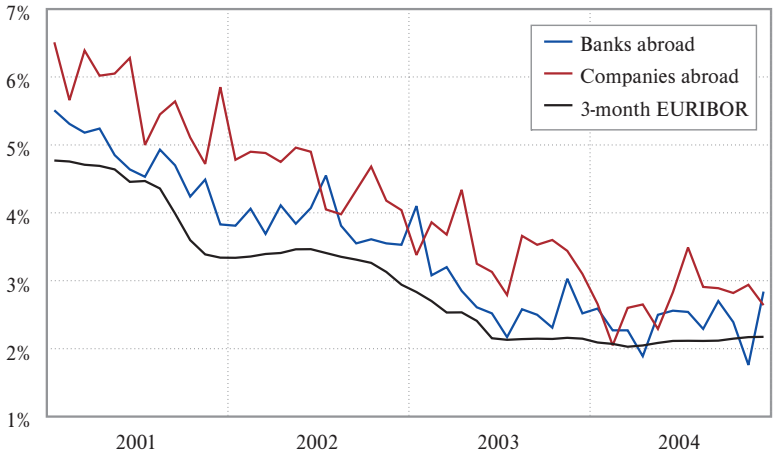
Risk premiums over the EURIBOR for financing Slovenian banks and companies abroad

In 2004, banks were able to acquire very favourable loans abroad. The average interest rate abroad last year was 2.4%, which is 0.4 percentage points lower than the previous year. Companies borrowed abroad at an average interest rate 2.7% last year (compared with 3.5% in 2003), which is 0.6% lower than the rate offered by domestic banks. However there was a larger role in external borrowing played by banks that sought resources abroad, thus brokering between foreign banks and domestic companies. The lower interest rates for Slovenian banks were the result of the lower risk in the banking sector than in the corporate sector. Last year the average premium over the 3-month EURIBOR for long-term

[10] 3-month SMOM before July 2003.

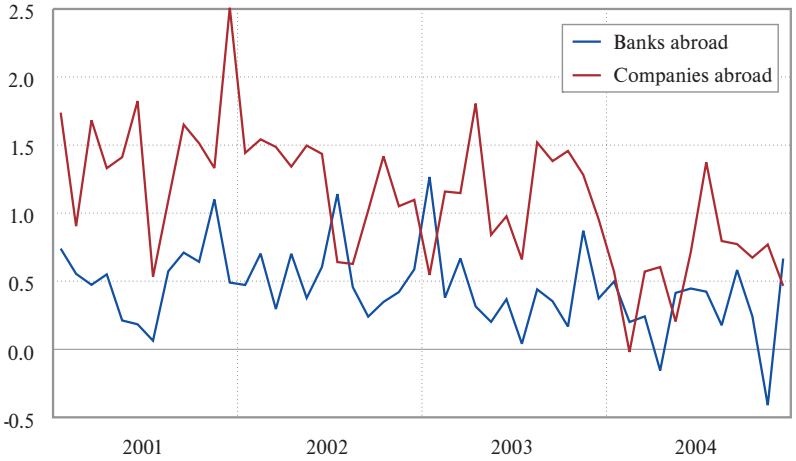
bank loans taken abroad fell by 0.2 percentage points to 0.3 percentage points, while that for long-term corporate loans fell by 0.5 percentage points to 0.6 percentage points. This suggests that the difference between the risk assessments for the two sectors is shrinking.

Figure 3.9: Interest rates realised abroad on long-term loans for Slovenian banks and companies, and 3-month EURIBOR



Source: Bank of Slovenia

Figure 3.10: Risk premiums over 3-month EURIBOR for long-term loans to Slovenian banks and companies taken abroad (percentage points)



Source: Bank of Slovenia

3.3 Corporate Assets and Liabilities Structure

On the assets side of the balance sheet[11] financial investments are increasing in importance, particularly investments in related companies (in the group and affiliates). The structural share of financial investments is increasing at the expense of tangible assets, inventories and operating claims. The largest shift was recorded by tangible assets, the proportion of fixed assets for which they account falling by more than 11 percentage points between 2000 and 2003, mainly due to the valuation method employed.

[11] Only figures up to 2003 are available.

Table 3.3: Corporate assets structure (%)

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Fixed assets	65.0	66.2	66.0	66.4	65.4	65.1	65.3	64.7	64.3
of which:									
Intangible assets	1.1	1.4	1.2	1.4	1.4	1.6	2.1	2.2	2.2
Tangible assets	82.3	83.1	84.7	83.2	82.6	81.3	76.8	73.9	70.0
Long-term financial investmentse	16.6	15.5	14.0	15.4	16.0	17.2	21.1	24.0	27.8
Current assets	34.6	33.5	33.7	33.2	34.2	34.4	34.2	34.9	35.3
of which:									
Inventories	27.6	29.2	28.5	28.1	26.1	26.1	25.0	24.4	23.9
Operating claims	53.9	50.8	51.1	49.4	52.2	52.8	51.9	51.1	50.2
Short-term financial investments	14.3	15.4	15.7	17.3	16.4	16.0	17.4	18.6	19.5
Bank balances, cheques and cash	4.2	4.6	4.7	5.1	5.2	5.2	5.7	5.9	6.4
Deferred expenses and accrued revenues	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.5

Source: Agency of the Republic of Slovenia for Public and Legal Records and Related Services (AJPES), Bank of Slovenia calculations

The average maturity period for financial and operating claims and for investments and liabilities has been rising since 1999. As the process is more rapid on the liabilities side, the liquidity coefficient, the ratio of short-term claims to liabilities, is improving. In 2003 the lengthening of the average maturity period of liabilities ceased as the proportion of long-term liabilities fell from the previous year, whereas the average maturity period of assets continued to grow. Consequently there was a significant increase in the ratio of long-term claims to liabilities in 2003.

Table 3.4: Maturity structure of financial and operating claims and liabilities (%)

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Financial and operating claims									
long-term	35.0	35.3	32.4	34.0	33.1	33.8	38.3	40.3	43.0
short-term	65.0	64.7	67.6	66.0	66.9	66.2	61.7	59.7	57.0
Financial and operating liabilities									
long-term	27.6	31.0	33.0	34.7	35.0	36.6	39.9	41.1	39.7
short-term	72.4	69.0	67.0	65.3	65.0	63.4	60.1	58.9	60.3
Financial and operating claims / liabilities	82.4	76.5	73.0	74.4	76.0	74.3	77.4	80.9	87.4
long-term	104.5	87.2	71.6	72.9	71.8	68.5	74.2	79.2	94.7
short-term	74.0	71.7	73.7	75.2	78.2	77.6	79.6	82.1	82.6

Source: AJPES, Bank of Slovenia calculations

Growth in capital strengthened on the liabilities side of the balance sheet in 2003, but growth in financial and operating liabilities has been falling fast since 2000. It is primarily liabilities to companies in the group that are growing, although they are not the most significant in size. The most important long-term financial and operating liabilities are liabilities to banks and other liabilities, while the most important short-term financial liabilities are liabilities to suppliers (trade payables). However these groups, excluding liabilities to banks, are growing more slowly than the total financial and operating liabilities. Given that financial and operating liabilities grew faster than capital for the majority of the period in question, the proportion of the balance sheet total accounted for by financial and operating liabilities increased. This trend ended in 2003, when there was a greater increase in capital than financial and operating liabilities. The proportions of the balance sheet total that they account for equalised at 48%.

Table 3.5: Year-on-year growth in individual categories of corporate liabilities (%)

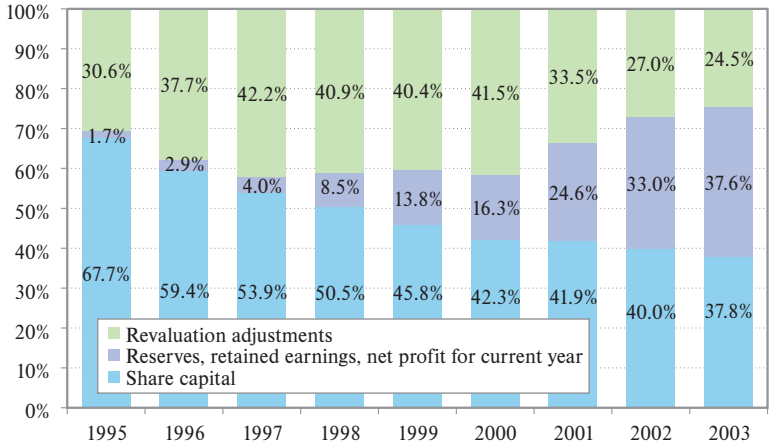
	1996	1997	1998	1999	2000	2001	2002	2003
Capital	8.1	9.7	12.6	11.6	11.2	8.1	8.3	10.3
Provisions	5.8	8.4	1.7	12.4	1.2	4.3	-4.1	1.4
Financial and operating liabilities	10.7	15.2	12.1	16.9	21.0	15.3	10.8	7.4
Accrued expenses and deferred revenues	12.7	21.7	9.1	13.7	5.1	22.3	-1.9	21.7

Source: AJPES, Bank of Slovenia calculations

Capital structure

Capital structure underwent greater changes than the structure of total liabilities. The proportion accounted for by share capital almost halved over eight years. The sum of reserves (capital reserves and profit reserves), retained earnings and net profit for the current year accounted for the same proportion (38%) in 2003 as share capital, having accounted for less than 2% in 1995. The proportion accounted for by capital revaluation adjustments declined with the fall in inflation, particularly after 2002 when the new accounting standards calling for capital revaluation only when the tolar depreciates by more than 5% were introduced, this circumstance not having arisen.

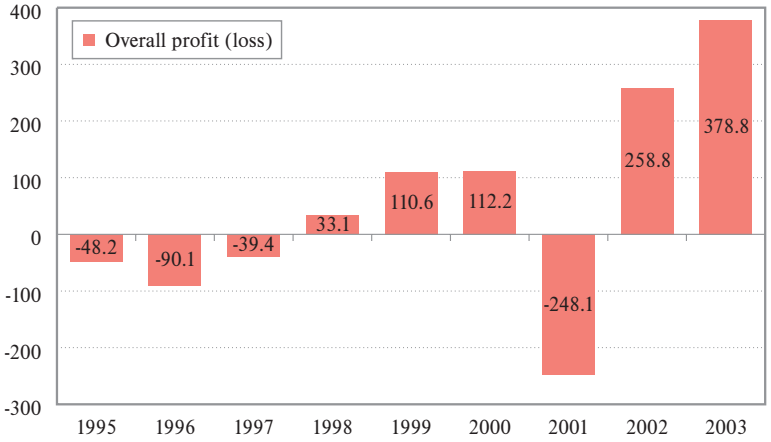
Figure 3.11: Corporate capital structure



Source: AJPES, Bank of Slovenia calculations

Movements in capital structure reflect business cycles. A critical period between 1995 and 1997, when the losses incurred by failing companies exceeded the profits made by successful companies (1996 was a particularly poor year), was followed by a stable period that lasted until 2001. This was the worst year during the period in question, partly because of less favourable business conditions, and partly because of the revaluation of tangible assets in the electricity sector, which resulted in heavy losses being recorded in 2001. Net loss for the current year accounted for more than 8% of corporate capital, more than doubling from previous year. The proportion accounted for by capital reserves and profit reserves increased even more dramatically, by 10 percentage points in a single year. A year later, however, conditions had improved sufficiently to allow companies to exceed all previous operating results. In 2003 companies continued to build on the good performance in the previous year.

Figure 3.12: Difference between total profit of profitable companies and total loss of loss-making companies in SIT billions

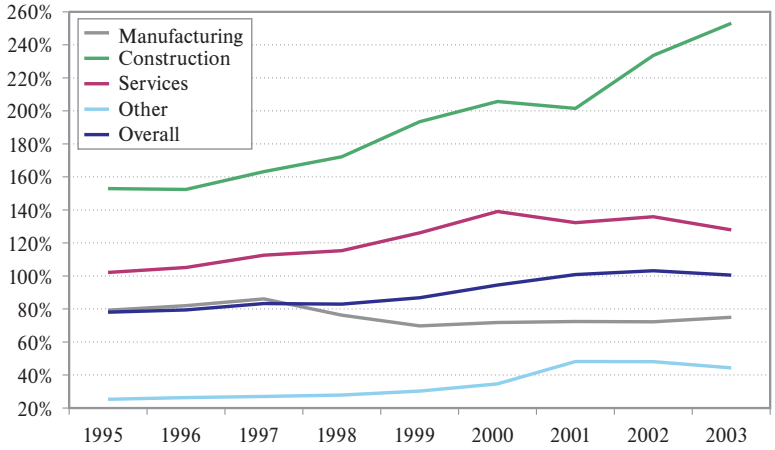


Source: AJPES, Bank of Slovenia calculations

3.4 Financial Gearing

During most of the period in question, faster growth in financial and operating liabilities than capital was reflected in the financial gearing as the ratio of financial and operating liabilities to capital. A rise in financial gearing increases the volatility of profits. With a company's liabilities covered to a lesser degree by capital, uncertainty increases and the company is more exposed to a variety of risks. Companies' financial gearing continued to increase until 2003. While in 1995 financial and operating liabilities were only 80% of the value of the capital, by 2001 debts outstripped capital.

Figure 3.13: Financial gearing of entire corporate sector and individual sectors



Note: "Services" include the following sectors: trade, catering and hospitality, transport and communications, financial intermediation, real estate and business services, public administration, education, health, and other public services. "Other" includes agriculture, forestry, hunting and fishing, mining, and the supply of electricity, natural gas and water.

Source: Bank of Slovenia

The construction sector stands out because its coverage of financial and operating liabilities by capital is falling very rapidly. Financial gearing in construction reveals its connection to the investment cycle. It grew sharply in 1999 after the introduction of VAT, and then stalled slightly, particularly in 2001 when

growth in investment spending in Slovenia was negative. With the economic recovery in 2002, financial gearing in construction began to grow strongly again, passing 250% the next year.

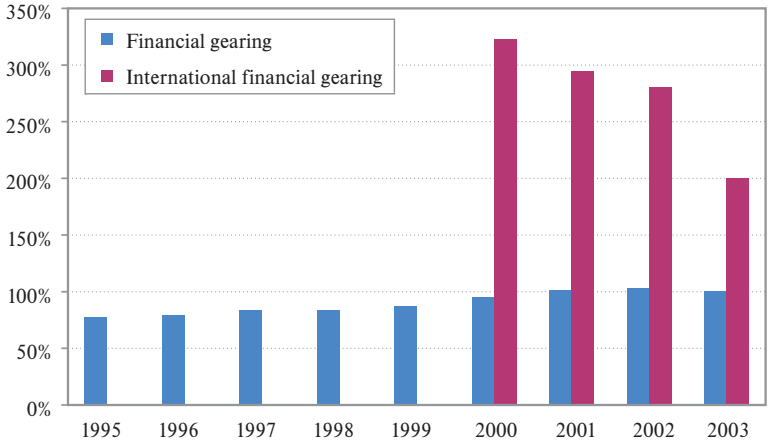
Table 3.6: Financial gearing by sector (%)

	Financial gearing (financial and operating liabilities / capital)								
	1995	1996	1997	1998	1999	2000	2001	2002	2003
Agriculture, forestry, fishing and mining	22.4	22.0	23.5	22.6	23.2	30.7	41.4	46.0	54.9
Manufacturing	79.2	82.0	86.1	76.3	69.8	71.9	72.4	72.3	75.0
Electricity, gas and water	25.9	27.2	27.7	28.8	31.5	35.5	49.7	48.5	42.3
Construction	153.0	152.4	163.2	172.2	193.4	205.7	201.5	233.6	253.0
Trade	126.5	142.8	147.1	146.8	161.1	160.6	159.2	161.7	157.0
Catering and hospitality	37.7	45.5	49.6	48.2	51.3	50.8	55.2	62.8	65.1
Transport and communications	51.3	52.0	52.9	55.0	65.6	99.8	106.9	117.7	82.7
Financial services, business services, real estates	102.7	84.7	87.3	88.5	88.2	92.8	67.0	69.2	70.6
OVERALL	78.1	79.4	83.3	82.9	86.9	94.5	100.9	103.2	100.5

Source: Bank of Slovenia

Financial gearing in the service sector was also above-average. Particularly prominent is the trade sector, where gearing has been high but stable at 160% since 1999. In the manufacturing sector, which accounts for one-third of the corporate sector's total assets, capital more than covers financial and operating liabilities, and financial gearing has remained just above 70% since 1999.

Figure 3.14: Financial gearing of Slovenian companies, and international financial gearing



Note: International financial gearing is defined as the ratio of liabilities to the rest of the world to capital owned by non-residents.
Source: Bank of Slovenia

In contrast to the overall financial gearing, from the point of view of domestic companies' relationships with the rest of the world financial gearing has been decreasing, particularly in 2003 when it fell to 200%. While in 2000, liabilities to the rest of the world exceeded non-residents' capital by three times. The structure of financing is changing, with foreign investors growing more interested in investing in the capital of Slovenian companies, and not merely in exposure in the form of financial liabilities alone. This points to greater confidence in the economy, and a lower country risk.

3.5 Position of Companies Against the Rest of the World

Structure of liabilities to the rest of the world

In 2003 there were significant changes in the structure of liabilities to the rest of the world. The proportion of Slovenian companies' balance sheets accounted for by non-residents' capital increased, while the proportion accounted for by long-term and short-term operating liabilities decreased.

In 2003 capital thus became the largest single category of liabilities to rest of the world, followed by short-term operating liabilities. The vast majority of the latter comprise short-term liabilities to suppliers abroad and advance payments from non-residents (95%). The remainder are other operating liabilities, which account for a small proportion but are growing rapidly. In addition to capital and short-term operating liabilities, long-term liabilities are also important. Each of these accounts for approximately 30% of liabilities to the rest of the world.

Table 3.7: Structure of and year-on-year growth in liabilities to rest of world

					Annual growth (%)		
	2000	2001	2002	2003	2001	2002	2003
LIABILITIES TO REST OF WORLD (SIT billions)	1,151.8	1,433.8	1,669.0	2,023.9	24.5	16.4	21.3
	Structure (%)						
Non-residents' capital	23.6	25.3	26.2	33.2	33.4	20.8	53.6
Long-term liabilities	32.2	32.3	32.6	29.1	24.8	17.5	8.2
Short-term operating liabilities	38.5	36.3	35.2	31.5	17.3	13.0	8.4
Short-term financial liabilities	5.3	5.8	5.6	5.8	35.8	12.4	26.1
Accrued expenses and deferred revenues from rest of world	0.4	0.4	0.4	0.4	17.1	20.9	38.3

Source: AJPES, Bank of Slovenia calculations

Although most corporate borrowing abroad is from unrelated companies, loans from related companies are growing the most rapidly. Companies more often take long-term loans abroad from the parent company, and short-term loans from subsidiaries. With companies consolidating into larger multinational groups, it could be concluded that liquidity management is being transferred to parent companies abroad, which fail to allow the companies in the group to manage their liquidity surpluses independently, consequently leading companies to take short-term loans from their subsidiaries.

Table 3.8: Structure of and year-on-year growth in loans and financial leasing drawn from non-residents in terms of maturity and source

					Annual growth (%)		
	2000	2001	2002	2003	2001	2002	2003
Loans and financial leasing drawn from non-residents (SIT billions)	385.8	479.8	566.8	662.2	24.4	18.1	16.8
	Structure (%)						
long-term	84.6	83.1	83.7	82.3	22.2	18.9	15.0
subsidiaries	4.3	0.5	0.7	0.4	-85.5	54.2	-36.5
parent (superordinated) companies	12.1	17.7	18.3	21.5	79.2	22.9	34.8
unrelated companies	83.6	81.8	81.0	78.2	19.6	17.8	10.9
short-term	15.4	16.9	16.3	17.7	36.0	14.3	26.3
subsidiaries	2.5	3.2	4.5	6.6	72.7	59.9	84.3
parent (superordinated) companies	16.7	20.4	18.8	16.7	66.5	5.1	12.2
unrelated companies	80.8	76.4	76.7	76.7	28.5	14.8	26.4

Source: AJPES, Bank of Slovenia calculations

Structure of claims against the rest of the world

As among total assets, financial investments account for an increasing proportion of companies' position against the rest of the world. The proportion accounted for by operating claims is falling, but they still represent the large majority of claims against the rest of the world.

Table 3.9: Structure and year-on-year growth in claims against rest of world

					Annual growth (%)		
	2000	2001	2002	2003	2001	2002	2003
Claims against rest of world (SIT billions)	583.7	721.0	880.7	1,095.5	23.5	22.2	24.4
	Structure (%)						
Real estate abroad	3.4	2.8	2.8	3.1	3.0	24.0	34.6
Financial investments abroad	16.8	20.0	25.3	32.1	47.1	54.4	58.1
Claims from operations abroad	78.6	76.0	69.8	63.4	19.4	12.2	12.9
Other assets	1.2	1.2	2.0	1.4	17.9	114.4	-15.8

Source: AJPES, Bank of Slovenia calculations

The most important international investments are investments in shares and loans. Investments in shares account for approximately two-thirds of all financial investment abroad. Direct investments are also included.[12] However with the rapid development of mutual funds, growth in corporate investments in the securities of unrelated companies and investments in short-term equity securities reached more than 100% in 2003.

The volume of loans granted grew even more rapidly than investments. The problems encountered in 2001, when the corporate sector recorded an overall loss, were reflected on the lending market, where growth stalled at 4%. The market boomed again in 2002 and 2003, when lending abroad almost doubled in each year (90% year-on-year growth). The structure of lending also changed. Whereas 80% of lending granted in 2000 was to related companies, this proportion had almost halved by 2003, with lending to unrelated companies making up the difference.

Off-balance-sheet claims against the rest of the world grew faster than liabilities, with claims surpassing liabilities by 2003. In 2000 off-balance-sheet claims only covered 70% of off-balance-sheet liabilities.

Table 3.10: Structure of and year-on-year growth in financial investments abroad

					Annual growth (%)		
	2000	2001	2002	2003	2001	2002	2003
Financial investments (SIT billions)	98.8	144.3	222.8	352.1	46.0	54.4	58.1
	Structure (%)						
Loans	31.7	22.6	28.0	33.5	4.4	91.0	89.0
subsidiaries	78.5	70.9	60.3	41.6	-5.7	62.3	30.3
parent (superordinated) companies	14.2	17.5	28.2	16.9	28.1	208.6	13.3
unrelated companies	7.3	11.6	11.5	41.5	65.9	89.5	580.0
Shares	65.6	72.0	69.9	63.9	60.2	49.8	44.5
Other	2.7	5.3	2.1	2.6	191.4	-39.2	98.8

Source: AJPES, Bank of Slovenia calculations

[12] Direct investments primarily comprise investments in long-term securities of related companies. Short-term securities account for 1% of all investments in shares, and the same applies to long-term securities of unrelated companies (1% structure).

3.6 Indicators of Exchange Rate Risk to Companies

Compared to the balance-sheet open position against the rest of the world, which is short, the off-balance-sheet position against the rest of the world became long in 2003, slightly closing companies' overall position against the rest of the world. However exposure to domestic banks in foreign currency additionally opened the foreign exchange position. Companies' open foreign exchange position against domestic banks is short, and opened sharply in 2003, when there was major substitution of borrowing abroad by foreign currency loans from domestic banks.

Companies' short foreign exchange position, which consists of the open positions against the rest of the world and against domestic banks, was equivalent to 9.4% of companies' total assets and 21% of capital. The foreign exchange position has been opening since 2000, and shortened significantly in 2003, particularly in relation to domestic banks.

In case of tolar depreciation companies' foreign exchange position would open further, as would net indebtedness, which would reduce the ability of companies to regularly service their debts and would have a negative impact on operating results.

Table 3.11: Open foreign exchange positions of companies (%)

	Open position against rest of world / assets				Export revenues / sales revenues				ROA			
	2000	2001	2002	2003	2000	2001	2002	2003	2000	2001	2002	2003
Agriculture, forestry, fishing and mining	-0.3	-0.6	-0.1	-0.7	4.1	4.9	4.9	5.0	-0.8	-18.1	-0.5	0.0
Manufacturing	-2.8	-2.6	-1.5	-5.6	55.4	55.0	56.1	57.8	2.8	2.5	3.7	4.2
Electricity, gas, water	-2.6	-4.8	-5.1	-3.5	2.4	4.7	1.2	3.8	-1.1	-27.0	1.0	1.6
Construction	0.4	-0.9	-1.6	-2.4	3.0	4.1	5.3	4.8	1.5	1.3	0.3	1.8
Trade, catering, hospitality	-9.7	-10.2	-10.1	-9.3	9.6	9.5	10.4	10.3	2.3	2.4	2.5	3.5
Transport and communications	-11.1	-11.9	-12.4	-8.6	28.1	27.7	27.4	26.8	1.9	0,9	-0.2	2.0
Financial services, real estates	-4.5	-5,4	-6.7	-4.9	13.8	15.1	15.1	14.5	1.0	-0.9	2.5	2.3
Public administration	-9.3	-8.3	-9.9	-13.4	25.3	23.9	22.8	22.2	-0.1	0.7	0.8	0.9
OVERALL	-5.5	-6.1	-6,2	-6.7	27.2	27.5	28.2	28.4	1.5	-2.2	2.1	2.9
	open foreign exchange position against rest of world and domestic banks / assets											
OVERALL	-6.5	-7.4	-7.8	-9,4								

Source: AJPES, Bank of Slovenia calculations

Only figures for the open foreign exchange position against the rest of the world are available for individual sectors. The position is short, and has been opening further in recent years, irrespective of the sector. In 2003 it was equivalent to 6.7% companies' total assets and 14% of capital. The most open position of 13.4% was recorded by public administration companies, and the trend is one of growth, with the position opening by a further 3.5 percentage points in 2003. Only the manufacturing sector recorded a larger opening of 4.1 percentage points, and given the importance of this sector the trend here is reflected in the corporate sector as a whole. Apart from public administration, open positions against the rest of the world of more than 8% of assets were recorded by the trade, catering and hospitality sector and transport and communications sector, although the positions of the latter two closed a bit in 2003 from the previous year.

Companies with a short open foreign exchange position but with a large proportion of revenues coming from exports can be quite-insured against exchange rate risks. The manufacturing sector stands out, as it generates nearly 60% of its sales revenues from exports. On average companies generate slightly less than one-third of their sales revenues on foreign markets. The proportion of total revenues accounted for by export revenues increased significantly in 2002, when conditions in the economy improved from the previous year.

III. FINANCIAL INSTITUTIONS

4 THE SLOVENIAN FINANCIAL SYSTEM

4.1 Structure of the Slovenian Financial System

The total assets of the Slovenian financial system in 2004 were equivalent to 126% of GDP, having risen on average by 18% each year between 2000 and 2003, but by just under 11% last year.

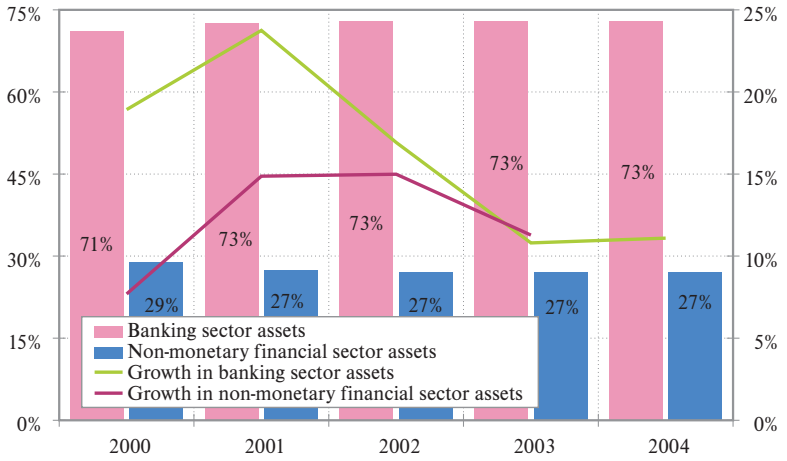
Table 4.1: Structure of Slovenian financial system in terms of total assets

	Total assets (SIT billions)		Structure		Proportion GDP		Number of institutions	
	2003	2004	2003	2004	2003	2004	2003	2004
Monetary financial institutions	5,123	5,691	73%	73%	89%	92%	22	22
Non-monetary financial institutions	1,909	2,101	27%	27%	33%	34%		
Insurance companies[3)]	589	685	8%	9%	10%	11%	14	15
Pension funds	80	114	1%	1%	1%	2%	10	11
Investment funds	439	500	6%	6%	8%	8%	47	44
Leasing companies[1)2)]	486	486	7%	6%	8%	8%	32	32
SCs, MCs and others[2)]	316	316	4%	4%	5%	5%	-	-
Total	7,032	7,792	100%	100%	122%	126%		

Notes: [1)] The number of members of the Slovenian Leasing Association is taken as the number of leasing companies.
[2)] The latest figure for the total assets of leasing companies and others is for the end of 2003.
[3)] The latest figure for the total assets of reinsurance companies is for the end of the third quarter of 2004.
Source: Bank of Slovenia, Insurance Supervision Agency, Association of Management Companies, Slovenian Leasing Association, Agency of the Republic of Slovenia for Public Legal Records and Related Services

Throughout the 2000 to 2002 period growth in the assets of the non-monetary sector was less than that of the banking sector, the growth rates only equalising in 2003, which points to the gradual increase in the role played by non-monetary financial institutions in the Slovenian financial system. Growth in the assets of investment funds and pension funds in particular can be expected to strengthen.

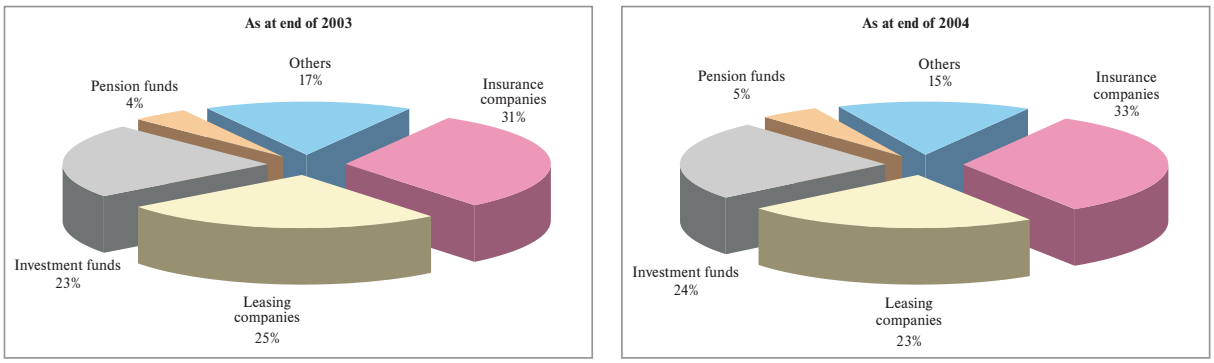
Figure 4.1: Structure and annual growth of assets of banking and non-monetary financial sectors



Note: No figure is yet available for the total assets of leasing companies, others and reinsurance companies at the end of 2004, and the correct annual growth rate in the total assets of the non-monetary sector in 2004 is therefore not available.
Source: Bank of Slovenia, Insurance Supervision Agency, Association of Management Companies, Agency of the Republic of Slovenia for Public Legal Records and Related Services

Prevalent among non-monetary financial institutions are insurance companies, with more than 30% of the total assets, followed by leasing companies with a significant proportion of 25%, and investment funds with 23%. At 4%, the proportion of total assets accounted for by pension funds is relatively low, but given the regular monthly premium payments by policyholders and the current low liabilities it will increase constantly.

Figure 4.2: Structure of non-monetary financial sector as at end of 2003 and 2004

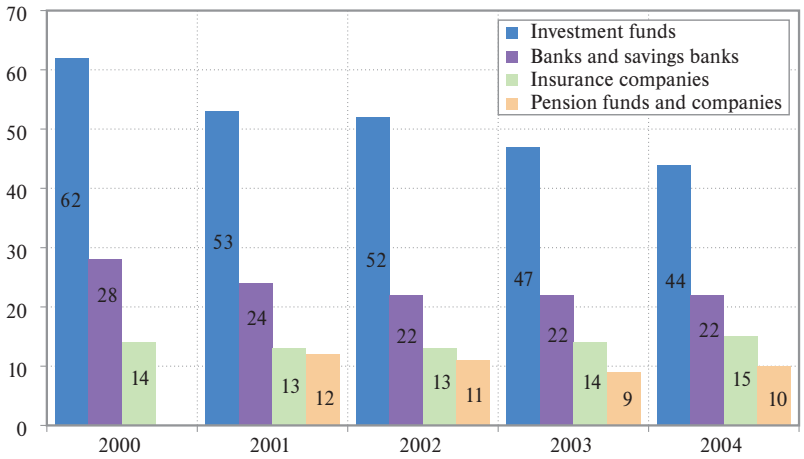


Note: The latest figure for the total assets of leasing companies and others is for the end of 2003, and for reinsurance companies is for the end of the third quarter of 2004.
Source: Insurance Supervision Agency, Association of Management Companies, Agency of the Republic of Slovenia for Public Legal Records and Related Services

Market structure of Slovenian financial system

The market structure varies considerably among the different types of financial institution, a result of their different paths of development and modes of operation.

Figure 4.3: Number of individual types of financial institution



Source: Bank of Slovenia, Insurance Supervision Agency, Securities Market Agency, Association of Management Companies

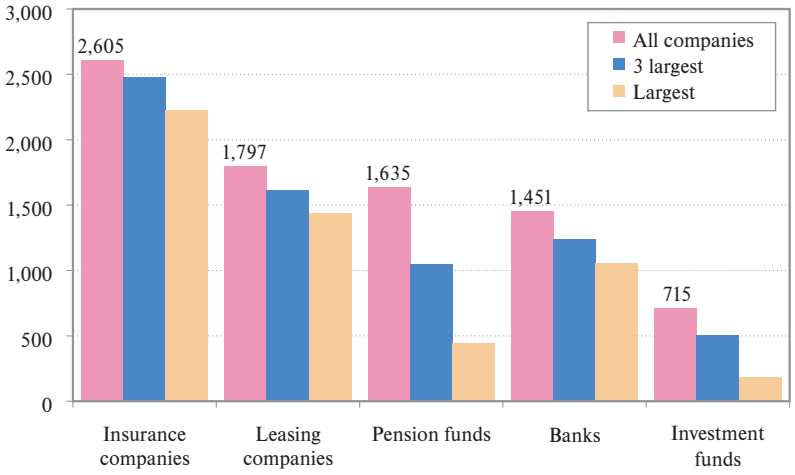
In the insurance sector there has been a notable trend of a rise in the number of insurance companies in the last three years. At the end of 2004 there were 15 insurance companies and reinsurance companies in Slovenia. There is also stiff competition from abroad in this sector. By the end of April 2005 the Insurance Supervision Agency had received 155 notices from EU member-states of the direct marketing of insurance services in Slovenia by foreign insurance companies.[13] Irrespective of this strong competition, market

[13] Branches were established on the Slovenian insurance market by the Austrian insurer Wiener Städtische last year, and by Victoria Volksbanken this year.

concentration in the insurance sector is still very high. The three largest insurance companies have a 74% share of the insurance market, as measured by total assets. The Herfindahl-Hirschman index as a measure of market concentration in this sector of the financial market is in excess of 2,600 and reflects a much higher level of concentration than can be seen on the markets for leasing companies, pension funds or banks.

The number of investment funds has fallen in recent years, which is primarily the result of the transformation of the authorised investment funds into ordinary public limited companies or holding companies. The number of mutual funds rose from 19 in 2000 to 33 at the end of 2004. The market concentration of investment funds has fallen each year, and is already relatively low, a result of the strong competition in the mutual funds market. Ten foreign mutual funds from the Austrian financial group Raiffeisen, marketed through Raiffeisen Krekova banka, arrived on the market in September 2004. At the beginning of March 2005 another eight foreign mutual funds managed by Capital Invest and marketed through Bank Austria Creditanstalt hit the Slovenian market. This means even more competition on the domestic market. Management companies under bank ownership are in particular expected to establish new funds, because they can make it easier for savers to switch from one form of saving to another, while banks will gain an additional source of non-interest income.

Figure 4.4: Herfindahl-Hirschman index for individual types of financial institution as at end of 2004



Note : The HH index is calculated in terms of total assets, with the exception of leasing companies, for which it is calculated in terms of volume of transactions concluded.

Source: Bank of Slovenia, Insurance Supervision Agency, Slovenian Leasing Association, Vzajemci.com, Association of Management Companies

Table 4.2: Market concentration of individual types of financial institution

		Insurance companies	Leasing companies	Pension funds	Banks	Investment funds
HHI	All companies	2,605	1,797	1,635	1,451	715
	Five largest companies	2,536	1,663	1,587	1,286	573
	Three largest companies	2,479	1,614	1,051	1,239	506
	Largest company	2,228	1,434	441	1,053	185
PROPORTION	All companies	100%	100%	100%	100%	100%
	Five largest companies	80%	70%	89%	65%	50%
	Three largest companies	74%	57%	56%	52%	39%
	Largest company	47%	38%	21%	32%	14%

Note : The HH index is calculated in terms of total assets, with the exception of leasing companies, for which it is calculated in terms of volume of transactions concluded.

Source: Bank of Slovenia, Insurance Supervision Agency, Slovenian Leasing Association, Vzajemci.com, Association of Management Companies

The rise in the market concentration of leasing companies only ceased in 2004, and it remained at the high level seen in 2003. The number of pension funds has fallen since the introduction of voluntary supplementary pension insurance, as in the initial period too many appeared for the size of the Slovenian market and competition was very strong.

4.2 Bank's Capital Links with Other Financial Institutions

Given the increasing importance of non-monetary financial institutions, banks are also favouring capital links with them. Through capital links with non-monetary financial institutions they can exert a greater influence over the financial market, and also increase their non-interest income, which already accounts for just under 41% of gross income. Commissions from angency services and commission operations accounted for 7% of commissions received in 2004, or SIT 8.6 billion, up 0.5 percentage points from 2003.

Table 4.3: Banks' capital investments as at end of 2004

	Banks' capital investments		No. of institutions with bank capital investments of					Total no. of
	(SIT millions)	Structure	up to 5%	5 - 25%	25 - 75%	75 - 100%	**Total**	institutions
Domestic banks and savings banks	28,512	32.7%	5	1	5	-	11	22
Insurance companies	4,193	4.8%	4	1	2	-	7	15
Pension companies	840	1.0%	1	1	2	-	4	4
Management companies	7,206	8.3%	-	1	1	5	7	15
Leasing companies	5,393	6.2%	-	1	1	5	7	32
Stockbroking companies	1,029	1.2%	-	-	-	1	1	16
Others	40,063	45.9%						
Total	87,236	100.0%						

Note: The number of members of the Slovenian Leasing Association is taken as the number of leasing companies.
Source: Bank of Slovenia, Insurance Supervision Agency, Securities Market Agency, Agency of the Republic of Slovenia for Public Legal Records and Related Services, Vzajemci.com, Association of Management Companies

Banks hold almost 33% of their capital investments in the domestic banking sector. A significant proportion of their capital investments, more than 8%, is held in investment fund management companies. Banks hold an interest of more than 50% in six of the 15, who manage more than SIT 200 billion, or 40% of the total assets of investment funds. The proportion of assets managed by management companies owned by banks is increasing. At the end of 2004 they already managed more than 47% of investment fund assets, and almost 30% of mutual fund assets. In 2004, over 35% of net inflows were into mutual funds managed by management companies under majority bank ownership (compared with just 20% in 2003). At 25% the average annual return of mutual funds under majority bank ownership in 2004 was 2 percentage points lower than that of mutual funds not under bank ownership.[14]

Banks also hold significant capital investments in leasing companies. Banks hold an interest of more than 50% in six leasing companies, which accounted for approximately 23% of all transactions by association members in 2004. Of these, four were under 100% domestic bank ownership, with interests of just over 50% being held in the other two. Two banks also hold a licence to provide leasing services, despite being 100% owners of leasing companies. There is also a large capital presence on the Slovenian leasing market maintained by Austrian and French banks, and by international corporations focused primarily on car financing. In 2004 there were three association members with a market share of

[14] As at the end of March 2005, four banks held the Bank of Slovenia authorisation to provide custodian services pursuant to the Investment Funds and Management Companies Act.

46% under the ownership of three foreign banks, although the banks have subsidiaries or branches in Slovenia. The reason for this is the reduction in the capital adequacy of subsidiary banks when affiliates are consolidated. Capital links between leasing companies and banks are strong. In order to monitor affiliated parties' exposure to financial risk, they need to be monitored on a consolidated basis.[15]

Capital links between Slovenian banks and insurance companies are relatively weak, but there is strong contractual cooperation between the two sectors in respect of banks' brokerage in the sale of insurance policies under the law regulating the insurance sector, with 11 banks having acquired the Bank of Slovenia authorisation by the end of March 2005 (see also the section on insurance companies). Only one insurance company holds a capital investment in a bank, the interest being 24%. Banks have been more active in acquiring capital in insurance companies, and hold interests of 50% in two insurance companies, almost 18% in one, and an interest of 5% in a reinsurance company. In other instances banks hold interests of less than 5% in insurance companies. The insurance sector is still relatively passive in seeking capital investments in domestic banks.

Banks have also been fairly active in seeking capital links with voluntary supplementary pension insurance providers. Banks held capital investments in all four of the pension companies on the market at the end of 2004, with interests of 55%, 45%, 13% and less than 1%. Three of the six mutual pension funds are managed by banks, and together they account for just under 10% of the total assets of mutual pension funds. Banks also hold capital investments in the two insurance companies that provide voluntary supplementary pension insurance, the interests being just under 18% and less than 1%.

Domestic banks directly control a relatively low proportion of the domestic financial system, just 10%. Greatest control, 13%, is exerted within the banking sector itself, while banks also control more than 6% of the insurance sector including pension funds, and more than 7% of other financial intermediaries, which comprise management companies, investment companies, leasing companies and similar. The proportion of the banking sector controlled by domestic financial institutions is also low at 22%. Allowing for the 13% controlled within the banking sector, merely 9% is controlled by other financial intermediaries and the insurance sector.

4.3 Ownership Structure of Financial Sector[16]

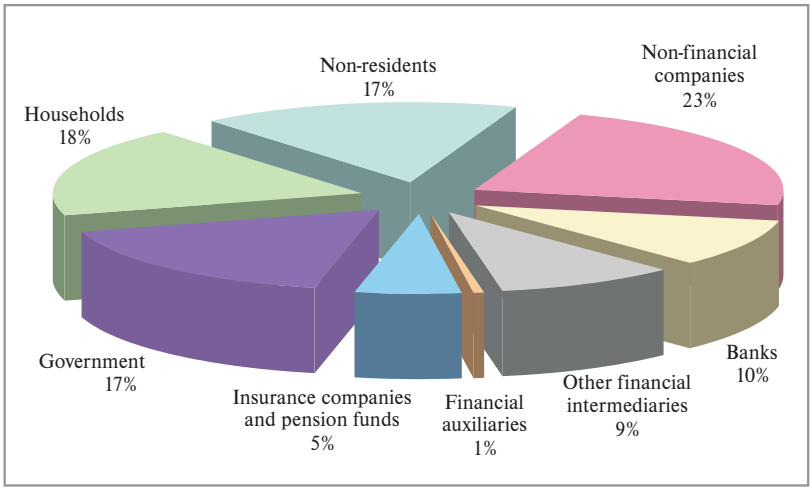
The largest owners in the financial sector are non-financial companies, with 23%, followed with 18% by the households, who primarily hold interests in other financial intermediaries, including investment funds. Other significant owners are the government, which holds almost 45% of the insurance sector and 17% of the financial sector as a whole, and non-residents, who own 29% of the banking sector (according to KDD figures) and 17% of the financial sector as a whole.

From the ownership structure of the financial sector it is clear that cross-ownership among domestic financial institutions is still low, with domestic financial institutions controlling just 25% of the Slovenian financial system. For greater stability in the ownership of the financial sector, which is a pre-requisite for it to perform well, greater cross-ownership among domestic banks, insurance companies, pension funds and other institutional investors is needed. The problem with the financial sector in Slovenia is that at the moment there is still no major bank or insurance company listed on the stock exchange. Listing on the stock exchange entails a certain risk for domestic financial institutions, particularly if the initial price is undervalued, but it would contribute to greater transparency in the functioning of the company itself and the financial system as a whole.

[15] Leasing services in Slovenia are not yet regulated by a separate law, and in the event of disputes the relevant provisions of the Code of Obligations apply. Given the importance of leasing services to the Slovenian financial system (see the section on leasing companies), it would be sensible to have specific regulations for the activities of leasing companies.

[16] Only direct ownership is considered.

Figure 4.5: Ownership structure of financial sector as at end of 2004



Source: Central Securities Clearing Corporation (KDD), Bank of Slovenia calculations (Financial Statistics)

Non-financial companies are prevalent among issuers, accounting for 78% of the total value of shares, with the remaining 22% belonging to financial institutions, prime among which are banks with 11%, followed by other financial intermediaries with 8%, and the insurance sector and pension funds with just 3%.[17]

Table 4.4: Ownership structure of financial sector in Slovenia (shares valued at market or book value)

Stakeholders	Banks	Other financial intermediaries	Financial auxiliaries	Insurers and pension funds	Total
December 2003					
Non-financial companies	23%	26%	20%	13%	23%
Banks	9%	10%	8%	3%	8%
Other financial intermediaries	6%	11%	6%	8%	8%
Financial auxiliaries	0%	1%	7%	0%	1%
Insurance companies and pension funds	3%	2%	2%	8%	3%
Government	25%	0%	3%	60%	20%
Households	3%	47%	47%	3%	21%
Non-residents	33%	2%	6%	6%	16%
Total	100%	100%	100%	100%	100%
December 2004					
Non-financial companies	25%	24%	25%	12%	23%
Banks	13%	7%	9%	6%	10%
Other financial intermediaries	5%	12%	5%	18%	9%
Financial auxiliaries	0%	1%	9%	0%	1%
Insurance companies and pension funds	3%	7%	2%	9%	5%
Government	22%	0%	2%	44%	17%
Households	3%	46%	40%	2%	18%
Non-residents	29%	3%	7%	9%	17%
Total	100%	100%	100%	100%	100%

Source: KDD, Bank of Slovenia calculations (Financial Statistics)

[17] Insurance companies' shares are valued at the privatisation price. It is difficult to value shares not listed on the stock exchange, as their market price is not known.

»Financial Groups and Financial Conglomerates«

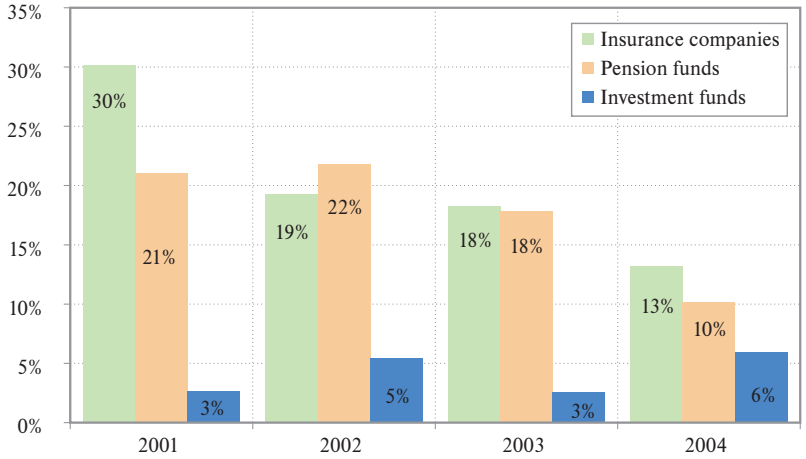
Figures indicate that links between financial institutions in are still relatively weak in Slovenia, but given the increasing competition from abroad and the associated process of consolidation of financial groups in the wider financial market there is also a distinct trend of increasing consolidation in the financial sector in Slovenia. Links forged between financial institutions create financial groups, which provide services in banking, the securities market and insurance. Links between financial sectors and the various financial transactions can contribute to the reallocation of risk between the sectors and to the creation of new risks. The differences in the supervision of the sectors lead to the reassignment of specific activities within the group in order to avoid the stricter requirements of regulators in a specific sector. It is important that consolidated supervision allows for stability and also efficiency.

In order to ensure efficient supervision coordinated between the regulatory institutions, a law on financial conglomerates is being drawn up in Slovenia on the basis of Directive 2002/87/EC on the supplementary supervision of credit institutions, insurance undertakings and investment firms in a financial conglomerate. The law is being drawn up by the Ministry of Finance in conjunction with all three regulatory authorities in the Slovenian financial system: the Bank of Slovenia, the Insurance Supervision Agency and the Securities Market Agency. The law stipulates that any group that includes at least one entity from the insurance sector (including pension companies) and at least one entity from the banking sector or securities market sector is treated as a financial conglomerate. Under the current situation, Slovenia would have one financial conglomerate, namely the financial group around Zavarovalnica Triglav and Abanka Vipa.

Non-capital links between non-monetary financial institutions and banks

Non-monetary financial institutions link more with banks through investments than through capital links. Bank deposits by non-monetary financial institutions account for more than 8% of all deposits by non-bank sectors at Slovenian banks: almost SIT 300 billion as at the end of September 2004.

Figure 4.6: Proportion of assets invested in bank deposits by insurance companies, pension funds and investment funds



Source: Insurance Supervision Agency, Securities Market Agency, Association of Management Companies

The proportion of assets invested in deposits is declining for all three major groups of financial institutions, as a result of the quest for financial investments with a better return. Insurance companies still maintained a considerable proportion of their assets, 13% or SIT 70 billion, in bank deposits as at the end of 2004, with 10% of life insurance and slightly more, 15%, of property insurance going into bank deposits. Pension funds also held a still-significant proportion of their assets in bank deposits as at

the end of 2004: 10% or just under SIT 10 billion. Investment funds held almost SIT 30 billion or 6% of their assets in bank deposits as at the end of 2004, primarily as a result of high net inflows into mutual funds. Owing to low interest rates, the proportion of assets invested in bank deposits by insurance companies, pension funds and investment funds can be expected to decline further.

In addition to deposits, debt securities account for a significant proportion of investments by pension funds and insurance companies. As at the end of 2004 insurance companies held more than 60% of their investments in debt securities, and pension funds more than 80%. Of the SIT 322 billion that the insurance sector held in domestic bonds at the end of the year, almost 77% was in government bonds and 19% in bank bonds. The insurance sector (including pension funds) holds almost 32% of all bank bonds issued, while other financial intermediaries hold 14%.

The figures show the proportion of investments in bonds by the insurance sector and investment funds to be rising. An important factor in this is the decline in interest rates, and the resulting search for alternative investments that are still secure but also provide a slightly higher return.

Lending to non-monetary financial institutions totalled SIT 124 billion at the end of 2004, or more than 4% of all lending to the non-monetary sector. Other financial intermediaries (primarily leasing companies) accounted for 80% of all bank lending received by non-monetary financial institutions, followed by companies providing financial auxiliaries (primarily stockbroking companies) with 8%, and the insurance sector (the Slovene Export Corporation) with 4%.

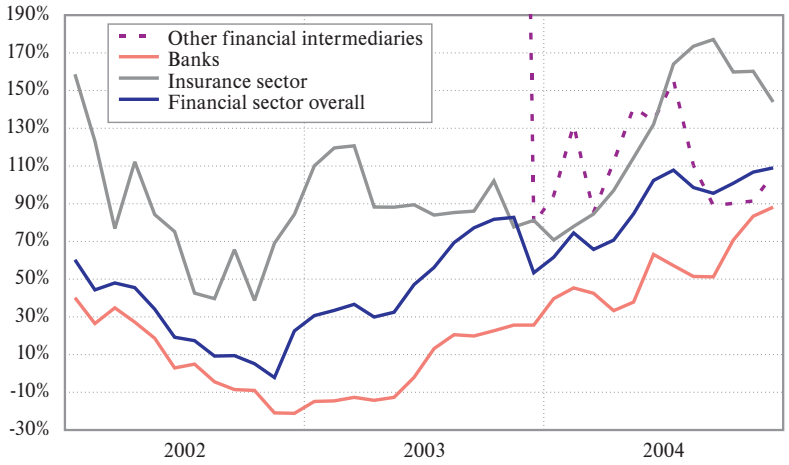
Domestic financial institutions' links with non-residents via loans and investments in securities

Non-monetary financial institutions borrow more abroad than they do in Slovenia. At the end of 2004 total borrowing abroad by non-monetary financial institutions stood at more than SIT 550 billion, or one-quarter of the total borrowing abroad by the Slovenian economy. Almost 85% of this was debts incurred by other financial intermediaries, primarily leasing companies, while the remaining 15% consisted of debts to the rest of the world incurred by the insurance sector, primarily the Slovene Export Corporation.

Given the conditions on the domestic capital market (see the section on the capital market), investments in foreign capital markets by domestic economy are increasing. At the end of January 2005 they totalled over SIT 330 billion, more than double the January 2004 total. Of these, more than 82% or SIT 273 billion was investments by the financial sector, of which banks accounted for 40%, the insurance sector for 32% and other financial intermediaries for just over 27%.

There is an extremely high rate of growth in investments in foreign securities in all three principal financial sectors. The average annual growth in 2003 in the other financial intermediaries sector (including investment funds) was 540%, the stock of such investments having stood merely at just under SIT 19 billion at the end of 2002. In 2004 the growth rate slowed slightly, but at an annual average of 112% it was still high. At the end of 2004 the investment funds sector held SIT 70 billion of investments in foreign securities, of which 76% or SIT 53 billion was investments in shares. The largest proportion of 21% is invested in securities of German issuers, followed by investments in securities of American, British and French issuers, each with 17% on average. At the end of January 2005 mutual funds held 17% of their investments in foreign securities, but the proportion of investment companies' investments accounted for by foreign investments was still low at 4%, which is a result of the lesser extent to which their indices depend on investment structure, unlike mutual fund's unit value.

Figure 4.7: Annual growth in financial sector investments in foreign securities

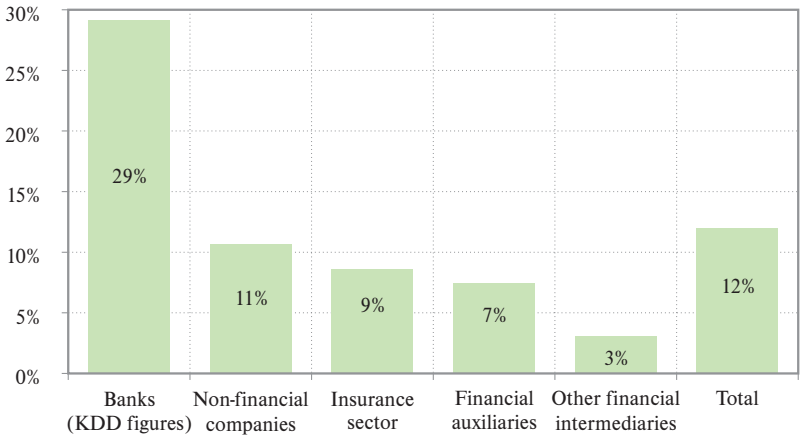


Source: Bank of Slovenia (Financial Statistics)

The insurance sector is also investing more and more of its assets abroad, the total having passed SIT 90 billion by the end of 2004. As for banks, investments in bonds predominate, accounting for more than 82%. The largest proportion of assets invested abroad by the insurance sector, 18%, was in German securities, followed by Dutch securities with 13%, while other countries account for less than 10%. At the end of September 2004 investments abroad accounted for just 9% of insurance companies' assets, although the proportion was 18% for life insurance alone. Pension companies are also increasing the amount of long-term assets that they invest abroad: at the end of September 2004 they held 11% of their investments or almost SIT 5 billion in foreign securities.

Non-residents controlled 12% of the Slovenian economy at the end of 2004. Non-residents are particularly important in banking, holding 32% of the sector. They currently control 9% of the insurance sector. The latest figures show 83% of the Slovenian financial system to be under domestic control. At the end of 2004 non-residents also held 3% of all issued Slovenian bonds.

Figure 4.8: Non-residents' control of individual sectors (shares valued at market or book value as at end of 2004)



Source: KDD, Bank of Slovenia calculations (Financial Statistics)

The figures show that Slovenian financial institutions are increasingly favouring capital investment in developed foreign markets, as these are more stable than the Slovenian capital market, which is still rather shallow and offers relatively little choice of high-quality securities. Investments by the financial sector in the

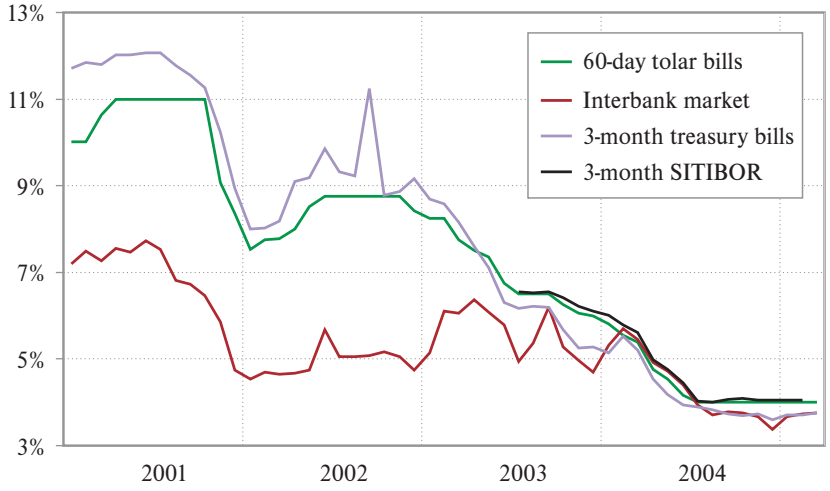
stock markets of the former Yugoslavia are also increasing. They rose by SIT 2.7 billion in a single year, to just under SIT 11 billion at the end of 2004, equivalent to 13% of the financial sector's total investments in foreign shares. A considerable number of Slovenian financial institutions are also opting to take out loans abroad, particularly subsidiaries of foreign companies, which gain more favourable terms in so doing.

4.4 Domestic Financial Markets

4.4.1 Money Market

In 2004 there was a fall in interest rates on the money market, as on the other segments of the financial market. The fall in interest rates was prevalent in the first half or first nine months of the year, after which interest rates were more or less stationary.

Figure 4.9: Interest rates on certain Bank of Slovenia and government instruments and money market interest rates



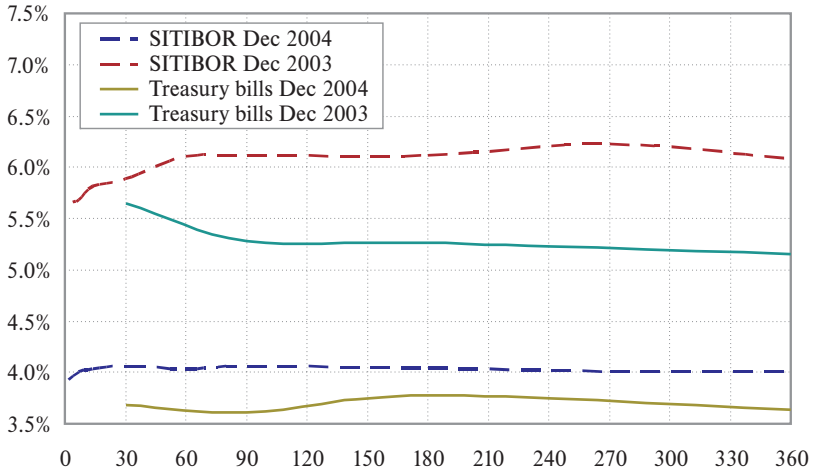
Source: Bank of Slovenia

The decline in interest rates on the money market was brought about by the process of the nominal convergence of Slovenian interest rates. With inflation falling and tolar depreciation against the euro slowing, the Bank of Slovenia made relatively rapid cuts in its interest rates in the period prior to ERM 2 entry in June 2004. After Slovenia joined the ERM 2 there was no change in interest rates until December 2004, when the Bank of Slovenia raised the forward foreign exchange swap rate and thus the refinancing rate by 0.25 percentage points. The interest rate on the money market fell by 1.3 percentage points last year to 3.4%, but then rose again in the first quarter of this year to between 3.7% and 3.8%. Interest rates on treasury bills moved in a similar fashion to interest rates on Bank of Slovenia instruments. In the context of excess demand interest rates on 1-month treasury bills fell by 1.5 percentage points from the previous year to reach 3.6% at the end of 2004.

The decline in interest rates is reflected in a further downturn in the treasury bill yield curve. The yield on treasury bills of all maturity periods up to one year fell by more than 1 percentage point between December 2003 and June 2004, and then fell further in the second half of the year, with 1-month treasury bills recording the largest fall of close to 0.5 percentage points. The interest rate on treasury bills with a maturity period of between one month and twelve months stood between 3.6% and 3.8% in December 2004. In recent months a gentle upward turn in the curve has been seen, which points to interest rates on the money market holding at their current level, and does not reflect additional expectations of a fall in interest rates in the very short term. The time structure of interest rates on the SITIBOR interbank

market also declined last year, although the decline on shorter maturity periods was less than that on longer maturity periods, and the SITIBOR yield curve thus shifted from rising to level.

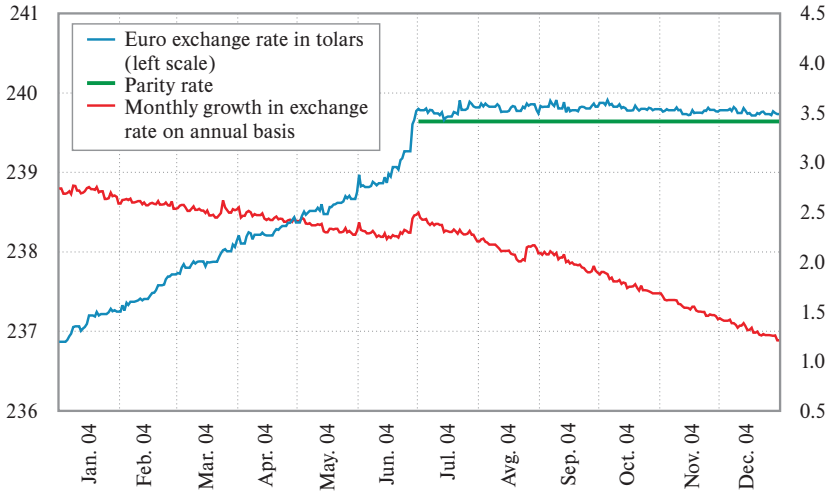
Figure 4.10: Yield curve of treasury bills and money market interest rate



Source: Bank of Slovenia

Last year foreign currency purchases exceeded sales by EUR 251 million, owing to the current account deficit, increased investments abroad by residents, the expectations of companies and the general public regarding the movement of the exchange rate prior to ERM 2 entry, and above all the low volume of foreign direct investments. These factors also brought about a decline of EUR 255 million in foreign exchange reserves. Excess demand for foreign currency was prevalent on the market between May and September, primarily owing to net sales on the forward market, while the sole deficit on the spot market was recorded in September. Net sales of foreign currency at exchange offices were also relatively large, the total of EUR 404.9 million exceeding net sales in 2003 by 21%.

Figure 4.11: Euro exchange rate last year and percentage monthly growth rate



Source: Bank of Slovenia

The current rate of growth in the euro/tolar exchange rate fell throughout the period leading up to ERM 2 entry in June 2004. After Slovenia joined the ERM 2 a stable tolar exchange rate was maintained on the foreign exchange market. Between July and October the exchange rate deviated from the central rate by 0.08%, and then by an average of just 0.05% in the final two months of the year.

4.4.2 Capital Market

Primary capital market

The primary capital market in Slovenia remains poorly developed. The last successful public share offer was in 2000, and the last offer of non-government bonds was in 2003. The government issued three series of bonds in the amount of SIT 180 billion on the domestic market in 2004, and two series in the amount of SIT 120 billion in the first three months of 2005. In 2004 eight banks, four other financial intermediaries and four non-financial companies[18] issued bonds in closed offers.

Apart from government bonds, only occasional (closed) issues of bank bonds can be expected on the domestic capital market. Owing to the rapid development of institutional investors in Slovenia and the lack of suitable investments on the domestic capital market, more and more domestic capital moves abroad in the form of portfolio investments.

Table 4.5: Number of issuers and number of securities issued on Ljubljana stock exchange, and number of securities registered with Central Securities Clearing Corporation (KDD)

	2001	2002	2003	2004	Mar. 2005	2001	2002	2003	2004	Mar. 2005
LJUBLJANA STOCK EXCHANGE						Annual change				
Number of issuers	221	191	181	172	170	-4	-30	-10	-9	-2
Number of securities issued	271	265	254	254	246	4	-6	-11	0	-8
Shares	156	140	136	142	140	2	-16	-4	6	-2
Bonds	76	92	92	101	95	8	16	0	9	-6
Investment companies	39	33	26	11	11	-6	-6	-7	-15	0
Number of members	31	27	28	27	27	-3	-4	1	-1	0
KDD						Proportion of KDD number on stock exchange				
Number of issuers	883	870	869	853	-	25%	22%	21%	20%	-
Number of securities issued	1035	1032	1033	1030	-	26%	26%	25%	25%	-
Shares	884	877	886	886	-	18%	16%	15%	16%	-
Bonds	112	122	120	133	-	68%	75%	77%	76%	-
Investment companies	39	33	26	11	-	100%	100%	100%	100%	-

Source: Ljubljana Stock Exchange, KDD

Secondary capital market

At the end of 2004 less than one-quarter of all the securities registered with KDD were listed on the Ljubljana stock exchange, equivalent to 20% of the issuers. Both the number of issuers and the number of securities on the Ljubljana stock exchange have been falling since 2001. The major problem of the domestic organised capital market is that none of the shares of the major financial institutions (banks, insurance companies) is on the market, and in particular it lacks good companies with a high market capitalisation and high trading liquidity. Slovenia's secondary capital market is highly non-liquid, with the modest choice of different investments available to investors being a factor in this. The turnover ratio[19] of securities on the Ljubljana stock exchange shows the relative liquidity to have been falling since 2001, reaching 13% of market capitalisation at the end of 2004. Hypothetically, in the current situation individual investors could willingly or unwillingly use a relatively small investment to bring about a significant change in share prices.

[18] For more detailed statistics from the securities market, see *Financial Markets*, published by the Bank of Slovenia's Financial Statistics Department.

[19] The turnover ratio of securities is the ratio of the turnover in a specific period and market capitalisation at the end of the period.

Table 4.6: Overview of organised securities market

	Market capitalisation (SIT billions)	Market capitalisation % GDP	Turnover (SIT billions)	Turnover % GDP	Turnover ratio of securities	Annual growth in SBI 20
1999	920	23.7%	266	6.9%	0.289	5.9%
2000	1,138	26.8%	270	6.3%	0.237	0.1%
2001	1,380	29.0%	348	7.3%	0.252	19.0%
2002	2,174	40.9%	481	9.1%	0.221	55.2%
2003	2,442	42.5%	340	5.9%	0.139	17.7%
2004	3,050	49.3%	397	6.4%	0.130	24.7%
2005 (to March)	3,067	48.9%	404	6.4%	0.132	11.0%

Source: Ljubljana Stock Exchange

At the end of 2004 the market capitalisation of the Ljubljana stock exchange accounted for 53% of the total value of securities registered with KDD,[20] and was up one-quarter from the end of 2003, exceeding SIT 3,000 billion for the first time. The available figures show less than one-half of shares in value terms as being traded on the Ljubljana stock exchange, but more than 80% of bonds.

Table 4.7: Comparison of market capitalisation on Ljubljana stock exchange and value of securities registered with KDD at market or book value

	2001	2002	2003	2004	Mar.05	2001	2002	2003	2004	Mar.05
LJUBLJANA STOCK EXCHANGE	SIT billions					Annual growth				
Total market capitalisation	1,373	2,168	2,442	3,050	3,067	21%	58%	13%	25%	15%
Shares	1,012	1,477	1,567	1,943	1,904	15%	46%	6%	24%	9%
Bonds	361	691	875	1,107	1,163	42%	91%	27%	26%	27%
KDD	SIT billions					Market capitalisation as proportion of KDD value				
Total value	3,587	4,371	4,897	5,768	-	38%	50%	50%	53%	-
Shares	2,992	3,418	3,829	4,406	-	34%	43%	41%	44%	-
Bonds	595	953	1,068	1,362	-	61%	72%	82%	81%	-

Source: Ljubljana Stock Exchange, KDD, Bank of Slovenia calculations (Financial Statistics)

At 15% at the end of the first quarter of this year, the annual rate of growth in market capitalisation was significantly lower than last year, and the market capitalisation of shares was even down SIT 40 billion from the end of 2004.[21] The growth in capitalisation in 2004 resulted from increase of capital and new securities being listed on the exchange. Share capitalisation rose primarily because of high growth in share prices during 2004: the SBI 20 was up almost 25% and the PIX almost 34%. The annual growth rates had fallen significantly by the end of March, with the SBI 20 recording a rate of 11% and the PIX just 10%, which contributed to the decline in market capitalisation.

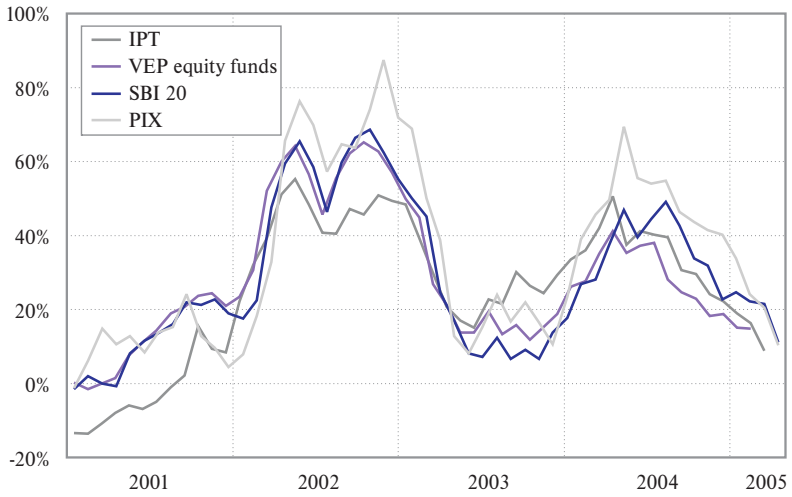
The movement of the annual returns of all the more important stock exchange indices shows a decline. There has been a large decline from the growth rate of more than 50% in the share indices and returns on equiti mutual funds recorded towards the end of 2002, and of the slightly lower growth rate recorded in the middle of 2004, still above 40%. In addition to good company results, the significant fall in bank interest rates also contributed to the rise in the stock exchange indices. It is unlikely that interest rates

[20] The book value of shares not traded on the stock exchange has been estimated.

[21] The five largest securities on the Ljubljana stock exchange in terms of capitalisation as at the end of March 2005 were Krka shares (SIT 283 billion), Petrol shares (SIT 140 billion), 2nd Slovenian Reimbursement Fund issue bonds (SIT 138 billion), Merkator shares (SIT 128 billion) and 57th issue government bonds (SIT 97 billion); these accounted for one-quarter of total capitalisation.

will continue to fall, and therefore the likelihood is that the stock exchange indices in 2005 will move in line with company performance. The annual growth rate in the SBI 20 of 11% recorded at the end of March is half that reached at the beginning of 2004 (for more on expected share performance, see the accompanying article *Measuring Share Undervaluation in Slovenia*).

Figure 4.12: Share indices and returns on equiti mutual funds



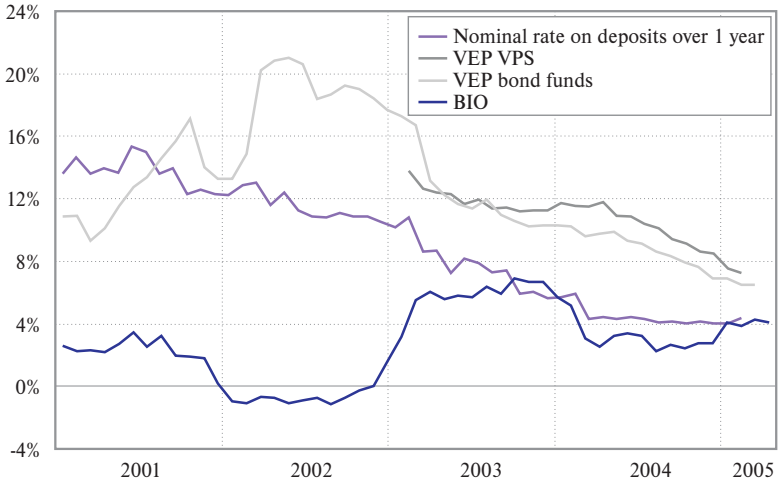
Note: IPT – free market index; VEP equiti funds – unit value of equity mutual funds, SBI 20 – Slovenian stock exchange index, PIX – investment funds index
Source: Ljubljana Stock Exchange, Vzajemci.com, Bank of Slovenia calculations

Table 4.8: Stock exchange indices and returns on mutual funds

	SBI20		IPT		PIX		BIO		VEP - VS	VEP - VPS
	Value	Annual growth	Value	Annual growth	Value	Annual growth	Value	Annual growth	Annual growth	Annual growth
2000	1807.9	0.1%	1627.4	-9.9%	1520.8	2.5%	109.0	0.5%	4.0%	-
2001	2151.6	19.0%	1765.6	8.5%	1588.0	4.4%	109.3	0.2%	23.2%	-
2002	3340.2	55.2%	2635.4	49.3%	2729.7	71.9%	111.0	1.6%	54.2%	13.8%
2003	3931.6	17.7%	3412.2	29.5%	3372.0	23.5%	117.3	5.7%	17.2%	11.3%
2004	4904.5	24.7%	4168.0	22.2%	4513.4	33.8%	122.0	4.1%	17.8%	8.5%
2004										
Jan	4199.2	27.0%	3681.6	33.5%	3827.2	38.9%	117.7	5.2%	23.1%	11.7%
Feb	4120.7	28.2%	3687.1	36.1%	3830.5	45.7%	117.1	3.0%	24.3%	11.5%
Mar	4375.7	36.1%	3788.5	41.4%	4024.1	48.5%	117.4	2.4%	29.8%	11.5%
Apr	4667.6	46.0%	3951.9	49.3%	4451.2	68.1%	118.1	3.4%	34.9%	11.8%
May	4415.0	39.0%	3648.6	37.5%	4075.4	52.7%	118.0	3.4%	30.5%	10.9%
Jun	4446.9	41.7%	3645.2	40.3%	4098.4	55.5%	118.1	3.2%	32.3%	10.8%
Jul	4666.7	50.5%	3745.8	45.8%	4259.7	57.9%	117.8	2.2%	33.2%	10.4%
Aug	4796.6	49.2%	3875.5	44.5%	4201.3	48.1%	118.0	2.7%	27.8%	10.1%
Sep	4838.8	33.9%	4012.6	30.7%	4394.6	43.6%	118.9	2.4%	24.1%	9.4%
Okt	4822.5	31.9%	4089.9	29.6%	4392.0	41.4%	119.6	2.8%	21.2%	9.2%
Nov	4841.3	22.8%	4113.0	24.2%	4572.8	40.3%	120.4	2.8%	17.9%	8.6%
Dec	4904.5	24.7%	4168.0	22.2%	4513.4	33.8%	122.0	4.1%	17.8%	8.5%
2005										
Jan	5128.6	22.1%	4379.5	19.0%	4752.5	24.2%	122.2	3.8%	14.8%	7.5%
Feb	5005.9	21.5%	4291.2	16.4%	4614.4	20.5%	122.1	4.2%	14.3%	7.3%
Mar	4858.5	11.0%	4122.6	8.8%	4440.0	10.3%	122.2	4.1%	-	-

Source: Ljubljana Stock Exchange, Vzajemci.com, Bank of Slovenia calculations

Figure 4.13: Returns on conservative forms of investment and saving



Note: BIO – stock exchange bond index; VEP bond funds – unit value of bond mutual funds, VEP VPS – unit value of mutual pension funds
Source: Ljubljana Stock Exchange, Vzajemci.com, Bank of Slovenia calculations

More conservative investments that are similar to bank deposits have recently recorded a maximum annual return of just over 7%. The nominal interest rate on time deposits over one year was 4% at the end of February, which is just 2.1 percentage points less than the annual return on bond mutual funds. Mutual pension funds (not including pension companies and insurance companies) are recording slightly higher returns of 7.2%, but even their returns are undergoing sustained decline.

Table 4.9: Comparison of annual turnover on Ljubljana stock exchange and turnover outside organised market

	2000	2001	2002	2003	2004	Mar.05	2001	2002	2003	2004	Mar.05
LJUBLJANA STOCK EXCHANGE	SIT billions						Annual growth				
Total turnover	252	344	476	340	397	404	37%	38%	-28%	17%	17%
Shares	135	237	279	149	223	231	75%	18%	-46%	49%	38%
Bonds	53	52	111	130	114	118	-3%	114%	17%	-12%	2%
Investment companies	61	53	86	61	60	55	-13%	62%	-29%	-1%	-10%
Short-term securities	3	3	1	0	0	0	-	-	-	-	-
OTC MARKET	SIT billions						As proportion of stock exchange turnover				
Total turnover	172	141	257	404	234	-	41%	54%	119%	59%	-
Shares	144	107	87	82	71	-	45%	31%	55%	32%	-
Bonds	21	15	27	32	19	-	29%	24%	25%	17%	-
Investment companies	0	0	0	0	0	-	-	-	-	-	-
Short-term securities	7	19	143	290	144	-	-	-	-	-	-

Note: The figure for transactions concluded outside the organised market comprises only transactions concluded by stockbroking companies and banks as final purchasers or vendors of non-marketable securities that must be reported to the Securities Market Agency.
Source: Ljubljana Stock Exchange, Securities Market Agency

The Ljubljana stock exchange recorded a turnover of almost SIT 400 billion in 2004, up 17% from the previous year.[22] A large proportion of securities trading also takes place outside the organised market.

[22] There were 11 securities that recorded a turnover of more than SIT 10 billion in 2004. The five most-heavily traded were Krka shares (SIT 41 billion), Mercator shares (SIT 23 billion), 2nd issue Slovenian Reimbursement Fund bonds (SIT 20 billion), 57th issue government bonds (SIT 19 billion) and Petrol shares (SIT 16 billion). These five securities accounted for almost 30% of total turnover in 2004.

In 2004 the over-the-counter (OTC) market accounted for 32% of turnover in shares, where the final purchasers or vendors were stockbroking companies or banks, and 17% of turnover in bonds. Including the trading that does not involve stockbroking companies or banks, the proportion is even higher. There was almost SIT 280 billion of trading in treasury bills in 2002, up 19% from the previous year, primarily owing to the change in the settlement system,[23] which allowed the market to flourish.

The turnover on the Ljubljana stock exchange in 2004 was just SIT 9 billion less than the turnover in real estate, and was half the turnover at exchange offices. This figure shows the similarity in the turnover on the real estate market and the organised securities market. It should be noted that this ignores the OTC market, and that the turnover in real estate is probably underestimated.

The Ljubljana stock exchange is drawing up new exchange rules to make the organised securities market more efficient and bring it into line with the different needs of stock exchange business. Important new features include a new segment of listed shares that will solely comprise highly liquid shares of major issuers of interest to international investors, the segmentation of the free market, where issuers are distinguished in terms of meeting the standards of notification, the acceptance of transferable mutual fund coupons in a special segment of the organised market, and a new trading regime with auction trading in low-liquidity securities, suspension of trading during excessive price fluctuations and the introduction of liquidity maintainers. Through these measures the Ljubljana stock exchange aims to bring Slovenia's capital market closer to international portfolio investors.

Non-residents' investments in securities in Slovenia

In 2004 non-residents purchased almost SIT 33 billion of securities net, of which the majority was on the OTC market. Non-residents accounted for 4.7% of the total turnover on the stock exchange in 2004, and held 4.5% of share capitalisation at the end of the year. No great interest was shown in Slovenian shares by non-residents in 2003 and 2004, but the share of major Slovenian companies held by foreign strategic investors can be expected to slowly rise. At the end of 2004 non-residents held interests in 50% of the public limited companies registered with KDD, holding interests of less than 10% in 40% of companies, and interests of 10% or more in 10% of companies. Non-residents held a majority interest in 47 public limited companies, of which an interest of 90% or more was held in 22 (including five banks and three insurers).

Table 4.10: Non-residents' securities purchases in Slovenia

	Net purchases of non-residents		Non-resident's turnover on organised market	As proportion of total turnover on organised market
	Organised market SIT billions	OTC market SIT billions	SIT billions	
1999	-2,270	675	3,163	1.19%
2000	208	8,540	4,296	1.59%
2001	4,500	63,500	10,556	3.03%
2002	-11,895	337,085	39,403	8.19%
2003	521	52,207	11,916	3.50%
2004	-389	33,185	18,805	4.74%
2005 (to March)	2,463	2,886	6,186	5.91%

Source: KDD, Bank of Slovenia calculations (Financial Statistics), Ljubljana Stock Exchange

[23] OTC-DVP allows for the simultaneous settlement of liabilities from the transfer of securities and the transfer of cash arising from sales transactions concluded outside the organised market.

Residents' investments in securities abroad

Given the conditions on the domestic capital market, domestic non-financial and financial institutions that have money from domestic savers at their disposal are increasingly opting to invest in foreign markets. By the end of February 2005 residents (excluding the Bank of Slovenia) already held 104% more investments abroad than at the same point last year, a figure of SIT 363 billion. Of this almost 60% comprises investments in bonds, with government and bank bonds of foreign issuers accounting for 75% of this. The largest investments are in German bonds (22%), followed by Dutch (11%), French (11%) and Irish (10%). American (8%), British (7%) and Belgian bonds (5%) also accounted for more than 5% of resident's investments. Investments in bonds issued by residents accounted for 15% of total investments abroad at the end of February 2005.

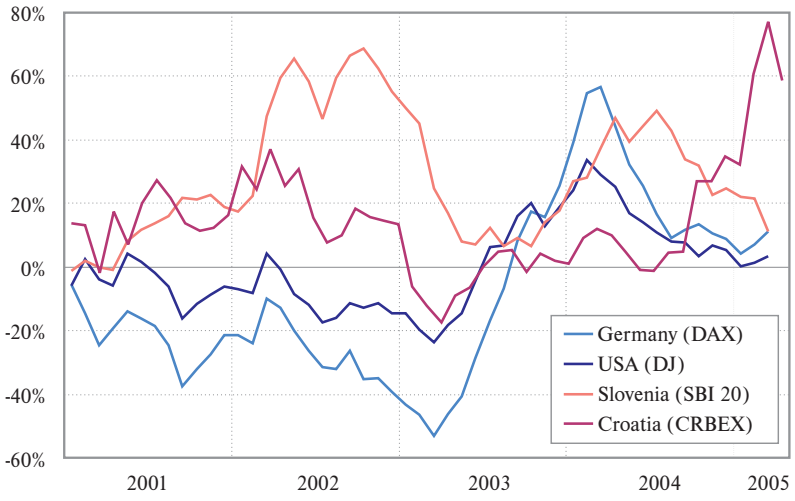
Residents held investments of more than SIT 150 billion in foreign shares at the end of February 2005, three times as much as at the same point last year. The largest investments were in American shares (19%), followed by German (17%) and Croatian (15%). French (8%), Bosnian (7%), Austrian (5%) and Montenegrin shares (5%) also accounted for more than 5% of resident's investments. There is a notable trend of increasing investment in shares from the markets of the former Yugoslavia. At the end of February 2005 they accounted for 27% of the total, having accounted for just under 20% at the end of 2004 and merely under 13% halfway through last year.

Table 4.11: Residents' investments in securities issued abroad

	Investments in foreign securities issued abroad SIT billions	Annual growth	Proportion in shares	Proportion in bonds	Investments in domestic securities issued abroad SIT billions
2000	35	73%	11%	89%	55
2001	70	96%	17%	83%	54
2002	89	27%	28%	72%	60
2003	143	62%	40%	60%	57
2004	314	119%	39%	61%	58
Feb 2005	363	104%	42%	57%	64

Source: Bank of Slovenia (Financial Statistics)

Figure 4.14: Annual return of selected stock exchange indices



Source: Reuters

The reasons lie in the falling returns on the domestic capital market, and the high returns to be found in the markets of the former Yugoslavia, which are still undergoing transition. Given the falling returns of the Slovenian capital market it is thought that domestic investors are ready to make a relatively rapid expansion of their investments in the capital markets of south-eastern Europe in search of higher returns, despite the added risk. Annual returns have fallen recently on the American and German stock markets.

Licensed securities market participants (stock exchange members)

The total volume of investment in the domestic capital market made through stock exchange members was SIT 2,300 billion at the end of September 2004, of which more than 80% was in marketable securities that account for 65% of the Ljubljana stock exchange's market capitalisation.[24] Investments via stock exchange members rose by more than 30% in one year, which indicates the increased interest in the stock market. That 60% of such investments had been made via banks by the end of September 2004 shows the greater role that banks are taking in securities brokerage. The majority, almost 80%, involves stockbroking in the purchase or sale of securities. Banks' commissions from securities transactions for customers amounted to SIT 2.4 billion in 2004, up 45% from the previous year. They already account for more than 3% of the fees and commissions received by banks.

Table 4.12: Investments by stock exchange members from different types of transaction

	2001	2002	2003	Sep/2004
Total in Slovenia (SIT billions)	824	1607	1926	2295
Total abroad (SIT billions)	97	119	163	252
	Structure of domestic investments by type of transaction			
Banks	50%	58%	61%	60%
Own investments	27%	21%	19%	20%
Managing securities	1%	1%	1%	1%
Stockbroking	23%	36%	41%	39%
Stocbroking companies	50%	42%	39%	40%
Own investments	1%	1%	1%	1%
Managing securities	2%	1%	1%	1%
Stockbroking	46%	40%	38%	39%

Source: Securities Market Agency

More than SIT 250 billion of investments abroad by residents had been made via Slovenian stockbrokers by the end of September 2005, which is estimated to be more than 80% of all residents' investments abroad.

[24] Investments by stock exchange members include all the securities in their trading accounts. The securities held solely in the registered account at KDD are not included.

5 BANKING SECTOR

5.1 Banks and Saving Banks

Banks maintain their dominant role among financial intermediaries, and account for about three-quarters of the financial sector. The consolidation of the banking system is continuing, but there were no major changes in the ownership of banks in 2004. Compared with the EU-15, not only is the banking market smaller, but its concentration is also greater, especially in the segment of liabilities to households.

The total assets of the banking sector are constantly increasing as a proportion of GDP; but compared with the EU-15 the market is still only one-third of the depth. The total assets of banks, savings banks and savings and loan undertakings in 2004 stood at SIT 5,691 billion, equivalent to 92% of GDP, of which the total assets of saving banks and savings and loan undertakings were equivalent to just 0.5% of GDP. With economic growth high, the expansion of the market for banking services was more robust than in 2003, though not as pronounced as in previous years.

Table 5.1: Total assets relative to GDP and expansion

	2001	2002	2003	2004
Total assets (SIT billions)	3,954	4,623	5,123	5,691
GDP, current prices (SIT billions)	4,762	5,314	5,747	6,191
Total assets as proportion of GDP	83.0	87.0	89.1	91.9
Annual expansion of banking market	10.5	4.8	2.5	3.1

Note: Includes the total assets of banks, savings banks and savings and loan undertakings
Source: Bank of Slovenia

Consolidation in the banking system also continued in 2004, mainly through the merger of savings and loan undertakings with one of the banks. At the end of the year there were 18 banks and two branches of foreign banks in operation. There were no changes in the savings banks segment in 2004, with two still in operation. The number of savings and loan undertakings fell to two as operations were brought into line with the Banking Act. When Slovenia joined the European Union a total of 82 European banks had notified the Bank of Slovenia by March 2005 that they would begin providing services directly in Slovenia, mostly banks from Austria, the UK and Germany. These are for the most part banks that can provide all or at least the majority of banking services. Among the banks with more specialized services that notified the Bank of Slovenia are banks involved in lending and guarantees, and banks offering assets and securities management and participation in securities issues.

Structure of financial market

Table 5.2: Structure of financial sector and GDP equivalent

	proportion of GDP (%)					proportion of financial sector (%)				
	2000	2001	2002	2003	2004	2000	2001	2002	2003	2004
Monetary financial institutions	75.1	83.0	87.0	89.1	91.9	71.1	72.6	72.9	72.8	73.0
Banks	73.5	81.4	85.7	88.0	91.4	69.5	71.2	71.9	71.9	72.6
Savings banks, savings and loan undertakings	1.6	1.6	1.3	1.1	0.5	1.6	1.4	1.1	0.9	0.4
Non-monetary financial institutions	30.6	31.3	32.3	33.2	33.9	28.9	27.4	27.1	27.2	27.0
Insurance companies	7.6	8.2	9.4	10.2	11.1	7.2	7.2	7.9	8.4	8.8
Other[1)]	23.0	23.1	22.9	23.0	22.9	21.7	20.2	19.2	18.8	18.2
Total	105.7	114.4	119.3	122.4	125.9	100.0	100.0	100.0	100.0	100.0

Note: [1)]Figures for the end of 2003 were used for the year 2004.
Source: Bank of Slovenia

Monetary financial institutions are the most important segment of the financial sector, accounting for nearly three-quarters of the sector. The most important non-monetary financial intermediaries are insurance companies, whose total assets are equivalent to 11% of GDP and who account for 8.8% of the financial sector.

Bank ownership

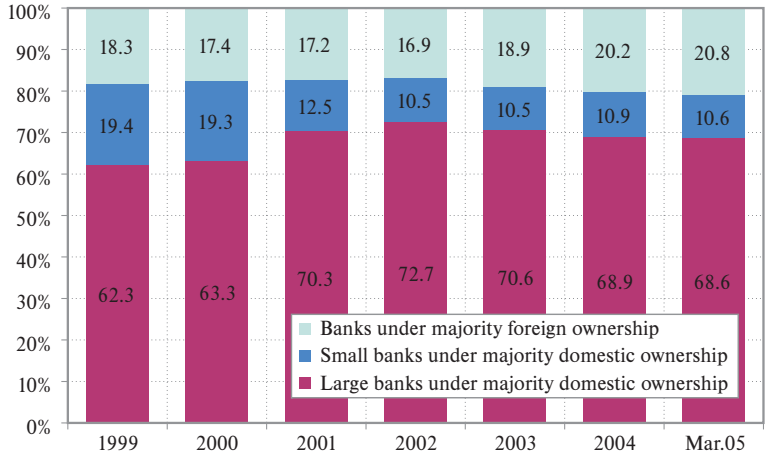
There were no significant changes in the ownership structure of banks in 2004. Over 19% of the banking sector remains under government ownership. In addition to the five subsidiary banks and two branches under majority foreign ownership, five banks were under total domestic ownership and eight banks under majority domestic ownership. The proportion of total equity accounted for by banks under foreign ownership was the same at the end of 2004 as a year earlier at 32.4%.

Table 5.3: Ownership composition of banking sector (in terms of equity)

	2002	2003	2004
Government in narrower sense	20.3%	19.4%	19.1%
Other domestic persons	47.2%	48.2%	48.6%
Non-residents	32.5%	32.4%	32.4%
Non-residents (over 50% controlled)	15.7%	16.6%	16.5%
Non-residents (under 50% controlled)	16.8%	15.8%	15.9%

Source: Bank of Slovenia

Figure 5.1: Market share of banks under majority foreign ownership and under majority domestic ownership in terms of total assets



Source: Bank of Slovenia

Concentration in banking sector

Market concentration in the Slovenian banking sector is greater than in the EU-15. With greater involvement from foreign banks, concentration in Slovenia has started to gradually fall in the last two years, while there has been an increase in market concentration in the EU.

No major differences in concentration can be discerned in the lending sector. Loans to non-bank sectors and loans to households are of greatest interest to banks under majority foreign ownership, while concentration is much higher in deposits, especially household deposits. The top three banks control 50% of lending to non-bank sectors and 55% of deposits.

The lowest concentration as measured by the HHI is in liabilities to banks, although it was about 60% higher than in other segments as recently as 2000. With the increase in the market share of foreign banks, which was

closely linked to the increase in liabilities of these banks to banks abroad, the concentration in liabilities to banks began falling rapidly in 2003. The degree to which banks depend on domestic resources is thus decreasing, while at the same time there is an increase in sensitivity to events in neighbouring markets, especially Austria, from where potential problems in the banking sector could quickly spread to the Slovenian banking market.

Table 5.4: Market concentration of Slovenian banking market as measured by Herfindahl-Hirschman index and market share of the top three/five banks

	2000	2001	2002	2003	2004	Mar. 05
Herfindahl-Hirshman index						
Total assets	1,265	1,669	1,667	1,552	1,450	1,412
EU-15 total assets	464	497	513	541		
Lending to non-bank sector	1,147	1,515	1,473	1,393	1,280	1,287
Household lending	1,044	1,505	1,446	1,372	1,277	1,272
Liabilities to non-bank sector	1,229	1,699	1,692	1,607	1,567	1,513
Liabilities to households	1,208	1,795	1,829	1,806	1,723	1,697
Liabilities to banks	2,033	2,136	1,724	1,379	1,196	1,261
Market share of top 3 banks (%)						
Total assets	50.5	56.5	55.4	53.3	51.7	51.0
Lending to non-bank sector	47.6	52.6	52.9	52.5	50.0	49.9
Liabilities to non-bank sector	50.2	57.5	56.8	55.7	55.3	54.7
Liabilities to banks	61.6	60.3	56.5	51.7	47.5	49.4
Market share of top 5 banks (%)						
Total assets	62.5	69.1	69.5	67.4	64.9	64.3
Lending to non-bank sector	60.1	66.8	67.4	66.7	63.8	63.6
Liabilities to non-bank sector	63.1	70.9	71.3	70.6	68.9	68.1
Liabilities to banks	71.5	71,5	70.9	64.9	61.0	62.6

Source: Bank of Slovenia, Report on EU Banking Structure, ECB, November 2004

5.2 Changes in Balance Sheet Structure

The most significant developments in banks' balance sheets in 2004 were connected to an increase in lending to non-bank sectors with a change in the average maturity of deposits and a flight of deposits into alternative investments. The extension of the average maturity of loans is further increasing the maturity mismatch of banks' transactions with non-bank sectors on the assets side and the liabilities side. Banks sought extra resources by borrowing abroad, and they partly financed lending to non-bank sectors by reducing investments in securities. As the adoption of the euro draws near, the change in currency structure in favour of the foreign exchange sub-balance is also accelerating.

Table 5.5: Market shares and growth in total assets and lending to non-bank sectors by individual groups of banks

	Market share			Year-on-year growth		
	2003	2004	Mar. 05	2003	2004	Mar. 05
Total assets						
- Large banks	70.6%	68.9%	68.6%	7.8%	9.0%	11.5%
- Foreign banks	18.9%	20.2%	20.8%	24.1%	19.4%	24.4%
- Small banks	10.5%	10.9%	10.6%	11.8%	15.5%	21.0%
- Total	100.0%	100.0%	100.0%	11.0%	11.6%	15.0%
Lending to non-bank sectors						
- Large banks	69.4%	66.8%	66.6%	15.6%	15.4%	17.3%
- Foreign banks	21.1%	23.6%	24.0%	22.3%	34.1%	33.3%
- Small banks	9.5%	9.6%	9.5%	9.2%	20.5%	29.2%
- Total	100.0%	100.0%	100.0%	16.3%	19.8%	21.9%

Source: Bank of Slovenia

In 2004 banks' total assets reached SIT 5,644.7 billion, up 11.6% in nominal terms from 2003. There was a further fall in the market share of large banks in 2004. Over the year it fell 1.7 percentage points in terms of total assets and 2.6 percentage points in terms of loans to non-bank sectors. Small banks significantly expanded their lending to non-bank sectors in 2004,[25] while the largest growth in lending to non-bank sectors (34.1%) and in total assets (19.4%) in 2004 was recorded by foreign banks.

Table 5.6: Structure and growth in balance sheet items in banking sector

	Structure			Year-on-year growth		Cumulative growth
	Dec. 03	Dec. 04	Mar. 05	Dec. 03	Dec. 04	Mar. 05
Total assets (SIT billions)	50,575.0	56,447.0	59,361.0	11.0%	11.6%	5.2%
Assets						
Cash	2.8%	2.5%	1.9%	-1.3%	-0.3%	-20.3%
Lending to banks	6.8%	8.9%	8.9%	-9.5%	44.9%	5.2%
Lending to non-bank sector	50.2%	53.9%	54.3%	16.3%	19.8%	6.1%
- Corporate lending	31.6%	34.2%	35.1%	24.5%	20.9%	8.0%
- Household lending	12.4%	13.5%	13.5%	11.8%	21.4%	4.7%
- Government lending	2.8%	2.5%	2.2%	-34.3%	0.7%	-6.7%
- Lending to others	3.4%	3.6%	3.5%	41.2%	20.2%	2.5%
Securities	34.0%	29.1%	29.4%	11.2%	-4.5%	6.2%
- Bank of Slovenia	20.3%	13.6%	13.0%	11.7%	-25.4%	0.5%
- Government and other	13.7%	15.5%	16.4%	10.4%	26.5%	11.2%
Capital investments	1.6%	1.5%	1.6%	17.1%	8.3%	6.7%
Other assets	4.6%	4.1%	3.9%	-0.7%	0.1%	0.6%
Liabilities						
Liabilities to banks	16.5%	19.3%	21.5%	42.9%	30.1%	17.5%
- To foreign banks	14.0%	17.4%	19.8%	51.5%	39.3%	19.2%
Liabilities to non-bank sector	65.1%	62.4%	60.9%	4.6%	7.0%	2.6%
- To companies	12.3%	11.2%	11.1%	2.4%	2.3%	4.3%
- To households	42.3%	41.5%	39.4%	8.1%	9.5%	-0.0%
- To government	3.1%	2.4%	3.3%	-23.9%	-14.3%	45.3%
- To others	7.5%	7.3%	7.0%	5.5%	9.3%	0.4%
Liabilities from securities	4.3%	4.0%	3.7%	22.6%	4.0%	-3.4%
Other liabilities	1.8%	1.5%	1.8%	-11.8%	-10.3%	27.4%
Provisions	2.0%	2.1%	2.1%	10.6%	19.4%	3.5%
Subordinated liabilities	1.9%	2.5%	2.3%	40.2%	49.7%	-5.7%
Capital	8.3%	8.2%	7.8%	10.6%	9.5%	0.1%

Source: Bank of Slovenia

Structure of assets

The assets that grew the most in 2004 were loans to the banking sector (up 45%), but this increase is entirely due to the new long-term deposits offered by the Bank of Slovenia.[26] This brought a significant increase in the proportion of total assets accounted for by loans to banks to 8.9%.

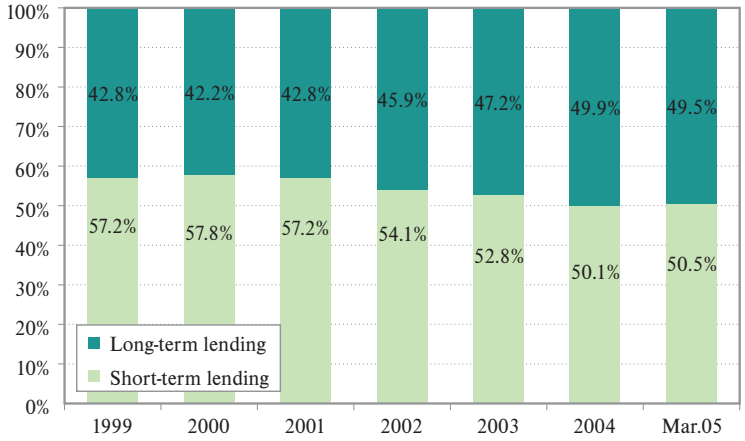
Thanks to greater competition on the lending market, a comparatively rapid fall in interest rates in the first nine months of 2004 and favourable economic conditions, demand for loans increased. Loans to

[25] The increase in lending among small banks in 2004 was the result of the Credit and Savings Institutions Association becoming part of Deželna banka Slovenije.

[26] At the end of July the central bank offered banks subscriptions to long-term deposits instead of 270-day tolar bills in an effort to sterilise excess liquidity prior to the adoption of the euro. The long-term deposits mature at the end of January or February 2007. In 2004 banks deposited SIT 156.7 billion with the Bank of Slovenia.

non-bank sectors rose by as much as 19.8%. The volume of long-term loans increased by as much as 27%, while the volume of short-term loans rose by half as much, 14%. The proportion of total lending to the non-bank sectors accounted for by short-term and long-term loans thus evened out in 2004.

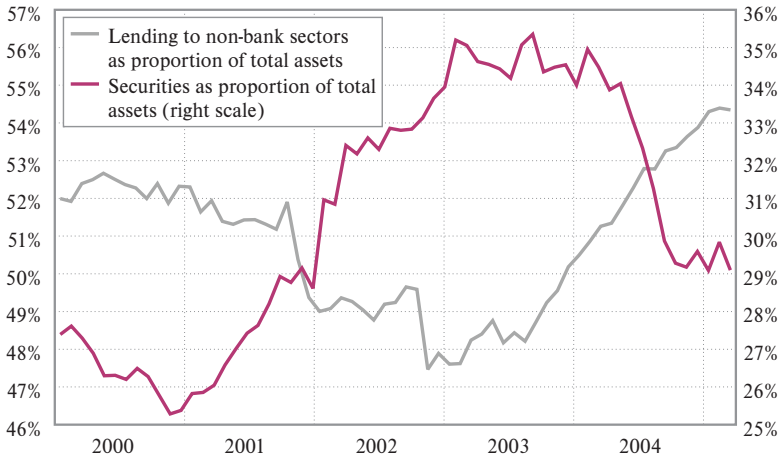
Fig. 5.2: Ratio of long-term to short-term loans to non-bank sectors



Source: Bank of Slovenia

Banks focused significant attention on the household sector. Household lending rose by 21.4% in 2004, having risen by 11.8% in the previous year. Similar growth is expected this year, with cumulative growth having reached 4.7% by March 2005, equivalent to an annual rate of 20%. It should be noted that household lending peaks in the summer and early autumn. The opposite is true of companies, which borrow more actively in the first half of the year and in December. The cumulative growth of 7.9% recorded by March was higher than in the same period last year, and given similar economic growth this year as in 2004, corporate lending can also be expected to grow more than 20% this year. In the first months of this year there was still no indication of a decline in the lending activity of banks.

Figure 5.3: Proportion of total assets accounted for by lending to non-bank sectors and securities



Source: Bank of Slovenia

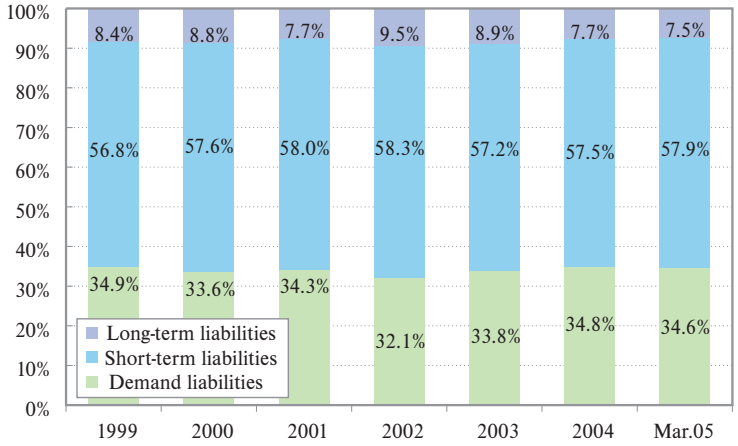
Last year banks also responded to the high demand for loans by changing the structure of their assets and increasing the proportion of loans at the expense of securities. The assets structure was also influenced by amendments to the regulation on the liquidity management relating to the subscribed foreign exchange bills and the discontinuation of the 270-day tolar bills issues. The proportion of total assets accounted for by Bank of Slovenia bills fell by 6.7 percentage points to 13.6% in 2004. Banks

invested some of the released money into other securities and long-term deposits with the central bank, while some of the money was used to increase lending to non-bank sectors. Banks slowed growth in capital investments in the process. In 2004 capital investments increased by just 8.3%, compared with 17.1% in the previous year. In the first three months of this year capital investments were already nearly 7% higher than at the end of last year.

Sources of financing for banks

While in 2000 and 2002, when Slovenia faced high capital inflows, the adjustments of bank balance sheets took place primarily on the assets side, and banks invested large sums in securities, particularly those issued by the central bank, the adjustments of the balance sheet has shifted to the liabilities side in recent years. Growth in total assets depended on the resources that banks were able to provide for meeting demand for loans in conditions of low growth in deposits. They moved from the banking sector into alternative investments. In 2004 alone SIT 81 billion flowed into mutual funds. In addition the average maturity of deposits became shorter. In 2004 the proportion accounted for by long-term liabilities to non-bank sectors fell by 1.2 percentage points.

Figure 5.4: Ratios of banks' demand, short-term and long-term liabilities to non-bank sectors



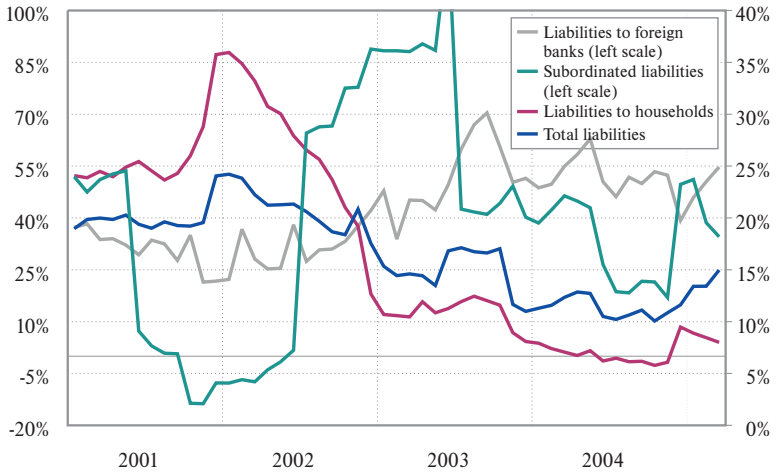
Source: Bank of Slovenia

In the case of deposits by non-bank sectors, the results at the end of the year somewhat distort the picture as the growth achieved in 2004 (7%) was higher than in the previous year. However this is partly due to the high growth in wages and salaries at the end of the year, while the growth in deposits was also partly due to changes in tax legislation (taxation of majority interests). Thus in the last two months the banking sector recorded an increase in deposits of SIT 120 billion, while in October 2004 year-on-year growth still stood at 3.7%.

In response to high demand for loans and lower growth in deposits, borrowing abroad by banks increased. Growth was as high as 51.5% in 2003 and somewhat less last year at 39%, while this year growth in borrowing abroad is rising again. The proportion of liabilities accounted for by liabilities to foreign banks thus rose by nearly 6 percentage points between December 2003 and March 2005.

With intensive lending activity, the volume of subordinated liabilities increased by 49.7% in 2004. The lending activity of banks is limited by the level of capital adequacy. Given the low growth in capital, which has constantly lagged behind the growth in total assets, banks mainly ensure capital adequacy by increasing subordinated liabilities. Capital primarily increases through profits, while recapitalisations brought an increase of SIT 7.8 billion in subscribed capital, about one-fifth of the increase in capital in 2004.

Figure 5.5: Year-on-year growth in total liabilities, liabilities to households and foreign banks, and subordinated liabilities

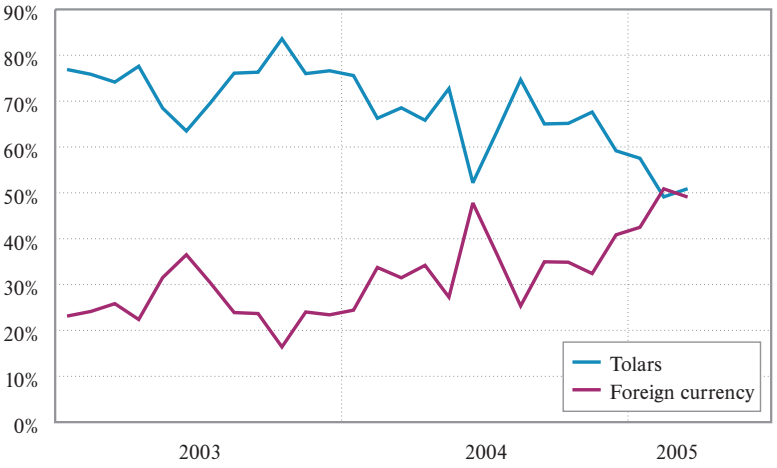


Source: Bank of Slovenia

Currency structure of balance sheet

Slovenia's entry into the EU and the ERM 2, the approach of the adoption of the euro, strong lending activity and the flight of deposits into alternative investments, and the resulting high borrowing abroad by banks are the key factors encouraging rapid change in the currency structure of banks' balance sheets in favour of foreign currency. The greatest shift took place in 2004, when the proportion accounted for by foreign currency assets rose 2.1 percentage points to 35.5% (compared with just 0.4 percentage points in the previous year). The main increase was in the proportion of foreign currency loans to non-bank sectors. The currency structure of other items on the assets side remains stable, with the exception of loans to the banking sector, where the proportion of bank investments in foreign currency fell significantly after the introduction of long-term deposits by the Bank of Slovenia in 2004.

Figure 5.6: Currency structure of newly approved loans by eight largest banks



Source: Bank of Slovenia

The change in currency structure is proceeding even faster on the liabilities side of the balance sheet. The proportion of liabilities in foreign currency rose by 3.3 percentage points to 37.9% in 2004, mostly on account of borrowing from banks abroad. The proportion of liabilities to banks in foreign currency rose by 7.4 percentage points to 75.5%, and the proportion of liabilities to non-bank sectors in foreign

currency rose by 1.2 percentage points to 34.5%. The proportion of total liabilities accounted for by foreign currency was 2.4 percentage points higher than the proportion of foreign currency assets. The difference has increased this year (to 3 percentage points by March 2005).

Table 5.7: Currency structure of banking sector balance sheet

	Domestic currency (%)				Foreign currency (%)			
	2002	2003	2004	Mar. 05	2002	2003	2004	Mar. 05
Assets	67.0	66.6	64.5	64.0	33.0	33.4	35.5	36.0
Cash	90.7	92.0	90.6	88.6	9.3	8.0	9.4	11.4
Lending to banks	19.8	18.3	39.2	45.1	80.2	81.7	60.8	54.9
Lending to non-bank sector	75.7	71.2	65.8	63.4	24.3	28.8	34.2	36.6
Securities	59.3	62.7	62.4	64.1	40.7	37.3	37.6	35.9
Other assets	92.5	91.7	91.5	91.0	7.5	8.3	8.5	9.0
Liabilities and reserves	66.1	65.4	62.1	61.0	33.9	34.6	37.9	39.0
Debts to banks	29.8	31.9	24.5	23.4	70.2	68.1	75.5	76.6
Debts to non-bank sector	66.4	66.7	65.5	65.7	33.6	33.3	34.5	34.3
Debt securities	97.3	97.7	98.3	99.0	2.7	2.3	1.7	1.0
Other liabilities and reserves	73.4	73.0	71.6	75.0	26.6	27.0	28.4	25.0
Capital	100.0	100.0	100.0	100.0	0	0	0	0

Source: Bank of Slovenia

Off-balance-sheet items and operations by proxy

The intensive growth in off-balance-sheet items ended in 2001, when off-balance-sheet items increased by 54% thanks to derivatives, and exceeded total assets by 43%. In recent years off-balance-sheet items have recorded similar growth to total assets, and the ratio of off-balance-sheet items to total assets stabilised at a level of 1.33. The proportion of off-balance-sheet items accounted for by traditional items such as letters of credit, guarantees and assumed financial liabilities, including limits and credit lines, is falling. The proportion accounted for by derivatives also halved in 2004. The importance of other off-balance-sheet items such as received surety, warranties and government guarantees is increasing. Depositories and other records of securities recorded growth of more than 60% in 2004.

Table 5.8: Structure of and growth in off-balance-sheet items in banking sector

	Structure			Year-on-year growth		Cumulative growth
	Dec. 03	Dec. 04	Mar. 05	Dec. 03	Dec. 04	Mar. 05
Off-balance-sheet items (SIT billions)	68,720.0	75,094.0	79,521.0	13.2%	9.3%	5.9%
Letters of credit	0.9%	0.4%	0.4%	14.6%	-55.3%	12.7%
Guarantees and pledged assets	11.2%	6.6%	5.9%	9.2%	-35.4%	-5.4%
Assumed financial liabilities	13.8%	9.8%	10.2%	16.9%	-22.4%	9.8%
Derivatives	24.7%	11.4%	12.4%	17.3%	-49.7%	16.0%
Depo and other securities records	8.7%	13.0%	13.3%	18.9%	63.3%	8.0%
Records of written-off claims	1.0%	0.4%	0.3%	2.1%	-58.0%	-7.2%
Other off-balance-sheet items	39.7%	58.5%	57.5%	10.0%	60.8%	4.1%
Warranties received	34.1%	38.5%	36.5%	10.0%	23.3%	0.4%
Guarantees and government sureties received	2.8%	3.1%	2.8%	-4.7%	19.0%	-3.7%
Other	2.8%	16.9%	18.2%	28.7%	557.2%	13.9%

Note: * Includes a swap with the Bank of Slovenia.
Source: Bank of Slovenia

In 2004 banks redirected their attention to operations by proxy. Several banks added custodian services to their range of services. The volume is still relatively small at SIT 288 billion, and operations by proxy account for only 6% of total assets, but they recorded high growth of 96% in 2004.

5.3 Profitability and Performance Indicators

In 2004 the banking sector generated higher profits than in the previous year, primarily by increasing net non-interest income and improving cost-effectiveness. Among net non-interest income, net income from financial transactions recorded a significant increase, and growth in net fees and commissions was also high. Net interest income did not reach the amount recorded in the previous year, despite the large increase in lending, which is the result of the continuing decline in interest rates and convergence with interest rates in the EU, and also the result of the shift in the currency structure of assets towards foreign currency, where the margins are lower than in the tolar segment. Banks' operating costs were lower in real terms in 2004. Only labour costs were higher than in 2003. Net provisions remained at the level of the previous year.

The pre-tax profits of the banking sector stood at SIT 56.1 billion in 2004, an increase of 17.4% in nominal terms and 13.3% in real terms.

Table 5.9: Banking sector income statement

	Amount (SIT billions)			Year-on-year growth (%)			Proportion of gross income (%)		
	2003	2004	Mar. 05	2003	2004	Mar. 05	2003	2004	Mar. 05
Net interest	1,457.0	1,432.0	355.0	1.6	-1.7	4.3	63.6	59.2	62.3
Net fees and commissions	549.0	616.0	156.0	1.8	12.2	7.0	24.0	25.5	27.4
Net financial income	195.0	303.0	34.0	-8.1	55.3	-49.9	8.5	12.5	5.9
Net other	89.0	69.0	25.0	52.6	-21.8	79.2	3.9	2.9	4.4
Gross income	2,289.0	2,420.0	570.0	2.0	5.7	0.4	100.0	100.0	100.0
Operating costs	1,432.0	1,472.0	341.0	6.9	2.8	4.4	62.5	60.8	59.8
- Labour costs	720.0	766.0	189.0	8.8	6.4	6.1	31.5	31.7	33.1
Net income	858.0	948.0	229.0	-5.2	10.6	-5.0	37.5	39.2	40.2
Net provisions	-380.0	-388.0	-77.0	-14.5	2.0	-11.7	-16.6	-16.0	-13.4
Pre-tax profit	478.0	561.0	153.0	3.8	17.4	-1.3	20.9	23.2	26.8
Tax	164.0	193.0		-0.6	17.7		7.2	8.0	
Net profit	313.0	368.0		6.3	17.3		13.7	15.2	

Source: Bank of Slovenia

Net interest income and interest margin

Net interest income fell below 60% of gross income in 2004. Although interest expenses fell by nearly one-quarter (23.4%), while interest revenues fell by 13.9%, the latter was so much larger that net interest income in 2004 was SIT 2.5 billion or 1.7% lower.

The reasons for the fall in net interest income lie in the high growth in lending to non-bank sectors, particularly in foreign currency, where interest rates are lower than for toalr loans. The currency structure of deposits by non-bank sectors is changing, although much more slowly than the currency structure of loans. The decline in the proportion of investments in tolar bills in the second half of the year and the fall in the interest rates on the bills in the first half of the year brought a significant fall in interest income from bills, while interest income from government bonds remained more or less unchanged.

On the liabilities side of the balance sheet, the shortening of the average maturity of deposits is reducing interest expenses. However as deposits are moving into alternative investments, banks are trying to meet the demand for loans by seeking resources abroad. Despite the ability of certain banks to obtain less expensive resources at banks abroad, in the long term borrowing from banks is a more expensive source of financing than collecting deposits from non-bank sectors. In addition banks are also significantly increasing the amount of subordinated liabilities and hybrid instruments.[27] This is an even more expensive source than traditional borrowing from foreign banks, and has additional adverse effect on net interest income.

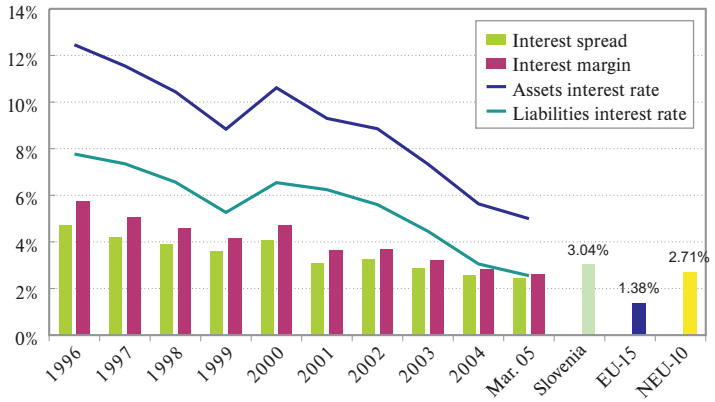
Another factor in the decline in net interest income was the further fall in interest rates,[28] additional factor was assets interest rates falling faster than liabilities interest rates. The assets interest rate as calculated on the basis of the ratio of interest revenues to interest-bearing assets fell by 1.71 percentage points in 2004, while the comparable liabilities interest rate fell by 1.4 percentage points. The interest spread thus fell by a further 0.31 percentage points to 2.58%.

Table 5.10: Average assets and liabilities interest rates (calculated from interest revenues and interest expenses), interest spread and interest margin (%)

	1999	2000	2001	2002	2003	2004	Mar. 2005
Average assets interest rate	8.84	10.61	9.30	8.85	7.34	5.63	5.00
Average liabilities interest rate	5.26	6.54	6.24	5.60	4.45	3.05	2.55
Interest spread	3.57	4.07	3.06	3.25	2.88	2.58	2.44
Interest margin	4.13	4.72	3.62	3.69	3.23	2.83	2.60

Note: The interest margin was calculated as the ratio of net interest income to average gross interest-bearing assets.
Source: Bank of Slovenia

Figure 5.7: Average lending and deposit rates calculated from interest income and expenses, interest spread and interest margin



Note: The separate figures for the interest margin for the EU-15, the new EU member-states (NEU-10) and Slovenia were calculated for 2003 as the ratio of net interest income to overall assets.
Source: Bank of Slovenia, ECB

Declared interest rates on tolar loans also fell more than declared interest rates on deposits by non-bank sectors in 2004. Interest rates on long-term loans and deposits by non-bank sectors fell considerably in the first months of 2004, while remaining at approximately the same levels in the remaining months. Throughout this period interest rates on long-term loans fell by 1.8 percentage points, while those on

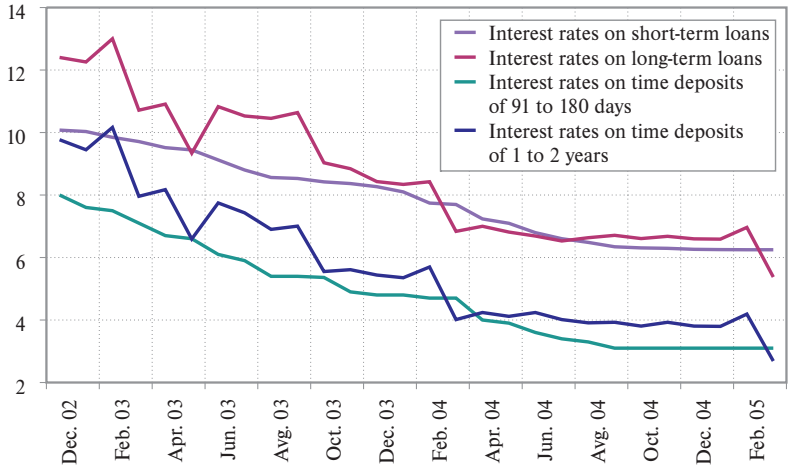
[27] Growth in both items is a consequence of meeting the capital adequacy requirements.

[28] With interest-bearing assets higher than interest-bearing liabilities (by SIT 411 billion), the overall effect of a decline in interest rates on net interest income is negative.

deposits fell by 1.6 percentage points. Interest rates on short-term loans fell the most in 2004, by 2 percentage points. Similar movements, although less pronounced, exhibited interest rates on short-term deposits, which finished the year down 1.7 percentage points.

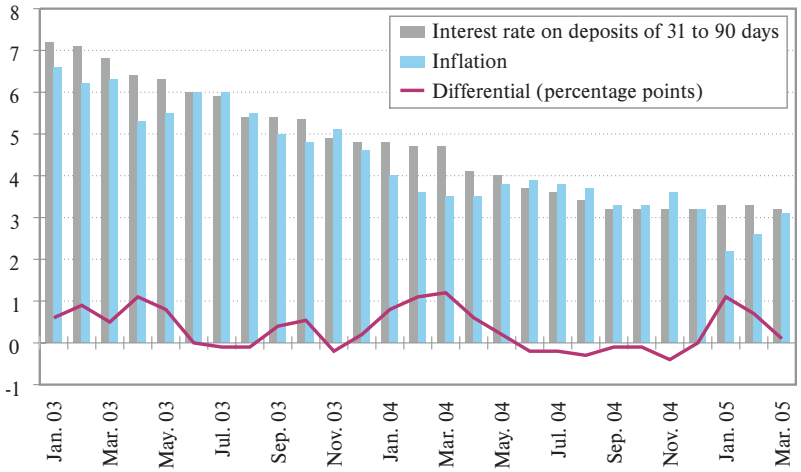
Given the inflation rate, interest rates on tolar short-term deposits by non-bank sectors in the second half of 2004 were negative in real terms ex post, which was one of the principal reasons that despite the decline in the interest margin banks did not continue the process of rapid reduction in interest rates from the preceding period. With the significant fall in the year-on-year inflation rate in January 2005, real interest rates rose for a short period ex-post, but by March the level of interest rates and inflation had equalised.

Figure 5.8: Banks' declared interest rates on tolar loans and deposits



Source: Bank of Slovenia

Figure 5.9: Declared interest rates on tolar deposits of 31 to 90 days, and year-on-year inflation rates (%)



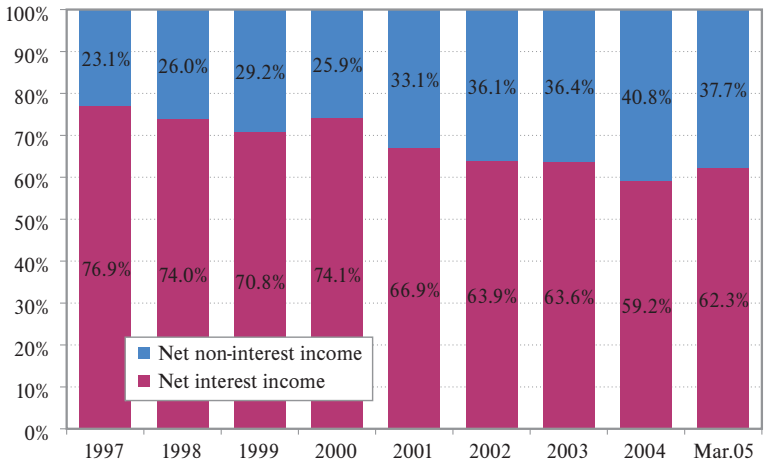
Source: Bank of Slovenia

Net non-interest income

The performance of banks is increasingly dependent on the level of net non-interest income. Net non-interest income is less predictable and more dependent on market circumstances than interest income, which is making banks' performance more volatile. In 2004 net non-interest income rose by 18.7%. Growth in net income from financial transactions (55%) was particularly high, thanks also to high

growth in securities prices on the capital market in the first half of 2004.[29] Given the stiff competition in basic banking services, banks are expanding the range of services that they offer, and an increasing number of banks are also focusing on neutral banking services (quasi-banking services). The results can be seen in growth of 12.2% in net fees and commissions, compared with 1.8% in 2003. The proportion of gross income accounted for by net non-interest income has thus been rising constantly, with the exception of 2000. In 2004 net non-interest income exceeded 40% of banks' gross income.

Figure 5.10: Ratio of net interest income to net non-interest income



Source: Bank of Slovenia

Banks' operating costs

In 2004 banks significantly reined in their costs growth, which stood at 2.8%. The proportion of gross income allocated by banks to cover costs fell by 1.7 percentage points to 60.8% in 2004. Large banks were particularly active in cutting costs, with their costs rising by only 0.8% from the previous year. Even small banks improved their cost management, while the rapid growth recorded by foreign banks means that their costs rose at an above-average rate of 10%.

Table 5.11: Year-on-year growth in operating costs by individual groups of banks

	Overall	Large banks	Foreign banks	Small banks
2003	6.9%	6.0%	10.8%	6.7%
2004	2.8%	0.8%	10.4%	2.6%
Mar. 05	4.4%	1.2%	9.0%	15.0%

Source: Bank of Slovenia

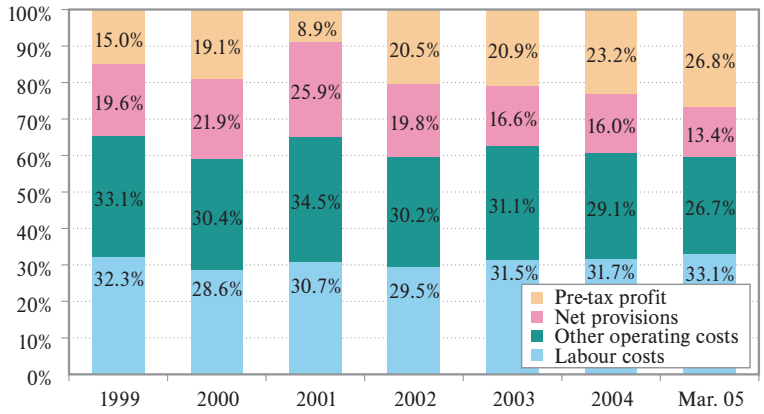
Of the main cost groups, only labour costs rose in 2004, by 6.4%.[30] Consequently the proportion of total costs accounted for by labour costs rose from 50.3% to 52.1% in 2004. Labour costs tend to become more significant during periods of bank cost rationalisation, as they are defined by law and banks have little room for manoeuvre in managing them. Furthermore attempts to reduce labour costs manifest themselves in the short term as a rise in costs, owing to the increase in severance pay and the buyout of

[29] The rise in net financial income in 2004 by SIT 10.8 billion to SIT 30.3 billion was the result of a sharper fall in expenses than in revenues. Expenses from financial transactions were 30% or SIT 58.4 billion lower in 2004 than in the previous year, while revenues were 22% or SIT 47.6 billion lower. The net effect was positive, so that the proportion of gross income accounted for by net financial income rose from 8.5% to 12.5%. In 2004 banks generated higher income from shares sold and from capital investments in subsidiary financial organisations. Expenses from derivatives trading and foreign exchange losses were lower than in 2003. Income from securities trading continued to account for the largest proportion of net income from financial transactions, followed by income from capital investments and income from foreign exchange trading.

[30] In 2004 costs of materials and services were down 1% , and depreciation/amortisation costs down 0.1%.

employees' remaining periods of service. The rise in the cost of gross wages at banks in 2004 was about 1 percentage point lower than the rise in labour costs. The proportion of labour costs accounted for by gross wages has been in constant decline: in 2004 they accounted for 69% of all labour costs, compared with almost 76% in 2000.[31]

Figure 5.11: Composition of disposal of banks' gross income



Source: Bank of Slovenia

In 2004 banks failed to cover their operating costs with their net interest income for the first time since 1995. However they covered 67% of their operating costs with net non-interest income, while as recently as 2000 they covered only just over 40%.

Creation of net provisions

In recent years banks have also increased their profits at the expense of reducing the proportion of gross income allocated to net provisions (only 16% in 2004). Banks have usually created slightly lower provisions in the first half of the year than in the same period of the previous year. This behaviour changed somewhat in 2004. Throughout the year banks created higher provisions than in the comparable periods of 2003, although in January 2004 they released SIT 7 billion less in provisions than in the previous year and in December they created only SIT 4.9 billion in provisions, less than half as much as in previous years. In 2004 banks created SIT 38.8 billion in net provisions, only SIT 0.7 billion more than in 2003, while the amount of classified claims rose by 17.7% in the same period.

Selected bank performance indicators

Return on equity has remained stable at 13% in recent years, as has return on assets, which is around 1.1%. With the interest margin falling, banks are maintaining the same return by improving net non-interest income. The non-interest margin is rising, finishing 2004 up 0.12 percentage points, although more slowly than the interest margin is falling: in 2004 it fell by 0.4 percentage points. Banks are thus being forced to cut costs and increase turnover in order to maintain returns at the level of previous years. The proportion of gross income accounted for by costs fell by 1.7 percentage points in 2004 to 60.8%. The trend of improving cost-effectiveness is also continuing this year. Last but not least, banks are also increasing their profits at the expense of creating lower provisions that do not follow growth in lending. The proportion of total assets accounted for by net provisions fell by 0.1 percentage points to 0.7% in 2004. Delež neto rezervacij v bilančni vsoti se je v letu 2004 zmanjšal za 0,1 odstotne točke, na 0,7%.

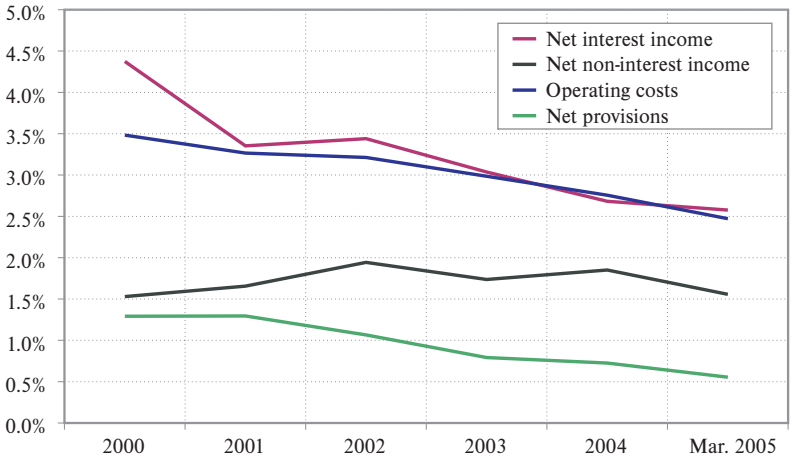
[31] In previous years the proportion of other contract-based employee costs increased at the expense of these costs, while in 2004 the principal increase was in the costs of severance pay and buyout of employees' remaining periods of service, the proportion that these account for finishing the year was three times the proportion recorded in 2003.

Table 5.12: Selected bank performance indicators

	1999	2000	2001	2002	2003	2004	Mar. 05
Return on assets	0.82	1.14	0.45	1.11	1.00	1.05	1.08
Return on equity	7.8	11.4	4.8	13.3	12.5	13.3	14.1
Costs to (gross) income	65.4	59.0	65.2	59.7	62.5	60.8	59.8
Interest margin	4.1	4.7	3.6	3.7	3.2	2.8	2.6
Non-interest margin	1.6	1.5	1.7	1.9	1.7	1.9	1.6
Gross income per average assets	5.4	5.9	5.0	5.4	4.8	4.6	4.1

Note: The interest margin was calculated as the ratio of net interest income to average gross interest-bearing assets, and the non-interest margin as the ratio of net non-interest income to average assets.
Source: Bank of Slovenia

Figure 5.12: Net interest income, net non-interest income, operating costs and net provisions (as proportion of average assets)



Source: Bank of Slovenia

5.4 Credit Risk

Assessments indicate that credit risk in the banking sector last year was comparatively low, and exhibited a favourable falling trend. Here it should be noted that banks' behaviour is procyclical, and a deterioration in the economy could have adverse effects on portfolio quality and bank profitability.

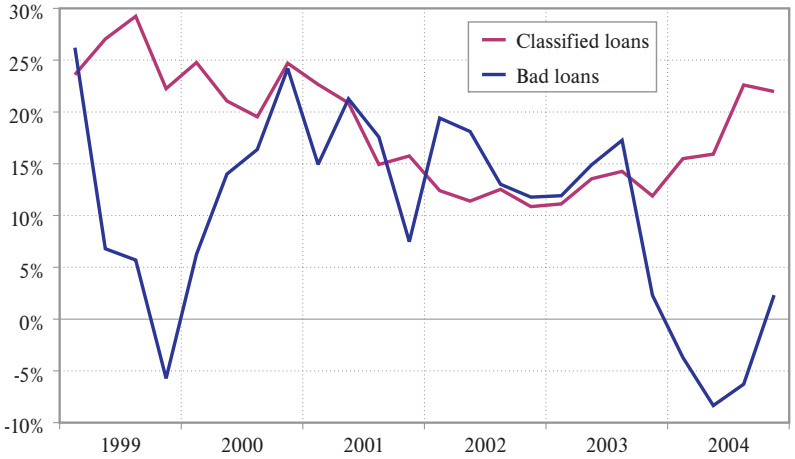
Procyclical behaviour of banks

Developments in the banking sector are indicative of banks' procyclical behaviour. During periods of economic upswing – at 4.6%, economic growth in 2004 was the highest it had been for five years – companies' results improve, as does their liquidity. The economic climate becomes more optimistic. Banks rate their customers and create provisions primarily on the basis of the current circumstances, thus underestimating the degree to which a customer's future cashflows depend on changes in the macroeconomic environment.

High lending activity by banks in favourable conditions is also encouraged as lower assessments of credit risk reduce the need for provisions, which improves profits and opens up additional space for more rapid growth in lending. Provisions recorded their lowest growth during the period in question in 2004. Thus in June year-on-year growth in provisions stood at only 3.6%. At the end of the year, growth

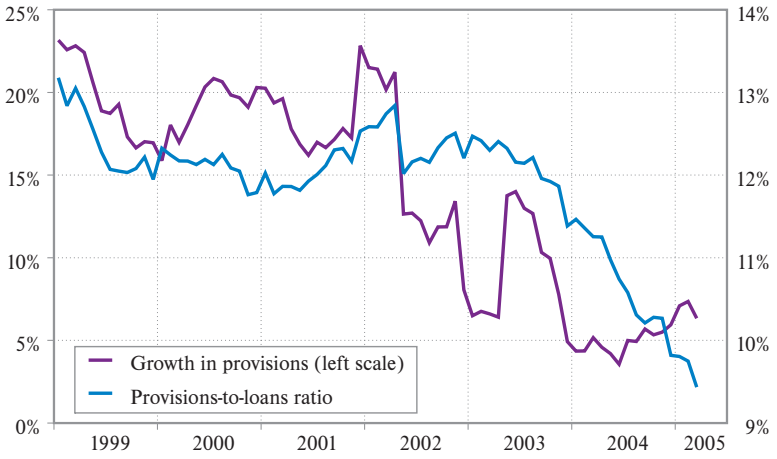
was somewhat higher at 5.9%, although significantly lower than growth in lending. This points to the credit risk, which may be realised if economic conditions deteriorate.

Figure 5.13: Year-on-year growth in classified and bad loans



Source: Bank of Slovenia

Figure 5.14: Year-on-year growth in provisions and provisions-to-loans ratio



Source: Bank of Slovenia

Problems in the procyclical behaviour of banks manifest themselves during periods of economic slowdown. A deterioration in business conditions reduces the solvency of bank customers. Credit risk increases, and banks consequently increase the provisions that they create. From the period of economic upturn there is a higher stock of loans, some of which have been concluded under terms more favourable than banks would be willing to accept in worse conditions. When the conditions deteriorate, the risk entailed by transactions concluded in the period of economic upturn increases, and the need to create provisions increases, while the premium over the base interest rate for transactions already concluded does not normally change.[32]

[32] Higher provisions reduce bank profits. They respond by making fewer loans in the very period when companies need additional funds to overcome worsening economic conditions. With insufficient reserves from previous periods, banks further aggravate the situation instead of alleviating the deteriorating economic conditions, which is a particular problem in economies with underdeveloped capital markets, where the economy mainly depends on bank sources of financing.

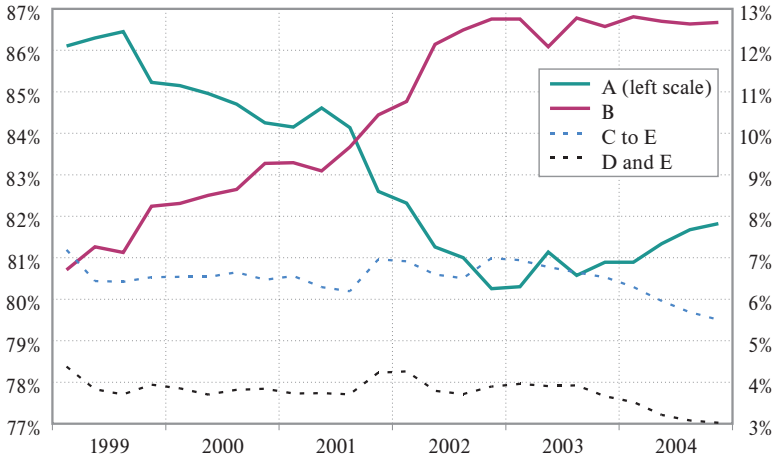
The Bank of Slovenia intended to mitigate the procyclic nature of banks' activity by introducing dynamic provisions. A system of dynamic provisions introduces the assessment of expected losses as soon as the credit arrangements are concluded on the basis of ex ante statistically assessed latent risks from previous economic cycles. However, owing to the consistent application of international accounting standards based on the concept of realised losses, the concept of dynamic provisions was not implemented in Slovenian banking practice.

5.4.1 Portfolio Quality and Creation of Special Provisions

The total of classified claims rose by 17.7% to SIT 4,895.4 billion in 2004. Category A recorded the largest increase in 2004, expanding by 0.8 percentage points to account for 81.7% of the overall portfolio.

The increase in the proportion of claims accounted for by Category A took place mainly at the expense of a fall in the proportion of higher-risk claims. While the period until mid-2003 was primarily marked by substitution between Categories A and B, banks' behaviour changed in 2004. The proportion of claims classified into Category B remained more or less unchanged at the level of 12.7%. The main changes in the structure of classified claims came in Category A and the lower categories of C to E. The total claims classified into Categories D and E fell in nominal terms from 2003, with Category E recording the largest fall of 3.4% to SIT 79.1 billion, while Category D was down 1.2% to SIT 69.6 billion.[33]

Figure 5.15: Proportion of total claims in Categories A and B, Categories C to E and Categories D and E (bad claims)[34]



Source: Bank of Slovenia

Special provisions (value adjustments for loans and provisions for A-graded customers) did not track the rapid growth in classified assets. In 2004 special provisions rose by a mere 4.3% to SIT 255.5 billion, which reduced the ratio of special provisions to classified assets by 0.7 percentage points to 5.2%. Banks are cutting the ratio of special provisions to classified assets towards the minimum level allowed by the regulations. With coverage at 10.2%, this level has almost been reached in Category B, and the ratio is

[33] The article on stress tests in the second section of the report establishes that the actual proportion of claims in the higher-risk categories is smaller than would be expected in light of the results of the Bank of Slovenia's internal model.

[34] Balance sheet and off-balance-sheet claims are classified in accordance with national regulations. Securities and investments in capital are not classified.

falling significantly for Categories C and D: by 0.6 percentage points to 57.5% for Category D; and by 0.3 percentage points to 26.7% for Category C.[35]

Table 5.13: Classification of balance sheet and off-balance-sheet assets of banks and special provisions

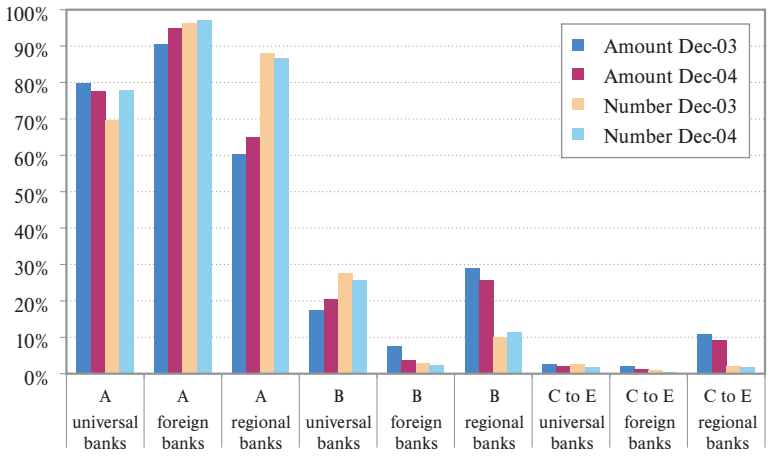
	12.31.2003			12.31.2004		
	Classified claims	Special provisions	Coverage of claims by provisions	Classified claims	Special provisions	Coverage of claims by provisions
Total (SIT billions)	4,158.5	244.9	5.9%	4,895.4	255.5	5.2%
A	80.9%	14.8%	1.1%	81.7%	15.9%	1.0%
B	12.6%	21.9%	10.2%	12.7%	24.8%	10.2%
C	2.9%	13.2%	27.1%	2.5%	12.7%	26.7%
D	1.7%	16.7%	58.1%	1.4%	15.7%	57.5%
E	2.0%	33.4%	100%	1.6%	30.9%	100%

Source: Bank of Slovenia

An important factor in the increase in the proportion of Category A classified claims was rapid growth in lending to non-bank sectors, as the new transactions are mostly classified into Category A. In 2004 banks were also more optimistic in assessing the risk of newly concluded transactions. The proportion of newly approved loans classified into Category A rose by 0.9 percentage points at the eight largest banks, while the proportions of new loans classified into each of Categories B to E fell. The reasons for the more optimistic risk assessment of newly concluded transactions may be found in the favourable macroeconomic conditions, the decline in the inflation rate, and high economic growth.

There are notable differences in the behaviour of the eight largest banks in terms of claims classification. Banks under majority foreign ownership classify 95% of new loans into Category A, and only 1.5% of new loans into Categories C to E. If only the number of transactions but not the amounts is taken into consideration, the percentage of claims classified into Category A is even higher, which means that banks classify also small loans into Category A.

Figure 5.16: Proportion of new classified loans by eight largest banks classified into Categories A, B and C to E, by individual groups of banks (12-month averages, weighted by amount of loan, or in terms of number of loans but not amounts)



Source: Bank of Slovenia

[35] In accordance with the Bank of Slovenia's regulation on the classification of balance sheet and off-balance-sheet items of banks and savings banks, banks must create special provisions in the amount of established potential losses, i.e. on average at least 10% for claims classified into Category B, 25% for Category C and 50% for Category D.

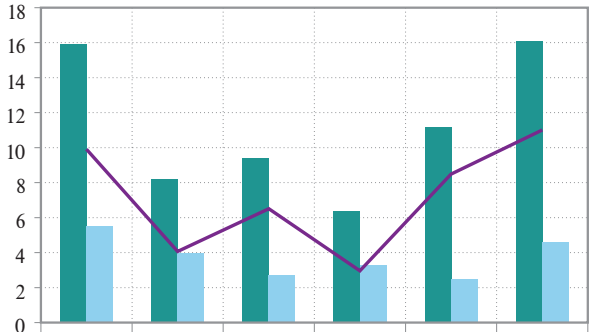
By contrast large universal banks,[36] also under pressure from competition, started assessing small loans as less risky. As measured by the number of transactions, large universal banks classify the smallest proportion of new loans into Category A, but this proportion is increasing quite rapidly, up 8 percentage points in a single year. Large banks had a different attitude towards major customers during most of the period in question, and assessed them as less risky than smaller customers.

The opposite applies to regional banks, which are highly dependent on customers from a single region. On average these banks classify 87% of new loans into Category A. Weighted by loan size, this group of banks classifies by far the largest proportion of new loans into lower categories.

5.4.2 Credit Growth

After the 2000 to 2002 period when the expansion of the credit market was not so intensive, credit growth rose again in 2003 and even more so in 2004. In conditions of very high economic growth lending to non-bank sectors reached growth of 16% in real terms. The expansion measured as growth in real stock of loans against GDP was 11% in 2004. With corporate lending having recorded high growth in 2003, household lending increased strongly last year. The growth of 21.4% was behind the rate seen when VAT was introduced, but the household consumer cycle still maintains a period of four to five years.

Figure 5.17: Real growth in lending to non-bank sectors, growth in GDP, and expansion of non-bank sector lending market (%)



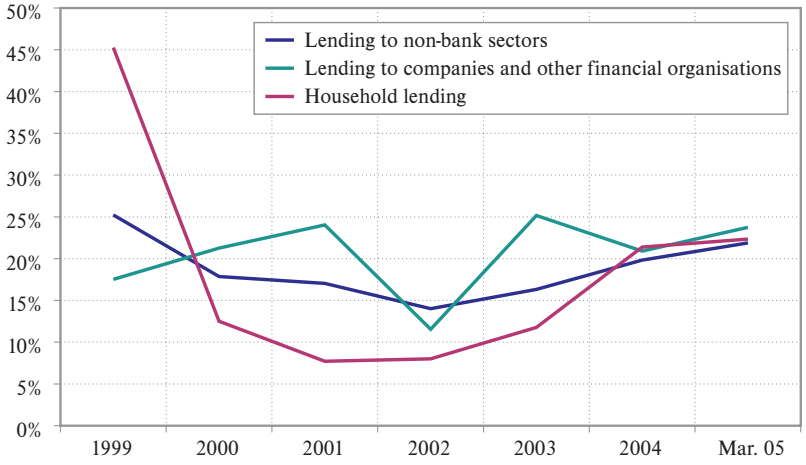
	1999	2000	2001	2002	2003	2004
Real growth in lending	16.0	8.2	9.4	6.4	11.2	16.1
Growth in GDP	5.5	4.0	2.7	3.3	2.5	4.6
Expansion	9.9	4.1	6.5	3.0	8.5	11.0

Source: Bank of Slovenia

Economic recovery and the continuation of the nominal convergence of Slovenian interest rates with interest rates in the EU increased the demand for credit. Growth in loans to non-bank sectors was 19.8% at the end of 2004, a rise of 3.5 percentage points from the previous year. This growth increased further in the first months of this year. Powerful pressure from competition in the banking sector is an encouragement to banks to further adjust their supply of loans to their customers' needs by seeking as-yet-unexploited market niches. In 2004 banks recorded approximately identical rates of growth in all the segments of the credit market for the first time.

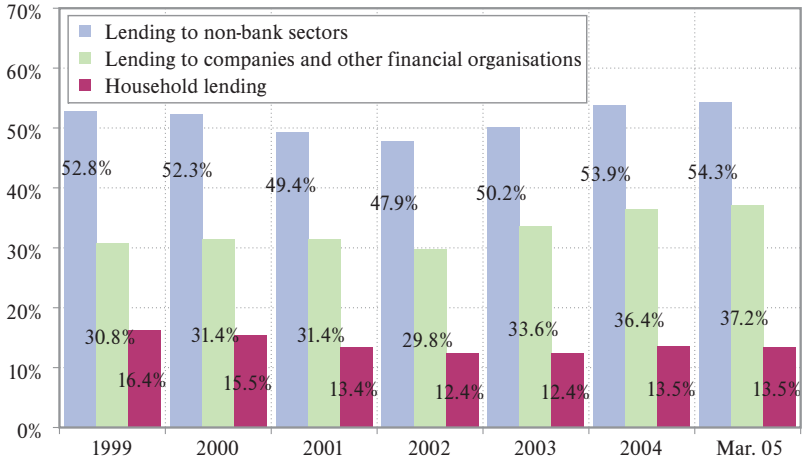
[36] In this case, large banks with prevalent activity throughout Slovenia and a wide range of products and services are deemed universal banks.

Figure 5.18: Year-on-year growth in lending to non-bank sectors, to non-financial companies and other financial organisations, and to households



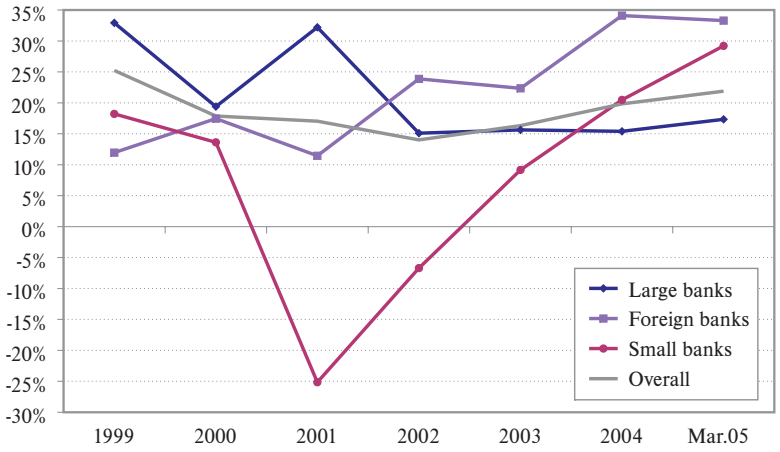
Source: Bank of Slovenia

Figure 5.19: Lending to non-bank sectors, to non-financial companies and other financial organisations, and to households as proportion of total assets



Source: Bank of Slovenia

Figure 5.20: Year-on-year growth in lending to non-bank sectors, by groups of banks



Source: Bank of Slovenia

The proportion of lending to non-bank sectors continues to increase as bank balance sheets are restructured. The proportion of lending continues to increase at the expense of securities. Of all lending, lending to companies and non-monetary financial intermediaries is exhibiting especially high growth. In 2004 lending to non-bank sectors accounted for 54% of banks' total assets, and lending to companies and non-monetary financial intermediaries for 36.4%.

In the period of high demand for loans in 1999, it was large banks in particular that achieved high growth in lending to non-bank sectors. Large banks achieved more than 30% growth also in 2001 owing to consolidation within the largest bank group. Since 2002 foreign banks have surpassed large banks in growth in lending to non-bank sectors. This was especially the case in 2004, when at 34.1% growth recorded by foreign banks was more than double that recorded by large banks (15.4%).

5.4.3 Large Exposures

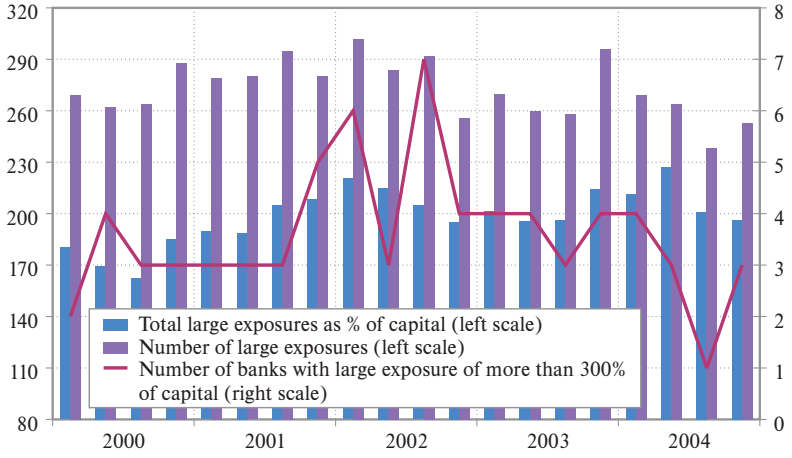
In 2004 there was a significant fall in the number of large exposures.[37] In December banks had 253 large exposures, 14.5% less than at the end of 2003. The concentration of large exposures moved within similar boundaries to previous years. The sum of large exposures exceeded 300% of capital at three banks. The sum of large exposures as a proportion of the capital of the entire banking sector fell by 18 percentage points to 196% in 2004, but remained at the average level seen in the last five years. The trend of decline in banks' large exposures is slowing.

Table 5.14: Bank exposure in terms of capital

						2000 to 2004		
	2000	2001	2002	2003	2004	Min	Max	Average
Total large exposures per capital (%)	185	208	195	214	196	162	227	198
Number of large exposures	288	280	256	296	253	238	302	273
Number of banks with large exposures of more than 300% of capital	3	5	4	4	3	1	7	3,6

Source: Bank of Slovenia

Figure 5.21: Large exposures in the banking system

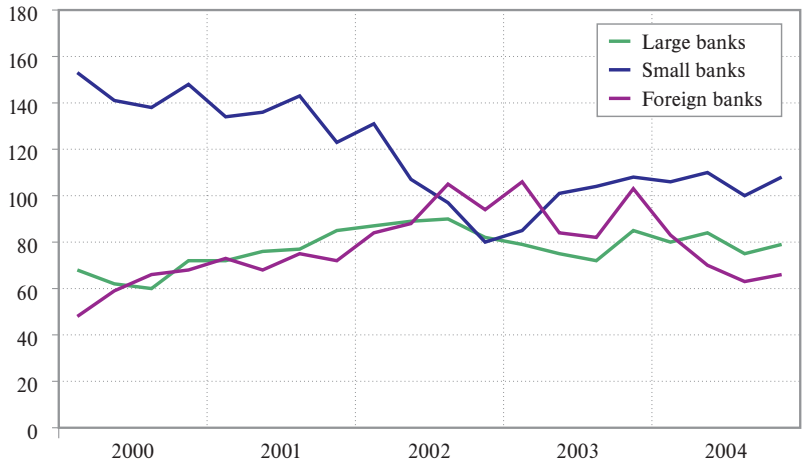


Source: Bank of Slovenia

[37] A large exposure is an exposure of a bank to a single client that reaches at least 10% of the bank's capital. A bank's exposure to a single client includes assets items, classical off-balance sheet items and special items arising from derivative financial instruments.

In the third quarter of 2004 the number of large exposures fell in all banking groups, falling most over the entire year for the group of foreign banks (86% of the total fall in the number of large exposures in 2004). The main reasons for the fall in the number of large exposures are recapitalisations and the issue of hybrid instruments by a significant number of banks. Recapitalisations and new issues of hybrid instruments are again expected in 2005, but the fall in the number of large exposures may not necessarily continue as the lending activity of banks is still high.

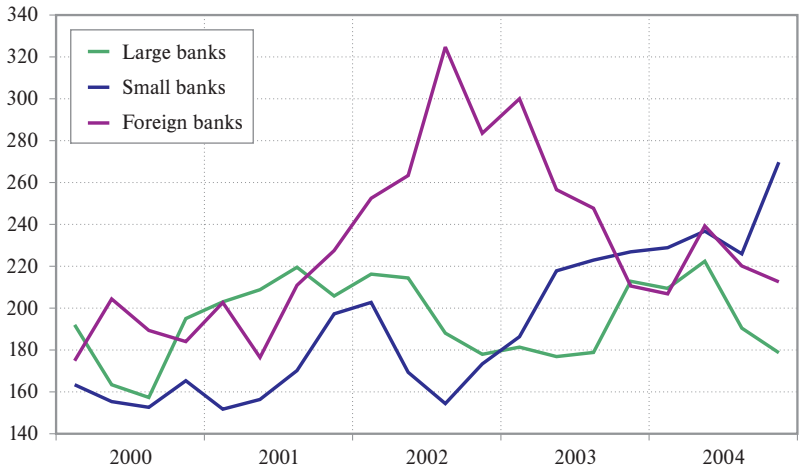
Figure 5.22: Number of large exposures for individual groups of banks



Source: Bank of Slovenia

Most of the large exposures may be found in the group of small banks, which is understandable given their smaller capital. The only exception is the period from mid-2002 until the beginning of 2003, when for the first time foreign banks were aggressively active on the Slovenian market and engaged in considerable lending activity, focusing primarily on large, high-quality customers, mainly companies. This was also reflected in a significant increase in the number of large exposures, the sum of which exceeded 320% of their capital in mid-2002, having stood at just 180% a year earlier. By mid-2004 all foreign banks had increased their capital for the calculation of capital adequacy, which is also taken into consideration in the calculation of large exposures. In this way they opened up additional possibilities of further growth and an increase in market shares. The strong lending activity of foreign banks in 2004 thus ended the falling trend in the proportion of large exposures in the capital of foreign banks.

Figure 5.23: Proportion of bank capital accounted for by large exposures



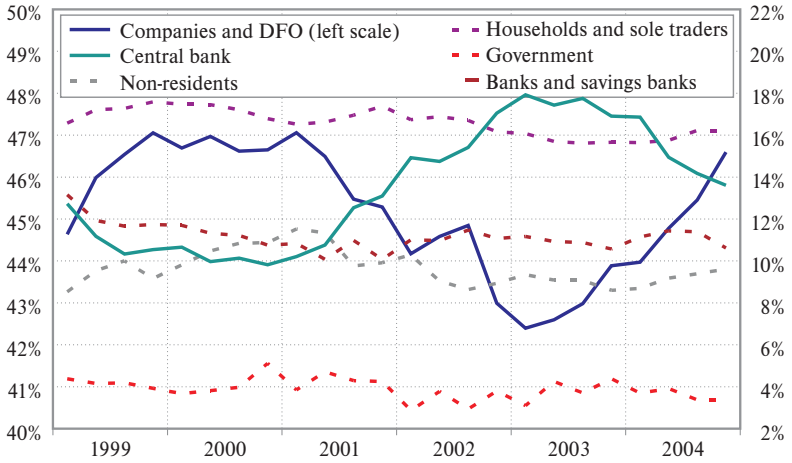
Source: Bank of Slovenia

5.4.4 Portfolio Diversification

The largest proportion of bank exposure is linked to exposure to companies and other financial organisations (DFO),[38] at 46.6% in 2004. The proportion of total exposure accounted for by companies increased last year, approaching the level seen at the end of 1999, when the introduction of VAT and investments in infrastructure promoted a new investment cycle. Similar dynamics, although less pronounced, can also be seen in household sector.

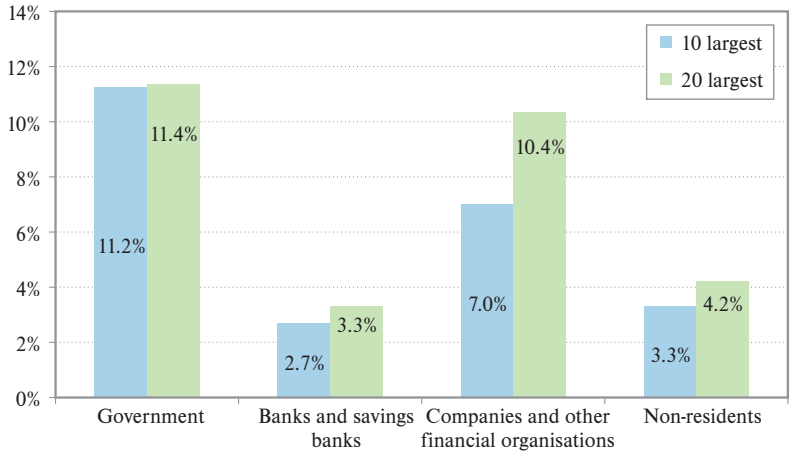
Bank exposure to companies increases primarily with a decline in bank exposure to the central bank, while the opposite process could be observed during the period of lower demand for loans in 2001 and 2002, when banks invested surplus funds more intensively in central bank instruments.[39]

Figure 5.24: Proportion of total exposure accounted for by individual segments



Source: Bank of Slovenia

Figure 5.25: 10 and 20 largest exposures of banks to entities of individual segment as proportion of total exposure (December 2004)



Source: Bank of Slovenia

[38] Total exposure was taken into consideration, both balance sheet and off-balance-sheet.

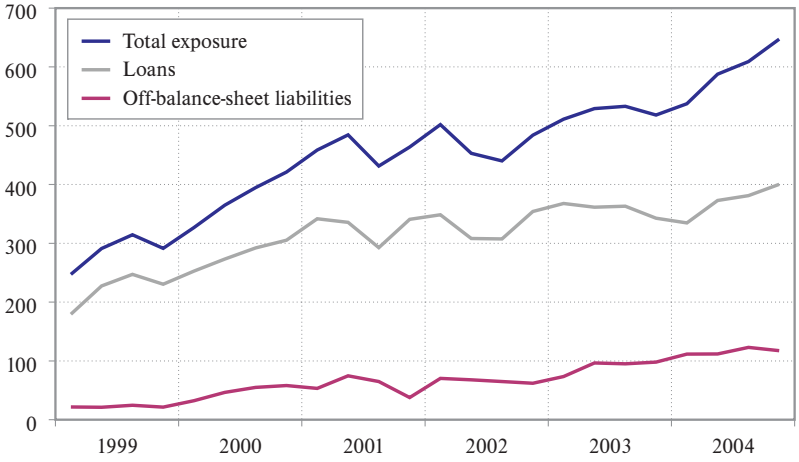
[39] Including the greater need for sterilisation due to large capital inflows and the introduction of the euro currency by members of the EMU.

The ten largest exposures of banks include exposures to the central bank, four state institutions, three companies, one domestic bank and one foreign bank. Concentration is highest in the bank exposure to state institutions and lowest in the exposure to companies.[40]

The largest bank exposures to companies are not the exposures to the largest companies. The ten companies to which banks are most exposed include only three of the ten largest companies in terms of the size of their total assets. Bank exposures to companies are determined more by the sector that the companies operate in than by company size. Banks are most exposed to sectors: trade, construction, business services (holding) and manufacturing.

The largest exposures to non-residents are exposures to foreign banks. Only three out of the ten largest exposures of domestic banks to foreign entities are not exposures to banks. The twenty largest exposures to non-residents (including seven non-banking entities) account for 45% of the domestic banks' total exposure to non-residents. Bank exposure to non-residents grew at an increasing rate from 2000 until mid-2001, fluctuated around SIT 500 billion until the end of 2003, and then again reached higher rates of growth in 2004, amounting to SIT 647 billion at the end of the year, 25% more than in 2003.

Figure 5.26: Bank exposure to non-residents (SIT billions)



Source: Bank of Slovenia

Table 5.15: Bank exposure to country groups (SIT millions)

	2001		2002		2003		2004	
	Amount	Proportion (%)	Amount	Proportion (%)	Amount	Proportion (%)	Amount	Proportion (%)
EU 15	338,903	73.1	369,721	76.4	350,114	67.6	423,564	65.5
Efta	26,387	5.7	25,586	5.3	30,927	6.0	28,149	4.4
Former Yugoslavia	24,509	5.3	37,748	7.8	65,930	12.7	99,517	15.4
Cefta	5,379	1.2	9,549	2.0	12,292	2.4	23,849	3.7
Other	68,302	14.7	41,407	8.6	58,872	11.4	72,084	11.1
Total	463,480	100.0	484,011	100.0	518,135	100.0	647,163	100.0

Source: Bank of Slovenia

[40] Concentration is illustrated by differences between the shares of the first 10 and 20 exposures by individual segments (in state institutions the difference is 0.2 percentage points, and in companies and DFO 3.4 percentage points). Individual data for households is not available.

Both periods of rapid growth were linked to a more aggressive approach to the Slovenian market by foreign banks. Developments in the last two years are linked to domestic banks' greater involvement in foreign markets, particularly in the former Yugoslavia, and to the increase in exposure to that region. Exposure to the former Yugoslavia rose by 51% in 2004. As a result of cooperation between domestic companies and companies from Cefta countries, bank exposure to this region is also increasing. The proportion of foreign exposure accounted for by the Cefta countries is still comparatively small, but it grew by 94% in 2004 alone.

Structure of loans by sector or customer segment

Slovenian banks have the largest credit exposure to sectors whose products are cyclical consumer goods.[41] Other major exposures are loans to households, to customers involved in finance, and to companies involved in natural resources, industry and construction. Figures for the structure of loans by sector indicate that banks have a large proportion of credit exposure to sectors that are extremely cyclical, which increases the banks' sensitivity to credit risk in terms of the phase of the economic cycle.

Table 5.16: Structure of bank loans by sector

	Proportion of all loans				Loan quality*		
	Slovenia			EU	Slovenia		
	2002	2003	2004	2002	2002	2003	2004
Consumer cyclical	25.3	26.9	25.9	27.1**	8.2	8.2	6.8
Finance	18.6	16.1	18.1	33.9	2.0	1.6	1.6
Natural resources, industry, construction	12.7	13.5	13.8	11.4	8.6	8.5	7.0
Consumer non-cyclical	7.7	8.5	8.6	10.4	6.7	6.2	6.2
Technology, media, telecommunications	3.4	3.2	3.1	3.0	6.1	7.0	5.7
Capital goods	2.6	2.9	3.0	4.5	5.1	3.5	3.5
Energy	3.0	2.5	1.9	2.5	4.4	3.6	2.2
Non-residents	2.5	3.1	3.6		25.1	15.9	12.7
Households	18.8	18.6	18.5		5.3	4.6	3.9
Sole traders	0.2	0.3	0.2		26.8	24.2	15.6
Other	5.2	4.3	3.2	7.2***	1.1	0.9	0.8
Total	100.0	100.0	100.0	100.0	6.3	6.0	5.1

Notes: *quality of loans = special provisions/loans
**includes sole traders and households
***includes non-residents
Source: Bank of Slovenia

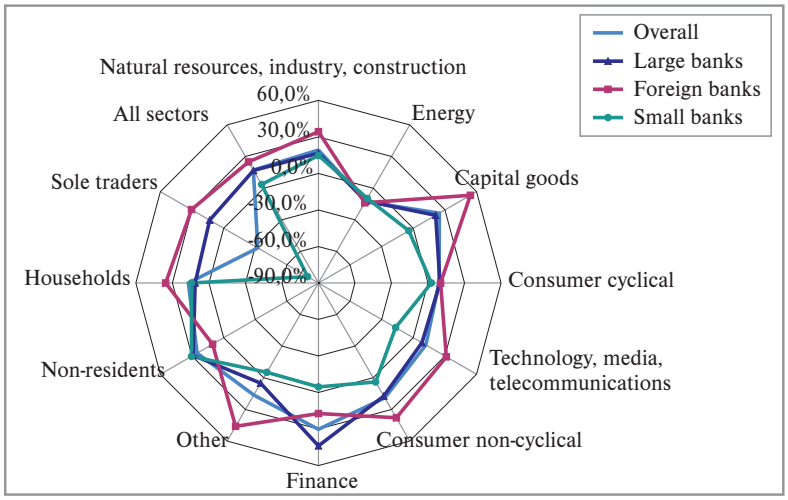
All groups of banks have a similar pattern of loan structure by sector. Foreign banks differ slightly, with a larger proportion of loans classified into the category "other" than large or small banks. For this reason foreign banks have slightly lower proportions of credit exposure to sectors involved in cyclical and non-cyclical goods, natural resources, industry and construction, compared with large banks.

There are considerable differences between banks in the rates of growth in loans by sector. The highest rates of growth are being recorded by foreign banks in all segments, with the exception of non-residents and companies involved in finance. Large banks are recording above-average growth in the financial sector. Small banks and savings banks are behind other groups of banks in growth, particularly in the small business segment, where they greatly reduced the amount of lending in 2004. The reasons lie in the discontinuation of the activity of certain savings banks and savings and loan undertakings, the mergers with DBS bank and the liquidation of SIB bank.

[41] Examples of sectors producing cyclical consumer goods are the automotive industry, tourism and leisure, and the transport sector, while examples of sectors producing non-cyclical consumer goods are the foodstuffs industry and the health sector.

Banks are allocating the smallest proportion of loans to the small business sector, but are creating most of the special provisions for this sector, the situation is similar in the no-residents segment. Although in 2004 banks created fewer special provisions in all sectors and customers groups in terms of the amount of loans than they did in 2003, it was in the small business and non-residents segments that the decline was sharpest.

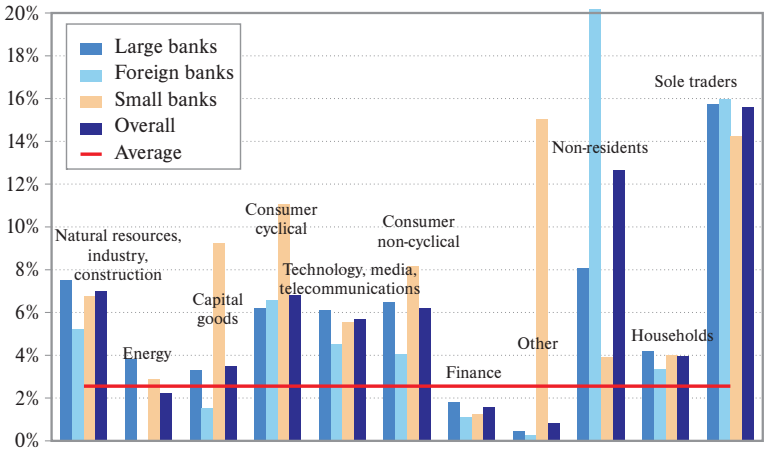
Figure 5.27: Growth in loans in 2004 by sector and groups of banks



Source: Bank of Slovenia

There are significant differences in the behaviour of banks in the creation of special provisions. In 2004 banks on average created special provisions at a level of 5.1% of the amount of loans: small banks at the highest level of 6.2% of lending, and foreign banks at the lowest level of 4.6% of lending. Banks grade loans to small businesses as the highest risk, and are mostly agreed in this assessment. However small banks create fewer special provisions for small businesses than do other groups of banks. The situation is similar with loans to non-residents, which foreign banks grade as the highest risk, and for which they create special provisions at a level of 36% of the amount of loans. By contrast small banks create significantly more provisions for companies from sector that large banks and foreign banks assess as less risky. The differences are greatest in the sectors of capital goods and consumer cyclical and non-cyclical. Banks uniformly assess financial companies, companies in the energy sector and households as the least risky.

Figure 5.28: Ratio of special provisions to loans in 2004 by sector and groups of banks



Source: Bank of Slovenia

5.4.5 Insurance of New Loans

In 2004 the eight largest banks approved SIT 1,781 billion of new loans. For most of the new loans (54%), the collateral was bills, although the bills were largely promissory notes, which meant that the bills were more a means of payment than insurance. This is also why bills are decreasing in importance, while the proportion of unsecured loans is increasing. The amount of such loans nominally doubled in 2004, and the proportion of new lending that they account rose by 3.3 percentage points from 2003.[42] Most new loans are thus unsecured, and the proportion of such loans is increasing. In 2004 63.4% of loans were unsecured (including those with bills as collateral), 0.9 percentage points more than in 2003.

These figures may be a warning of more favourable criteria for assessing credit risk when new loans are approved, and therefore of lower costs of loan approval. However, a larger proportion of unsecured loans at an individual bank does not necessarily mean that the bank is assuming a higher risk, provided it selects better, lower-risk customers and consistently assesses their credit-worthiness in the long term.

Table 5.17: Structure of eight largest banks' new loans in terms of type of insurance

	Structure (%)			Growth in 2004 (%)		
	2003	2004	Jan.-Feb. 2005	All insurance	Single insurance	Multiple insurance
Unsecured	6.3	9.6	6.8	99.6	99.6	
Unsecured (bills pledged as collateral)	56.2	53.8	53.3	25.5	17.9	52.1
Central banks' bills as collateral	0.0	0.0	0.0	0.0	0.0	0.0
Bonds	0.2	0.0	0.1	-68.4	-94.6	23.7
Shares	2.3	1.7	3.7	-1.8	-33.6	5.7
Other securities	1.1	1.7	3.8	94.6	36.9	325.2
Movable property	2.8	3.4	2.6	57.2	16.0	103.7
Real estate	12.7	10.4	13.7	7.3	-12.4	44.6
Irrevocable unconditional guarantees	0.8	0.9	0.0	0.0	0.0	-7.3
Irrevocable unconditional guarantees redeemable at first call	0.2	0.1	0.0	9.2	25.8	-15.6
Other guarantees	0.2	0.1	0.0	-48.7	-82.1	21.4
Bank deposits and certificates of deposit	2.1	1.5	1.0	-7.4	-28.4	57.1
With an insurance company	2.8	2.6	2.2	22.2	21.6	32.8
With surety	6.0	7.7	6.0	68.7	69.2	68.1
Insured otherwise	6.4	6.6	7.0	34.2	35.3	32.9
Total (SIT billions)	1357.9	1780.5	448.0	31.1	23.8	50.1

Note: In the figures for growth in 2004, the column "all insurances" includes all new loans, the column "single insurance" inlcudes only new loans with one form of insurance, and the column "multiple insurance" includes new loans with at least two forms of insurance.
Source: Bank of Slovenia

There are also new forms of insurance, and the proportion of insurance that account for is increasing. Share collateral is growing – by the end of February 2005, some 3.7% of new loans were insured in this way – while the proportion of new loans insured with bonds and tolar or foreign exchange bills is still negligible. Loans insured by other securities are growing rapidly, the proportion that they account for rising by 0.5 percentage points in 2004 and by an additional 2 percentage points in the first months of 2005. The increase in other securities is linked to the increase in investments by non-bank sectors in investment funds, which are also becoming a form of insurance. As banks are also quite active in funds, this gives rise to the question of the quality of insurance if a bank accepts coupons from funds, that it itself manages, as insurance for a new loan.

[42] The figures for the structure of insurance of new loans at the beginning of 2005 do not yet indicate that conditions are changing this year, there is seasonal variation in the various forms of insurance. Only figures for two years are available, but it can be seen that the proportion of new loans that are unsecured is lower in the first two months of the year, can exceed 20% in March and the summer months, then falls significantly before reaching comparatively high levels again in December.

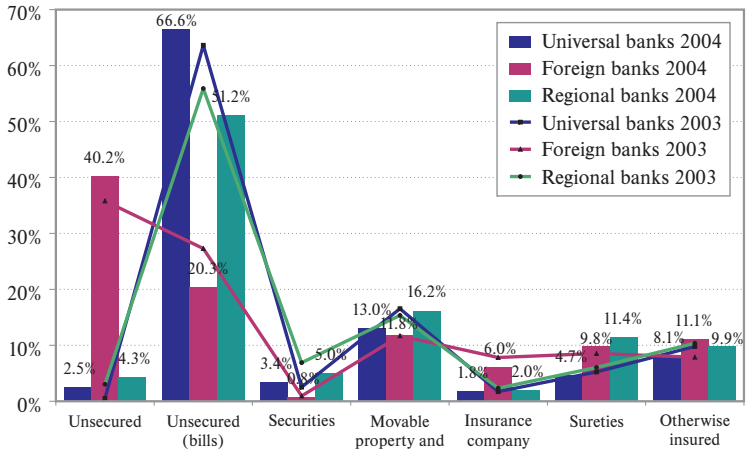
Alongside the increase in the proportion of loans insured with sureties, there is growing importance in the use of movable property as insurance, whereas in 2004 banks reduced the amount of with real estate collateral. The proportion of new loans with real estate collateral fell by 2.3 percentage points to 10.4%. This decline in the use of real estate as collateral may be attributed to the degree to which the quality of the insurance depends on the prices of real estate, to the lower liquidity in the real estate market, to the difficulties faced by banks in executing mortgages and to the duration of land registy procedures. Banks are therefore trying to combine real estate collateral with other forms of insurance. The amount of new loans for which real estate collateral is merely one of the forms of insurance increased by nearly 45% in 2004.

Banks are using a combination of several forms of insurance with increasing frequency. Insurance with securities, sureties, movable property and real estate is particularly on the increase in combination with other forms of insurance. The increase in the proportion of new loans with several forms of insurance reduces the degree to which credit risk depend on liquidity and the price of the individual form of assets used as collateral.

Structure of forms of insurance for new loans in terms of bank orientation

The structure of insurance at the eight largest banks varies greatly with regard to the banks' orientation (regional banks, universal banks) and ownership. Most prominent is the extremely large proportion of unsecured loans at foreign banks, which also rose most from the previous year (by 4.4 percentage points). Including those with bills pledged as collateral among unsecured loans, universal banks have the largest proportion of unsecured loans of 69%, up nearly 4.9 percentage points in 2004, while the proportion fell for the other two groups of banks. Universal banks responded to the changes in the use of real estate as loan collateral[43] and no longer show a great deal of interest in the use of movable property or real estate as collateral. They are compensating for this with other forms of insurance and by increasing the proportion of unsecured loans.

Figure 5.29: Structure of insurance for new loans at eight largest banks by individual groups of banks in 2003 and 2004



Source: Bank of Slovenia

Regional banks have started using more conservative forms of insurance. They have the largest proportion of new loans insured with securities, although they reduced it significantly to 5% in 2004 while greatly increasing the proportion of new loans insured with sureties. Compared with other groups of banks, regional banks reduced the most their proportion of unsecured loans (including loans with bill collateral), by 3.5 percentage points in 2004, and have a much larger proportion of loans with real estate collateral than the other two bank groups.

[43] A change in the method of entering real estate ownership in the land register – longer proceedings further procedure.

Table 5.18: Changes in proportions of insurance forms for new loans at eight largest banks from 2003 to 2004 (percentage points)

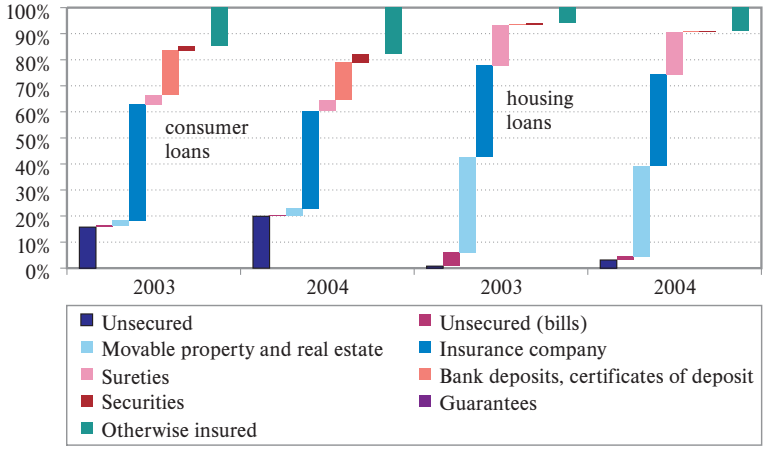
	Universal banks	Regional banks	Foreign banks
Unsecured	1.9	1.3	4.4
Unsecured (bills)	2.9	-4.8	-7.0
Securities	0.9	-1.9	-0.2
Movable property and real estate	-3.6	0.8	0.1
Insurance company	0.0	-0.3	-1.8
Sureties	-0.6	5.4	1.3
Otherwise insured	-1.7	-0.5	3.2

Source: Bank of Slovenia

Structure of forms of loan insurance in terms of loan purpose

The forms of insurance used vary greatly between the different groups of borrowers. Loans to households, which account for 6% of all new loans, are most often insured at an insurance company (36% of new household loans). For housing loans the use of movable property and real estate as collateral and insurance with sureties are important, while the proportion of unsecured loans in this segment is quite low at 3%. The opposite is true of consumer loans, where the proportion of unsecured loans stands at 20%. Insurance with bank deposits and other (undefined) forms of insurance are used more often with consumer loans than movable property and real estate collateral.

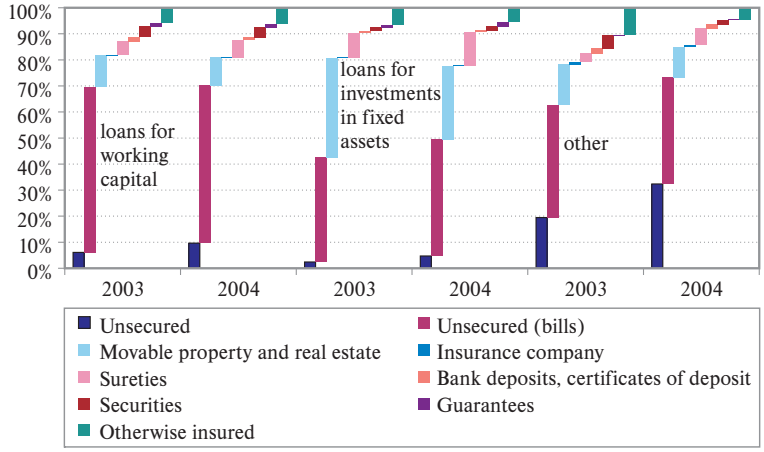
Figure 5.30: Structure of insurance for new household loans at eight largest banks



Source: Bank of Slovenia

Most of the new loans for working capital, which are most often short-term loans to companies, are unsecured. The actual figure is 70%, having remained the same in 2004. There was a shift within the unsecured loans from loans with bills pledged as collateral to wholly unsecured loans. The use of movable property and real estate as collateral is also important. The same forms of insurance are also the most common for loans for investments in fixed assets, but the importance of movable property and real estate as collateral and surety insurance is much greater. The remaining loans not classified into any of the four aforementioned groups and constituting around 2% of new loans have a similar insurance structure to working capital, although the proportion of unsecured loans is somewhat greater.

Figure 5.31: Structure of insurance for new corporate loans at eight largest banks

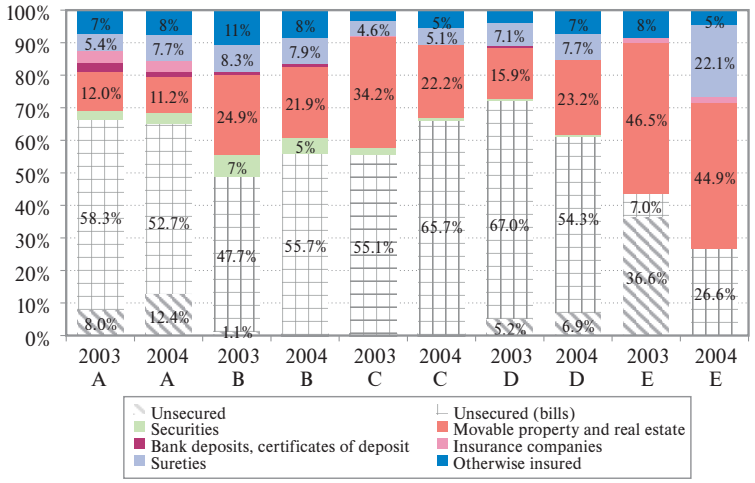


Source: Bank of Slovenia

Structure of forms of loan insurance in terms of credit rating

For new loans classified into Category A there were no significant changes in the structure of insurance in 2004. The proportion of unsecured loans in Categories B and C increased (by 7 percentage points in Category B and by 10.6 percentage points in Category C), in particular at the expense of a decline in the proportion of loans with movable property and real estate collateral. The proportion of loans classified into the highest-risk categories that were unsecured fell, by 10.9 percentage points in Category D and even more by 17 percentage points in Category E. For the smaller amount of loans that under more favourable economic conditions banks nevertheless classified into Category E, there was also concern for insurance. In 2004 one-fifth of the loans in Category E were insured with sureties, while banks made no use of sureties for Category E loans in 2003. The proportion of loans with movable property and real estate collateral was much greater than in the other categories, but it remained at approximately 45% in both years.

Figure 5.32: Structure of insurance for new loans at eight largest banks by credit rating categories in 2003 and 2004



Source: Bank of Slovenia

5.5 Bank Solvency

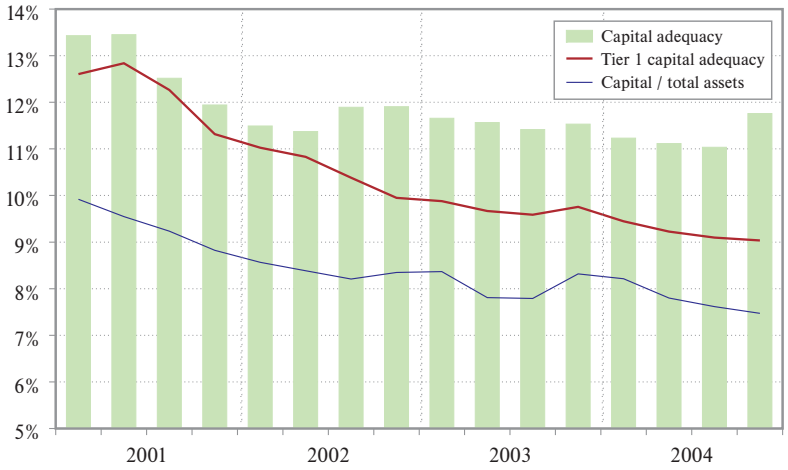
Strong lending activity and changes in the structure of investments by banks increase the credit risks assumed by banks and reduce their capital adequacy, which forces banks to recapitalise or to seek new resources to increase their regulatory capital.[44] As the possibilities of increasing subordinated debt are in decline given the volume of core capital, banks are increasingly opting to issue hybrid instruments.

5.5.1 Capital Adequacy

The capital adequacy of the banking system stood at 11.8% in 2004, its trend throughout the year following the similar trend in 2003. By September it had fallen by a total of 0.5 percentage points to 11%, but at the end of the year it recovered by 0.8 percentage points, much more than at the end of 2003. As in 2003, at the end of last year banks apparently laid down the foundations for further growth and expansion. In conditions of high lending activity in 2004, banks retarded growth in capital investments, with initial figures indicating that they will try to compensate this year, as cumulative growth to March 2005 was 6.7%, just 1.6 percentage points behind growth over the whole of 2004. That banks strongly increased capital adequacy in the last quarter indicates that no slowdown in lending activity is expected yet.

The trend in capital adequacy was not followed by Tier 1 capital adequacy, which fell throughout 2004 to stand at 9% in December, down 0.7 percentage points from the end of 2003. The ratio of book capital to total assets, which continues to fall and had reached 7.5% at the end of 2004, also points to capital growing more slowly than assets.

Figure 5.33: Capital adequacy, Tier 1 capital adequacy and capital to total assets ratio



Source: Bank of Slovenia

In 2004 the capital adequacy of the banking system increased mainly on account of large banks, with one of the banks significantly increasing its volume of hybrid instruments, while half of the large banks significantly increased the amount of subordinated debt. Large banks increased regulatory capital by SIT 8.6 billion or 20.8% on average in 2004, while risk-adjusted assets by 14.2%.

[44] The calculation of capital adequacy uses regulatory capital, which in addition to the main items of book capital includes provisions for general banking risks, subordinated liabilities and hybrid instruments, minus capital investments in financial organisations.

Foreign banks increased the amount of capital for calculating capital adequacy by SIT 4.3 billion on average in 2004, with core capital rising more than supplementary capital.[45] Foreign banks increased capital for calculating capital adequacy primarily through recapitalisation and an increase in provisions for general banking risks. Notwithstanding strong lending by foreign banks (their market share of loans to non-bank sectors rose by 2.5 percentage points), capital adequacy fell by only 0.3 percentage points to 11.2%.

Small banks increased their risk-adjusted assets even more than foreign banks, by 32.4% in 2004. However there were no major increases in capital at small banks, with only two banks increasing their subordinated debt slightly. The capital of small banks increased by only SIT 1 billion on average, or 16.8%, much less than risk-adjusted assets, which manifested in a large decline in capital adequacy. It fell by 1.5 percentage points to 11.7%.

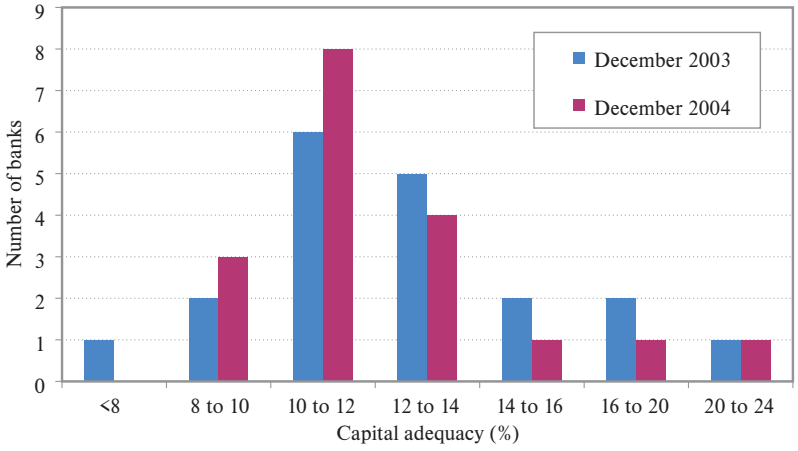
Table 5.19: Capital adequacy of banks

	2000	2001	2002	2003	2004
Large banks	12.2%	11.1%	11.8%	11.3%	11.9%
Foreign banks	14.1%	12.4%	11.2%	11.5%	11.2%
Small banks	16.7%	15.8%	13.5%	13.2%	11.7%
Banking sector	13.5%	11.9%	11.9%	11.5%	11.8%

Source: Bank of Slovenia

Intensive lending forces banks to optimise in the area of risk management. Thirteen of the 18 banks had lower capital adequacy in 2004 than in 2003.[46] In the distribution of capital adequacy, in 2004 there was a strong concentration of banks with capital adequacy in the 8% to 12% range, which accounts for two-thirds of all banks.

Figure 5.34: Distribution of Slovenian banks in terms of capital adequacy



Source: Bank of Slovenia

Capital risk coverage is lower at banks in Slovenia than in the eurozone countries, which can be attributed to the more conservative approach of the Bank of Slovenia with regard to items of capital and risk-adjusted assets in the calculation of capital adequacy. At 11.5% the capital adequacy of the

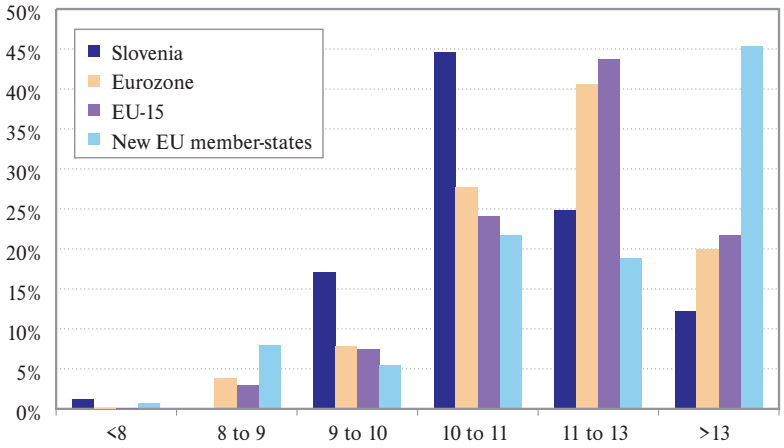
[45] One bank recorded a large increase in hybrid instruments in this group of banks too.

[46] These banks reduced capital adequacy by an average of 1.4 percentage points and by a maximum of 4.9 percentage points. Five banks improved their capital adequacy by an average of 2.3 percentage points and by a maximum of 7.5 percentage points.

Slovenian banking sector in 2003 was lower than banks in the eurozone (11.9%), while just a year earlier the situation had been the reverse (11.4% in the eurozone, 11.9% in Slovenia). The gap was slightly higher in comparison with banks in the EU-15, whose capital adequacy in 2003 stood at 12.35%, while banks in the new EU member-states had an average capital adequacy of 13.58%.

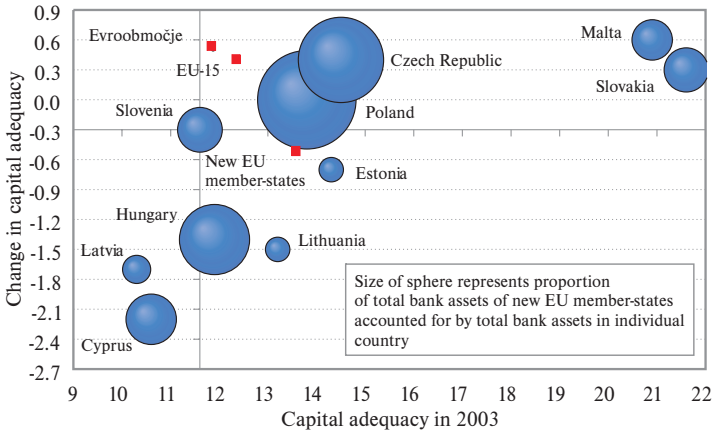
In Slovenia, in contrast to other areas, it is mainly large banks (domestic and foreign) that maintain a relatively low capital adequacy, as the distribution of capital adequacy, weighted by the risk-adjusted assets of the individual banks, peaks in the capital adequacy range of 10% to 11%.

Figure 5.35: Comparison of capital adequacy distribution in Slovenian banking sector, eurozone, EU-15 and new EU member-states[47] in 2003 (capital adequacies weighted by risk-adjusted assets)



Source: Bank of Slovenia, ECB: EU Banking Sector Stability, November 2004 and Financial Stability Review, December 2004

Figure 5.36: Comparison of capital adequacy in Slovenian banking sector with banking sectors of other new EU member-states



Source: Banking structures in the new EU Member States, ECB, January 2005

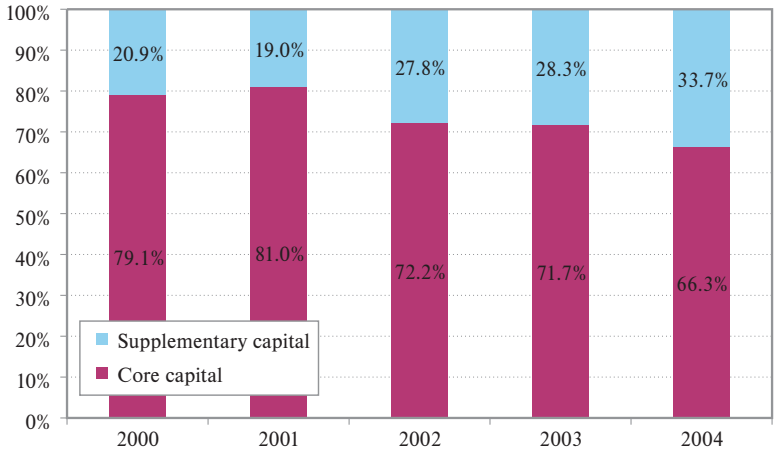
[47] The figures for Slovenia are not completely comparable, as bank branches were ignored for other areas in order to avoid duplication, while for Slovenia the entire banking sector was included.

Further recapitalisations are expected in the future, even with changes in regulations, along with issues of hybrid instruments and subordinated debt, as otherwise capital adequacy will increasingly become a limiting factor in banks' investment policies and a brake on the achievement of their business targets.

5.5.2 Capital

In 2004 core capital increased by 9.9%, or by SIT 30.6 billion, to SIT 338.2 billion. About half of the increase, SIT 14.8 billion, is the result of an increase in share capital (recapitalisations) and an increase in provisions for general banking risks, while the rest is the result of the distribution of profits into reserves and of other items. Supplementary capital increased much more than core capital during the same period, by 42%, so that the proportion of supplementary capital in the structure of capital increased considerably, reaching nearly 34%.

Figure 5.37: Structure of bank capital



Source: Bank of Slovenia

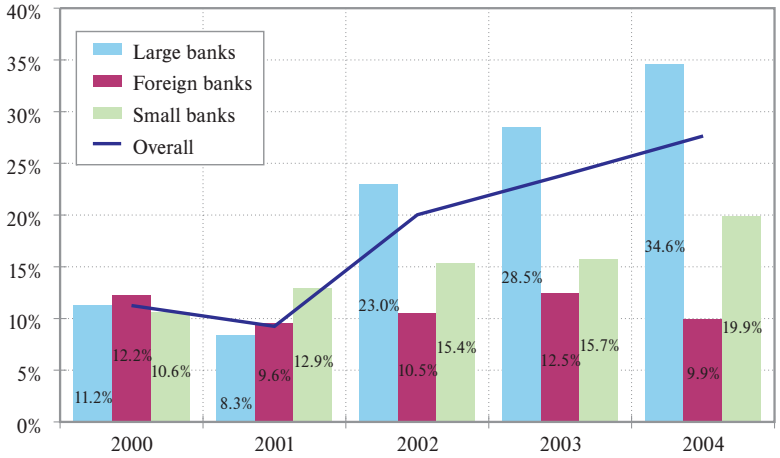
Within supplementary capital, the increase in the amount of subordinated debt in 2004 of SIT 20.4 billion remained at the level from the previous year. Subordinated debt accounted for 27.6% of core capital in the banking sector overall. Large banks have the highest ratio of subordinated debt to core capital at slightly less than 35%, while for small banks the ratio is 20% and for foreign banks it is another 10 percentage points lower. Subordinated debt already exceeds 50% of core capital at five banks, which means that they cannot take it all into account when calculating capital adequacy. For these banks recapitalisations may be expected in the coming period as only a long-term increase in core capital will enable them to include whole subordinated debt in the calculation of regulatory capital.

Increasing subordinated debt is an established method of increasing capital adequacy; in 2004, it increased at nine banks. Given that the potential for increasing subordinated debt has already been exhausted for the most part by banks that are active in this area, banks refocused on issuing hybrid instruments in 2004.[48]

The volume of hybrid instruments rose by SIT 30.8 billion in 2004, while at the end of 2003 the total volume of hybrid instruments issued stood at just SIT 3.1 billion. While in 2001 hybrid instruments were only included in capital by foreign banks and small banks, in 2004 it was primarily large and foreign banks that were active in this area.

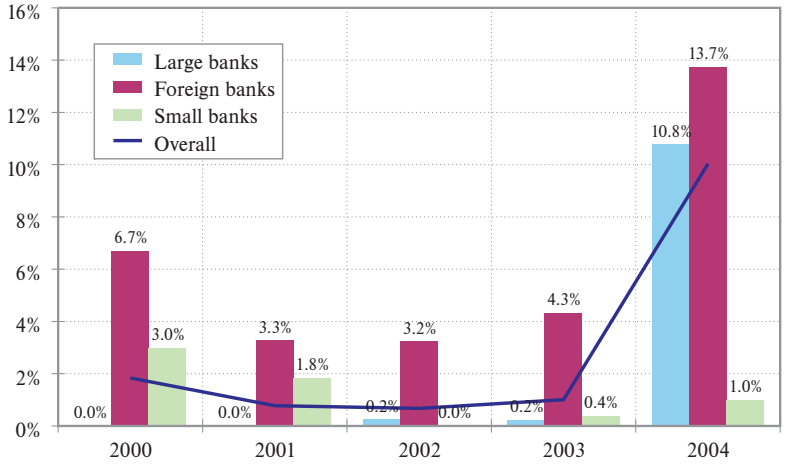
[48] Hybrid instruments are closest to share capital by nature; they have characteristics of capital and ordinary debt, have indeterminate maturity and in case of the bankruptcy or liquidation of a bank are subordinated to all other debt instruments and to subordinated debt. They cannot be reimbursed at the bearer's request and without the prior consent of the Bank of Slovenia.

Figure 5.38: Ratio of subordinated debt to core capital



Source: Bank of Slovenia

Figure 5.39: Ratio of hybrid instruments to core capital



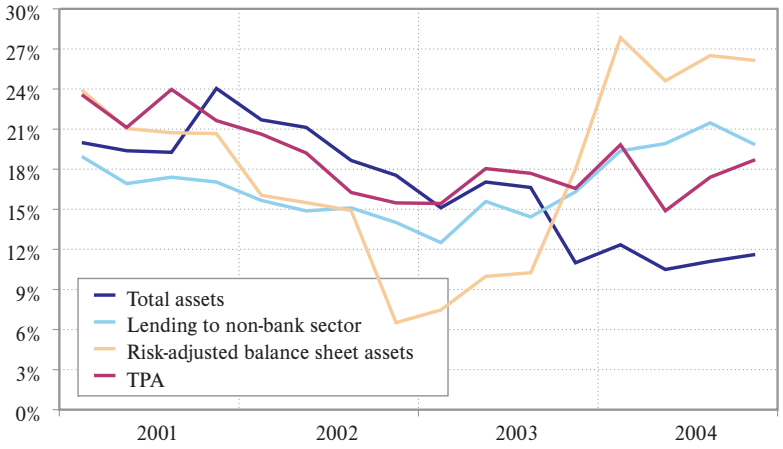
Source: Bank of Slovenia

5.5.3 Risk-adjusted Assets

Growth in risk-adjusted assets in 2004 (18.7%) was higher than growth in off-balance-sheet items (9.3%) and total assets (11.6%). Growth in risk-adjusted balance-sheet assets[49] (26.1%) was even higher, which is the result of strong lending activity by banks. The growth in loans was partly financed from substitution between low risk securities issued by the central bank and loans, which only additionally increased the risk-adjusted balance sheet assets. Other reasons for the increase in risk-adjusted assets are regulatory in nature. In 2004 banks had to increase the risk weight from 50% to 100% for claims that insured in full with real estate collateral.

[49] Risk-adjusted balance-sheet assets account for 50.6% of total assets.

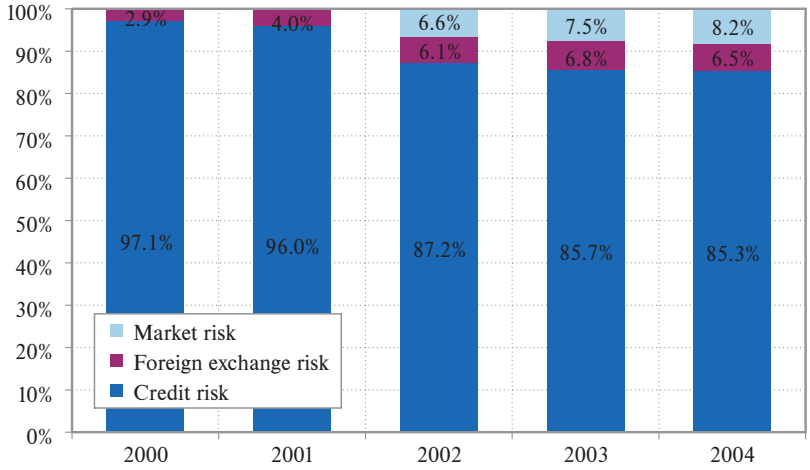
Figure 5.40: Year-on-year growth in total risk-adjusted assets, risk-adjusted balance sheet assets, total assets and loans to non-bank sectors



Note: TPA is total risk-adjusted assets, including items adjusted for foreign exchange risk and market risk.
Source: Bank of Slovenia

The proportion of items adjusted for credit risk in the structure of total risk-adjusted assets fell by 0.4 percentage points, to 85.3%, in 2004. The reason lies in a fall in the volume of risk-adjusted off-balance-sheet assets[50]. In the case of foreign banks, robust lending activity was reflected in an increase in the proportion of credit risk by 5 percentage points.

Figure 5.41: Structure of risk-adjusted assets, increased by item adjusted for other risks[51]



Source: Bank of Slovenia

In 2004, the proportion of items adjusted for foreign exchange risk fell by 5.9 percentage points, falling most at foreign banks, while the proportion of items adjusted for market risk increased considerably, especially at small banks, by 1.5 percentage points. It should be noted however that the structure of risk-adjusted assets changed considerably, especially in the last quarter. This may also be attributed to the adjustment of banks' balance sheets through securities mainly for tax reasons, which is reflected in an increase in the proportion of items adjusted for market risk by 1 percentage point in the last quarter of 2004 alone.

[50] In 2004, the Bank of Slovenia changed its regulations on the calculation of capital adequacy, and simplified records relating to the calculation of conversion factors for off-balance-sheet items in order to standardise bank practice.

[51] The large shifts in the structure of the amount of risk-adjusted assets and items adjusted for other risks in 2002 were the result of the new capital requirements for market risk and changes in the capital requirements for foreign-exchange risk.

Table 5.20: Structure of risk-adjusted assets, increased by items adjusted for other risks by individual groups of banks for December 2003 and 2004

	December 2003 (%)			December 2004 (%)			Change (percentage points)		
	Credit risk	Foreign exchange risk	Market risk	Credit risk	Foreign exchange risk	Market risk	Credit risk	Foreign exchange risk	Market risk
Large banks	88.3	3.5	8.1	86.7	4.6	8.6	-1.6	1.1	0.5
Foreign banks	79.7	18.7	1.7	84.6	12.8	2.6	5.0	-5.9	0.9
Small banks	79.5	6.3	14.1	78.4	6.0	15.6	-1.2	-0.3	1.5
Overall	85.7	6.8	7.5	85.3	6.5	8.2	-0.4	-0.3	0.7

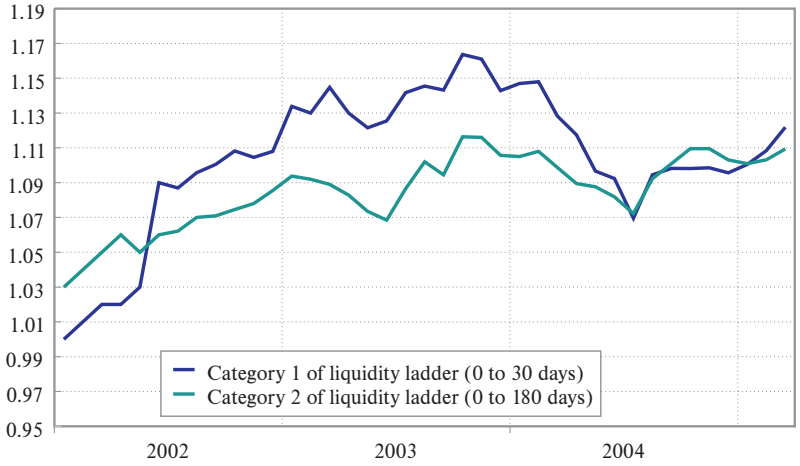
Source: Bank of Slovenia

5.6 Liquidity Risk

The liquidity of the banking system deteriorated in the first half of 2004. Growth in long-term lending, a fall in investments in securities and the shortening of deposit maturities were the key factors adversely affecting the liquidity of banks. In the second half of the year there were methodological changes that offered benefits to a larger group of banks so that the liquidity coefficients rapidly turned towards the positive.

The liquidity coefficients[52] in 2004 fell until July, when they reached the lowest level since June 2003 (1.07). Coefficient trends were mainly defined by developments in the foreign currency segment of the balance sheet. Due to a high demand for loans, primarily foreign currency loans, banks restructured short-term foreign currency investments into long-term loans, which weakened the liquidity coefficients. After changes in the methodology for calculating liquidity ladder coefficients that expanded the group of banks with access to foreign currency benefit, i.e. including foreign currency loans with a maturity of over 180 days in the foreign currency segment of the liquidity ladder, the trend reversed in the second half of the year and the liquidity coefficients had already recovered considerably by the end of the year and even further in 2005, exceeding a level of 1.1.

Figure 5.42: Liquidity coefficients for Categories 1 and 2 of liquidity ladder, monthly averages



Source: Bank of Slovenia

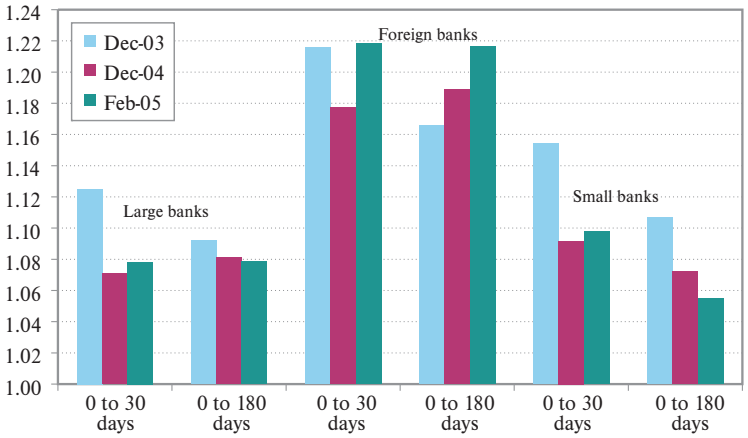
[52] The liquidity coefficients were calculated in accordance with the Bank of Slovenia's methodology for calculating the liquidity ladder, measuring the ratio of assets to liabilities of a current maturity of 0 to 30 days (Category 1) and 0 to 180 days (Category 2).

Differences between banks

In contrast to small and large banks, foreign banks achieved higher liquidity coefficients and are still increasing them. Faster and cheaper access to long-term foreign currency resources enables foreign banks to achieve high coefficients primarily in the foreign currency segment of the liquidity ladder.

Even small banks achieve high coefficients in the foreign currency segment of the liquidity ladder (1.63 for Category 1 and 1.25 for Category 2 in December 2004), but they have a significantly smaller proportion of foreign currency assets than foreign banks, which is the reason that their total coefficients are lower than those for foreign banks.

Figure 5.43: Liquidity coefficients for Categories 1 and 2 of liquidity ladder by individual groups of banks, monthly averages



Source: Bank of Slovenia

Compared to foreign banks, large and small banks were more limited in obtaining long-term resources to replace the deposits by non-bank sectors that are migrating towards alternative investments. The greater demand for foreign currency loans in the case of large banks is therefore reflected in a deterioration of the coefficients of the foreign currency segment of the liquidity ladder. In the first seven months of 2002, the coefficient of foreign currency liquidity at large banks fell from 1.97 to 1.36 in Category 1 and from 1.53 to 1.16 in Category 2. Coefficients stabilised at large banks in the second half of the year due to the aforementioned changes in the methodology for calculating liquidity coefficients.

Tolar assets with a maturity of up to 30 days do not exceed liabilities with the same maturity in any of the banking groups. In the first half of 2004 large banks increased tolar liquidity coefficients, but both coefficients, for Categories 1 and 2, of the tolar segment of the liquidity ladder, remained below 1.

Concentration of depositors

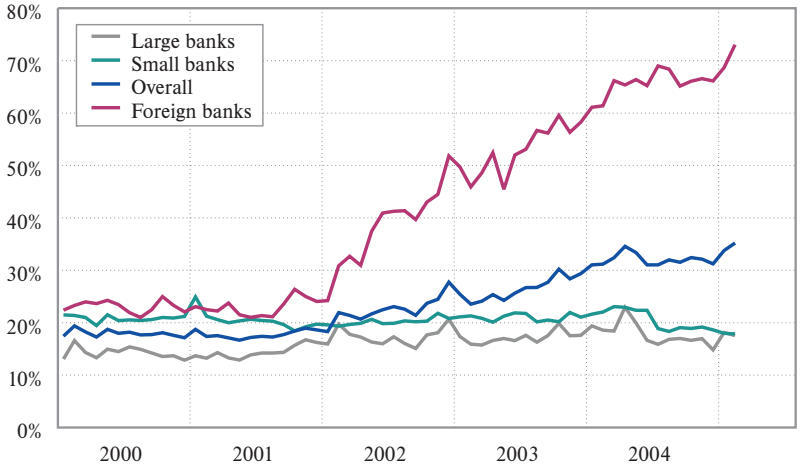
The adverse effects on the liquidity of the banking sector were not just caused by the extension of the maturity of foreign currency loans but also by the shortening of average deposit maturity. The proportion of deposits by non-bank sectors accounted for by long-term deposits in 2004 was 1.2 percentage points lower than in 2003, while the proportion of long-term loans increased by 2.7 percentage points in the same period.

As a consequence, the concentration of deposits continued to increase, especially at foreign banks. The flight of deposits into alternative investments is forcing banks to seek long-term resources abroad. Foreign banks have been largely financing their penetration of the Slovenian credit market, where

domestic banks have been losing their market shares since 2001, with funds from their parent banks, thereby becoming ever-more dependent on this source of funds. The proportion of deposits by the top thirty depositors accounted for by the largest depositor has increased at foreign banks since September 2001, when it stood at 23.6%, reaching as high as 73.1% in February 2005.[53]

The concentration of depositors at large and small banks remains similar over the long-term, with greatest diversification at large banks. At the end of 2004, deposits by the largest depositor accounted for 6.8% of all deposits, and for 13.5% at small banks. However, a greater concentration of depositors in the group of large banks has recently been observed.[54]

Figure 5.44: Proportion of deposits by thirty largest depositors accounted for by largest depositor



Source: Bank of Slovenia

Secondary liquidity

The volume of secondary liquidity, which includes short-term investments in securities issued by the central bank, treasury bills and short-term securities issued by the government in other countries, fell by 25% between April and December 2004 to SIT 864 billion. Secondary liquidity as a proportion of total assets fell by 7 percentage points in 2004, but still constitutes a significant proportion of banks' assets (15% in 2004); it is highest at small banks (18%), while the other two banking groups stand close to the overall average level.

Table 5.21: Secondary liquidity and proportion of total assets by individual groups of banks

		Large banks	Foreign banks	Small banks	Overall
2003	Secondary liquidity (SIT billions)	745.7	234.9	125.2	1.105.9
	Secondary liquidity as proportion of total assets	21%	25%	23%	22%
2004	Secondary liquidity (SIT billions)	577.6	178.2	108.3	864.2
	Secondary liquidity as proportion of total assets	15%	16%	18%	15%

Source: Bank of Slovenia

The fall in secondary liquidity was largely due to the changes in the liquidity ladder methodology, the discontinuation of issues of 270-day tolar bills and the possibility of subscribing to long-term deposits

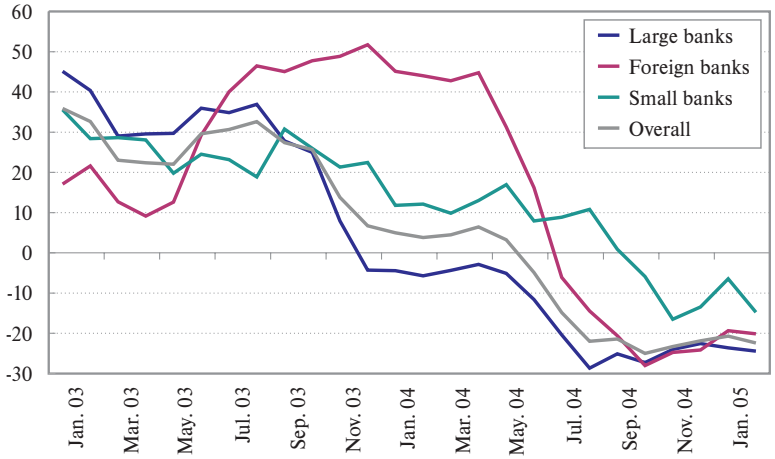
[53] A concentration of deposits at foreign banks is also indicated by a fall in the importance of other depositors. The proportion of the deposits of the 30 largest depositors accounted for by those ranked from second to fifth fell from 31% to 12% between February 2001 and February 2005.

[54] he proportion of total deposits accounted for by the 30 largest depositors rose by 5 percentage points to 49.3% between July 2004 and February 2005, thus returning to the level recorded in the second half of 2003.

with the Bank of Slovenia. The proportion of tolar bills in the structure of secondary liquidity fell by 14 percentage points to 29% in 2004, and in the structure of total assets by 5 percentage points to 4.4%. As the proportion of tolar bills in the structure of secondary liquidity fell, the proportion of foreign currency bills increased in 2004 by 8 percentage points to 58%. Banks responded to the fall in the proportion of the mandatory foreign currency bills subscription – the proportion of foreign currency bills in total assets fell by 2.1 percentage points to 8.9% – and moved into more profitable investments, although they were unable to fully utilise potential due to the level of subscribed foreign currency bills affecting the calculation of tolar liquidity coefficients.[55] Small banks, despite a fall in regulatory requirements with regard to the volume of subscribed foreign currency bills, increased their subscription throughout 2004 and continue to do so this year.

As the subscription to treasury bills falls, the importance of market securities in the structure of secondary liquidity increases. In 2004 the proportion of securities meant for trading[56] in the structure of secondary liquidity rose by 5 percentage points to over 11%, and by 0.4 percentage points to 1.7% in the structure of total assets.

Figure 5.45: Secondary liquidity, year-on-year growth



Source: Bank of Slovenia

5.7 Exchange-Rate Risk

The exposure of banks to exchange rate risk in 2004 and the first quarter of 2005 has been assessed as moderate and lower than in 2003. The stress tests presented in the second part of the report also indicate a comparatively low sensitivity of banks to changes in the foreign exchange rate. But banks are exposed to exchange-rate risk as well indirectly, through their clients. This relates also to items with a foreign currency clause pegged to the Swiss franc; the proportion of such items is still comparatively small, but is increasing rapidly. After Slovenia's entry into the ERM 2 and the setting of the tolar-euro parity in June 2004, the institutional conditions of bank operation also became more transparent as the Bank of Slovenia is committed to upholding the rules of the exchange rate regime defined by the ERM 2 and to ensuring exchange rate stability.

[55] The volume of subscribed foreign currency bills determines how many tolar claims against residents, excluding the government and banks, with a maturity of over 180 days and an A credit rating banks can take into account when calculating tolar liquidity coefficients.

[56] Tolar bills, treasury bills, government bonds in domestic and foreign currency, and foreign government securities.

Open foreign exchange position

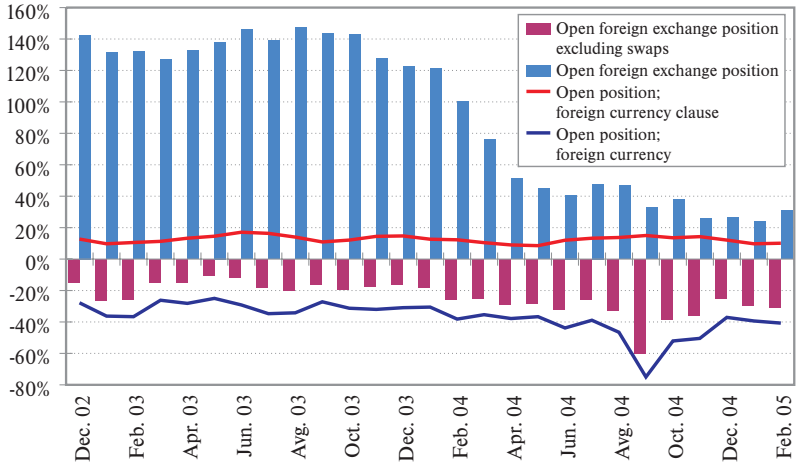
The open foreign exchange position of Slovenian banks was long, in the amount of SIT 116.1 billion, or 26.4% of regulatory capital, in 2004.[57] The position closed considerably compared to 2003 as the Bank of Slovenia made an outright purchase of foreign currency. The total sum of all offers for the outright purchase of foreign currency made in 2004 exceeded EUR 1.7 billion. Large banks made greatest use of the possibility of outright purchase of foreign currency, with their open foreign exchange position consequently falling from 177% in 2003 to 34% of regulatory capital in 2004, although it remains long. The foreign exchange position of foreign banks has closed somewhat more and has nearly evened out. Small banks considerably lengthened the foreign exchange position, while their open foreign exchange position was still short in 2003. Due to the long open foreign exchange position, banks are exposed to exchange-rate risk in case of the tolar appreciation.

Table 5.22: Open foreign exchange position and open foreign exchange position excluding Bank of Slovenia swaps for individual groups of banks

	Amount (SIT billions)			As proportion of regulatory capital		
	Dec.03	Dec.04	Feb.05	Dec.03	Dec.04	Feb.05
Open foreign exchange position excluding Bank of Slovenia swaps						
Large banks	-12.3	-49.4	-67.6	-5%	-16.4%	-22.5%
Foreign banks	-43.7	-63.3	-76.1	-63%	-73.1%	-87.7%
Small banks	-2.6	2.6	8.8	-6%	4.9%	16.8%
Overall	-58.6	-110.1	-134.9	-16%	-25.0%	-30.6%
Open foreign exchange position						
Large banks	441.1	102.5	121.3	177%	34.1%	40.3%
Foreign banks	5.8	0.9	0.9	8%	1.0%	1.0%
Small banks	-1.8	12.7	13.5	-4%	24.1%	25.7%
Overall	445.1	116.1	135.7	122%	26.4%	30.8%

Source: Bank of Slovenia

Figure 5.46: Movement in open foreign exchange position (as proportion of regulatory capital)



Source: Bank of Slovenia

Excluding swaps with the Bank of Slovenia, the open foreign exchange position of banks in 2004 was short, in the amount of SIT 110 billion, or 25% of regulatory capital. With predictable exchange-rate trends, with exchange-rate growth falling behind inflation and given the differential between domestic and foreign real interest rates, the short open foreign exchange position had favourable effects on

[57] The open foreign exchange position is calculated on the basis of figures on exposure to currency risk in capital adequacy reports. It is calculated as the sum of open positions by individual currencies and foreign currency clauses, which means that the long and short positions are not added but netted.

income. This was primarily used by banks under foreign ownership, which mostly borrowed from parent banks. Their open foreign exchange position, excluding swaps, was the shortest of all the bank groups (SIT 63.3 billion in December 2004), and accounts for more than half of the open position of the banking system. Large banks are also increasing the volume of borrowing abroad and shortened their foreign exchange position excluding swaps more than any other banking group in 2004, by SIT 37.1 billion, to 16.4% of regulatory capital. The open foreign exchange position of small banks is long even excluding swaps: SIT 2.6 billion in December 2004, and SIT 8.8 billion, or 17% of regulatory capital, in the first months of 2005. The shortest position was in September 2004, when one bank considerably increased its liabilities in euros. By the end of the year the situation had normalised, and at the beginning of this year banks once again slightly shortened their foreign exchange positions excluding swaps.

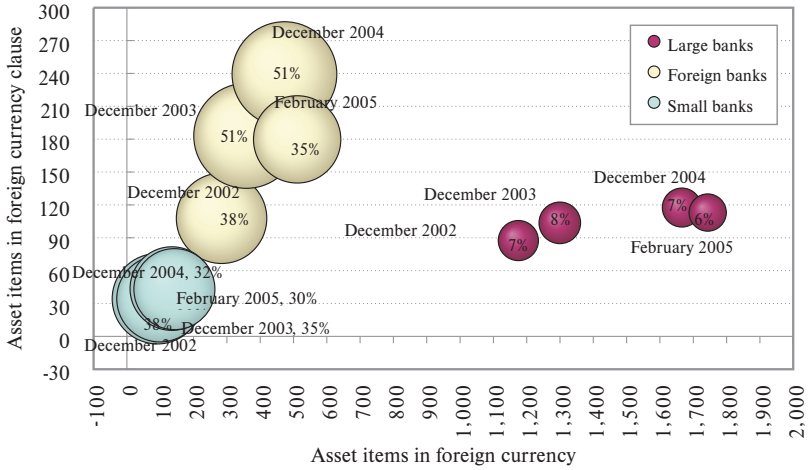
Balance sheet structure by currency

Table 5.23: Proportions of individual foreign currencies and foreign currency clauses in foreign currency balance sheets, including items with foreign currency clause and spot segment of swap with Bank of Slovenia

	December 2002		December 2003		December 2004		February 2005	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
Currency								
-EUR	84.6%	85.5%	87.9%	88.8%	89.2%	90.5%	88.0%	89.5%
-USD	11.6%	11.3%	8.8%	8.5%	7.3%	6.8%	7.7%	7.2%
-CHF	2.6%	2.5%	1.9%	2.0%	2.0%	1.5%	2.1%	1.6%
-Other	1.2%	0.8%	1.4%	0.7%	1.6%	1.2%	2.1%	1.7%
Balance (SIT billions)*	1,549.8	1,604.5	1,756.4	1,822.3	2,272.8	2,406.4	2,364.2	2,528.8
Currency clause								
-EUR	99.7%	99.7%	99.6%	99.9%	96.6%	96.2%	94.5%	93.6%
-USD	0.2%	0.2%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%
-CHF	0.1%	0.1%	0.2%	0.0%	3.4%	3.7%	5.5%	6.4%
-Other	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Balance (SIT billions)**	229.8	188.5	321.3	267.6	400.8	347.7	304.0	259.8

Note: *Sub-balance in foreign currency, including the spot segment of foreign exchange swaps with the Bank of Slovenia
**Sub-balance with foreign currency clause
Source: Bank of Slovenia

Figure 5.47: Ratio of assets items with foreign currency clause to foreign currency assets by individual groups of banks (SIT billions)



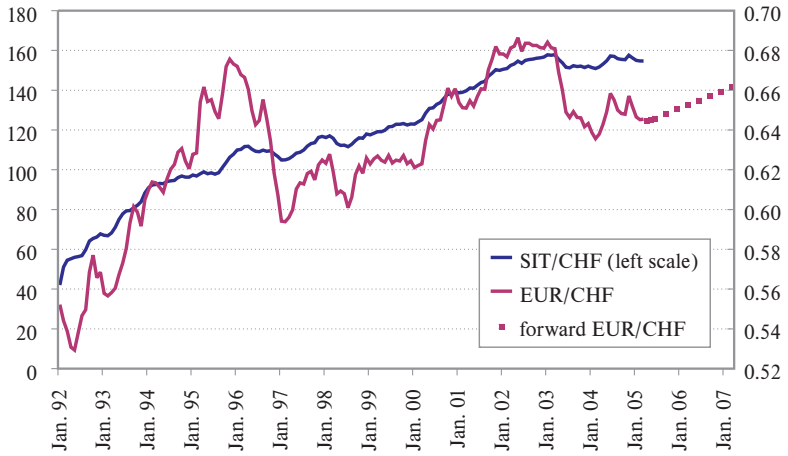
Note: The size of the sphere represents the ratio of assets items with a foreign currency clause to assets items in foreign currency.
Source: Bank of Slovenia

As was to be expected, the euro is the foreign currency showing the greatest increase. The importance of the dollar has declined, falling by over 4 percentage points in two years between 2002 and 2004. Although the proportion of other foreign currencies is small, their importance is increasing, especially on the assets side. This is even more pronounced with the foreign currency clause.

The importance of the foreign currency clause varies from bank to bank. At some large banks the proportion of the foreign currency clause is negligible, especially on the liabilities side, where it amounts to less than 2% of all the items in foreign currency and with a foreign currency clause. Exactly the opposite is true of foreign banks, where for most small banks under foreign ownership the volume of assets items with a foreign currency clause exceeds the volume in foreign currency. In the banking sector overall, the ratio of items with a foreign currency clause to items in foreign currency was 17.6% on the assets side and 14.5% on the liabilities side in 2004. These proportions fell somewhat in the first months of this year.

The importance of the euro for the currency clause is even greater, but recently there has been a significant increase in the foreign currency clause tied to the Swiss franc. While in 2003 the proportion of the Swiss franc was negligible, in 2004 it accounted for over 3% of the total amount of balance sheet items with a foreign currency clause, and in the first two months of this year it rose by another 2.1 percentage points on the assets side and by 3 percentage points on the liabilities side. For banks foreign currency clauses tied to the Swiss franc constitute a very small proportion of their total assets, with all banks at more or less the same level, but for bank customers exposure to exchange rate risk may be quite great, especially considering that the Swiss franc is currently at relatively low levels and can be expected to appreciate given the rates in forward contracts.

Figure 5.48: Swiss franc against tolar and euro, including forward rate



Source: Bank of Slovenia, Bloomberg

Macro stress tests for the Slovenian banking system

Table 5.24: Shocks in the baseline scenario

Risk factor	Shock – change in baseline scenario	Period of shock	Post-shock
1) Real GDP	growth down 2.5 percentage points	Q3/04-Q2/05	trend followed
2) Interest rates	tolar interest rates up 4 percentage points, foreign foreing interest rates 2 percentage points	Q3/04-Q2/05	return to pre-shock level
3) Interest margin	margin down 1 percentage point	Q3/04-Q2/05	return to pre-shock level
4) Tolar appreciation	exchange rate 5% lower	Q3/04	return to pre-shock level
5) Tolar depreciation	exchnage rate 5% higher	Q3/04	return to pre-shock level

The results of the simulated shocks, as seen in changes in pre-tax profit, return on equity, capital adequacy and growth in loans and deposits, confirm the relative stability of the Slovenian banking system. However, the moderate consequences of the simulated shocks are also a reflection of the methodological approach and the fact that the largest changes in the risk factors in the last ten years have not caused any deep systemic instabilities.

It is clear from the responses to various shocks that a change in the interest margin by one percentage point has the greatest effect on the performance of banks. The cumulative drop in profit due to a drop in the interest margin by one percentage point in the period of four quarters is practically equal to the one-year profits of the banking sector. Also very strong is the response of profit to a change in the interest rate, where, compared to the scenario involving a change in the interest margin, the effect on the lending and deposit activity of banks is also taken into account. A drop in economic growth and a change in the exchange rate* cause comparatively small changes in profit with regard to the baseline scenario. In the case of the lasting shock of a change in the exchange rate level, the effects of appreciation or depreciation have a size range similar to that of the effect of the shock of a change in interest rates. In the case of a long open foreign-exchange position (including balance-sheet and off-balance-sheet), tolar appreciation due to exchange rate differences reduces profit, return on equity and capital adequacy, while tolar depreciation has the opposite - positive - effect on profit, return on equity and capital adequacy.

In all the scenarios it can be seen that the response of non-bank customers is stronger on the deposit side than on the lending side. Capital adequacy responds most strongly to a decline in the interest margin, with the effect intensifying throughout the period. Even after the shock is over, that is after the interest margin returns to its previous level, the deviation from the baseline scenario only diminishes slowly. The effect of higher interest rates is also significant, and opposite to that of a decline in the interest margin. With higher profits and somewhat lower lending, capital adequacy increases. The consequences of a change in the exchange rate and GDP growth are less comprehensive, and dissipate relatively quickly.

Table 5.25: Effect of individual shocks on changes in certain bank financial categories measured by changes with regard to baseline scenario

Year 2004

Shock	Profit		ROE	Capital adequacy	Growth in non-bank lending	Lending/ TA	Growth in non-bank deposits	Deposits/ TA	Growth in TA
	SIT billions	%							
1: Real GDP	0.0	0.0	0.0	0.01	-0.1	0.0	-0.1	0.0	-0.1
2: Change in interest rates	6.6	14.5	1.6	0.06	-0.1	-0.1	0.3	0.1	0.2
3: Fall in interest margin	-25.0	-45.2	-5.8	-0.14	-	-	-	-	-
4: Tolar appreciation	-0.4	-0.9	-0.1	0.02	-0.1	0.0	-0.1	0.0	-0.1
5: Tolar depreciation	-0.8	-1.7	-0.2	-0.01	0.0	0.0	0.1	0.1	0.0

Year 2005

Shock	Profit		ROE	Capital adequacy	Growth in non-bank lending	Lending/ TA	Growth in non-bank deposits	Deposits/ TA	Growth in TA
	SIT billions	%							
1: Real GDP	-1.0	-1.8	-0.2	0.01	-0.2	0.6	-2.0	-0.5	-1.3
2: Change in interest rates	7.5	13.6	1.5	0.20	-0.1	-0.5	1.1	0.3	0.7
3: Fall in interest margin	-26.3	-47.7	-5.4	-0.60	-	-	-	-	-
4: Tolar appreciation	-0.3	-0.5	-0.1	0.02	-0.2	0.0	-0.4	-0.1	-0.3
5: Tolar depreciation	0.0	0.0	0.0	-0.01	0.0	0.0	0.2	0.2	0.0

Note: TA - total assets.

As the estimated effect of higher interest rates in the integrated approach (stress tests) in contrast to expectation has the opposite sign, because the term structure of (assets and liability) interest rates has not been taken into consideration, the interest rate risk was also assessed with the piecewise approach. The direct effect on the change in net interest income and on bank profits was observed if the foreign interest rate was raised by one percentage point without changing the domestic interest rate, if the domestic interest rate was raised by one percentage point while keeping the foreign interest rate unchanged, and if, at the same time, both the foreign and domestic interest rates were raised by one percentage point each.

When taking into account the maturity structure of assets and liabilities in the piecewise approach, net interest income decrease. The difference in the estimated effects of interest risk between the piecewise approach and the

integrated approach appeared because with the stress tests a simplified model was used that does not take into account the maturity structure of assets and liabilities but only the cumulative effect resulting from the fact that the interest-earning assets are higher than the interest-earning liabilities.

The conclusion resulting from the conducted stress tests is that banks are mainly exposed to interest rate risk, while exchange rate risk and the risk of lower economic growth are less important for banks. However, the lasting shock of a change in the exchange rate would also make exchange rate risk important for banks.

In the second part comprising stress tests using a piecewise approach, there was a focus on the assessment of credit risk via the observation of changes in the quality structure of banks' portfolios. The response to the shocks of a financial stability indicator (the proportion of bad loans) was assessed.

Comparing the actual structure of the credit portfolio with the estimates in the model, it can be seen that the model predicts a larger proportion of bad loans than there actually are according to the estimates of the banks themselves. It seems that banks aim to gain or retain the largest possible market share, giving insufficient consideration to risks and underestimating the proportion of uncollectible claims. In addition, when giving businesses credit ratings they only consider the current situation, while the model also allows for a time component, its assessments being based on historical data. It can therefore be concluded that when arranging new lending transactions banks systematically grant higher credit ratings to businesses. So a snapshot of the credit risk situation shows lower risks than expected.

* The exchange rate level was changed for only one quarter and was returned to the level before the shock in the next quarter.

5.8 Interest Rate Risk

Until 2002 interest rate risk was not a significant risk for banks as for most of their assets and liabilities interest rates changed in accordance with trends in the general indexation factor (TOM). The abandoning of indexation, the changing structure of assets and liabilities regarding the interest rate used, and the increase in the gap between the average maturity of assets and that of liabilities has resulted in a rapid increase in bank exposure to interest rate risk.

Interest rate types

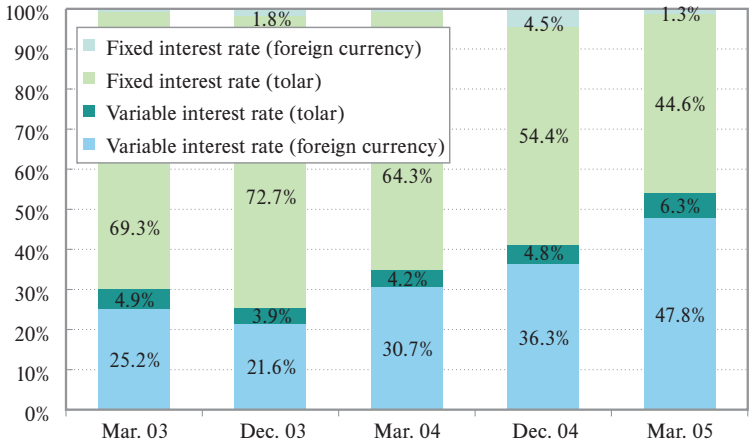
The flight of deposits from the banking sector and the consequent increase in borrowing by banks abroad at a variable interest rate forces banks to tie more and more issued loans to variable interest rates. The rising trend in the proportion of new loans tied to variable interest rates has been present since the end of 2003, appearing with particular intensity in the first months of this year, at the end of which the eight largest banks had already approved more new loans with a variable than with a fixed interest rate. The most frequently used reference interest rate is the 6-month EURIBOR, followed by the 1-month and 3-month EURIBORS. Over 80% of new loans with a variable interest rate are tied to these reference interest rates. They are followed by the most frequently used domestic reference interest rates – NLB Prime and SIOM.[58] Nearly all new foreign currency loans are approved with a variable interest rate, while only 15% of tolar loans have a variable interest rate, not counting those loans with the TOM indexation clause.

In 2002, when indexation for short-term deals was abandoned, the proportion of tolar loans and deposits tied to TOM started falling rapidly, the proportion of loans and deposits with a nominal interest rate increasing. Nonetheless the proportion of tolar loans tied to TOM (42.1% at the end of 2004) remains much higher than the proportion of deposits (19.3% at the end of 2004). The same is true of the foreign currency clause, for which the proportion of loans in 2004 stood at 16.7% and the proportion

[58] NLB Prime is NLB's interest rate for its best customers, and SIOM the interest rate of SKB bank calculated on the basis of the 3-month EURIBOR and the central bank swap rate.

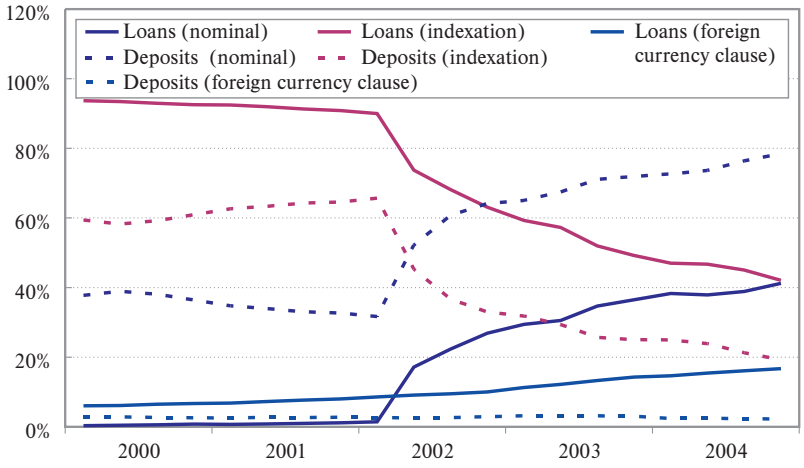
of deposits at 2.2%. This should mainly be attributed to the fact that the proportion of long-term loans is higher than the proportion of long-term deposits, which, in aggregate, makes it possible to adjust deposits faster than loans to new types of interest rates. This means that the proportion of tolar loans tied to nominal interest rates is much lower (41.2%) than the proportion of deposits (78.5%). Within the latter deposit structure there has been a particularly accelerated increase over the past year in the proportion of demand deposits and deposits of up to 30 days, the proportion of which in the structure of tolar deposits increased by 7.8 percentage points in 2004 to 43.4%.

Figure 5.49: Interest rate type for new loans by eight largest banks



Source: Bank of Slovenia

Figure 5.50: Structure of tolar lending and deposits by type of interest



Source: Bank of Slovenia

Exposure to interest rate risk

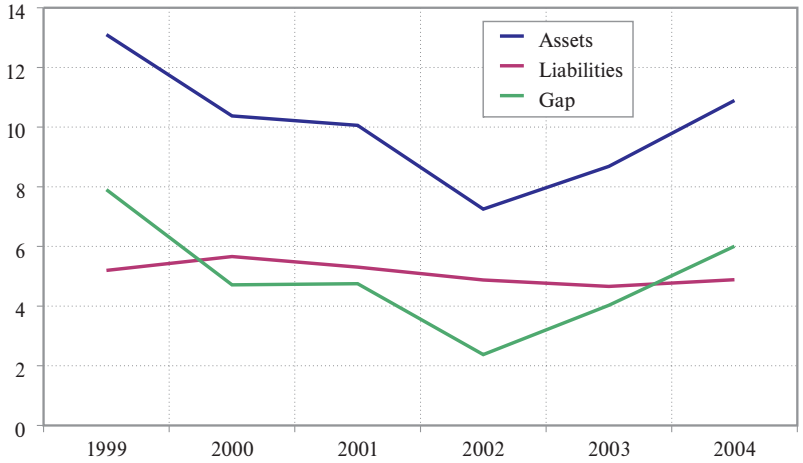
In addition to the use of different types of interest rates on the assets side and the liabilities side of the balance sheet, another two important sources of interest risk at banks may be defined.

One is the difference in level between interest-bearing assets and liabilities. Average interest-bearing assets in 2004 stood at SIT 5,062 billion, while average interest-bearing liabilities stood at SIT 4,651 billion. Compared to 2003, average interest-bearing assets rose by 12.1%, while liabilities rose by 0.4 percentage points less. The difference between average interest-bearing assets and liabilities in 2004 stood at SIT 411 billion, a rise of SIT 61 billion from the previous year. A lasting rise in the level

of interest rates by 1 percentage point would thus be reflected in a rise in net interest income of approximately SIT 4 billion.

Another source of interest rate risk is the gap between the average maturity of assets and liabilities. A simplified calculation of the average period of change in interest rates for the banking system shows that in 2004 the average period for a change in assets interest rates was extended by 2.2 months, from 8.7 to 10.9 months. The average period for a change in liabilities interest rates was extended by only 0.2 months, from 4.7 to 4.9 months, over the same period. The gap extended from 4 to 6 months.

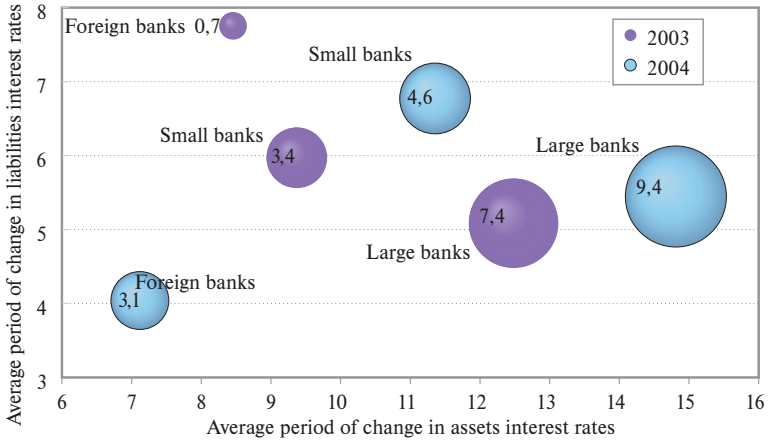
Figure 5.51: Average period for change in interest rates (months)



Source: Bank of Slovenia

Most banks, with the exception of just two small banks, have a longer average period for changing interest rates on the assets side than on the liabilities side. Moreover, for most banks the average period for changing interest rates extended on both the assets and liabilities sides in 2004.[59] For some foreign banks the gap between the average period for changing interest rates between the assets and liabilities sides increased considerably.

Figure 5.52: Average period for changing assets and liabilities interest rates by groups of banks



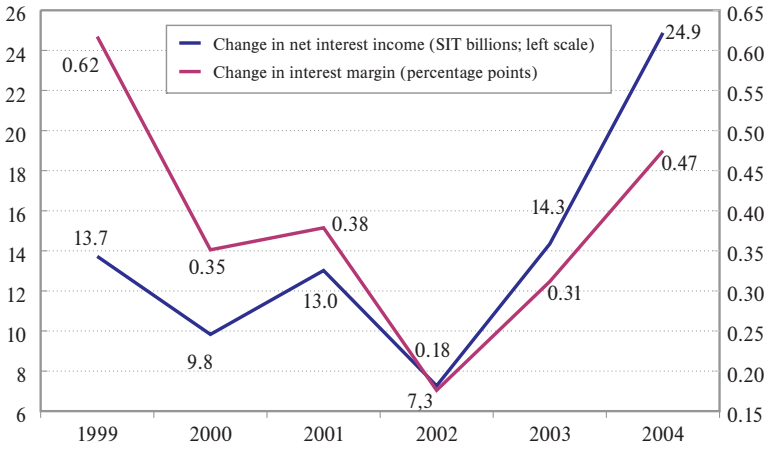
Note: The size of the sphere represents the difference in average maturity between assets and liabilities in the group - the ordinary bank average.
Source: Bank of Slovenia

[59] On the assets side this is not true of three banks, while there are six such banks on the liabilities side. Most of these are small banks, irrespective of ownership.

Taking into account the average period for changing interest rates at the end of 2004, the banking sector is more exposed to a rise in interest rates in the short term. With a one-year rise in interest rates by 1 percentage point,[60] net interest income in one year would fall by nearly SIT 25 billion and the net interest margin by 0.47 percentage points, other conditions remaining the same.

Taking into account the simplified calculation of the average period of change in interest rates for the banking system, the exposure of banks to interest rate risk therefore increased, as in 2003, given the same rise in interest rates of 1 one percentage point, the interest margin would have fallen by only 0.31 percentage points, and net interest income by 10% instead of 17% as in 2004.

Figure 5.53: Change in net interest income and interest margin given 1% change in interest rates[61] – fall (rise) in interest rates yields rise (fall) in interest margin and net interest income



Source: Bank of Slovenia

5.9 Institutional Changes

Slovenian banks are currently undergoing a period of major institutional change. There have already been significant changes in tax legislation this year. The abolition of tax on banks balance sheet will reduce the effective tax rate, but the position of banks will not significantly improve owing to the introduction of withholding tax for interest paid abroad to unrelated parties. This tax puts banks under domestic ownership at a competitive disadvantage and hinders the development of the interbank market and the bond market. In addition the Personal Income Tax Act, which also introduces the taxation of bank interest for private individuals and additionally encourages the flight of deposits into alternative investments, has been amended. Another important change is the introduction of the international financial reporting standards (IFRS), which introduce valuation at fair value, at repayment value for credit claims, and gives rise to greater changes in creating provisions for credit risks. Mandatory reporting in accordance with the IFRS will apply to banks as of 2006. Meanwhile banks are making preparations for the introduction of Basel 2 and for the adoption of the euro in 2007.

The importance of foreign bank branches to financial stability is particularly on the increase in small EU member-states, although this is not yet a major issue for the Slovenian banking system given to the decline in the number of foreign branches. The branch issue is also manifested in the area of guarantee schemes for deposits, where the arbitrary behaviour of banks can have a considerable effect on financial

[60] Interest rates rise by 1 percentage point and return to the previous level after a period of one year.
[61] Interest rates rise by 1 percentage point and return to the previous level after a period of one year.

stability. If entering and leaving a scheme entails no costs, foreign banks are encouraged to include their branches in the schemes of countries that act on the principle of ex post guarantee schemes, which reduces their costs. A branch leaves a scheme if one of the banks in the host country anticipates difficulties. One of the reasons, in addition to different national tax systems, for foreign banks not to convert their subsidiary banks en masse branch status in other countries is that under the majority ex ante principle of financing guarantee schemes the contributions the bank has already paid into the guarantee scheme would remain in the host country.

A branch and its operations may be comparatively unimportant to the home regulator of the parent bank, and all the more so if the parent bank is a small bank in its home environment. The regulators may not then pay much attention to it, yet the branch may nevertheless be of systemic importance in a small country. Slovenia's entry into the EU also introduced the rule of the single passport to the Slovenian banking system, which means that foreign bank branches become the responsibility of regulators in their home country, while the host country regulator has only limited supervisory powers, despite the fact that it has to ensure the financial stability of the system in which those branches operate.

6 NON-MONETARY FINANCIAL INSTITUTIONS

6.1 Insurance companies

6.1.1 Features

Insurance companies performed relatively well in 2004. The collected premium reached almost SIT 320 billion, up 12% from the previous year, while technical provisions reached almost SIT 465 billion, keeping the coverage by investments of assets covering technical provisions at the level recorded in 2003 at 111%. At 0.64 the claims ratio also remained at the level recorded in the previous year. As at May 2005 there were 15 insurance companies and two reinsurance companies operating in Slovenia.[62]

The market share of the largest insurance companies in terms of the collected premium increased slightly in 2004 to 43%. The market share of the largest reinsurance company in terms of the collected premium also increased to almost 60%. The largest insurance companies has a 41% share of the non-life insurance market, a 51% share of the life insurance market and an 81% share of the health insurance market. The high concentration in certain types of insurance indicates the comparatively low level of competitiveness.

Table 6.1: Insurance companies' collected premium: amount, structure and annual growth

	2000	2001	2002	2003	2004
Premium (SIT billions)	191	223	255	285	318
Annual growth in premium	13%	17%	15%	12%	12%
Structure of premium					
Life	18%	19%	20%	21%	23%
Health	26%	26%	26%	24%	22%
Non-life	55%	55%	55%	55%	55%
Annual growth					
Life	21%	27%	19%	13%	24%
Health	12%	16%	13%	6%	-1%
Non-life	10%	16%	14%	12%	12%

Source: Insurance Supervision Agency

Of the different the types of insurance, in 2004 insurance companies had most difficulties with health insurance. Collected premiums were down 1%, and the claims ratio for voluntary health insurance fell from 0.83 in 2003 to 0.87 in 2004. There are two specialist health insurers in Slovenia, their market share in terms of total assets standing at just over 6% at the end of 2004, while two other insurance companies had created assets covering mathematical provisions for health insurance by the end of 2004.

In contrast to health insurance, in 2004 the collected premium for life insurance rose by almost one-quarter from the previous year, and life insurance premiums now account for the largest proportion of the total collected premium (23%), followed by the collected premium for voluntary health insurance and the premium for motor-vehicle liability insurance. In 2004 the total collected premium as a proportion

[62] In March 2004 the Austrian insurance company Arag was the first insurance company in Slovenia to specialise in the insurance of legal protection. At the beginning of last year Slovenica was divided into Slovenico, a non-life insurance house, and Slovenico življenje, a life insurance company. The beginning of the year also saw the establishment of SID – prva kreditna zavarovalnica as a subsidiary of the Slovene Export Corporation to which the commercial export credits were transferred.

of disposable household income exceeded 11%, while the collected premium per capita increased to almost SIT 160,000.

Table 6.2: Total collected premium and life insurance collected premium as various economic categories

	2000	2001	2002	2003	2004
Total premium (SIT billions)	190.7	222.5	255.5	285.4	318.3
per capita (SIT thousands)	95.8	111.7	128.0	142.9	159.4
as proportion of GDP	4.5%	4.7%	4.8%	5.0%	5.1%
as proportion of disposable income	9.7%	10.2%	10.6%	10.9%	11.1%
Life insurance premium (SIT billions)	35.2	44.5	52.9	59.9	74.2
per capita (SIT thousands)	17.7	22.3	26.5	30.0	37.2
as proportion of total premium	18.4%	20.0%	20.7%	21.0%	23.3%
as proportion of GDP	0.8%	0.9%	1.0%	1.0%	1.2%

Source: Insurance Supervision Agency, Statistical Office of the Republic of Slovenia

Comparison of Slovenian insurance companies' collected premium with collected premium in other European countries

Slovenian insurance companies' total collected premium was equivalent to 5% of GDP in 2003, 3.4 percentage points less than the GDP equivalent of total collected premium in the EU-25. The UK and Switzerland have a collected premium equivalent to more than 10% of GDP. All the countries of the EU-15 except Luxembourg and Greece have a higher GDP equivalent for collected premium, while in those two and all the new members the figure is lower than in Slovenia. The figures show that awareness of the significance of insurance products in Slovenia is comparatively good compared with the other countries that joined the European Union in May 2004.

Table 6.3: Total collected premium and life insurance collected premium as various economic categories in selected European countries

	Slovenia	EU-15	EU-25	Czech Republic	Greece	Portugal	Germany	Francija	UK
Total premium (SIT billions)	285	192,825	196,242	769	760	2,239	35,377	33,900	51,102
per capita (SIT thousands)	142.9	494.0	420.4	75.3	71.0	223.6	424.8	558.9	840.6
as proportion of GDP	5.0%	8.6%	8.4%	4.5%	2.1%	7.3%	7.0%	9.2%	13.4%
Life insurance premium (SIT billions)	60	112,242	113,497	295	337	1,268	15,893	21,837	32,070
per capita (SIT thousands)	30.0	292.1	246.9	28.9	31.5	126.6	192.7	366.2	542.0
as proportion of total premium	21.0%	58.2%	57.8%	38.3%	44.4%	56.6%	44.9%	64.4%	62.8%
as proportion of GDP	1.1%	5.1%	4.9%	1.7%	0.9%	4.1%	3.2%	6.0%	8.6%

Source: Insurance Supervision Agency; Swiss Re, Sigma: World insurance in 2003, No. 3/2004

In Slovenia life insurance accounted for a relatively low proportion of the total collected premium in comparison with other European countries. While life insurance accounted for almost 58% of the total collected premium in 2003 in the EU-25, the figure was only 21% for Slovenia. Slovenia still has great potential with regard to life insurance, which has also been reflected in the growth in life insurance premiums in the last few years. Life insurance collected premium was equivalent to 1.1% of GDP in Slovenia in 2003, less than in some of the countries that joined the European Union in May 2004, such as the Czech Republic (1.7%) and Slovakia (1.4%).

Life insurance and contractual links between insurance companies and banks

Life insurance is growing in importance on the domestic insurance market. Total assets in life insurance accounted for 42% of insurance companies' total assets. In the life insurance sector, life insurance linked to investment fund coupons, i.e. life insurance with an investment risk, has grown in importance in the last year. The collected premium from this insurance accounted for 18% of the total life insurance collected premium in 2004, growth of more than 180% from the previous year. The slowdown in annual growth in stock exchange indices in the first half of the year and the related fall in returns on mutual funds could lead to a downturn in interest in this form of insurance.

Life insurance with investment risk encouraged contractual links between insurance companies and banks, and also investment fund management companies. By May 2005 there were 11 banks that were licensed to broker the sale of insurance policies. The nine banks that actually provided these services in 2004 concluded insurance policies in the amount of SIT 5.2 billion, which is more than double the amount in 2003, when there were six such banks. In so doing banks generated commissions in the amount of almost SIT 274 million in 2004, equivalent to 3% of all bank fees and commissions received in 2004 and 31% of commissions received from brokerage transactions.

Table 6.4: Collected premium and number of policyholders for insurance companies' life insurance

	2002	2003	2004	2002	2003	2004
Life insurance overall				Annual growth		
premium (SIT millions)	52,917	59,871	74,230	-	13.1%	24.0%
number of insured persons	650,954	739,003	852,955	-	13.5%	15.4%
Life insurance linked to investment fund coupons				As proportion of life insurance		
premium (SIT millions)	251	4,782	13,576	0.5%	8.0%	18.3%
number of insured persons	6,393	40,264	96,313	1.0%	5.4%	11.3%
Voluntary supplementary pension insurance						
premium (SIT millions)	2,965	3,544	3,533	5.6%	5.9%	4.8%
number of insured persons	37,745	45,801	37,455	5.8%	6.2%	4.4%

Source: Insurance Supervision Agency

Financial statements and capital adequacy of insurance companies

The total assets of insurance companies increased by 17% to SIT 613 billion in 2004. The total assets in life insurance in particular grew strongly, up 24%, over the year. The total assets of reinsurance companies grew 11% in 2004 to just under SIT 74 billion.

The net profit of insurance companies has been decreasing since 2002. Insurance companies declared a net profit of SIT 3.3 billion in 2004, down SIT 2.7 billion from the previous year. A loss of slightly more than SIT 3.1 billion was reported by five insurance companies with a market share of 10% in terms of total assets. The main factors in the deterioration in the operating result in 2004 were the negative result in the health insurance sector and weaker profits in life insurance. Revenues from investments, mainly profits from the disinvestments, increased by 4% in 2004 to SIT 21 billion, while investment expenses, mainly from interest and other investments, decreased by SIT 1.5 billion to SIT 4.1 billion. The reinsurance companies declared a net profit of SIT 2.2 billion in 2004, down SIT 1 million from 2003.

In 2004 insurance companies improved their capital adequacy as measured by the surplus of the available capital above the required minimum by SIT 3 billion, reporting a surplus in the amount of

SIT 23.3 billion. The reinsurance companies also improved their capital adequacy by SIT 0.6 billion at the end of 2004, reaching a surplus in the amount of SIT 7.6 billion.

Table 6.5: Total assets, calculation of result and capital adequacy of insurance companies

	SIT billions			Annual growth	
	2002	2003	2004	2003	2004
	Insurance companies				
Total assets	440.9	525.5	613.4	19%	17%
Non-life	266.9	309.9	346.0	16%	12%
Life	174.0	215.5	267.4	24%	24%
Profit and loss account					
Profit and loss from non-life insurance, excluding health	4.5	3.5	4.3	-24%	24%
Profit and loss from health insurance	3.7	2.1	-2.1	-45%	-204%
Profit and loss from life insurance	3.5	3.3	2.8	-5%	-17%
Investment income	21.4	20.3	21.1	-5%	4%
Investment expenses	3.4	5.7	4.1	70%	-29%
Net profit	8.5	5.0	3.3	-41%	-34%
Capital adequacy					
Required minimum capital	34.2	38.5	43.6	12%	13%
Surplus	11.5	20.3	23.3	77%	14%
	Reinsurance companies				
Total assets	60.6	66.4	73.8	10%	11%
Net profit	1.6	2.3	2.2	42%	-6%
Capital adequacy					
Required minimum capital	3.3	4.1	4.4	24%	7%
Surplus	8.2	7.0	7.6	-15%	9%

Source: Insurance Supervision Agency

6.1.2 Stability of Insurance Sector

Underwriting risk

Insurers are managing underwriting risk relatively well. In 2004 the overall claims ratio of 0.64 remained at the same level as in 2003. While the claims ratio for life insurance improved, the claims ratios for health insurance and other non-life insurance declined slightly. The health insurance sector is having difficulties with rising treatment costs and demographic changes. Other non-life insurance sectors that had problems with the claims ratio in 2004 were motor-vehicle liability insurance and land motor-vehicle insurance,[63] which account for more than 30% of the total collected premium.

The decline in the claims ratio for compulsory car insurance, which is provided by six insurance companies, is the result of growth in car prices and repair costs, and the higher demands from the Health Insurance Institute for covering the costs of treating people injured in road accidents (the amount requested in 2005 is SIT 4 billion, up more than SIT 0.5 billion from last year). The latest amendments to the compulsory motor third-party liability act at the beginning of this year brought a rise in the minimum insurance sums for motor liability insurance to bring it into line with the new European car insurance directive. With car insurance claims increasing and the claims ratio thus declining, it is likely that insurance companies will not long be able to avoid raising car insurance premiums.

[63] Compulsory car insurance and land motor vehicle casco.

Table 6.6: Claims ratios of more important types of insurance (ratio of claims paid out to premiums paid in)

Type of insurance	2001	2002	2003	2004
Overall	0.64	0.63	0.64	0.64
Life insurance	0.31	0.38	0.42	0.36
Voluntary health insurance	0.83	0.81	0.83	0.87
Non-life insurance excluding health	0.66	0.62	0.64	0.67
Motor-vehicle liability insurance	0.62	0.57	0.57	0.64
Land motor-vehicle insurance	0.85	0.80	0.80	0.83
Accident insurance	0.62	0.62	0.61	0.62
Other damage to property insurance	0.73	0.65	0.64	0.72
Fire and natural disaster insurance	0.38	0.31	0.55	0.52
Credit insurance	0.94	1.03	0.85	0.66
Other non-life insurance	0.67	0.67	0.70	0.65

Source: Insurance Supervision Agency

Investment risks

Table 6.7: Coverage of technical provisions by assets covering technical provisions

	2000	2001	2002	2003	2004
Technical provisions (SIT billions)	226	286	342	399	465
Annual growth	-	27	20	17	16
Assets covering technical provisions (SIT billions)	198	252	334	443	515
Annual growth	-	27	33	33	16
Assets covering technical provisions / technical provisions	0.878	0.880	0.976	1.110	1.108
Assets covering technical provisions as proportion of GDP	4.7%	5.3%	6.3%	7.7%	8.3%
Mathematical provisions (SIT billions)	87	116	150	186	233
Annual growth	-	34%	29%	24%	25%
Assets covering mathematical provisions (SIT billions)	91	124	169	222	276
Annual growth	-	36%	36%	31%	24%
Assets covering mathematical provisions / mathematical provisions	1.048	1.066	1.125	1.191	1.187
Assets covering mathematical provisions as proportion of GDP	2.1%	2.6%	3.2%	3.9%	4.4%
Other technical provisions (SIT billions)	139	170	192	213	232
Annual growth	-	22%	13%	11%	9%
Assets covering technical provisions excluding assets covering mathematical provisions (SIT billions)	107	128	165	221	239
Annual growth	-	19%	29%	34%	8%
Assets covering technical provisions excluding assets covering mathematical provisions / other technical provisions	0.760	0.753	0.859	1.039	1.030
Assets covering technical provisions excluding assets covering mathematical provisions as proportion of GDP	2.5%	2.7%	3.1%	3.8%	3.9%

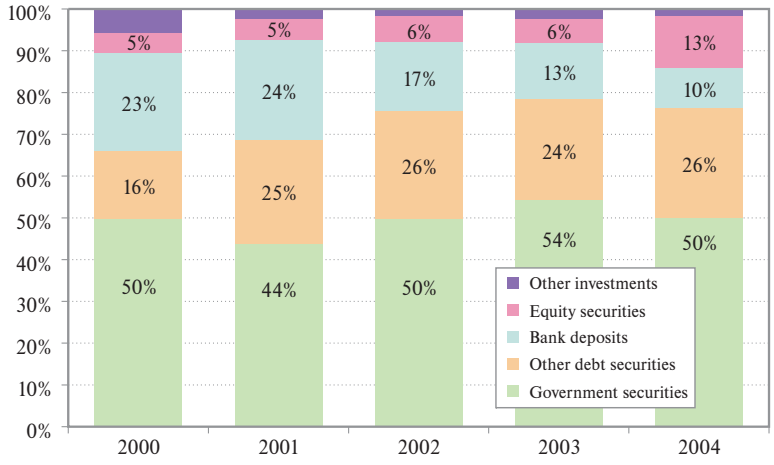
Source: Insurance Supervision Agency

At slightly above 1.1 the coverage of provisions by investments at the end of 2004 remained at almost the same level as at the end of the previous year, which from the point of view of investment risk indicates that the insurance sector is operating relatively securely. Although growth in assets covering technical provisions was slightly lower in 2004 than in the previous three years at 16%, insurance companies' investments reached SIT 515 billion, equivalent to 8.3% of GDP.

The rise in life insurance premiums is bringing an increase in the proportion of assets covering technical provisions accounted for by assets covering mathematical provisions, and the proportion of technical provisions accounted for by mathematical provisions. At the end of 2004 assets covering mathematical provisions accounted for almost 54% of insurance companies' assets covering technical provisions, up almost 8 percentage points from four years ago. The proportion of technical provisions accounted for by mathematical provisions also increased to over 50%, up almost 12 percentage points from four years ago. Coverage of mathematical provisions by investments was almost 119% at the end of 2004, which was slightly less than a year earlier, but still good. Coverage of other technical provisions by investments was also more than 100% at the end of 2004.

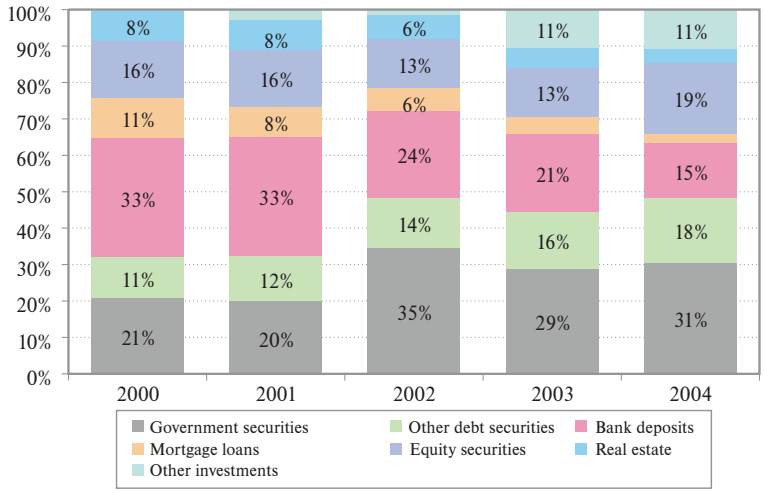
Growth in life insurance is the result of several factors, including new insurance products linked to mutual fund units, which were particularly attractive last year owing to the high returns on the domestic capital market, and conditions on the pension market, which required individuals to take out supplementary pension insurance.[64]

Figure 6.1: Structure of insurance companies' assets covering mathematical provisions



Source: Insurance Supervision Agency

Figure 6.2: Structure of insurance companies' assets covering technical provisions excluding assets covering mathematical provisions



Source: Insurance Supervision Agency

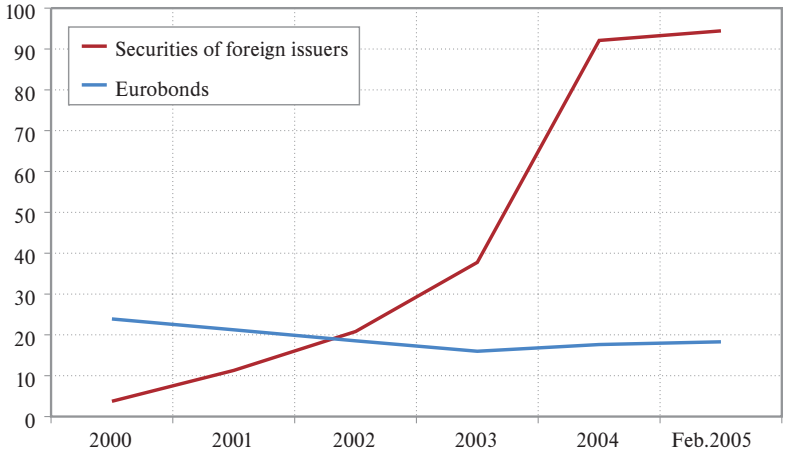
[64] Mutual funds' assets had reached SIT 210 billion by the end of 2004, while pension funds' assets stood at SIT 95 billion.

Given the need for security and the long-term nature of the product, the structure of life insurance investments is quite different from the structure of investments in other types of insurance. Government and other debt securities and bank deposits accounted for 86% of assets covering mathematical provisions, while at 64% this figure was significantly lower for other investments by insurance companies at the end of 2004. The proportion of insurance companies' overall investments held in bonds and deposits is quite high at more than three-quarters, but this ensures greater stability in respect of movements on the capital markets. The Slovenian stock market's discouraging performance at the beginning of 2005 could see insurance companies record worse results despite their relatively conservative investment policies. In 2004 insurance companies almost doubled their investments in shares with more than SIT 80 billion, and shares now account for 16% of total investments. Of this, just over SIT 13 billion was invested in mutual funds. Although shares of foreign issuers accounted for approximately 15% of insurance companies' investments in equity securities at the end of 2004, the proportion invested in the domestic capital market is still quite large.

When making life insurance investments, insurance companies must also attend to the currency position, and therefore more than 55% of assets covering mathematical provisions are in euros.

Given the small size of the domestic capital market and the scale of insurance companies' investments in the amount of SIT 515 billion, which represented 17% of total market capitalisation and 47% of market capitalisation in bonds at the end of 2004, it is vital for insurance companies to seek possibilities for capital investment abroad in order to diversify the risk. At the end of 2004 they held just over SIT 70 billion or 13% of their investments in foreign securities and a further SIT 15 billion in eurobonds.

Figure 6.3: Investments by insurance sector (including insurance companies and pension funds) in securities of foreign issuers and eurobonds (SIT billions)



Source: Bank of Slovenia (Financial Statistics)

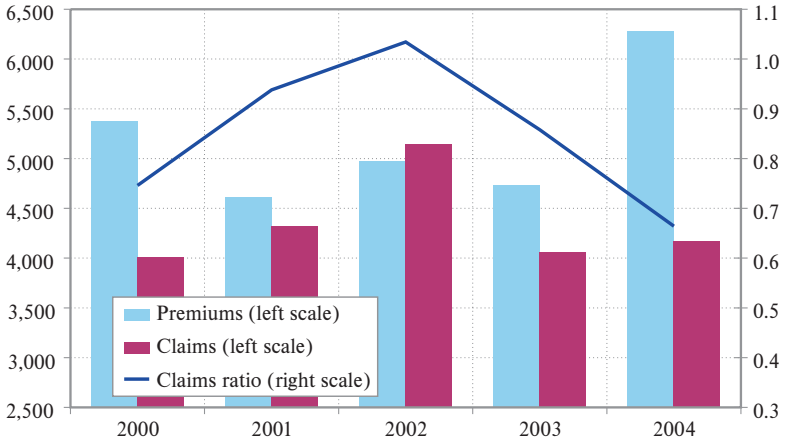
The insurance sector as a whole[65] held more than SIT 92 billion in securities of foreign issuers at the end of 2004. Of this, SIT 16 billion was held in shares. Most prevalent were shares of issuers from Luxembourg (26%), Croatia and Bosnia (24% each), while issuers from Austria and the Czech Republic also accounted for a significant proportion of 10%. When investing in bonds the insurance sector focuses on more stable western markets, with investments in German (22%), Dutch (16%) and Irish (11%) bonds prevalent. No other country accounted for more than 10% of the bonds. At the end of 2004 the insurance sector held almost SIT 18 billion in eurobonds.

[65] Includes insurance companies, reinsurance companies and pension funds.

6.1.3 Insurance Companies' Influence on Banking Sector Stability via Credit Insurance

At the end of 2004 banks had just over SIT 310 billion or almost 60% of household lending insured with insurance companies. The claims ratio for credit insurance, which accounts for 2% of insurance companies' total collected premium, improved significantly from the previous years to 0.66 in 2004, mainly as a result of high lending growth and the consequent rise in the amount of premiums paid in. However, given the high concentration of lending insured with a single insurance company (73%), bank credit insurance at insurance companies is a potential flashpoint of systemic financial risk that could be realised in worsened economic circumstances when lending activity is lower and there are longer delays in the repayment of loans.

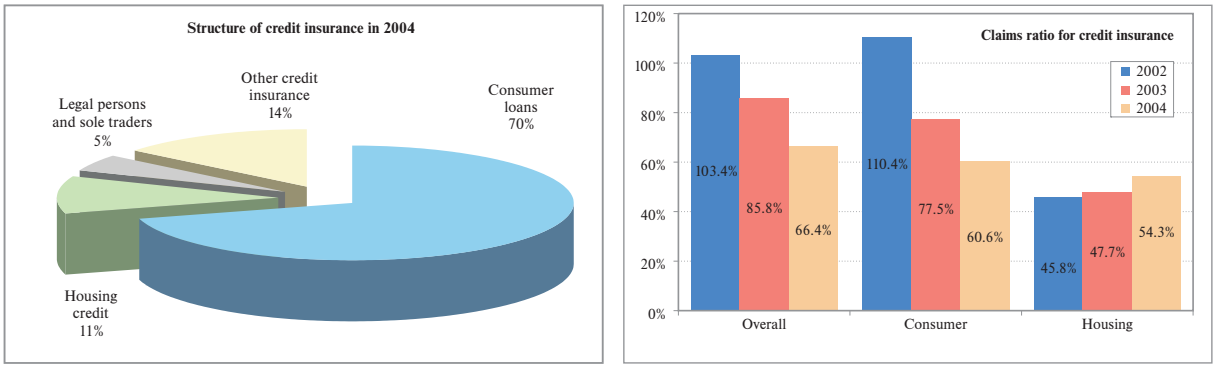
Figure 6.4: Collected premium, paid claims and claims ratio for credit insurance, excluding Slovene Export Corporation (SIT millions)



Source: Insurance Supervision Agency

Insurance of consumer lending accounts for the largest proportion of the collected premium for credit insurance (70%). The improvement in the claims ratio for consumer credit insurance from 0.78 to 0.61 was the main factor in the improvement in the claims ratio for credit insurance as a whole in 2004. A lower claims ratio for credit insurance tends to coincide with better credit ratings in general for bank customers.

Figure 6.5: Structure of collected premium for credit insurance in 2004, and claims ratio in last three years



Source: Insurance Supervision Agency

Although the claims ratio for credit insurance is improving on the whole, there has been a notable deterioration in the claims ratio for housing loan insurance in the last three years, having gone from

0.46 in 2002 to 0.54 in 2004. The deterioration in the claims ratio for housing loan insurance is a result of the worsening credit ratings of customers opting to take out housing loans, and their general ability to meet the obligations of the loan agreement.

6.2 Voluntary Supplementary Pension Insurance

The second pillar of the Slovenian pension system strengthened substantially in 2004 owing to the incorporation of public sector employees. The number of people covered by supplementary pension insurance almost doubled last year to account for more than one-half of the active working population at the end of 2004. More than SIT 95 billion of assets had been mobilised by the end of 2004, almost twice as much as at the end of 2003. There was a similar situation with the collected premium, which reached almost SIT 43 billion in 2004. Given the nature of pension insurance, where policyholders make regular monthly payments, pension funds' assets can be expected to strengthen further in the years ahead. However the high growth in the number of policyholders recorded in the last three years cannot be expected to continue.

Table 6.8: Selected indicators for compulsory and voluntary supplementary pension insurance

					Annual growth			
	2001	2002	2003	2004	2001	2002	2003	2004
Compulsory pension insurance								
Average number of PDII policyholders	814,170	812,998	811,049	812,995	0.9%	-0.1%	-0.2%	0.2%
Average number of pensioners[1)]	492,485	509,083	517,751	523,854	2.1%	3.4%	1.7%	1.2%
Ratio	1.65	1.60	1.57	1.55	-1.2%	-3.4%	-1.9%	-0.9%
Net average wage (SIT)	134,822	147,938	159,051	168,175	11.7%	9.7%	7.5%	5.7%
Average pension (SIT)[2)]	89,363	97,542	102,524	107,140	8.7%	9.2%	5.1%	4.5%
Ratio	66.3%	65.9%	64.5%	63.7%	-2.7%	-0.5%	-2.2%	-1.2%
Average age of new pension recipient	57.2	57.7	57.7	58.6	0.0%	0.9%	0.0%	1.6%
men	59.3	59.9	59.9	60.6	0.0%	1.1%	0.0%	1.1%
women	55.4	55.5	55.7	56.6	0.0%	0.2%	0.3%	1.6%
Voluntary supplementary pension insurance								
Number of voluntary supplementary pension insurance policyholders	81,895	173,089	212,060	404,885	-	111%	23%	91%
Active working population	779,041	783,499	777,247	782,206	1.4%	0.6%	-0.8%	0.6%
Ratio	11%	22%	27%	52%	-	110%	24%	90%
Assets (SIT millions)	6,000	23,722	48,904	95,442	-	295%	106%	95%
Assets as proportion of GDP	0.13%	0.45%	0.85%	1.54%	-	254%	91%	81%
Collected premium (SIT millions)	5,289	12,372	22,487	42,810	-	134%	82%	90%

Notes: [1)] Includes recipients of any type of pension: old-age, disability, family, widow's, military, farmer's and state.
[2)] Includes old-age, disability, family and widow's pensions, minus tax prepayment.
Source: Pension and Disability Insurance Institute, Insurance Supervision Agency, Securities Market Agency, Statistical Office of the Republic of Slovenia

The trend in compulsory pension insurance shows that younger generations cannot rely solely on the state pension. The ratio of depositors into the state pension treasury and recipients of the state pension fell from 1.65 in 2001 to 1.55 in 2004. The ratio of the average pension to average net wages is also decreasing, moving from 66.3% in 2001 to 63.7% in 2004. The rise in the average age of new recipients of pensions is increasingly evident. All of these are consequences of demographic changes and reforms, which are also having a significant impact on the health insurance market.

Table 6.9: Number of policyholders, collected premium and assets by voluntary supplementary pension insurance provider

	2001	2002	2003	2004
Number of policyholders	81,895	173,089	212,060	404,885
Structure				
Mutual pension funds	19%	18%	17%	51%
Insurance companies	25%	22%	22%	10%
Pension companies	55%	60%	62%	40%
Collected premium (SIT millions)	5,289	12,372	22,487	42,810
Structure				
Mutual pension funds	0%	0%	24%	52%
Insurance companies	37%	24%	16%	8%
Pension companies	63%	76%	60%	40%
Assets (SIT millions)	6,000	23,722	48,904	95,442
Structure				
Mutual pension funds	19%	25%	25%	38%
Insurance companies	27%	20%	18%	13%
Pension companies	53%	55%	57%	49%

Source: Insurance Supervision Agency, Securities Market Agency

With the incorporation of public sector employees and the establishment of a closed-end mutual fund for public sector employees in this connection, mutual funds became particularly important to voluntary supplementary pension insurance providers in 2004 in terms of assets under management. They already manage more than 50% of long-term pension assets, and in 2004 they collected more than 50% of voluntary supplementary pension premiums. Each month the government pays the minimum premium of almost SIT 4,600 into the fund for each public sector employee. The premium increases in line with subsequent years in active work. The fund covers all public sector employees, of whom there are over 157,000, which is just under 40% of all policyholders covered by the second pillar of pensions.

Structure of investments by voluntary supplementary pension insurance providers, and comparison with structure of pension funds abroad

At just over SIT 95 billion, the total assets mobilised and invested within voluntary supplementary pension insurance were equivalent to 1.5% of GDP at the end of 2004. In other European countries this figure was significantly larger in 2002. While assets in pension funds were equivalent to 100% of GDP in the Netherlands and to 125% of GDP in Switzerland, countries such as the Czech Republic, Poland, Hungary and even France, Germany and Sweden had pension fund assets equivalent to between 3% and just over 5% of GDP. The eurozone average was just over 13% of GDP, which indicates that Slovenia is still far behind many other European countries in the development of supplementary pension insurance.

The investment structure of pension assets in western European countries is considerably more inclined towards risk than in eastern Europe. The majority hold more than 10% of their assets in shares and mutual fund coupons, while in Scandinavia the figure is close to 30%. The pension funds of the UK and the USA hold more than one-half of their assets in shares. The pension funds of Slovakia and the Czech Republic are most similar to Slovenian pension funds in holding 7% of their investments in shares.

Table 6.10: Pension fund assets and structure in selected European countries as at end of 2002

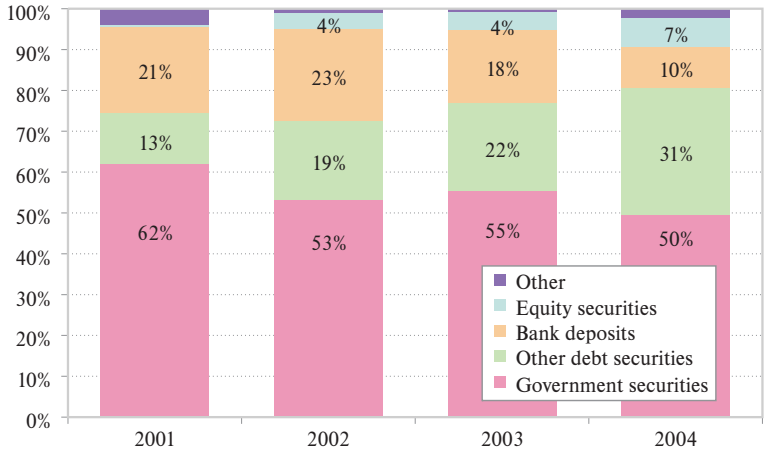
	Slovenia[1)]	Eurozone[2)]	Czech	Portugal	Germany	UK[3)]
Pension fund investments (SIT billions)	95	162,728	507	3,604	16,683	231,804
as proportion of GDP	1.5%	13.4%	3.3%	13.4%	3.8%	73.3%
as proportion of market capitalisation	3.1%	30.1%	22.3%	37.8%	11.0%	45.4%
Investment structure						
Cash and deposits	10%	-	15%	12%	2%	3%
Government bonds	50%	-	50%	25%	41%	15%
Other bonds	31%	-	-	24%	-	5%
Shares	7%	-	6%	17%	16%	54%
Mutual fund coupons	-	-	-	12%	8%	11%
Other	2%	-	29%	11%	32%	13%

Notes: [1)] Figures for the end of 2004.
[2)] Greece, Ireland and Luxembourg are not included in the eurozone figures.
[3)] Figures for the end of 2001.
Source: Insurance Supervision Agency, Securities Market Agency; OECD, Financial Market Trends, No. 88, March 2005

Like insurance companies, pension funds are also important potential players on the domestic capital market. However at the end of 2004 they still held 91% of their investments in government bonds, other bonds and bank deposits, which under the present conditions on the domestic capital market will protect them against short-term losses in capital gains, but will also restrict growth in the future. Pension funds in countries with well-developed capital markets hold a significantly larger proportion of their investments in equity securities. Another reason for the minor proportion of investments that Slovenian pension funds hold in shares lies in the regulations for calculating the minimum guaranteed return, which is linked to the return on government securities.

Given the small size of the domestic capital market, pension funds are increasingly opting to invest abroad. At the end of 2004 they held almost SIT 14 billion of foreign investments, which represents almost 15% of all their total assets. Of this, just over SIT 2 billion was held in shares of foreign issuers.

Figure 6.6: Structure of investments by pension funds



Source: Insurance Supervision Agency, Securities Market Agency

The current conservative investment structure maintained by pension funds investments is still primarily a consequence of the legally prescribed construct of the minimum guaranteed return, which ensures a minimum return for policyholders. With the decline in interest rates, the minimum guaranteed return

fell from 5.56% at the end of 2003 to 3.65% at the end of 2004, and to 2.39% in March 2005. At the end of 2004 all pension funds were exceeding the minimum guaranteed return, with their actual returns ranging from 5.40% to 10.41%.

6.3 Investment Funds

6.3.1 Features

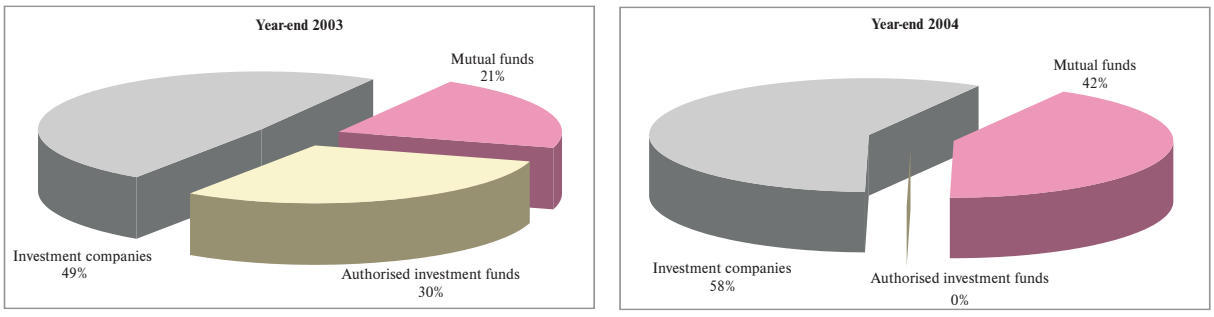
Investment funds' investments had reached SIT 500 billion by the end of 2004, equivalent to more than 8% of GDP. Owing to falling interest rates, in 2004 there was a clear trend of seeking alternative domestic and foreign investments. SIT 81 billion of fresh money flowed into mutual funds during the year, considerably more than in the previous four years together. In addition to the huge net inflow, another factor in the annual rise of 126% in mutual funds' assets was the high annual return on their investments (growth in unit value), which averaged more than 26% in 2004.

Table 6.11: Investment funds' assets and returns

	Mutual funds				Investment companies					Investment funds overall	
					Assets						
	Net inflows	Assets		Unit value	AFs		ICs		PIX	Assets	
	SIT billions	SIT billions	Annual growth	Annual growth	SIT billions	Annual growth	SIT billions	Annual growth	Annual growth	SIT billions	Annual growth
2000	1.2	11	22%	4%	574	-4%	-	-	3%	584	-
2001	1.8	15	37%	23%	548	-4%	-	-	4%	563	-4%
2002	29.3	55	277%	54%	324	-41%	138	-	72%	518	-8%
2003	25.7	93	68%	17%	132	-59%	214	55%	24%	439	-15%
2004	81.2	210	126%	18%	-	-	290	35%	39%	500	14%
2004Q1	17.5	131	120%	30%	34	-89%	256	89%	48%	388	-23%
2004Q2	22.5	156	153%	32%	27	-90%	259	71%	55%	414	-15%
2004Q3	21.4	189	159%	24%	7	-97%	286	51%	49%	475	-8%
2004Q4	19.8	210	126%	18%	-	-	290	35%	39%	500	14%

Source: Association of Management Companies, Vzajemci.com, Ljubljana Stock Exchange, Bank of Slovenia calculations

Figure 6.7: Structure of investment fund sector



Source: Association of Management Companies

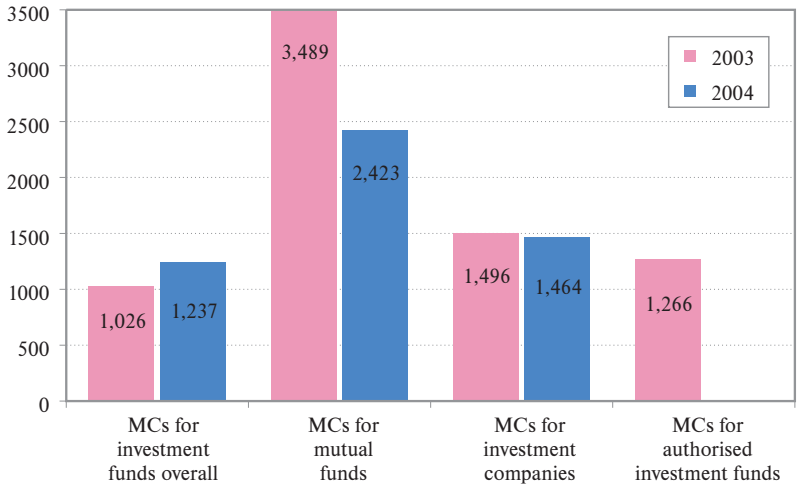
In 2004 there was increased trading in shares in investment companies, which thanks to being quoted at a discount and the likelihood of transformation were considered highly attractive investments. The turnover ratio for investment company shares stood at 0.25 in 2004, compared with 0.13 for other

shares. High demand for investment company shares in 2004 was reflected in the high average annual growth of 49% in the PIX, the index that measures returns on investment company shares.

The high growth in share prices on the capital market and high net inflows into mutual funds meant that last year was the first time since the major period of the transformation of privatisation funds that there was an increase in total investment fund assets, which rose by 14%. By the end of 2004 there were no more privatisation funds among the investment funds.[66] There were 44 investment funds on the market, with assets of SIT 500 billion, of which 33 were mutual funds with total assets of SIT 210 billion, and 11 were investment companies with assets of SIT 290 billion.

In 2004 there was fierce competition between fund managers on the investment funds market, which was reflected in a decline in market concentration in terms of the assets under management. A total of 13 new domestic mutual funds[67] arrived on the market. The decline in market concentration was most prominent among managers of mutual funds. Market concentration in terms of total investment fund assets under management rose slightly, which was the result of the final transformation of the privatisation funds.

Figure 6.8: Herfindahl-Hirschman index for management companies in terms of total assets under management, and type of investment fund



Source: Association of Management Companies

In addition to the stiff domestic competition on the mutual fund managers market, there is also increasing competition from abroad. In March 2005 there were 34 mutual funds of domestic managers and 18 mutual funds of foreign managers being marketed in Slovenia. Given the anticipated slowdown in the high returns on the domestic capital market, managers of foreign mutual funds are anticipating that investments in foreign mutual funds by Slovenian residents will increase, and that investments abroad by domestic mutual funds will increase.

[66] Given the unsuitability of their investment structure and the desires of their managers to avoid supervision by the Securities Market Agency, the majority transformed into ordinary public limited companies. Thus 47 public limited companies, 11 investment companies and one mutual fund arose from the authorised investment funds.

[67] Of these, four were launched by a newly established management company, while the others were created by existing investment fund managers. Two privatisation funds were also converted into investment companies in 2004.

Taxation of Mutual Fund Coupons

Under the new tax legislation in force since 1 January 2005, income generated by the sale of mutual fund coupons is no longer treated as a capital gain, but is divided into four types of income:

1. income generated by interest, which is taxed as interest
2. income generated by dividends received, which is taxed as dividends
3. income generated from capital gains, which is taxed as a capital gain
4. other income

Under the old legislation, tax on profits from the sale of mutual fund coupons varied according to the time of sale. If less than six months had passed between purchase and sale, tax was paid on the total profit received. If more than six months but less than three years had passed, the purchase price was revalued and the taxable income was then reduced by the revaluation, and if more than three years had passed between purchase and sale, the income was not taxed.

Under the new legislation, funds are classified as qualified or unqualified. Qualified funds are all domestic mutual funds managed by management companies that are residents of Slovenia, and mutual funds managed by management companies from EU member-states that operate in line with the UCITS directive and report to coupon holders and the tax authorities on the four types of income generated. In Slovenia all 52 mutual funds are qualified funds.

Income from the sale of coupons of unqualified mutual funds is taxed irrespective of the period between purchase and sale. Income from qualified mutual funds is taxed with regard to the source:

1. fund income corresponding to interest is included in the taxable base for income tax if the investor receives more than SIT 300,000 of interest including interest from other investments (bank deposits, debt securities), with 10% of the excess over SIT 300,000 being taxed in 2005, 25% in 2006, 40% in 2007, 75% in 2008, and 100% in 2009
2. dividends received from a fund are added to the taxable base, minus 35%
3. fund income corresponding to capital gains is included in the taxable base, but only if less than three years has passed between the purchase and sale of the coupons

Under the new legislation, some of the income from sold mutual fund coupons is also taxed after three years.

When the taxable base is determined, the sales price of the coupons is reduced by normalised commission costs of 2%, but there is no revaluation of the purchase price as there was under the old law. There is a 25% prepayment of tax on income from mutual funds that is deducted when the coupons are sold, while final taxation depends on the taxpayer's income bracket.

The changes in tax legislation were the main factor in events in December, when some of those who had owned coupons for more than three years felt that it was more sensible to sell the coupons and thus avoid taxation, even though they would have to be aware that the three-year period for avoiding capital gains tax would continue running should the coupons be repurchased.

Investments in investment company shares become tax-exempt after three years. Direct investments in shares are more beneficial from the tax point of view than investments in mutual funds, which are not fully tax-exempt after three years. In order to diversify their portfolios small investors primarily opt to invest in mutual funds, and thus receive worse tax treatment than major investors, for whom it is easier in invest directly in securities.

6.3.2 Comparison of Slovenian Investment Funds Market with European Market

Despite the high growth recorded by mutual fund assets in recent years, in terms of per capita investments in mutual funds Slovenia remains a long way behind the most developed countries of Europe, and even behind Greece and Portugal, which are comparable to Slovenia in terms of per capita GDP. At the end of 2004 there was more than SIT 107,000 of mutual fund assets per capita in Slovenia, which is more than the Czech Republic, Hungary, Poland and Slovakia, but less than other European countries.

Table 6.12: Assets of Slovenian and European investment funds

		Assets value (SIT billions)	Annual growth	Proportion of closed-end funds	Structure of open-end funds				
					equity	bond	balanced	money market	others
European	2002	979,087	-	22%	30%	29%	13%	19%	9%
	2003	1,140,189	16%	22%	31%	28%	12%	18%	11%
	2004	1,280,585	12%	22%	32%	25%	12%	19%	12%
Slovenian	2002	518	-	71%	23%	3%	74%	-	-
	2003	439	-15%	70%	25%	5%	70%	-	-
	2004	500	14%	58%	28%	5%	67%	-	-

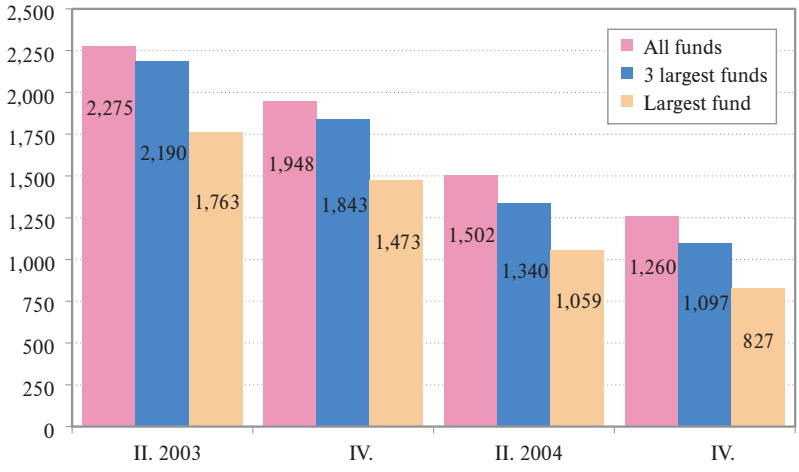
Note: European investment funds includes investment funds from all EU member-states, with the exception of Slovenia, Cyprus and Estonia. It also includes investment funds in Liechtenstein, Norway, Switzerland and Turkey. Open-end funds comprise funds defined by the UCITS directive (EC OJ L375/3, of 31 December1985). For Slovenia this means mutual funds exclusive of investment companies.
Source: Association of Management Companies, EFAMA (European Fund and Asset Management Association)

By far the strongest European country in terms of per capita mutual fund assets is Luxembourg, which is very successful in marketing its funds outside its borders, followed by Ireland, which has almost SIT 21 million of mutual fund assets per capita. Mutual funds also have a very prominent role in France, which had more than SIT 4 million of mutual fund assets per capita at the end of 2004. Austria, Belgium, the Netherlands, the Scandinavian countries and Switzerland also had more than SIT 2 million per capita. Looking at other European countries, it can be concluded that investments in mutual funds are still rather low in Slovenia compared with the potential of the country's investors.

Closed-end investment companies still account for 58% of investment funds in Slovenia, while in other European countries this proportion is considerably lower at 22%. The reason lies in the method of privatisation and the privatisation funds created in connection with this process. Throughout Europe most mutual funds are either equity or bond funds, while in Slovenia balanced funds are prevalent, although the proportion that they account for is diminishing, primarily in favour of equity funds. In the rest of Europe almost 20% of funds are money market funds, a significant proportion.

6.3.3 Review of Mutual Fund Performance

Figure 6.9: Herfindahl-Hirschman index for mutual fund assets



Source: Association of Management Companies

There have recently been considerable shifts in the mutual fund market in Slovenia. Just 20 mutual funds were competing for the money of Slovenian investors at the end of 2003, but by March 2005 an additional 14 domestic funds had also been joined by 18 foreign mutual funds, so that 52 mutual funds are now marketed in Slovenia. The market share of the largest mutual fund fell by 10 percentage points in one year to 28%. In the future the market shares of mutual funds marketed in Slovenia will be difficult to measure, as the foreign funds are not obliged to publish figures on how much money they collect from Slovenian investors.

Table 6.13: Assets, net inflows and returns of individual types of mutual fund

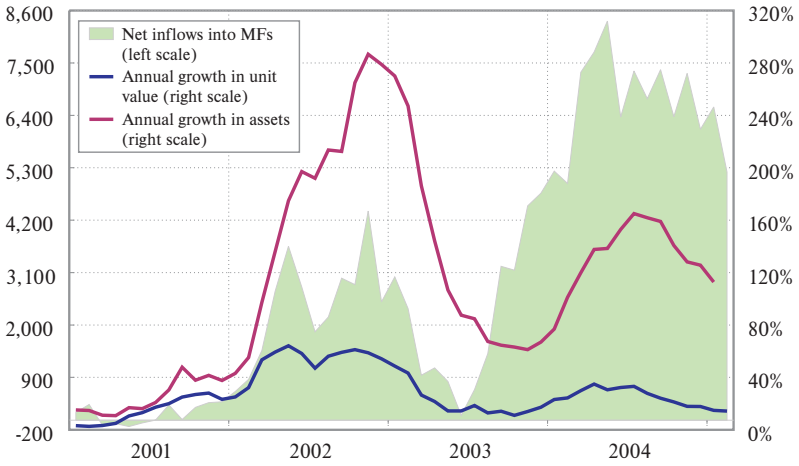
		2000	2001	2002	2003	2004
Number of mutual funds	**overall**	18	18	18	20	33
	equity	4	4	4	6	12
	bond	3	3	3	3	7
	balanced	11	11	11	11	14
Assets (SIT billions)	**overall**	10,699	14,722	55,776	93,118	210,149
Structure	equity	21%	20%	23%	25%	28%
	bond	4%	6%	3%	5%	5%
	balanced	76%	74%	74%	70%	67%
Annual net inflows (SIT billions)	**overall**	1,590	1,505	28,810	25,998	81,172
Structure	equity	50%	18%	24%	29%	35%
	bond	2%	27%	3%	9%	8%
	balanced	48%	55%	73%	62%	58%
Annual growth in unit value	**overall**	4.0%	23.2%	54.2%	17.2%	17.8%
(year end)	equity	2.2%	20.9%	57.0%	18.7%	18.7%
	bond	10.9%	13.3%	17.7%	10.3%	6.9%
	balanced	4.2%	24.6%	55.0%	17.2%	18.1%
Min annual growth in unit value	**overall**	0.5%	9.6%	12.3%	9.8%	3.6%
(year end)	equity	1.0%	16.1%	42.6%	14.6%	3.6%
	bond	9.4%	9.6%	12.3%	9.8%	6.6%
	balanced	0.5%	12.6%	28.9%	14.7%	9.8%
Max annual growth in unit value	**overall**	24.2%	32.5%	60.5%	23.6%	21.5%
(year end)	equity	7.7%	32.5%	60.5%	22.1%	21.5%
	bond	13.3%	20,2%	24.2%	10.7%	8.8%
	balanced	24.2%	27.2%	58.8%	23.6%	21.3%

Source: Association of Management Companies, Vzajemci.com, Bank of Slovenia calculations

The average monthly inflow into mutual funds in 2004 was almost SIT 7 billion, compared with just over SIT 2 billion in 2003. Net inflows into domestic mutual funds fell slightly in the first months of 2005; they totalled just over SIT 14 billion in the first quarter of 2005. The reason is competition from foreign funds and in particular the poor opportunities on the domestic stock market at the beginning of this year. The latter was also reflected in lower annual growth in unit values. It was 34% in April last year, just under 18% at the end of the year, and barely over 14% in the first months of 2005. The lower net inflows and lower returns on mutual fund assets were reflected in lower growth in assets, although the year-on-year rate of almost 113% recorded in January 2005 was still high. Domestic mutual funds more than doubled their assets in 2004, the total rising from SIT 93 billion at the end of 2003 by SIT 117 billion to SIT 210 billion.

In terms of number, balanced funds still prevail among Slovenian mutual funds, although many of the funds created in 2004 were equity funds. There were six equity funds, four bond funds and three balanced funds created, with another bond fund being added this February.

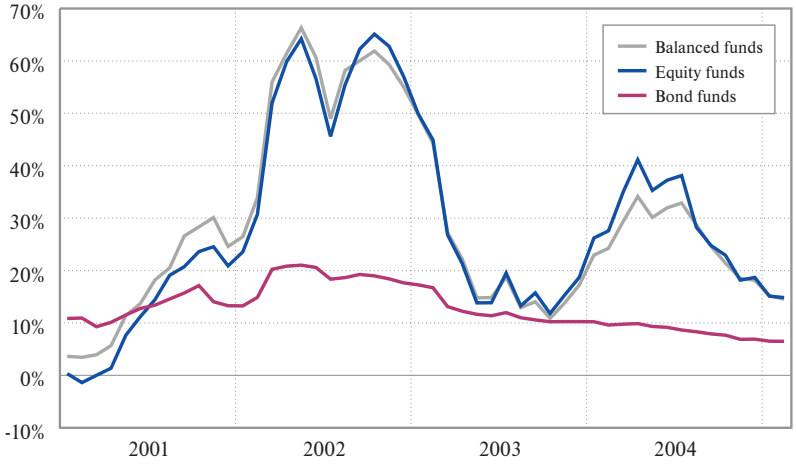
Figure 6.10: Net monthly inflows into mutual funds (SIT millions), and annual growth in mutual fund unit value and total assets



Source: Association of Management Companies, Vzajemci.com, Bank of Slovenia calculations

Equity and balanced mutual funds achieve similar returns. When the domestic capital market boomed, equity funds achieved higher returns in 2004, as they hold 52% of their assets in domestic shares, while for balanced funds the figure is 10 percentage points lower. The minimum and maximum returns in 2004 were recorded by equity funds. The minimum return was recorded by a fund that holds 90% of its assets in foreign securities.

Figure 6.11: Annual growth in unit value for individual types of mutual fund

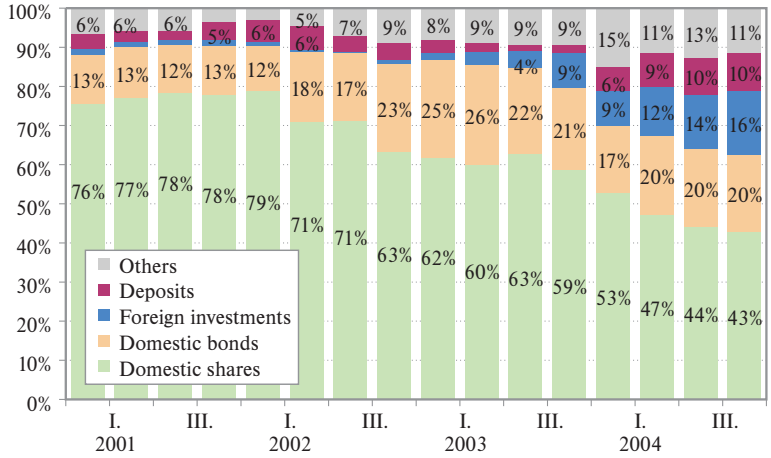


Source: Vzajemci.com, Bank of Slovenia calculations

Structure of mutual fund investments

The proportion of mutual fund investments accounted for by domestic shares is falling. Mutual fund managers are primarily investing new cash inflows in foreign securities. A significant proportion of new inflows is also held in domestic bank deposits, merely temporarily, until a decision is made on subsequent placement. The proportion accounted for by investments in domestic shares fell by 16 percentage points from the end of 2003 to 43%, while the proportion accounted for by investments in domestic bonds changed little, remaining around 20%.

Figure 6.12: Structure of mutual fund investments



Source: Association of Management Companies

Table 6.14: Structure of investments for individual types of mutual fund

	2000	2001	2002	2003	2004
Mutual funds overall					
Shares	79%	78%	63%	59%	43%
Bonds	12%	13%	23%	21%	20%
Bank deposits	2%	5%	4%	2%	10%
Foreign investments	2%	1%	1%	9%	16%
Others	5%	3%	9%	9%	11%
Equity funds					
Shares	90%	91%	76%	67%	52%
Bonds	3%	1%	10%	5%	7%
Bank deposits	1%	4%	3%	2%	7%
Foreign investments	0%	1%	2%	16%	24%
Others	6%	4%	9%	10%	10%
Bond funds					
Shares	27%	14%	6%	3%	2%
Bonds	63%	67%	84%	83%	53%
Bank deposits	2%	11%	3%	3%	12%
Foreign investments	0%	0%	0%	0%	20%
Others	8%	9%	8%	11%	13%
Balanced funds					
Shares	78%	80%	62%	60%	42%
Bonds	12%	11%	24%	22%	22%
Bank deposits	2%	5%	5%	2%	11%
Foreign investments	2%	2%	1%	7%	13%
Others	5%	3%	9%	9%	12%

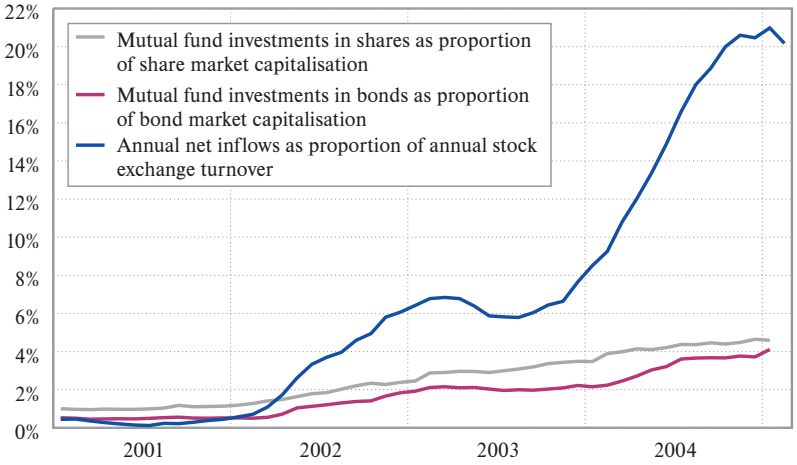
Source: Association of Management Companies

All three types of mutual fund are increasing their investments abroad: at the end of 2004 mutual funds held 16% of their investments abroad, or SIT 35 billion, up 7 percentage points from the end of 2003. Equity funds had the highest proportion of investments abroad (24%), with balanced funds having the lowest (13%). Given the slowdown in growth in the domestic capital market, its low market capitalisation and low liquidity, and above all the lively growth in the stock markets in south-eastern Europe, further

increases in mutual fund investments abroad can be expected. There were eight mutual funds that had failed to bring themselves into line with the new legislation by the middle of March 2005. Once it is in line with the new legislation a fund can invest more than 10% of its assets in foreign securities. At the end of 2004 there were 12 mutual funds with a market share of 11% that had more than 10% of their investments abroad, all but two holding more than 50% of their investments abroad.

The domestic shares in the portfolios of mutual funds at the end of 2004 accounted for almost 5% of the market capitalisation of shares on the Ljubljana stock exchange, while for bonds the proportion of market capitalisation was only slightly lower. Of slight concern is that net inflows into mutual funds in 2004 accounted for almost 21% of annual turnover on the stock exchange, which given the existing structure of investments by domestic mutual funds shows the degree of influence that they have on growth in the domestic stock market. The SBI 20 and mutual fund unit value have moved very similarly over the years, but in 2004 the latter rose less than the SBI 20.

Figure 6.13: Mutual fund investments in domestic shares and bonds as proportion of market capitalisation, and annual net inflows as proportion of annual turnover on stock exchange

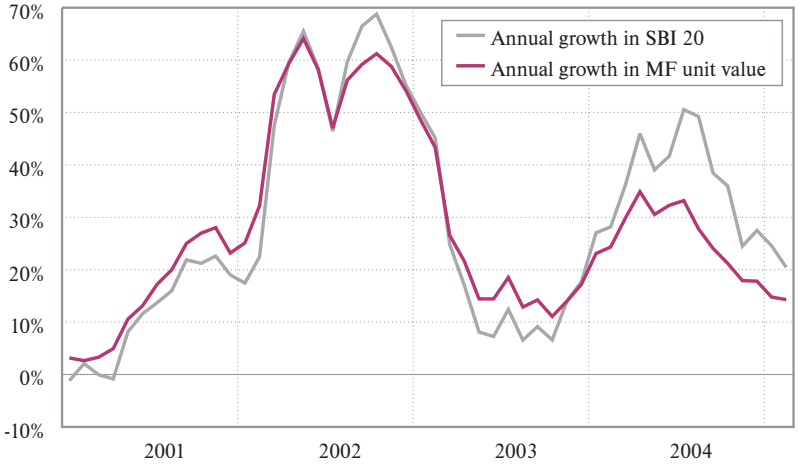


Source: Ljubljana Stock Exchange, Vzajemci.com, Bank of Slovenia calculations

With the corresponding decline in demand for domestic shares, the increase in mutual fund investments abroad could have a significant impact and result in lower growth in the domestic stock exchange indices in the future. Mutual funds that hold a larger proportion of their investments in domestic shares are more subject to the influence of lower growth in the domestic capital market, as this is expressed directly in lower returns (lower growth in unit values). Lower returns in turn influence investors, and result in lower inflows of money. This results in lower demand for domestic shares on the part of mutual funds, and thus in lower returns for mutual funds that hold the majority of their assets on the domestic capital market. For this reason, mutual funds that provide major demand for domestic securities can nevertheless be expected to be cautious in investing abroad, as they would otherwise threaten the stability of the domestic capital market.

Among foreign issuers of securities, mutual funds for the moment primarily favour issuers from western Europe and the USA. At the end of 2004 they held 25% of their portfolio of approximately SIT 35 billion in securities from the UK, 21% in securities from Germany, 14% in securities from France and 14% in securities from the USA. No other country accounted for more than 10% of investments abroad. Given the growth in the capital markets of eastern Europe, investments in the markets of the former Yugoslavia and the east European capital markets are expected to increase. By increasing their investments in foreign securities mutual funds reduce the degree to which their performance depends on the domestic capital market, and help to diversify their risks.

Figure 6.14: Annual growth in SBI 20 and mutual fund unit value

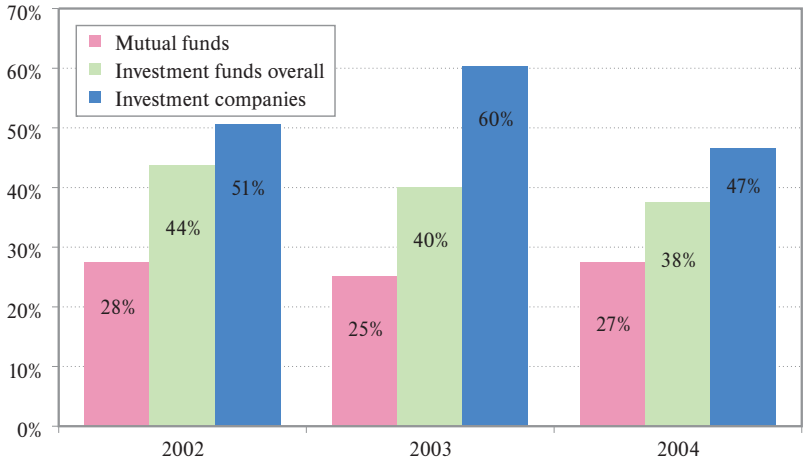


Source: Ljubljana Stock Exchange, Vzajemci.com, Bank of Slovenia calculations

Investment fund assets managed by management companies under majority bank ownership

The proportion of investment fund assets managed by management companies under majority bank ownership is decreasing, and fell below 50% at the end of 2004. The reason is the transformation of privatisation funds into ordinary public limited companies. The proportion of mutual fund assets managed by management companies under majority bank ownership rose to 27%. More and more banks are opting to market domestic and foreign mutual funds, including those not managed by management companies under majority bank ownership. At the end of 2004 there were thus 11 banks offering mutual fund coupons, compared with just five a year earlier. Commissions from this source, which were more than SIT 380 million or seven times higher than in 2003, represent an additional source of non-interest income for banks. Just under SIT 27 billion of transactions in mutual fund coupons were concluded via banks in 2004, compared with under SIT 3 billion in 2003.

Figure 6.15: Proportion of investment fund assets managed by management companies under majority bank ownership

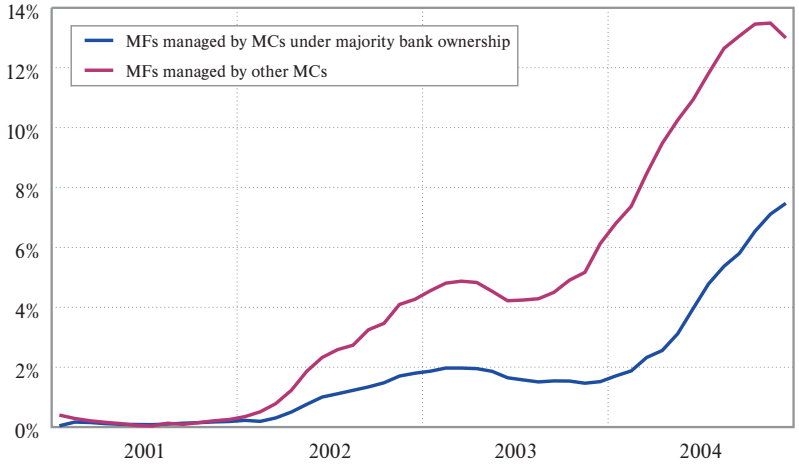


Source: Association of Management Companies

The stock of bank loans approved to households stood at SIT 670 billion at the end of 2004, up 22% from the end of the previous year. Bank loans can be insured using mutual fund coupons as collateral, but at the end of 2004 such loans accounted for just 0.1% of lending (more than SIT 580 million), with

seven banks having loans insured with mutual fund coupons. Of these, five also marketed mutual fund coupons. At just over SIT 3 billion household lending insured with mutual fund coupons and securities as collateral accounted for 0.56% of all household lending at the end of 2003, while the figure had grown to SIT 6 billion by the end of 2004, or 0.96% of approved household lending.

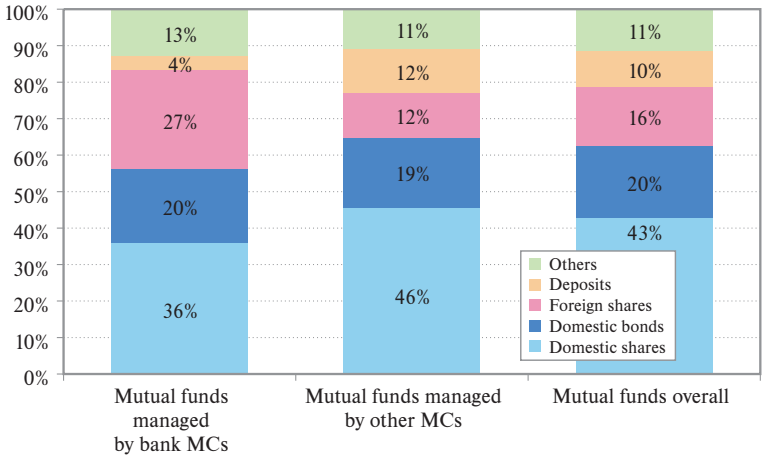
Figure 6.16: Annual net inflows into mutual funds managed by management companies under majority bank ownership and other mutual funds as proportion of total stock exchange turnover



Source: Vzajemci.com, Ljubljana Stock Exchange

The existing structure of investments by mutual funds managed by management companies under majority bank ownership also lessens the likelihood of the aforementioned manipulation occurring. At the end of 2004 these funds held 36% of their assets in domestic shares, 10 percentage points less than other funds, and 27% of their assets in foreign securities, 15 percentage points more than other funds. For this reason their returns in 2004 were slightly lower than the returns of other mutual funds.

Figure 6.17: Investment structure of mutual funds managed by management companies under majority bank ownership, other mutual funds and mutual funds overall as at end of 2004

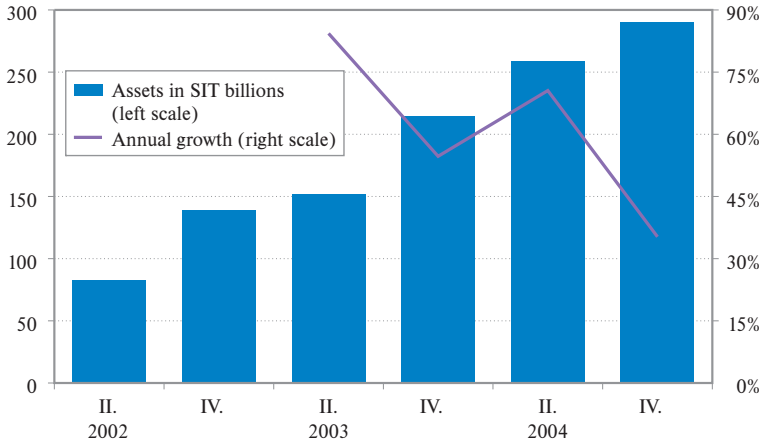


Source: Association of Management Companies

6.3.4 Review of Investment Company Performance

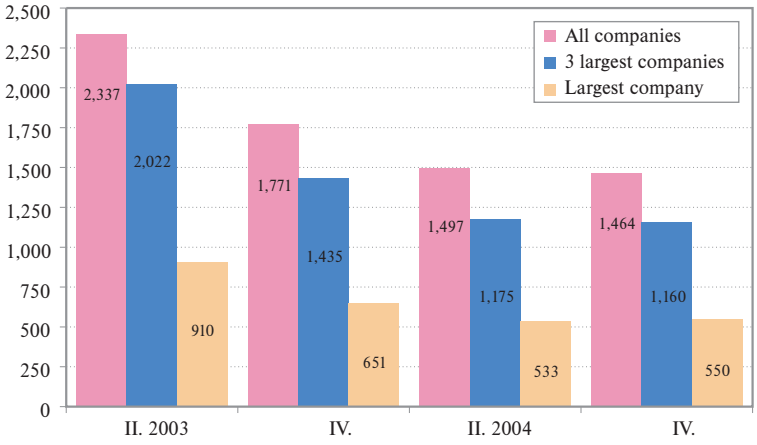
The assets of the 11 investment companies stood at just under SIT 300 billion at the end of January 2005. Annual growth in assets slowed slightly last year, as it is now merely the result of the returns recorded by investment companies and possible increase of capital, and no longer the advent of investment companies newly transformed from privatisation funds. The market share of investment companies in terms of their assets fell slightly in 2004, a result of the creation of two newly transformed privatisation funds.

Figure 6.18: Half-yearly overview of investment company assets



Note: Excludes authorised investment funds
Source: Association of Management Companies

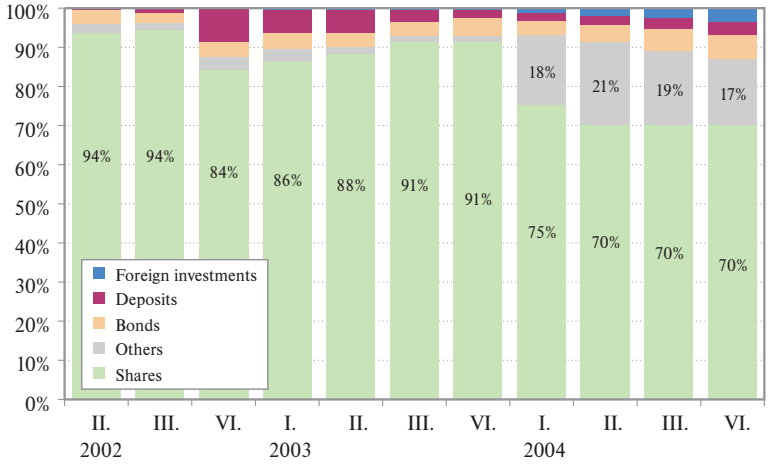
Figure 6.19: Herfindahl-Hirschman index for investment company assets



Note: Excludes authorised investment funds
Source: Association of Management Companies

Like mutual funds, it is also the case for investment companies that until they bring themselves into line with the new law on investment funds (the ZISDU-1), they can invest no more than 10% of their assets abroad. None of the investment companies has yet been brought into line. The proportion of assets held in foreign securities fluctuates around 3.5%, but there is a clear trend of rapid increase. Like mutual funds, investment companies primarily hold investments in securities of issuers from western Europe, with German securities accounting for 42%, French for 16% and others for less than 10% each. Investment companies hold most of their investments (70%) in domestic shares.

Figure 6.20: Investment structure of investment funds

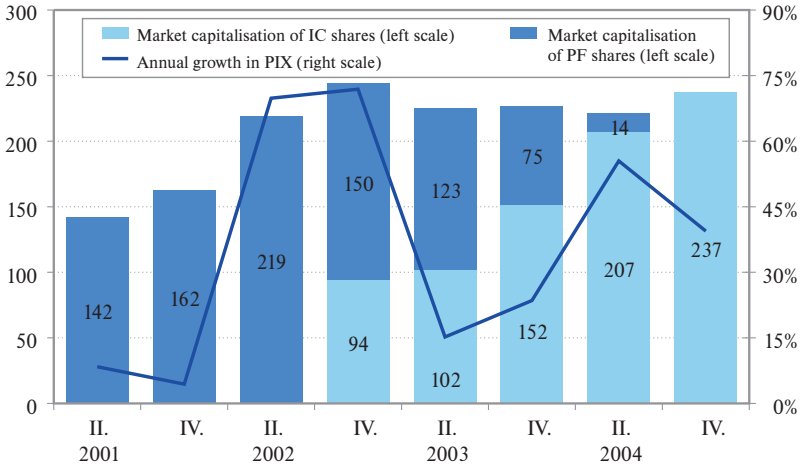


Source: Association of Management Companies

Investment companies' market capitalisation accounts for approximately 12% of the market capitalisation of shares on the organised securities market, while the turnover in investment company shares accounts for approximately 20% of the total turnover of share trading. The PIX (the investment company index) has moved in line with the SBI 20, but with slightly higher annual rates of growth, which reflects the greater demand for investment company shares than for other shares on the market. The reason is primarily the higher expected return on investment company shares, as they are listed at a discount to the book value.

With SIT 2,750 billion of trading in investment company shares in 2004, the PIX rose by almost 40%. The reasons behind this rise are the rise in the prices of shares held by investment companies in their portfolios, demand for investment company shares outstripping supply given that they are one of the few types of undervalued share on the market, and their upcoming transformation into mutual funds.

Figure 6.21: Market capitalisation of investment company and privatisation fund shares (SIT billions), and annual growth in PIX



Source: Ljubljana Stock Exchange

Investment companies are listed at approximately 80% of their book value, i.e. with a 20% discount on average. The ZISDU-1 stipulates that mutual funds may charge investors who withdraw penalty exit

fees of up to 20% during their first year after transforming from investment companies, and up to 10% during the second year. Investment companies must bring themselves into line with the new law (the ZISDU-1) by 2007, and under the current legislation must then transform into mutual funds by 2011.[68] During transformation the value of investment company shares to owners will be equalised with their book value. No investment company had transformed into a mutual fund by March 2005, although three had announced they will do so.

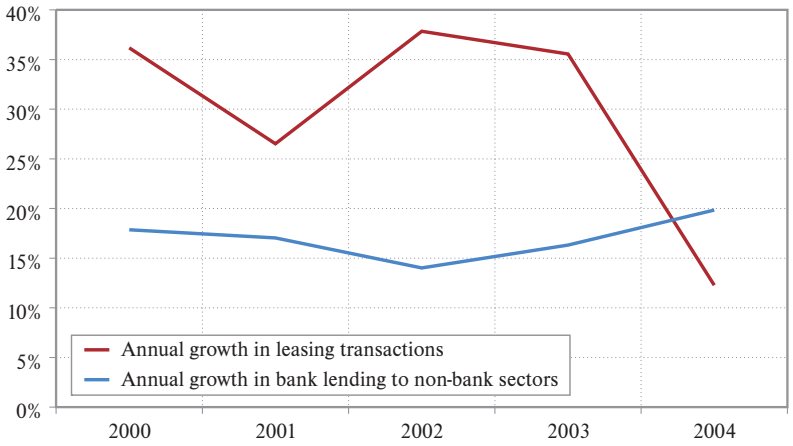
Figure 6.22: Ratio of official price to book value of investment company shares

Source: Ljubljana Stock Exchange

6.4 Leasing Companies

Volume and structure of leasing business in Slovenia and in Europe

Figure 6.23: Annual growth in leasing transactions and bank lending to non-bank sectors



Note: Annual growth in leasing transactions refers to volume of business, while annual growth in bank lending refers to stock.

Source: Slovenian Leasing Association, Bank of Slovenia

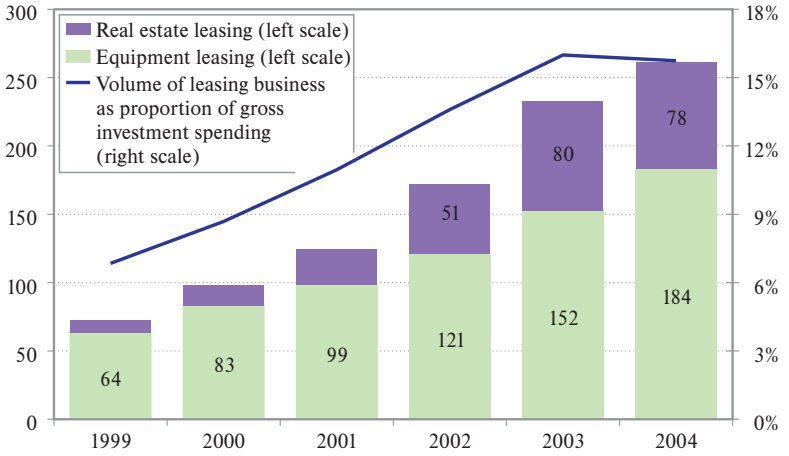
[68] There is no need to transform if the general meeting so decides via a three-quarters majority (fifth, fifteenth and eighteenth paragraphs of Article 236 of the ZISDU-1). The ZISDU-1 also stipulates that the exit fees should be equal to or more than the proportion of the mutual fund's assets that are non-marketable and non-liquid, and only lower in exceptional cases.

Growth in leasing transactions slowed significantly in 2004, reaching just 12%, while growth in bank lending to non-bank sectors was 20%. Average annual growth in leasing transactions between 2000 and 2003 was 34%, considerably higher than the 17% annual growth recorded by bank lending to non-bank sectors. The main factors in the declining growth in leasing business were competition on the market, and in particular declining bank interest rates. Tolar interest rates on corporate loans fell by 2.2 percentage points in 2004 to 6.4%, while foreign currency interest rates fell by 0.1 percentage points to 3.6%.

»Forms of Leasing«

The figures for financial leasing and operating leasing are given together, even though there exist considerable differences between them. In financial leasing the subject of the contract becomes the property of the lessee after the contract terminates, while this is not the case in operating leasing. Financial and operating leasing are also subject to different accounting and taxation treatments. The lessee can monitor operating leasing off the balance sheet or record it merely as a cost, while the lessor accounts for depreciation. Financial leasing is treated as on-balance-sheet financing: the lessee records it as a fixed asset and charges depreciation. Since the introduction of VAT, financial leasing has been defined as a transaction in goods, and the lessee therefore settles the entire VAT sum when the transaction is first concluded. Operating leasing is defined as a transaction in services, and tax can thus be paid gradually along with each instalment. In addition to the traditional financial leasing and operating leasing, there is also sale on credit, which accounts for a smaller proportion of leasing business (9% in 2004). In traditional leasing the lessor remains the legal owner until the contract terminates, but in sale on credit there is an immediate transfer of ownership. Sale on credit transactions include loans and sale with retention of title. In the latter the seller retains ownership until the final repayment of all liabilities. In addition to these, there is a whole range of other types of leasing contract, such as sale and lease back, leveraged lease and venture leasing.

Figure 6.24: Volume of leasing business (SIT billions) and volume as proportion of gross investment spending in Slovenia



Source: Slovenian Leasing Association, Statistical Office of the Republic of Slovenia

The volume of real estate leasing business fell by more than 3%, and accounted for less than 30% of all leasing business. Real estate leasing depends strongly on the circumstances on the real estate market, which with real estate records (the land cadastre and land register) gradually being updated and public access to databases on real estate brokerage now having been established are only slowly settling down. Another major factor in the decline in the volume of real estate leasing was the greater accessibility of bank lending, in terms of the conditions for approval and the price conditions. Tolar interest rates on housing loans fell by 1.1 percentage points in 2004 to 6.5%, while foreign currency interest rates fell by 0.2 percentage points to 4.9%. The notorious dealings in connection with consumer loans with

incorrect terms and inadmissible contractual forms (sale and lease back)[69] were also a factor in the decline in real estate leasing in 2004.

Figures from the European association show that growth in leasing business in Europe began to decline in 2002, and was merely 0.5% by 2003. The reasons lay in the weak economic activity in the countries that account for the majority of leasing business in Europe, such as Germany, the UK, Italy and France, whose volume of leasing business is just under 70% of the total leasing business of members of the European association. Real estate leasing accounts for 18% of all leasing business in Europe, significantly less than in Slovenia.

Table 6.15: Volume and structure of leasing business of members of Slovenian and European leasing associations

	2000	2001	2002	2003	2004
Slovenian leasing companies					
Volume of business (SIT billions)	98	125	172	233	261
Annual growth	36.2%	26.5%	37.8%	35.6%	12.3%
Structure of business					
real estate leasing	15.4%	20.8%	29.7%	34.5%	29.7%
equipment leasing	84.6%	79.2%	70.3%	65.5%	70.3%
consumer leasing	24.3%	20.1%	20.0%	20.2%	22.2%
European leasing companies					
Volume of business (SIT billions)	35,753	41,796	45,028	45,318	-
Annual growth	14.9%	16.9%	7.7%	0.6%	-
Annual growth in bank lending to non-bank sectors[1)]	-	6.0%	4.6%	4.1%	6.6%
Structure of business					
real estate leasing	16.0%	17.2%	19.6%	18.4%	-
equipment leasing	84.0%	82.8%	80.4%	81.6%	-

Note: The European Federation of Leasing Company Association (Leaseurope) consists of leasing companies in all the member-states of the European Union with the exception of Malta, Latvia and Lithuania, plus Norway, Switzerland, Romania and Morocco.
[1)] Includes loans by banks of eurozone members only.
Source: Slovenia Leasing Association, The European Federation of Leasing Company Association (Leaseurope)

The importance of leasing in Slovenia as measured by the ratio of the volume of leasing business to gross investment spending has risen constantly in recent years. In 2004 leasing remained at approximately the same level as the previous year, with just under 16% of gross investment spending being financed through leasing. The ratio was lower in 2003 for the European leasing industry as a whole at just over 14%. The highest ratio in 2003 among the members of the European association was recorded by Estonia, with just under 30%, while Finland recorded the low of 4%. Leasing is particularly important in growing economies, where the need for alternative sources of financing is great. The relatively high penetration of leasing seen in these figures on the Slovenian and European markets indicates that leasing is currently a particularly important source of financing for SMEs and companies with low revenues but potential for large growth. These are primarily companies with high credit risk.

[69] In a sale and lease back contract the owner of an equipment or real estate undertakes to sell the object to a leasing company, which pays the price and simultaneously delivers the object to the seller for financial leasing. It is important that contemporary judicial practice stipulates that the objective of the sale in the sale and lease back contract is the leasing of the subject of the sale, and not the insurance of a loan payment transaction.

[70] Financial statements for leasing companies are available to the end of 2003.

Performance of leasing companies and their sources of financing[70]

Average annual growth in the total assets of leasing companies between 2000 and 2003 was 28%, and rose in line with the increase in the volume of leasing business. The structure of leasing companies' assets changed between 2000 and 2003 in the direction of an increase in the ratio of fixed assets to current assets. Current assets accounted for over 70% of leasing companies' assets at the end of 2000, but just 53% at the end of 2003, with operating claims accounting for 80% of these. The other 47% of total assets at the end of 2003 were in the form of fixed assets, of which 57% were long-term financial investments (a consequence of financial leasing). The proportion of leasing companies' fixed assets accounted for by long-term financial investments rose by 15 percentage points after 2000.

Of leasing companies' liabilities, the vast majority of 91% at the end of 2003 consisted of financial and operating liabilities, of which 62% were liabilities to companies in the group and 26% were financial liabilities to banks. At the end of 2003 leasing companies had SIT 128 billion of financial liabilities to banks, up just under 31% from the previous year. Domestic banks held 13% of leasing companies' capital at the end of 2003. Leasing companies' profitability is indicated by the return on equity and the return on assets, which fell slightly in 2002, but in the following year reached their highest values since 2000.

Table 6.16: Overview of leasing companies' performance and sources of financing

	SIT billions				Annual growth			
	2000	2001	2002	2003	2000	2001	2002	2003
Total assets	239.7	315.4	387.3	485.8	34%	32%	23%	25%
Capital	20.7	26.7	30.7	35.7	24%	29%	15%	16%
Pre-tax profit (loss)	3.5	4.8	5.1	9.8	3%	36%	6%	91%
ROA	1.70%	1.74%	1.46%	2.24%				
ROE	18.9%	20.4%	17.8%	29.5%				
Financial and operating liabilities	190.9	259.8	348.4	444.5	-	36%	34%	28%
as proportion of total assets	79.6%	82.4%	89.9%	91.5%				
Liabilities to rest of world	134.6	196.7	266.6	359.4	-	46%	36%	35%
Open foreign exchange position / assets	-55.9%	-62.1%	-68.4%	-72.6%				

Note: The figures for the volume of leasing business refer to leasing companies that are members of the Slovenian Leasing Association, while the figures from financial statements refer to those leasing companies classed under J65.21 (financial leasing) in the Standard Classification of Activities. Members of the association accounted for 91% of the total assets of the companies classed under J65.21 (as at the end of 2003). There are five companies that are members of the association but are not classed under J65.21. Their total assets accounted for 8% of the total assets of association members (as at the end of 2003).
Source: AJPES (closing company accounts)

The proportion of leasing companies' total assets accounted for by liabilities to the rest of the world rose by 12 percentage points between 2000 and 2003 to reach almost three-quarters at the end of 2003. Non-residents held 47% of total capital. Leasing companies borrow significantly abroad from their parent companies; at the end of 2003 there were almost SIT 220 billion of such loans, which accounted for more than 60% of the total liabilities to the rest of the world.

Loans from unrelated companies also account for a significant proportion of liabilities to the rest of the world (25%). Leasing companies' open foreign exchange position is short, and has been opening further since 2000. At the end of 2003 it was equivalent to 73% of leasing companies' total assets, which points to the large exposure that leasing companies have to a change in the exchange rate.

Expert Papers on Financial Stability

The opinions and conclusions published in this section of the Financial Stability Report do not necessarily reflect the official positions of the Bank of Slovenia and its agencies.

Role of the Central Bank in Ensuring Financial Stability

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1. Introduction

The Bank of Slovenia Act defines the ensuring of price stability as a fundamental goal of this institution. As part of ensuring price stability, the Bank of Slovenia "supports the general economic policy and strives to achieve financial stability ..."[1]. In carrying out their traditional task of ensuring monetary stability, central banks also assume responsibility, directly and indirectly, for ensuring the undisturbed operation of the banking system and preserving financial stability. What are the reasons for this increasing concern with financial stability? Is it not enough for central banks to look only after monetary (price) stability? What is the meaning of the claim that the main reason for founding the U.S. Federal Reserve System in 1913 was "to ensure a stable and freely functioning financial and payment system" (Volcker, 1984)? Are efforts to ensure financial stability therefore an implicit task of central banks, which coincides with the ultimate responsibility for ensuring trust in the domestic currency?

Everything indicates that over the past decades the central banks of the developed countries, working together with other agencies implementing economic policy, have managed to win the battle against inflation. Even some of the transition countries can boast such inflation rates as even the developed areas would not be ashamed of. However, the achievements in curbing inflation have recently been increasingly overshadowed by risks regarding financial instability. Achieving and maintaining price stability (monetary stability) is the necessary condition for financial stability, but, by all means, not a sufficient one. Financial systems are becoming increasingly complex and interconnected (intersectorally and internationally) and the combined effects of liberalisation, deregulation and financial innovation ensure a more important role for them in allocating financial resources, the kind of role they played several decades earlier. This is primarily indicated by the more rapid rate of growth of the volume of financial systems compared to the rate of growth of economic activity. Financial innovations and the associated greater complexity of financial instruments may, in and of themselves, pose a problem for financial supervisors. On the other hand, they enable participants in the financial market to manage financial risks more easily. Risk management means nothing other than transferring risks to other segments of the financial system and nonfinancial institutions. Given such possibilities, it is difficult to monitor where the risks are concentrated and how much financial systems are exposed to risks from other environments (contagion risk).

Financial systems today are therefore much more vulnerable to any shocks that reduce the effectiveness of their operation and that may cause financial instability. Central banks cannot be indifferent to financial instability as, sooner or later, it also leads to monetary instability. For this reason the traditional role of central banks is expanding by ensuring monetary stability to the area in which it must ensure financial stability in collaboration with other supervisory institutions (domestically and abroad) and by utilising the available instruments.

In this paper an attempt will be made to answer especially the following questions: why is financial stability important, what is the definition of financial stability, do monetary and financial stability exclude or complement each other, why would not central banks be important institutions in ensuring financial stability and, finally, how do central banks actually perform the function of ensuring financial stability? The chapters in the rest of the text follow the same sequence.

[1] The goals of the Bank of Slovenia are defined by Article 4 of the Bank of Slovenia Act. Official Gazette of the RS No.58/02.

2. Finance and financial stability

If "finance" is understood as a whole comprising financial institutions, financial markets in which financial instruments are traded and a financial infrastructure, finance facilitates the efficient operation of the economy and ensures certain benefits for it. The benefits made possible for economic entities by finance through its services are linked to the existence and benefits ensured by fiat money as legal tender (Houben et al., 2004), i.e. as fiat money that no one can reject (Ribnikar, 2005). The benefits provided or functions performed by fiat money are a value unit or a unit of account, a means of payment and a store of value. Consequently, fiat money, as legal tender, ensures finality in settling obligations as it constitutes "generally acceptable immediate purchasing power with the lowest possible risk" (Houben et al., 2004).

Fiat money, however, is not the most effective store of value except, perhaps during very short periods under extreme circumstances (financial crises). Given the fact that the distribution of fiat money in the economy at a given moment does not coincide with the need of individuals for purchasing power, possibilities have been developed which, coupled with financial transactions, allow immediate purchasing power (fiat money as legal tender) to be replaced by a superior store of value - financial investment. "Finance" thus offers financial forms (agreements), which perform the function of a store of value better than fiat money does and allow an inter-period and temporary exchange of purchasing power. Or, to put it differently, the essence of finance is to allow a temporary exchange of fiat money as legal tender (immediate purchasing power) for a promise that fiat money will receive a better store of value. Namely, those who need purchasing power (fiat money) are also prepared to pay a certain compensation for it as they expect to get more fiat money in the future than they need today. However, compared to fiat money, financial transactions (agreements) are only promises of future payments and therefore, as a rule, imply uncertainty. Thus, on the one hand, finance ensures private and social benefits by facilitating a temporary exchange of fiat money for the promise of payment of fiat money in the future[2]. On the other hand, however, finance also brings uncertainty (risks) into financial interactions and thus causes costs in addition to benefits. Uncertainty, i.e. risks associated with financial transactions, constitutes potential instability for financial markets. In contrast to financial markets, such risks do not exist on the markets for goods and services, which, among other things, differentiates finance from other economic activities (Houben, 2004). Possible financial instability would mean too high social costs, which manifest themselves in curtailed economic activity and, therefore, in less growth, capital accumulation and social well-being. It is due to potential costs which may arise as a consequence of financial crises that interactions in finance are not entirely left to be governed by market mechanisms. Due to numerous circumstances[3], as a result of which the market is not operating in the optimum manner, developments in finance which would be completely left to the mercy of market forces could not be expected to lead to optimum results. It is for this very reason that the role of the public sector is justifiable as the public sector, which through its regulatory and supervisory functions, ensures the amount of market correction that makes for the optimum combination of costs and benefits in the operation of the financial system.

3. Definition of financial stability

The fact that different countries engage in varied activities in the field of ensuring financial stability is also closely linked to the existence of different definitions of financial stability. In expert literature it is possible to distinguish between two approaches to defining financial stability: from the standpoint of the financial system or from the standpoint of financial variables (Magyar Nemzeti Bank, 2004).

[2] Schinasi even claims that the private and social benefits provided by money as legal tender are actually expanded by finance to other financial forms (Schinasi, 2004).

[3] The nature of finance as a public good, external elements, the asymmetry of information, incomplete markets and the absence of competition are the most frequently cited circumstances operating in finance and causing the market to produce less than optimum results. For more about this see Houben et al., 2004.

The approaches from the standpoint of the financial system mostly follow the rather broad definitions of the state of financial stability or instability and do not define the stability of economic variables and instruments. In keeping with this kind of thinking, financial instability appears when the flow of information is so obstructed that the financial system can no longer effectively perform its function of allocating financial savings to profitable investments (Mishkin, 1997). From this kind of definition of financial instability it is possible to infer somewhat more specific tasks for the competent institutions in ensuring financial stability: efforts to achieve the unhindered flow of information and alleviate the adverse effects or problems resulting from asymmetric information (Mishkin, 1997). Even the functions of financial stability defined in this way are still too general to serve as the basis for concluding what specifically the competent institutions would have to do to ensure the free flow of information and thereby efficient functioning of the financial system.

The last in the series of definitions of financial stability from the systemic standpoint defines financial stability as the state of a financial system in which it is able to avoid shocks without major economic costs (Laker, 1999). From this definition the author derives the key functions of the central bank in ensuring financial stability such as improving operational efficiency and avoiding potential deviations in the functioning of the financial system. However, even this attempt at definition does not offer concrete activities or measures which the central bank should use in performing this function.

Perhaps a step closer to being concrete is a definition of financial stability as a state in which a financial system is able to withstand shocks in a way that does not lead to cumulative processes which would weaken the allocation of savings to productive investments and the carrying out of payments in the economy (Padoa-Schioppa, 2002). Even though the first part of the definition is still quite general and does not add any new content to the previous definitions of financial stability, the last part is quite concrete as it directly defines the important role of the central bank in ensuring the trouble-free carrying out of payments among economic agents. As a lendor of last resort, the central bank, while taking preventive action, must also assume the function of crisis management and act as a "safety net" by providing the missing liquidity and thus ensuring the trouble-free operation of the payment system. The approach described above is closely linked to the narrower concept of central banking, which mainly applies to the European Central Bank. Its primary mandate is to ensure monetary stability, and it plays a minor role in the efforts to ensure financial stability, which is mainly limited to looking after the current operation of the TARGET payment system.[4] (Schinasi, 2003). This limited role of the ECB in connection with financial stability is doubtless the consequence of the fact that this institution does not have direct responsibility for supervising banking institutions and therefore has limited access to relevant information. The ECB's definition is similar to that of the German central bank, which defines financial stability as the state of a financial system in which it efficiently performs economic functions such as the allocation of resources, the dispersal of risks and the carrying out of payment operations and is also able to perform these functions in conditions of shock, stress and fundamental structural changes (Deutsche Bundesbank, 2003).

The following definition of financial stability already means a step away from the systemic approach and towards definitions from the standpoint of economic variables. Schinasi defines financial stability as the total stability of key financial institutions and the stability of financial markets (Schinasi, 2003). The moving away from the systemic approach constitutes the second part of the definition concerning financial markets. Namely, the stability of financial markets is not defined institutionally but from the standpoint of the variability of market prices. Under this concept, financial stability means the absence of such price variability that could have serious economic consequences (Schinasi, 2003). Another element stressed by most authors is that the variability of market parameters (prices) does not in and of itself constitute market instability. The opposite is also true, namely that market stability does not automatically mean stable prices. The absence of a more precise definition - when do prices become too volatile and changes in which prices (the prices

[4] TARGET stands for Trans-European Automated Real-Time Gross Settlement Express Transfer System.

of bonds, shares, immovable property, interest rates) are crucial to financial markets becoming unstable? - is the reason why this definition of financial stability is still very abstract. Even representatives of the Bank of England, who have years of experience related to the performance of the function of financial stability proceed from instability in defining financial stability. It is marked by economic activity compromised either by fluctuations in the prices of financial investments or by the inability of financial institutions to fulfill their contractual obligations (Houben et al., 2004). US experts also define financial stability by means of its opposite - instability. They understand instability as a situation which may be judged in terms of three criteria: some of the more important prices of financial investments are not in harmony with economic fundamentals, the operation of the market and the supply of banking loans are distorted, and, consequently, aggregate expenditure deviates from the production capacity of the economy (Houben et al., 2004). In contrast to the definitions derived from instability, a representative of the UK Financial Services Authority defined the conditions that must be fulfilled for financial stability. These conditions are as follows: monetary stability, a rate of employment in the economy that is close to the natural rate, confidence in the operation of financial institutions, and the absence of such changes in the relative prices of real or financial assets as would jeopardise the first two conditions (Schinasi, 2004).

The definitions of financial stability only from the standpoint of financial (economic) variables are less numerous. Their main message is that price stability is typical of environments where there are no banking crises and where stable prices of assets (investments) prevail, including a relative stability between the prices of shares and interest rates. In such circumstances central banks must establish referential levels of key financial variables and consistently adhere to them (Magyar Nemzeti Bank, 2004).

Regardless of the approach to defining financial stability - systemic, i.e. institutional, or from the standpoint of financial variables - most definitions derive from financial instability and consequences in the form of real economic costs. They differ primarily in the reasons which may lead to a financial crisis or instability. The most frequently cited reasons are informational ineffectiveness (asymmetric information), the operational ineffectiveness of key financial institutions, including payment systems, and the excess variability of economic (financial) variables. It is more important to define the goals of financial stability so that they can be achieved and that at the same time they are also consistent with the function of monetary (price) stability than it is to establish the "real" causes of a financial crisis and which definition of financial stability is the most appropriate one. For instance, central banks cannot directly influence the prices of immovable property on the securities market. At any rate, the central bank must monitor price dynamics and the consequences for the financial system, the credit activity of banks and the overheating of the prices of immovable property or shares and report its findings and warnings by means of appropriate communication. Central banks may directly influence the fiat money supply or interest rates on the fiat money market and thus, again indirectly, also price stability. From the standpoint of primary instruments available to central banks, the systemic (institutional) approach to defining financial stability seems to be consistent with the monetary goals. The question arises as to whether it is still possible to speak of the consistency of both functions or their goals when central banks decide to change interest rates which are not directly linked to monetary goals (e.g. due to a shock in aggregate demand...).

4. Are monetary and financial stability mutually exclusive?

In keeping with the traditional view, monetary (price) and financial stability are not mutually exclusive. A high inflation rate may, due to the asymetric information between creditors and borrowers, high uncertainty in connection with future returns and the variability of prices, lead to an ineffective allocation of savings, excessive spending and, consequently, price bubbles. Viewed in this light, price stability in and of itself ensures and is a sufficient condition for financial stability. Of course, many economists disagree with this position. They claim that price stability is indeed a necessary condition that supports financial stability but not a sufficient one as it does not ensure it automatically (Issing, 2003). Empirical

confirmation of this position may be sought in Japan and the US of the early 1990s: Despite price stability, the recession caused signs of imbalance to start showing in the banking sectors of both countries.

There are also different views on the harmony between monetary and financial stability, which reverse the causal relationship between the two: financial stability should make it possible to preserve price stability through the effective allocation of capital to alternative forms of expenditure. Problems in the transmission of savings (e.g. credit activities) may cause higher inflation and slower economic growth (Magyar Nemzeti Bank, 2004). Regardless of the differences in the approaches as to what is the cause and what the consequence, what all the views described above have in common is that monetary and financial stability are mutually consistent and that they support each other.

Countries' practical experiences in ensuring financial stability have shown that the thesis of mutual consistency is not unconditionally true. Professional reflections have complemented this thesis, namely by establishing that price and financial stability complement each other only in the long term (Issing, 2003). In the short term, however, a financial crisis and the resulting imbalance lead to a conflict between the goals of both policies. A situation may arise in which the curbing of inflation and the preservation of the stability of the financial system would require the opposite changes in interest rates or changes of varying intensity. For instance, the central bank may increase monetary restrictiveness only to a degree that ensures price stability, but this degree of restrictiveness may not be enough to stifle excessive credit growth, which, consequently, may lead to price bubbles and financial instability. (Crockett, 2003).

Professional reflections on the mutual exclusion of the goals of both types of stability in the short-term went a step further and attempted to determine when such mutual exclusion is justified. This led to a recommendation for both policies, according to which monetary policy would temporarily have to assign priority to preserving financial stability as long as the real economic costs of the unstable financial system are higher than the costs of unanticipated inflation, while the preservation of price stability remains a medium-term or a long-term goal (Issing, 2003). It would be difficult to find professional arguments against such an abstract theoretical "recommendation" just as it is also difficult to implement it directly in real life. Do empirical analyses provide adequately reliable measurements of the economic costs of an unstable financial system or inflation? Are perhaps central bank experts biased as regards monetary stability by virtue of their negotiating conservatism and would a temporary shift away from such a policy be markedly short-term and therefore not effective enough? Theory does not provide satisfactory answers to these questions, and the practices are varied and mainly subject to the numerous characteristics of the environments in which they were implemented.

The findings will again be theoretical, this time with a warning: if central banks do not know how to choose between the mutually exclusive goals of monetary and financial stability in the short term, the actual inflation rate may differ from the anticipated one. Or to put it differently, the avoidance of instability in the financial system in and of itself results in the long-term preservation of price stability (Magyar Nemzeti Bank, 2004). Do these findings make the goals of monetary stability relative in comparison to the goals of financial stability? Central bank experts may perhaps reply "yes", although with the proviso of "short-term". In the long-term, the ultimate goal of monetary policy is to ensure price stability.

5. Central bank as one of the key institutions in ensuring financial stability

This claim immediately gives rise to the question why the central bank should be essential to efforts to ensure financial stability. Does the central bank have some sort of "natural" advantage for performing this function? The answer is affirmative, and an attempt will be made to list the natural advantages of the central bank in connection with ensuring financial stability. In conclusion it will be established that central banks are not the only institutions involved in this and the associated micro- and macro-approaches to financial stability will be presented.

In the preceding section it was established that the primary goal of the central bank is to ensure monetary stability. A completely different position is that held by former Federal Reserves chairman Paul Volcker, who in his 1984 presentation of his current view on the role of the central bank said that the first task of the Federal Reserves system was to ensure financial stability and only then monetary stability as well (Schinasi, 2003). This position is surprising at first glance, but given the reasons why central banks should play a key role in financial stability, this claim seems logical.

Why are central banks key institutions in ensuring financial stability? First, central banks are those banks that issue fiat money as legal tender. The central bank's fiat money is the fiat money that ensures the finality of payments among individual entities. Second, central banks are the institutions that must establish and then maintain the trouble-free operation of national payment systems. Payment systems constitute one of the most important infrastructures of the financial system and reflections on systemic risks originally arose in connection with payment systems. The problems of financial institutions are usually first indicated by the inability to make payments, which then cumulatively expands to the financial system and the entire economy through the payment system, which brings economic entities together. The domino effect may trigger a true financial crisis if the problems in the payment system are not eliminated on time. Third, a transmission mechanism (interest or credit mechanism), through which monetary measures produce effects, operates from the central bank through the banking system into the real sector. The central bank cannot be indifferent to ensuring extra liquidity for a financial system faced with problems if the demand for liquidity jeopardises its monetary goals. In the light of this, the central bank is naturally interested in the stability of financial institutions and markets, and is therefore prepared to act preventively. Fourth, a financial crisis results in the collapse of broader monetary aggregates. As only the central bank fiat money is final in payments, the proportion between the central bank fiat money (cash) and deposits is quickly reduced due to demand for cash, which, in a system with partial reserves, results in a rapid drop in broader fiat money aggregates. The central bank must provide additional quantities of its own fiat money to avoid a deepening of a financial crisis, but this sooner or later brings it to a point where it comes into conflict with the monetary goals, which also leads to monetary instability. Even in this respect central banks have a natural interest in preserving financial stability. Fifth, central banks play an important role in supervising banks. Although it is not necessary for central banks directly to perform the function of supervising the banking system[5], they have access to a great deal of information that is required for judging the prudence of the operation of individual banks. By directly collecting appropriate information from individual banks, central banks can establish an early warning system to deal with signs of potential crisis spots and thus act preventively in ensuring financial stability.

Central banks, however, are not the only institutions dealing with financial stability. Central banks identify, analyse and control systemic risks from the aspect of prudent business operation on a macrolevel. In contrast to central banks, independent supervisory institutions deal with prudent business operation - from the standpoint of individual institutions - on a microlevel. Through their activity they attempt to secure the safest possible operation of financial institutions, thereby contributing to financial stability. Finally, mention should also be made of the state (usually the Ministry of Finance), which provides an appropriate legislative regulatory framework, which should also contribute to the stability of the financial system.

The macro approach and micro approach to financial stability cannot be viewed separately and should be treated in the same way. There are important differences between them in the mode and goals of operation. While in the macro approach the bankruptcy of an individual institution may merely be part of the normal process of "market cleansing" provided such a bankruptcy does not lead to a systemic crisis, in the micro approach each individual institution is important for financial stability. The latter approach is based on the assumption that the stability of individual institutions ensures the healthy and effective operation of the entire financial system. The difference in the goals of operation is also important: the

[5] A characteristic example is that of the Bundesbank, Germany's central bank, which is not formally responsible for supervising banks, although indirectly it receives information from banks for an independent supervisory institution.

micro approach primarily focuses on protecting investors and depositors, and the macro approach on preventing financial crisis and the associated economic costs caused by crises (Magyar Nemzeti Bank, 2004). The two approaches also differ in the way of analysing and interpreting potential risks. The macro approach to financial stability analyzes systemic risks which may result from endogenous and exogenous shocks. What is important for this approach is the intertwining of institutions and financial relations and aggregate exposure to risks, on the basis of which it is possible to assess the sensitivity of the financial system to shocks. In the micro approach to financial stability, the mutual dependability of otherwise independent institutions due to exposure to aggregate risks is not important as the risks are mostly analysed by comparing financial indicators on an aggregate and individual level.

The listing of differences could continue, e.g. that both approaches differ in the instruments available to them in their operation, but our goal is not to analyse the differences but to conclude by stressing that we cannot observe the micro approach and macro approach to financial stability as being isolated from one another. As a rule, isolated operation, a lack of communication and of an exchange of information between the competent institutions, and the absence of coordination in overcoming crisis situations results only in less effective efforts at achieving financial stability. If, for instance, central banks are not responsible for supervising banks, in their operation they need information about individual institutions in order to be able to judge whether banks are capable of ensuring payments in the payment system at any given moment. Microinformation is also important for analysing prudent macrooperation. On the other hand, supervisory institutions also depend on the information available only to central banks (Magyar Nemzeti Bank, 2004): assessments of the consequences of changes in monetary strategy and monetary instruments, assessments of demand for liquidity, analysing and supervising the payment systems... The findings are plain to see: Despite the differences in the mode of operation, instruments and goals, the micro approach and macro approach to financial stability complement each other and are mutually dependent in their efforts to achieve financial stability.

Regardless of which institution is essential for a specific environment in ensuring financial stability, it is important that the overall framework of activities includes the following three degrees (Houben et al., 2004):

- continuous periodical monitoring and analysis of macroeconomic conditions, financial markets, institutions and the financial infrastructure,
- an assessment of the position of the financial system with regard to the basic parameters: in the zone of stability, on the stability border or in the zone of instability,
- a decision on the policy of action regarding the assessment of the position of the financial system.

Continued monitoring and analysis of risks and deficiencies in the financial system are essential for the timely detection of instability that may lead to financial crises. Without the periodic implementation of the above-described phase, a qualified assessment is not possible, but the perceived imbalances may mean a risk to the stability of the financial system and indicate the reaction required from the institutions responsible for preserving financial stability. Of key importance for this is a reliable assessment as to the position of the financial system in a continuum between stability and instability. The wrong assessment would also result in inadequate measures and associated costs. The financial system may, for instance, be wrongly assessed as being located in the corridor of stability, and for this no corrective activities would have to be launched if the system came closer to the zone of instability. Or, by contrast, the wrong assessment that the financial system is on the border of the zone of stability would give rise to certain corrective activities and measures the goal of which is to bring the financial system back into the zone of stability. Normally, the measures are associated with certain costs, which otherwise would not be incurred were the assessment correct. Bias on the part of the competent institutions in making assessments (e.g. extreme caution) is, consequently, not appropriate as it may result in certain costs anyway: in failing to act due to an accumulation of imbalances and possible developments towards a financial crisis, and in unnecessary action due to, for instance, the costs of financial repression.

6. How central banks specifically perform their function of ensuring financial stability

There are different views concerning the specific operational functioning of central banks in the area of financial stability. Schinasi (2003) distinguishes two approaches arising from the assumption that central banks face an inherent conflict between the goals of monetary policy and other goals, which are also pursued by other competent institutions: the view from the standpoint of the open market and the banks' view. Conflict first occurs if central banks are responsible for carrying out monetary policy and for supervising banks. The question is how intensive will be the changes in central bank instruments that are necessary for achieving monetary goals if at the same time the central bank is aware of the consequences these changes would have for the more important representatives of industry it supervises. Are central banks in such circumstances forced to relax their commitment to achieving monetary goals? The answer is negative as only central banks, through an open market policy, achieve their monetary goals and, at the same time, ensure the required liquidity and thus prevent the collapse of financial institutions and the expansion of the crisis beyond the financial system. Central banks ensure liquidity for banks in return for quality insurance if the latter have such insurance at their disposal (therefore they should be illiquid and not insolvent), and the market then redistributes this liquidity among other solvent and safe participants and separates the insolvent institutions which have difficulties.

The banks' view differs from the open market view in its qualms about the market's ability to make a practical differentiation between illiquid and insolvent institutions with great efficiency. That is why the role of central banks is crucial here as they have ample information about individual institutions at their disposal, on the basis of which it is possible to assess their financial soundness. This is especially important in conditions of nascent financial crises, when confusion and panic are prevalent on the markets and the mechanisms for ensuring market discipline are not operating.

Regardless of what role central banks should have in ensuring financial stability, it is important that there are mechanisms by means of which it is possible to identify sensitivity and risks in the financial system. These mechanisms must also trigger preventive activities in a timely fashion in order to forestall financial crises, i.e. they must ensure the most effective management possible in crisis conditions. The backbone of this mechanism would have to include at least the following elements (Schinasi, 2003)[6]:

Preventive action

1. Mechanisms of market discipline:
   - internal systems of prevention in financial institutions,
   - risk management and control mechanisms,
   - supervision of the participants (shareholders, creditors ...).
2. Bank supervision.
3. Market supervision.

Management in crisis conditions

1. Legislative framework for bankruptcies and the restructuring (selling) of financial assets.
2. Exit (restructuring) strategies for insolvent institutions.
3. Function of the lender of last resort.

Market advocates may wonder if the mechanisms of market discipline are adequate for preventing the

[6] In addition to preventive activity and crisis management, some authors suggest that in certain circumstances the institutions responsible for ensuring financial stability would also have to carry out corrective activities . This is especially pertinent when the financial system is moving towards the zone of instability or borders on the zone of stability.

occurrence of financial crises. If there is trust in the functioning of this mechanism, the market participant who makes mistakes will pay for these mistakes. This kind of thinking may apply to most activities where a branch of industry can be entered with virtually no restrictions whatsoever. This, however, does not apply to most financial institutions as certain safety mechanisms (e.g. guaranteed deposits in banks) are also built into their operation. It is because of such safety mechanisms that most financial institutions have commitments to certain extra requirements (capital requirements, observing good business practices) and continued supervisions.

One may also wonder if an exit strategy for insolvent institutions should be prepared at all. In the opinion of market advocates, the market could effectively perform this function as well. This view could be supported in the case of less important market participants. The question is whether rescue operations should be left to the market even in the case of large institutions whose financial problems might put the stability of the financial system at risk. In the case of insolvency of important participants in the financial market, assistance from the central bank as a lender of last resort should not be expected to be sufficient as the ensuring of liquidity is not a measure for eliminating insolvency[7]. That is why the state must intervene in such cases (if the market itself does not offer appropriate solutions) with its instruments or measures by means of which it will provide additional capital and thus eliminate financial difficulties. It is logical for the state to have the right to set the conditions under which it is ready to provide such assistance and eventually assume ownership control in order to be able to sell the rehabilitated institution later.

Finally, the fundamental structure of the mechanism for ensuring financial stability should nevertheless be used to more specifically define the tasks of central banks, i.e. the instruments available to them in performing this function. The division into basic and partial tasks or roles of central banks, shown in the following table, rounds out the separation of preventive action from management in crisis conditions.

Table 1: Instruments of central banks in the performance of the function of financial stability

ROLE	PREVENTIVE ACTION	MANAGEMENT IN CRISIS CONDITIONS
BASIC ROLE	Payment system	
	Communication	
		Collaboration in arranging market solutions
		Lender of last resort
	Supervision	
PARTIAL ROLE	Supervision	
	Regulation	
	Insurance schemes	

Source: Magyar Nemzeti Bank, 2004

Some of the main points concerning the aforementioned activities were presented in the preceding sections of this text, but a more detailed description of the listed activities would surpass the purpose of this text. This notwithstanding, some attention should be paid to two dimensions: to supervision in conditions of the implementation of the principle of home country control and to communication. The first problem is linked to the implementation of the principle of a single licence and to the possibility of financial institutions offering their services directly on the markets of EU Member States. In such cases an authority in the home country of the financial institution is responsible for supervising the operation of financial institutions. However, the supervisor is not competent to supervise the financial institution in the state in which the financial institution offers its services. In such circumstances it becomes even more important for central banks to monitor the operation of these financial institutions in connection

[7] Most experts advise against the central bank intervening with its instruments (e.g. as a lender of last resort) in the case of insolvent institutions as in the past such interventions have mostly proved ineffective. For more about this, see Magyar Nemzeti Bank, 2004, or Schinasi, 2003.

with the provision of financial stability. Namely, it is not necessary for the interests of the central bank in the state where the headquarters of the financial institution are located to be equal to the interests of the central bank in the state where the financial institution offers its services. This is particularly true if such an institution has little importance for the first state, while in the other state it is an important market participant, which may especially be characteristic of the new EU members (Magyar Nemzeti Bank, 2004).

Let us conclude with communication as one of the more important tasks of the preventive [8] activity of central banks as part of their efforts to ensure financial stability. It has already been mentioned that central banks have an important informational advantage over other market participants, and it is their duty to reduce this informational advantage in the long term. By regularly issuing publications in which they warn of potential systemic risks they contribute to raising the awareness of market participants and thus to reducing the chances of financial crisis. This is particularly important in the less developed environments, where the standards of reporting and disclosure among market participants are lower than in the developed environments. A reduction in the informational advantage will in no way change the importance of central banks in ensuring financial stability. Market participants will not make independent analyses of the effects of changes in monetary policy, the effects of regulatory and institutional changes or the impact of the activities of individual participants on all others as they lack relevant information to do so. Such information, which is prepared by central banks, can, nevertheless, in many ways contribute to the optimum behaviour of market participants and, possibly, even to the upgrading of individual parts of the financial infrastructure[9], leading to a more efficient and stable financial system.

7. Conclusion

Instead of presenting a classic conclusion with the most important points from the above text, certain facts should be mentioned as they indicate that care for financial stability will be receiving the greatest attention. The interconnection between financial institutions and the concentration of risks in financial systems has assumed alarming proportions. In the last two decades of the last century, the average daily turnover on the foreign exchange market increased six times, portfolio investments seven times, and international interbank financing four times (Quinn, 2004). The main fear lies in the fact that most financial risks from these increased flows are still concentrated in banking sectors despite significant growth in financing through capital markets (e.g. the volume of issue of corporate and state bonds on international markets increased seven times in the last two decades of the last century (Quinn, 2004)). More cause for concern is provided by data on the direct fiscal costs of banking crises in individual states in the past and by calculations of indirect losses as indicated by losses in GDP (Hoggarth et al., 2001). In this respect, there is an awareness of the importance of financial stability only when the consequences of financial instability are present. It is therefore no coincidence that definitions of financial stability actually derive from definitions of instability and its consequences and causes.

Care for financial stability must not be the responsibility of central banks alone. Central banks only have a central place in efforts to preserve macrofinancial stability, while the efforts of the institutions which supervise the operation of market participants on a microlevel are no less important. Cooperation among them is unavoidable in preserving financial stability, as is the transfer of experiences to the state in planning a legislative framework as the necessary infrastructure of financial stability.

[8] Communication is also important in crisis conditions, when confusion and panic are prevalent on the market and when things need to become more relaxed, which is why it must not be included among preventive activities only.

[9] In this respect the establishment of a credit office and property price statistics should be mentioned... (Magyar Nemzeti Bank, 2004).

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Macro stress tests for the Slovenian banking system

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Summary

Macro stress tests are an instrument for assessing the consequences of simulated events that are possible but less probable on a historical basis. The size of the simulated shocks in the risk factors was limited in Slovenia's case to the largest historical changes, those occurring with a statistical probability of 5% between 1995 and 2004.

Given the various methodological approaches to conducting stress tests, the practical execution in the Slovenian banking system in the first part was limited to the integrated approach, which allows for overall analysis of the influence of systemic risks on the aggregate balance sheet of the banking system. However, this approach also has weaknesses such as underestimating endogenous risks deriving from links between banks, and solely considering the direct effects of the simulated shocks. Figures for the last ten years were analysed in order to determine the size range of the shocks for individual risk factors.

Table 1: Shocks in baseline scenario

Risk factor	Shock – change relative to baseline scenario	Period of shock	Post-shock
1: Real GDP	growth down 2.5 percentage points	Q3/04-Q2/05	trend followed
2: Change in interest rates	tolar interest rates up 4 percentage points, foreign currency interest rates 2 percentage points	Q3/04-Q2/05	return to pre-shock level
3: Fall in interest margin	margin down 1 percentage point	Q3/04-Q2/05	return to pre-shock level
4: Tolar appreciation	exchange rate 5% lower	Q3/04	return to pre-shock level
5: Tolar depreciation	exchange rate 5% higher	Q3/04	return to pre-shock level

The results of the simulated shocks, as seen in changes in pre-tax profit, return on equity, capital adequacy and growth in loans and deposits, confirm the relative stability of the Slovenian banking system. However, the moderate consequences of the simulated shocks are also a reflection of the methodological approach and the fact that the largest changes in the risk factors in the last ten years have not caused any deep systemic instabilities.

It is clear from the responses to various shocks that a change in the interest margin by one percentage point has the greatest effect on the performance of banks. The cumulative drop in profit due to a drop in the interest margin by one percentage point in the period of four quarters is practically equal to the one-year profits of the banking sector. Also very strong is the response of profit to a change in the interest rate, where, compared to the scenario involving a change in the interest margin, the effect on the lending and deposit activity of banks is also taken into account. A drop in economic growth and a change in the exchange rate[10] cause comparatively small changes in profit with regard to the baseline scenario. In the case of the lasting shock of a change in the exchange rate level, the effects of appreciation or depreciation have a size range similar to that of the effect of the shock of a change in interest rates. In the case of a long open foreign-exchange position (including balance-sheet and off-balance-sheet), tolar appreciation due to exchange rate differences reduces profit, return on equity and capital adequacy, while tolar depreciation has the opposite - positive - effect on profit, return on equity and capital adequacy.

[10] The exchange rate level was changed for only one quarter and was returned to the level before the shock in the next quarter.

In all the scenarios it can be seen that the response of non-bank customers is stronger on the deposit side than on the lending side. Capital adequacy responds most strongly to a decline in the interest margin, with the effect intensifying throughout the period. Even after the shock is over, that is after the interest margin returns to its previous level, the deviation from the baseline scenario only diminishes slowly. The effect of higher interest rates is also significant, and opposite to that of a decline in the interest margin. With higher profits and somewhat lower lending, capital adequacy increases. The consequences of a change in the exchange rate and GDP growth are less comprehensive, and dissipate relatively quickly.

Table 2: Effect of individual shocks on changes in certain bank financial categories measured by changes with regard to baseline scenario

Year 2004

Shock	Profit in		ROE	Capital adequacy	Growth in non-bank lending	Lending/ TA	Growth in non-bank deposits	Deposits/ TA	Growth in TA
	SIT billions	%							
1: Real GDP	0.0	0.0	0.0	0.01	-0.1	0,0	-0.1	0.0	-0.1
2: Change in interest rates	6.6	14.5	1.6	0.06	-0.1	-0.1	0.3	0.1	0.2
3: Fall in interest margin	-25.0	-45.2	-5.8	-0.14	-	-	-	-	-
4: Tolar appreciation	-0.4	-0.9	0.1	0.02	-0.1	0.0	-0.1	0.0	-0.1
5: Tolar depreciation	-0.8	-1.7	-0.2	-0.01	0.0	0.0	0.1	0.1	0.0

Year 2005

Shock	Profit in		ROE	Capital adequacy	Growth in non-bank lending	Lending/ TA	Growth in non-bank deposits	Deposits/ TA	Growth in TA
	SIT billions	%							
1: Real GDP	-1.0	-1.8	-0.2	0.01	-0.2	0.6	-2.0	-0.5	-1.3
2: Change in interest rates	7.5	13.6	1.5	0.20	-0.1	-0.5	1.1	0.3	0.7
3: Fall in interest margin	-26.3	-47.7	-5.4	-0.60	-	-	-	-	-
4: Tolar appreciation	-0.3	-0.5	-0.1	0.02	-0.2	0.0	-0.4	-0.1	-0.3
5: Tolar depreciation	0.0	0.0	0.0	-0.01	0.0	0.0	0.2	0.2	0.0

As the estimated effect of higher interest rates in the integrated approach (stress tests) in contact to expectation has the opposite sign because the term structure of (assets and liability) interest rates has not been taken into consider, the interest rate risk was also assessed with the piecewise approach. The direct effect on the change in net interest income and on bank profits was observed if the foreign interest rate was raised by one percentage point without changing the domestic interest rate, if the domestic interest rate was raised by one percentage point while keeping the foreign interest rate unchanged, and if, at the same time, both the foreign and domestic interest rates were raised by one percentage point each.

When taking into account the maturity structure of assets and liabilities in the piecewise approach, net interest income decrease. The difference in the estimated effects of interest risk between the piecewise approach and the integrated approach appeared because with the stress tests a simplified model was used that does not take into account the maturity structure of assets and liabilities but only the cumulative effect resulting from the fact that the interest-earning assets are higher than the interest-earning liabilities.

The conclusion resulting from the conducted stress tests is that banks are mainly exposed to interest rate risk, while exchange rate risk and the risk of lower economic growth are less important for banks. However, the lasting shock of a change in the exchange rate would also make exchange rate risk important for banks.

In the second part comprising stress tests using a piecewise approach, there was a focus on the assessment of credit risk via the observation of changes in the quality structure of banks' portfolios. The response to the shocks of a financial stability indicator (the proportion of bad loans) was assessed.

Comparing the actual structure of the credit portfolio with the estimates in the model, it can be seen that the model predicts a larger proportion of bad loans than there actually are according to the estimates of the banks themselves. It seems that banks aim to gain or retain the largest possible market share, giving insufficient consideration to risks and underestimating the proportion of uncollectible claims. In addition, when giving businesses credit ratings they only consider the current situation, while the model also allows for a time component, its assessments being based on historical data. It can therefore be concluded that when arranging new lending transactions banks systematically grant higher credit ratings to businesses. So a snapshot of the credit risk situation shows lower risk than expected.

The stress tests show that a rise in businesses' short-term debt ratio has a significantly greater impact on the banking sector than a deterioration in businesses' liquidity. This is unsurprising, as a rise in the short-term debt ratio entails a restructuring of the way in which businesses are financed.

I. GENERAL INFORMATION ON MACRO STRESS TESTS AND DESCRIPTION OF PROCEDURE FOR SLOVENIAN BANKING SYSTEM

1. What are macro stress tests, and how are they approached?

In line with the IMF and BIS position, a macro stress test can be defined as a package of techniques and methods used to estimate (quantify) the sensitivity of a financial system's portfolio to exceptional but probable macroeconomic shocks (Sorge, 2004; Jones, Hilbers, Slack 2004). Here it should be borne in mind that macro stress tests are an analytical tool that merely give a rough estimate of a change in a banking system's portfolio or in individual financial stability indicators (e.g. capital adequacy, rate of return) owing to relatively large changes in risk factors (e.g. exchange rate, interest rates) that are the consequence of changes in the economic environment. The rough nature of the estimate of the change in the banking categories under observation is because it is based not just on the use of quantitative methods, but also on assumptions and expert judgements. Generally macro stress tests are limited to the banking system, this being the case for Slovenia, and it is only rarely that practical cases cover other sectors of financial intermediation (insurance companies, investment funds).

Macro stress tests are not an instrument for estimating the probability of a specific economic event, but merely an instrument for assessing the consequences of simulated events that are possible but less probable on a historical basis, and may even be merely conceptual in nature. Macro or systemic stress tests are also less accurate than micro or portfolio stress tests, which under the new Basel Standards also form a constituent part of the assessment of internal models of risk monitoring at individual banks. The two forms of stress test are complementary and cannot be used in place of each other.

The various approaches to macro stress tests, some more demanding than others, and their advantages and disadvantages, which also had an influence on the selection of the method for conducting stress tests on the Slovenian banking system, are examined below.

Macro stress tests can be divided as follows in terms of the complexity of the changes in risk factors considered:

1. the sensitivity stress test, where changes in banking categories are observed under changes in an individual risk factor (single-variable shocks)
2. the stress test scenario, where changes in banking categories are observed under simultaneous variations in risk factors all included in an independent shock scenario

Sensitivity stress tests are a simple form of scenario that allow the response of asset categories or individual financial stability indicators to separate risk factor shocks to be monitored. By contrast, more complex stress test scenarios aim to simulate more realistic economic conditions, taking various types of economic shock into consideration.

The approaches to conducting macro stress tests vary in terms of the *direction of the procedure* for conducting the tests, or in terms of the procedure for aggregating and interpreting the results of the tests:

1. The bottom-up approach is based on conducting stress tests at the level of individual banks, using their own models of risk assessment. The aggregation of individual stress tests results is centralised.
2. The top-down approach applies aggregate data from the banking system to the joint portfolio of the entire sector. In this approach the stress test results are based on a model that estimates changes in the banking system's aggregate portfolio owing to the simulated changes.

The advantage of the first approach is the possibility of observing the response of an individual bank's portfolio to the simulated shock factors, allowing for the bank's capacity to absorb the shock. Its disadvantage is in the different methods used by banks to assess the effect of the stress test. Combining stress test results estimated in different ways is not necessarily self-consistent. The top-down approach is consistent at the aggregate level and uses a single model to assess the effect of shocks, but the aggregate stress test model for the banking system's portfolio, which is based on mutual relations in the past, is not necessarily an accurate reflection of the real response of an individual bank to economic shocks in the future. Under ideal circumstances a comparison is made of the results obtained using the two methods.

The second way the approaches to conducting stress tests can be divided is in terms of methodology:

1. The piecewise approach assesses the banking system's sensitivity to individual risk factors by estimating the movement of various financial stability indicators (e.g. capital adequacy, proportion of bad loans, return on equity). Assessment is thus made using independent models that assess the response of an individual indicator to shocks.
2. The integrated approach comprises analysis of the banking system's sensitivity to a change in risk factors using a single estimate of the aggregate loss that could be incurred in a selected scenario.

Although the first approach is more intuitive and less demanding in terms of modelling, its disadvantages are in the less stable assessments in the model's parameters and in the assumption of linearity in the changes in financial stability indicators in response to the simulated shocks. The integrated approach allows for more comprehensive analysis of the effects of risks on banks' aggregate portfolio, and to a certain degree ensures non-linearity in the results in response to a change in the size of the shocks.

2. How macro stress tests are conducted for the Slovenian banking system

In the first part an integrated approach was employed for stress tests for the Slovenian banking system. The integrated approach was made possible by using estimates of economic trends obtained from the macroeconomic forecasting model (ARC, October 2004), employing a forecasting model for the banking system's aggregate total assets and profit, and a model for estimating capital adequacy. The second part makes an assessment of credit risk via observation of changes in the quality structure of banks' portfolio (the piecewise approach), using a credit risk model (Kavčič, 2004).

Simple integrated approach

The macro stress tests employing the integrated approach were conducted in the following steps:

1. Analysis of the stress tests is limited solely to the banking system, although in analysis of sensitivity

to exchange rate risks the corporate sector's exposure to exchange rate risk was also observed. Banks' aggregate total assets and aggregate profit were considered.

2. Based on the findings from the medium-term macroeconomic forecasts from October 2004 (ARC), which represent exogenous assumptions for the forecasting model for banks' aggregate balance sheet, a baseline scenario was drawn up for banks' total assets and profit for the second half of 2004 and for 2005.
3. The type and size of the macroeconomic shocks was determined in the shock calibration phase. Changes in individual risk factors were simulated (real GDP growth, interest rates, interest margin, exchange rate) on the basis of their movement in the past, with a 5% statistical probability of the event repeating being applied, with the exception of the size of the interest margin shock, where a single percentage point change was applied. All the shocks were simulated beginning in the third quarter of 2004.
4. The interpretation of the stress test results is based on the deviation in individual variables from their estimated values in the baseline scenario. The following variables describing the banking system's sensitivity to simulated shocks were selected:

- pre-tax profit
- return on equity
- capital adequacy
- growth in lending to non-bank customers and the proportion of total assets they account for
- growth in deposits by non-bank customers and the proportion of total assets they account for

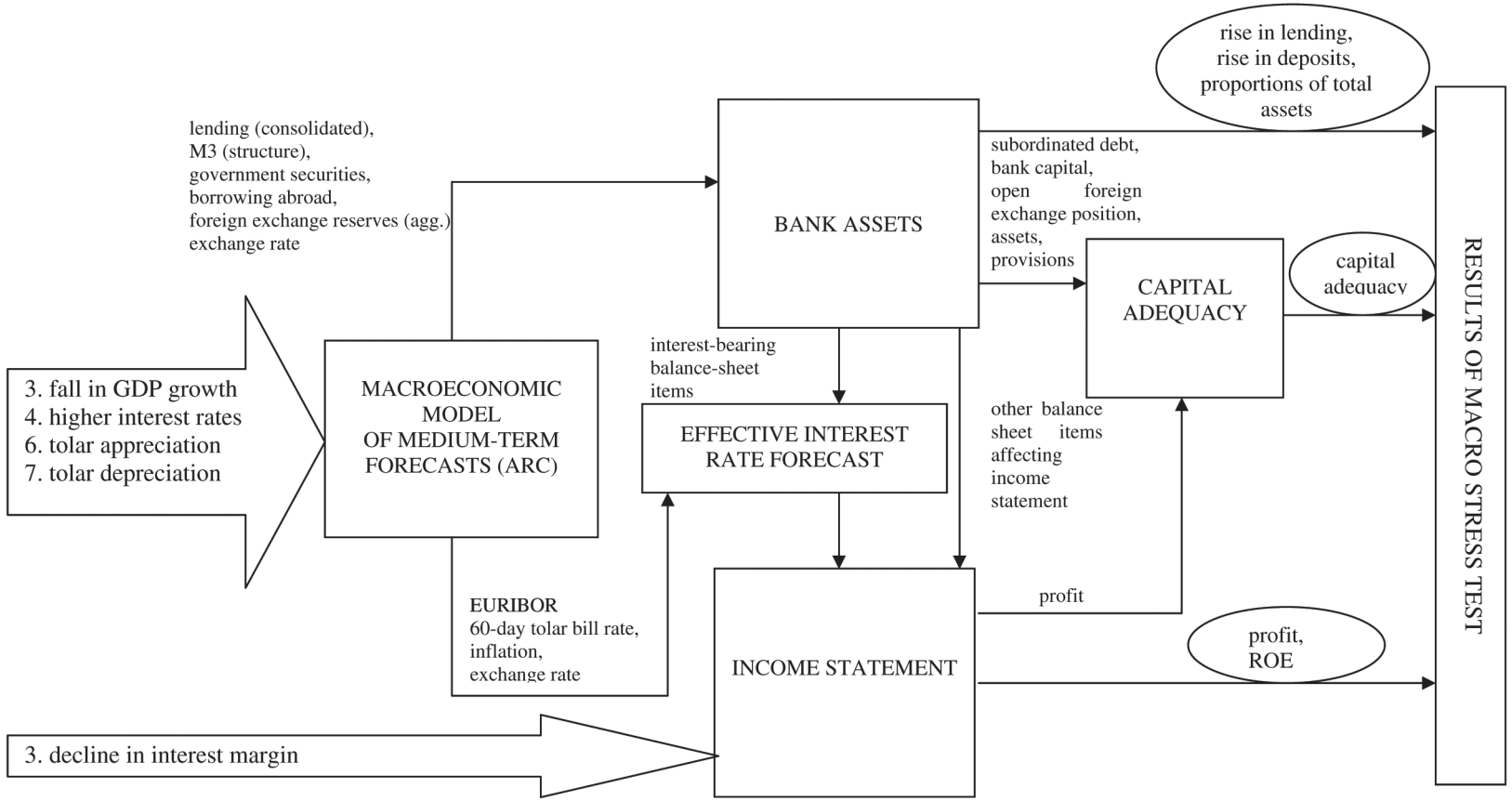
Four models were incorporated in the integrated approach to the macro stress tests:

1. the macroeconomic model of medium-term forecasts, whose results represent the input data for other models
2. the forecasting model for banks' aggregate total assets and the sub-model for estimating effective interest rates
3. the forecasting model for profit
4. the model for estimating capital adequacy

There is a schematic illustration of the links between all four models in Figure 1. Because the models follow a sequential cycle in the process of conducting the stress tests, the results of the simulated economic shocks are merely estimates of direct effects, while the secondary effects deriving from feedback effects are ignored. The integrated approach to the stress tests based on the use of the banking system's consolidated financial position underestimates the systemic risks owing to a failure to consider endogenous risks. The latter derive from the degree of linkage (correlation) between the structure of individual banks' assets positions.

The remainder of the simple integrated approach to the stress tests first examines the baseline scenario of movements in banks' total assets, profit and capital adequacy for the period from the middle of 2004 to the end of 2005. A section describing the selected shocks and the size and duration of individual shocks in risk factors follows. The results of the stress tests under the integrated approach are presented in the third section.

Figure 1: Scheme of model for conducting integrated approach to macro stress tests



Key:

rectangle = model
ellipse = results of stress tests
wide arrows = shocks conducted on individual models
arrows = flow of intermediate calculated (estimated) data inside modelII.

II. INTEGRATED APPROACH TO CONDUCTING STRESS TESTS

1. DEFINITION OF TYPE AND SIZE OF RISK FACTOR SHOCKS

In defining the size of the shocks, the criterion was that the shock should be of low probability but still possible and conceivable. Historical data for the last ten years (1995 to 2004) was analysed for individual risk factor variables, and the variance and standard deviation noted. The size of the shock was selected as double the standard deviation. The size of the simulated shocks in risk factors was thus limited to the largest historical change to occur with a 5% probability. A detailed description of the calibration of individual shocks follows.

Table 1: Shocks in the baseline scenario

Risk factor	Shock – change relative to baseline scenario	Period of shock	Post-shock
1: Real GDP	growth down 2.5 percentage points	Q3/04-Q2/05	trend followed
2: Change in interest rates	tolar rates up 4 percentage points, foreign currency rates 2 percentage points	Q3/04-Q2/05	return to pre-shock level
3: Fall in interest margin	margin down 1 percentage point	Q3/04-Q2/05	return to pre-shock level
4: Tolar appreciation	exchange rate 5% lower	Q3/04	return to pre-shock level
5: Tolar depreciation	exchnage rate 5% higher	Q3/04	return to pre-shock level

Table 2: Duration of shocks

	2004				2005			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1: Real GDP								
2: Change in interest rates								
3: Fall in interest margin								
4: Tolar appreciation								
5: Tolar depreciation								

SHOCK 1: A fall of 2.5 percentage points in GDP growth in the period from the third quarter of 2004 to the second quarter of 2005

In the calibration of the shock of a fall in real GDP growth, year-on-year growth in GDP was reduced by 2.5 percentage points in the four consecutive quarters from the third quarter of 2004 to the second quarter of 2005. At the end of the shock GDP growth was assumed to resume its trend, entailing a quarterly rate of growth at the same level as that in the baseline scenario.

SHOCK 2: A rise of 4 percentage points in tolar interest rates and of 2 percentage points in foreign currency interest rates in the period from the third quarter of 2004 to the end of the second quarter of 2005

The interest rate shock was defined as a rise of 4 percentage points in the representative tolar interest rate (the interest rate on 60-day tolar bills) in the four consecutive quarters from the third quarter of 2004 to the end of the second quarter of 2005. After the end of the shock, interest rates return to their level before the shock, i.e. they fall by 4 percentage points. The EURIBOR, the representative foreign currency interest rate, was also raised by 2 percentage points from the level in the baseline scenario over the same period. After the end of the shock this interest rate was also returned to its level in the baseline scenario.

SHOCK 3: A fall of 1 percentage point in the interest margin in the period from the third quarter of 2004 to the second quarter of 2005

In defining a fall in the banking system's interest margin of 1 percentage point in the period from the third quarter of 2004 to the second quarter of 2005, the level of banks' effective interest rates was reduced by an amount appropriate to a fall in the interest margin of 1 percentage point. After the end of the shock, i.e. from the third quarter of 2005, the interest rates were returned to the level in the baseline scenario. Here the question was what effect would a lower interest margin that was slightly higher than the current level in the EU have on profit, rate of return and capital adequacy.

SHOCK 4: Appreciation of the tolar by 5% in the third quarter of 2004

The definition of tolar appreciation was a rise of 5% in the tolar exchange rate in the third quarter of 2004 (or a fall of foreign exchange rate from 239.64 SIT/EUR to 227.66 SIT/EUR). The exchange rate was returned to its pre-shock value in the next quarter.

SHOCK 5: Depreciation of the tolar by 5% in the third quarter of 2004

The definition of the tolar depreciation shock was a fall of 5% in the tolar exchange rate in the third quarter of 2004 (or a rise of foreign exchange rate from 239.64 SIT/EUR to 251.62 SIT/EUR). The exchange rate was returned to its pre-shock value in the next quarter.

In the next section the effects of the shocks with regard to the baseline scenario and the consequent changes in financial categories in the banking system are examined.

2. RESULTS OF INTEGRATED APPROACH STRESS TESTS

Table 3: Effect of individual shocks on changes in certain bank financial categories measured by changes with regard to baseline scenario

Year 2004

Shock	Profit		ROE	Capital adequacy	Growth in non-bank lending	Lending/ TA	Growth in non-bank deposits	Deposits/ TA	Growth in TA
	SIT billions	%							
1: Real GDP	0.0	0.0	0.0	0.01	-0.1	0.0	-0.1	0.0	-0.1
2: Change in interest rates	6.6	14.5	1.6	0.06	-0.1	-0.1	0.3	0.1	0.2
3: Fall in interest margin	-25.0	-45.2	-5.8	-0.14	-	-	-	-	-
4: Tolar appreciation	-0.4	-0.9	-0.1	0.02	-0.1	0,0	-0.1	0.0	-0.1
5: Tolar depreciation	-0.8	-1.7	-0.2	-0.01	0.0	0.0	0.1	0.1	0.0

Year 2005

Shock	Profit		ROE	Capital adequacy	Growth in non-bank lending	Lending/ TA	Growth in non-bank deposits	Deposits/ TA	Growth in TA
	SIT billions	%							
1: Real GDP	-1.0	-1.8	-0.2	0.01	-0.2	0.6	-2.0	-0.5	-1.3
2: Change in interest rates	7.5	13.6	1.5	0.20	-0.1	-0.5	1.1	0.3	0.7
3: Fall in interest margin	-26.3	-47.7	-5.4	-0.60	-	-	-	-	-
4: Tolar appreciation	-0.3	-0.5	-0.1	0.02	-0.2	0.0	-0.4	-0.1	-0.3
5: Tolar depreciation	0.0	0.0	0.0	-0.01	0.0	0.0	0.2	0.2	0.0

The key conclusion resulting from the conducted stress tests is that banks are mainly exposed to interest rate risk[11] while exchange rate risk and the risk of lower economic growth are less important for banks. However, the lasting shock of a change in the exchange rate would also make exchange rate risk important for banks. Here the indirect effect through the company sector, which, according to available indicators, is also sensitive to changes in the exchange rate, is not taken into account, which increases the exposure of banks to credit risk and which for banks means the possibility of increasing credit risk in the event of a greater change in the exchange rate.

The effects of the shocks were observed with regard to changes in the financial categories of the banking system's profit, return on equity, capital adequacy, growth in lending and deposits by non-bank customers and the proportion of total assets they account for. Given that the duration of the individual shocks varies, their effects were examined separately for 2004 and 2005.

Impact of shocks on pre-tax profit

From the responses to the various shocks it is clear that a fall in the interest margin has the largest effect on banks' results. The cumulative decline in profit owing to the fall of 1 percentage point in the interest margin over the period of four quarters is practically equal to the banking sector's one-year profits. However, it is a matter of testing the fall in the interest margin using the piecewise approach, the effect of the fall in the margin is examined on net interest, gross earnings, profit and rate of return, and not also on lending and deposits. A change in interest rates, where unlike the interest margin scenario the effect on banks' lending and deposit activities is also considered, also produces a powerful response from profit. Lower lending by banks and higher costs owing to the larger level of deposits somewhat neutralise the effect of higher interest rates, which because interest bearing assets are higher than interest bearing liabilities are reflected in a rise in profit. A decline in economic growth and a change in the exchange rate cause relatively small changes in profit with regard to the basic scenario.

Impact of shocks on structure of aggregate balance sheet

In all the scenarios it can be seen that the response of non-bank customers is stronger on the deposit side. With the average maturity period of deposits shorter than that of loans, it is easier for deposits by non-bank customers to adapt to changed circumstances in the economy. The size of the changes in growth in lending is similar in all scenarios, with a deviation of up to 0.2 percentage points with regard to the baseline scenario. The differences between the scenarios are more significant in terms of growth in deposits, and are shown with a lag in 2005. The scenario of lower economic growth shows a particular downward deviation from the baseline scenario, while that of a fall in interest rates deviates strongly upwards.

Impact of shocks on capital adequacy

Capital adequacy responds most strongly to a fall in the interest margin, with the effect intensifying throughout the period. Even after the shock is over, that is after the interest margin returns to its previous level, the deviation from the baseline scenario only diminishes slowly. The effect of higher interest rates is also significant, and opposite to that of a fall in the interest margin. With higher profits and somewhat lower lending, capital adequacy increases. The impacts of a change in the exchange rate and GDP growth on capital adequacy are less comprehensive, and dissipate relatively quickly. However, the effects of the appreciation of the tolar exchange rate on capital adequacy are stronger than the effects of tolar depreciation.

[11] Banks are not exposed to interest rate risk only due to the use of different types of interest rates on the assets and liabilities but also due to the maturity mismatch on the assets and liabilities sides of the balance sheet.

SHOCK 1: A fall of 2.5 percentage points in GDP growth in the period from the third quarter of 2004 to the second quarter of 2005

Lending to non-bank customers begins to respond to the shock with a delay of one quarter, and thus the majority of the effect is only seen in 2005, when profit is down SIT 1 billion and ROE down 0.2 percentage points from the baseline scenario. Lower economic growth sees banking activity fall and lending growth slow, with the rise in deposits by non-bank customers even slowing more. Slower growth in deposits define significantly lower growth in total assets, which is why the proportion of total assets accounted for by lending rises despite growth in lending being lower than in the baseline scenario. The effect of a fall in economic growth on capital adequacy is the same in both years. With lower lending activity and thus less exposure to risk, capital adequacy is 0.01 percentage points up on average from the baseline scenario in each year.

Table 4: Results of stress tests of fall in GDP growth

	Profit SIT billions	ROE	Capital adequacy	Growth in non-bank lending	NB lending/TA	Growth in non-bank deposits	NB deposits/TA	Growth in TA
Baseline scenario								
2003	47.8	12.4	11.54	10.7	48.7	8.7	65,5	14.9
2004	45.9	10.7	11.05	19.0	52.0	6.0	62.3	11.5
2005	55,2	11.3	10.50	19.0	55.0	6.7	59.2	12.5
GDP growth down 2.5 percentage points, Q3/04 to Q2/05								
2004	45.9	10.7	11.05	18.9	52.0	5.8	62.3	11.4
2005	54.2	11.1	10.52	18.8	55.6	4.6	58.7	11.1
Difference from baseline scenario								
2004	0.0	0.0	0.01	-0.1	0.0	-0.1	0.0	-0.1
2005	-1.0	-0.2	0.01	-0.2	0.6	-2.0	-0.5	-1.3

Note: NB - non-banking sector, TA - total assets

SHOCK 2: A rise of 4 percentage points in tolar interest rates and of 2 percentage points in foreign currency interest rates in the period from the third quarter of 2004 to the end of the second quarter of 2005

Table 5: Results of stress tests of rise in interest rates

	Profit SIT billions	ROE	Capital adequacy	Growth in non-bank lending	NB lending/TA	Growth in non-bank deposits	NB deposits/TA	Growth in TA
Baseline scenario								
2003	47.8	12.4	11.54	10.7	48.7	8.7	65.5	14.9
2004	45.9	10.7	11.05	19.0	52.0	6.0	62.3	11,5
2005	55.2	11.3	10.50	19.0	55.0	6.7	59.2	12.5
Interest rate rise Q3/04 to Q2/05 (tolar 4 pp, foreign currency 2 pp)								
2004	52.6	12.3	11.11	18,9	51.8	6.3	62.4	11.8
2005	62.7	12.9	10.71	18.8	54.5	7.8	59.6	13.1
Difference from baseline scenario								
2004	6.6	1.6	0.06	-0,1	-0.1	0.3	0.1	0.2
2005	7.5	1.5	0.20	-0.1	-0.5	1.1	0.3	0.7

Banks respond most strongly to a change in interest rates. Given that interest-bearing assets are higher than interest-bearing liabilities, a rise in interest rates increases profit, and thus capital adequacy. The decline in lending, owing to higher interest rates, and consecutively reduced credit risk also has a positive impact on the capital adequacy. The latter is thus 0.2 percentage points higher in 2005 than in the baseline scenario. The strong improvement in the return on savings encourages faster growth in deposits by non-bank customers, but only in the longer term, that is in 2005. Banks activity increases in line with rising deposits. Growth in total assets is 0.7 percentage points higher in 2005 than in the baseline scenario, significantly higher difference than in 2004, with the consequent rise in profit from the baseline scenario being greater than in the previous year.

Assessment of interest rate risk with the piecewise approach

As the estimated effect of interest risk in the stress tests has the opposite sign than what would theoretically be expected, the interest rate risk was also assessed with the piecewise approach.

The direct effect on the change in net interest income and on bank profits was observed if the foreign interest rate was raised by one percentage point without changing the domestic interest rate, if the domestic interest rate was raised by one percentage point while keeping the foreign interest rate unchanged, and if, at the same time, both the foreign and domestic interest rates were raised by one percentage point each.

Table 6: Change in net interest income and profit before tax in billions of SIT after raising interest rates by one percentage point.

	2003			2004		
	Rise in dom. interest rates by 1 pp.	Rise in foreign interest rates by 1 pp	Rise in interest rates by 1 pp.	Rise in dom. interest rate by 1 pp.	Rise in foreign Interest rate by 1 pp.	Rise in interest rates by 1 pp
Balance sheet - ASSETS	12.3	12.1	24.4	11.2	15.3	26.5
Loans	6.3	6.6	12,9	6.2	9.9	16.1
Securities with foreign exchange reserves	6.0	5.5	11.5	5.0	5.4	10.4
Balance sheet - LIABILITIES	21.8	15.1	36.9	23.3	18.1	41,4
Deposits (together with bank d.)	20.7	15.1	35.8	22.9	18.1	41.0
Other interest-bearing liabilities	1.1		1.1	0.4		0.4
Net interest income	-9.5	-3.0	-12.5	-12.1	-2.8	-14.9
Profit before tax	47.8	47.8	47,8	59.2	59.2	59.2
Profit before tax after change in interest rates	38.3	44.8	35.3	47.1	56.4	44.3

After taking into account the maturity structure of assets and liabilities, a change in interest rates on the side of assets had an effect on loans and securities with a variable interest rate, while on the side of liabilities it had an effect on short-term deposits with a variable interest rate and other interest-earning liabilities. For the years 2003 and 2004 it was assessed how changes in interest rates affect the balance sheet, net interest income and profit before tax. With an unchanged foreign interest rate, a rise in the domestic interest rate by one percentage point causes a drop of SIT 9.5 billion in net interest income in 2003 and a drop of SIT 12.1 billion in 2004. Consequently, profit before tax drops to SIT 38.3 billion in 2003 and to SIT 47.1 billion in 2004. If the foreign interest rate is raised by one percentage point and the domestic interest rate is kept unchanged, net interest income drop by SIT 3.0 billion in the year 2003 and by SIT 2.8 billion in the year 2004. Profit before tax in this case stands at SIT 44.8 billion in 2003 and at SIT 56.4 billion in 2004. With the simultaneous changes in the domestic and foreign interest rate by one percentage point, their effects combine. Net interest income thus drops by SIT 12.5 billion in 2003 and by SIT 14.9 billion in 2004. Profit before tax is SIT 35.3 billion in 2003 and SIT 44.3 billion in 2004 when both interest rates are changed.

The difference in the estimated effects of interest risk between the piecewise approach and the integrated approach (stress tests) appeared because with the stress tests a simplified model was used that does not take into account the maturity structure of assets and liabilities but only the cumulative effect resulting from the fact that the interest-earning assets are higher than the interest-earning liabilities. This means that a rise in interest rates causes a cumulative rise in net interest income and in the interest margin. When taking into account the maturity structure of assets and liabilities in the piecewise approach, net interest income decrease .

SHOCK 3: A fall of 1 percentage point in the interest margin in the period from the third quarter of 2004 to the second quarter of 2005

The results of a fall in the interest margin are only defined in terms of profit, and do not include changes in the balance sheet. Retaining the balance sheet items from the baseline scenario, where interest-bearing assets are higher than interest-bearing liabilities, a fall in the interest margin of 1 percentage point results in a fall in profit of approximately SIT 13 billion in the quarter in question. The cumulative decline in profit is thus approximately equal to the banking sector's one-year profits. Capital adequacy also shows its largest fall in response to a change in the interest margin, with the size of the effect building throughout the period. Even after the end of the shock, in the last two quarters of 2005, when like the balance sheet items profit is the same as in the baseline scenario, capital adequacy is still lower than in the baseline scenario owing to lower accumulation of profits and a consequent lower core capital. The effect of a fall in the interest margin thus dissipates only slowly, with capital adequacy 0.6 percentage points lower in 2005 than in the baseline scenario.

Table 7: Results of stress tests of fall in interest margin

	Profit SIT billions	ROE	Capital adequacy
Baseline scenario			
2003	47.8	12.4	11.54
2004	45.9	10.7	11.05
2005	55.2	11.3	10.50
Interest margin down 1 pp (Q3/04 to Q2/05)			
2004	21.0	4.9	10.90
2005	28.9	5.9	9.91
Difference from baseline scenario			
2004	-25.0	-5.8	-0.14
2005	-26.3	-5.4	-0.60

SHOCK 4: Appreciation of the tolar by 5% in the third quarter of 2004

Table 8: Results of stress tests of tolar appreciation

	Profit SIT billions	ROE	Capital adequacy	Growth in non-bank lending	NB lending/TA	Growth in non-bank deposits	NB deposits/TA	Growth in TA
Baseline scenario								
2003	47.8	12.4	11.54	10.7	48.7	8.7	65.5	14.9
2004	45.9	10.7	11.05	19.0	52.0	6.0	62.3	11.5
2005	55.2	11.3	10.50	19.0	55.0	6.7	59.2	12.5
5% tolar appreciation in Q3/04								
2004	45.5	10.6	11.07	18.9	52.0	5.9	62.3	11.5
2005	54.9	11.3	10.52	18.7	55.0	6.2	59.1	12.1
Difference from baseline scenario								
2004	-0.4	-0.1	0.02	-0.1	0.0	-0.1	0.0	-0.1
2005	-0.3	-0.1	0.02	-0.2	0.0	-0.4	-0.1	-0.3

The appreciation of the tolar exchange rate (from 239.64 SIT/EUR to 227.66 SIT/EUR) in the third quarter changes the currency structure in favour of tolar lending and deposits. The proportion of total lending accounted for by foreign currency falls by 1.8 percentage points to 32.7%, while the proportion of total deposits accounted for by foreign currency falls by 2.2 percentage points to 41.6%. Because the interest spread between the effective interest rates is higher in the tolar part of the balance sheet than

in the foreign currency part, profit rises by SIT 0.6 billion. As banks have a long open foreign-exchange position (including the balance-sheet and off-balance sheet categories), profit in 2004 falls by SIT 1 billion at the same time due to exchange differences. Thus profit in 2004 falls by SIT 0.4 billion. Given that the foreign exchange balance sheet has a short position and that foreign-exchange deposits fall more than do foreign-exchange loans, the position closes somewhat with regard to the baseline scenario, which causes a drop in currency risk and positively effects the capital adequacy.

In the final quarter of 2004 the tolar exchange rate returns to its pre-shock value, as does the ratio of foreign currency to tolars in the balance sheet. Thus only the banking activity growth has an impact on profit and capital adequacy in 2005. Non-bank customers reduce their borrowing from domestic banks, as the appreciation of the tolar makes lending from abroad more competitive. Spending is also partly financed from savings.[12] At the same time deposits have a shorter average maturity period than loans, and are thus quicker to adapt to changed circumstances. Growth in deposits by non-bank customers is 0.4 percentage points down from the baseline scenario in 2005, significantly more than growth in lending. Deposits also define the banking sector's activity, and growth in total assets is lower than in the baseline scenario in 2005, thus reducing profit. Despite lower profit in 2005 capital adequacy is higher than in the baseline scenario, a result of lower activity and thus lower credit risk. Risk-adjusted assets are lower than in the baseline scenario.

In the event of a lasting shock of tolar appreciation, profit in 2004 would fall by SIT 7 billion due to exchange differences. Consequently, return on equity would fall by 1.6 percentage points in the same period. Lower profit also means lower capital adequacy. Capital adequacy would fall by 0.03 percentage points in 2004 and by twice as much in 2005 -0.06 percentage points.

SHOCK 5: Depreciation of the tolar by 5% in the third quarter of 2004

Table 9: Results of stress tests of tolar depreciation

	Profit SIT billions	ROE	Capital adequacy	Growth in non-bank lending	NB lending/TA	Growth in non-bank deposits	NB deposits/TA	Growth in TA
Baseline scenario								
2003	47.8	12.4	11.54	10.7	48.7	8.7	65.5	14.9
2004	45.9	10.7	11.05	19.0	52.0	6.0	62.3	11.5
2005	55.2	11.3	10.50	19.0	55.0	6.7	59.2	12.5
5% tolar depreciation in Q3/04								
2004	45.1	10.5	11.04	19.0	52.0	6.1	62.4	11.5
2005	55.2	11.3	10.50	19.0	55.0	6.8	59.4	12.5
Difference from baseline scenario								
2004	-0,6	-0,2	0.02	-0.1	0.0	-0.1	0.0	-0.1
2005	-0.3	-0.1	0.02	-0.2	0,0	-0.4	-0.1	-0.3

With tolar depreciation (from 239.64 SIT/EUR to 251.62 SIT/EUR), the opposite of what happens in the appreciation shock occurs, the proportion of foreign currency balance sheet items rising. The proportion of total assets accounted for by foreign currency assets rises by 1.4 percentage points to 36.9%, while that accounted for by foreign currency liabilities rises further, by 1.9 percentage points to 38%. Given that the foreign currency part of the balance sheet gives lower returns than the tolar part, tolar deprecation causes the banking sector's profit to fall by SIT 0.5 billion in the third quarter of 2004. As the adverse effect of exchange differences in the last quarter of 2004, when the exchange rate returns to the level before the shock, is greater than the favourable effect of exchange differences in the third quarter of 2004, profit falls by SIT 0.3 billion in 2004. Due to lower profit (altogether by SIT 0.8 billion in 2004) capital adequacy

[12] In addition tolar appreciation encourages imports and hinders exports, which increases demand on the domestic market, encourages consumer spending and further hinders savings growth

falls. As the already short balance-sheet open foreign-exchange position becomes even shorter (the share of foreign-exchange liabilities in the balance sheet increases more than the share of foreign-exchange assets), capital adequacy also deteriorates due to higher currency risks. In 2005 profit becomes equal to the baseline scenario, but the lower accumulation of profit keeps capital adequacy under the value from the baseline scenario also in 2005.

Growth in lending by non-bank customers is practically unaffected by tolar depreciation. At first sight this could be explained by the lower adaptability of domestic banks, who fail to exploit the opportunities offered when domestic lending becomes more competitive than lending abroad. However it should be realised that the regression equations were compiled in a period of constant depreciation, and with domestic interest rates considerably higher than foreign rates. The response to deprecation after a longer period of a stable exchange rate can be expected to be stronger. Furthermore, the shock is relatively short, lasting just one quarter. Growth in deposits by non-bank customers responds somewhat more strongly than growth in lending. Given that tolar depreciation encourages exports, while growth in imports slows, this has a favourable effect on saving and thus on growth in deposits by non-bank customers. Total assets grow at the same rate as in the baseline scenario.

Given a lasting shock of tolar depreciation, profit in 2004 would increase by SIT 5 billion due to exchange differences. Higher profit would increase return on equity by 1.2 percentage points in 2004. In that case, capital adequacy would also increase, by 0.02 percentage points in 2004 and by 0.04 percentage points in 2005. As expected, the response of the banking sector to lasting tolar depreciation is therefore weaker than to lasting tolar appreciation.

Exchange rate risk at companies

The stress test results show that interest rate risk is of much greater significance to banks than exchange rate risk. However, the stress tests do not incorporate the indirect effect of a change in the exchange rate via the corporate sector, which entails an additional risk for banks.

In this part of the analysis, the corporate sector's open foreign exchange position consists of an open position with the rest of the world and an open position with domestic banks. The open foreign exchange position with the rest of the world is calculated as the difference between companies' assets and liabilities to the rest of the world. The open foreign exchange position with domestic banks is calculated as the difference between banks' liabilities and assets to companies in foreign currency. In 2003 the corporate sector's total open position was short, equivalent to 9.4% of the sector's assets or 21% of capital. The foreign exchange position has been opening further since 2000, and rose sharply in 2003, with domestic banks in particular. This is confirmed by the substitution of borrowing abroad with borrowing at domestic banks in foreign currency.

In the event of the depreciation of the tolar, the open foreign exchange position would open further, and net indebtedness would increase, which would reduce companies' ability to regularly repay (service) their debt and thus have negative consequences for profits.

Only figures on the open foreign exchange position with the rest of the world are available for individual sectors. The position is short, irrespective of the sector, and in recent years has been opening further. In 2003 it was equivalent to 6.7% of the corporate sector's assets and 14% of capital. The most open position is held by public administration companies, at 13.4%, with the trend of further opening continuing, the position opening by 3.5 percentage points in 2003 alone. Only the manufacturing sector opened more, by 4.1 percentage points, with this sector accounting for one-third of the corporate sector's total assets, and its movements therefore signalling the course for the entire corporate sector. In addition to public administration, the retail and hospitality sector and the transport and communications sector both have an open position with the rest of the world of more than 8% of assets, but in these sectors the position closed slightly in 2003 from the previous year.

Table 10: Corporate sector's open foreign exchange position, proportion of revenues accounted for by exports, and return on assets (%)

	Open FX position with ROW/assets				Export revenues /sales revenues				ROA			
	2000	2001	2002	2003	2000	2001	2002	2003	2000	2001	2002	2003
Agriculture, forestry, fishing and mining	-0.3	-0.6	-0.1	-0.7	4.1	4.9	4.9	5.0	-0.8	-18.1	-0.5	0.0
Manufacturing	-2.8	-2.6	-1.5	-5.6	55.4	55.0	56.1	57.8	2.8	2.5	3.7	4.2
Electricity, gas and water	-2.6	-4.8	-5.1	-3.5	2.4	4.7	1.2	3.8	-1.1	-27.0	1.0	1.6
Construction	0.4	-0.9	-1.6	-2.4	3.0	4.1	5.3	4.8	1.5	1.3	0.3	1.8
Retail and hospitality	-9.7	-10.2	-10.1	-9.3	9.6	9.5	10.4	10.3	2.3	2.4	2.5	3.5
Transport and communications	-11.1	-11.9	-12.4	-8.6	28.1	27.7	27.4	26.8	1.9	0.9	-0.2	2.0
Financial services, real estate	-4.5	-5.4	-6.7	-4.9	13.8	15.1	15.1	14.5	1.0	-0.9	2.5	2.3
Public administration	-9.3	-8.3	-9.9	-13.4	25.3	23.9	22.8	22.2	-0.1	0.7	0.8	0.9
Total corporate sector	-5.5	-6.1	-6.2	-6.7	27.2	27.5	28.2	28.4	1.5	-2.2	2.1	2.9
	Open FX position with ROW and banks / assets											
Total corporate sector	-6.5	-7.4	-7.8	-9.4								

Source: Bank of Slovenia

The companies with short position and at the same time with a large proportion of revenues from exports may be to a large extent protected from foreign exchange risks. The most prominent branche is manufacturing, which generates most of its sales revenue through exports. On average companies generate somewhat less than one-third of their sales revenue through sales on foreign markets. The share of sales revenue generated on foreign markets in total revenues particularly increased in 2002, when economic conditions improved relative to the previous year.

III. PIECEWISE APPROACH TO CONDUCTING STRESS TESTS

1. PRESENTATION OF PIECEWISE APRROACH

In this part of the analysis there is a focus on assessing credit risk via observation of changes in the quality structure of banks' credit portfolios using a credit risk model (Kavčič, 2005). This methodological approach is called the piecewise approach. It assesses the banking sector's sensitivity to individual risk factors by estimating the movement of various financial stability indicators (e.g. the proportion of bad loans). It is thus a model that estimates the response of an individual indicator to shocks.

The structure of banks' credit portfolio is first analysed below. The differences in the structure of the following will be examined:
1. the overall portfolio,
2. the portfolio used for assessing the model,
3. the portfolio of new lending.

There is a brief description of how the credit risk model (referred to as the 2002 model) was assessed, the model serving as the baseline scenario for the stress tests. The model's results will be compared with the actual figures and with the results obtained if the model's coefficients are again assessed for the 1995 to 2003 period.

As part of the stress tests, two risk factor shocks are defined and their impacts on changes in the structure of the credit portfolio are described.

2. ANALYSIS OF CREDIT RATING STRUCTURE

Banks assess the quality of their credit portfolios and credit risk on the basis of customer credit ratings. In so doing banks use a credit rating to give an assessment of the quality of the customer and the customer's ability to fulfil liabilities.

The analysis here is based on figures from banks' credit portfolios. The population under observation comprises businesses in Slovenia that borrowed from at least one of the banks between 1995 and 2003. The businesses are limited to companies and sole traders, as the subject of the analysis was the performance of companies and small businesses. A further condition was that the figures in the financial statements should be available for the selected businesses.[13]

The current structure of banks' credit portfolio for 2002 and 2003 is examined in Table 11. The differences in the structure of the overall portfolio, the portfolio used to assess the model[14] and the portfolio of new lending are examined. The last of these includes bank/business pairs between whom there is a commercial relationship in the year in question, but no partnership in the previous year. In 2003 there were 7,389 new links between banks and businesses recorded.

Comparing 2002 and 2003, it can be seen that the structure of credit ratings in the overall credit portfolio and in the part used to assess the model is deteriorating. The number of customers with an A credit rating is falling, from 58.42% in 2002 to 57.24% in 2003 among the overall population, and from 58.12% to 57.00% in the model. By contrast, there is a significant improvement in the credit ratings for new lending between banks and businesses that did not work together in the previous year. Among these the number of customers with an A credit rating rose from 59.11% in 2002 to 64.77% in 2003. It appears that banks aim to obtain or retain the market share as large as possible, and give insufficient consideration to risks, underestimating the proportion of uncollectible claims. They focus their attention on attracting new customers and increasing their market share, with their provisions for uncollectible claims failing to

[13] Balance sheet and income statement figures are not available for small businesses (the database covers only the 19 largest small businesses, and only the figures since 2001). Public institutes (e.g. RTV Slovenija) have not been obliged to publish financial statements in this form since 1994, and have also thus been excluded.

[14] In the assessment of the model, only those records relating to active (solvent) banks were used from the overall population.

reach the level that they should had the average grading of customers of all banks over the longer period been taken into consideration. It should also be noted that banks grade their customers with regard to the current situation and current information. It could be said that it is cyclical in nature: in good times banks are over-optimistic and give companies higher credit ratings, but when the economy deteriorates companies cannot repay their liabilities and banks behave more conservatively.

Table 11: Structure of credit ratings in 2002 and 2003 (%)

2002

	All	Model	New
A	58.42	58.12	59.11
B	27.48	27.00	28.25
C	7.42	7.06	8.24
D	4.66	5.17	3.84
E	2.01	2.65	0.56
Total	100.00	100.00	100.00

2003

	All	Model	New
A	57.24	57.00	64.77
B	27.98	28.02	26.58
C	7.49	6.96	5.22
D	5.49	5.92	2.73
E	1.80	2.09	0.69
Total	100.00	100.00	100.00

To confirm these assumptions, it is worth examining how banks alter their credit ratings after attracting customers. Table 12 shows how banks rank the same customers in two successive years. On this occasion the structure of the overall portfolio is compared with the structure of the model portfolio. The column headed “others” includes selected records in the portfolio for which it was not possible to calculate all the indicators required to assess the model.

The same change is seen in all three cases. The number of customers with an A credit rating falls, while the numbers of all the other credit ratings rise. This confirms the assumption that banks rate new customers too generously. This allows them better lending terms (lower interest rates). Later customers are (generally) downgraded to a lower credit rating. During any subsequent customer downgrading, the terms (interest rates, etc.) generally remain unchanged. The risk premium thus remains unchanged, while the downgrading of the customer means banks must create extra provisions for uncollectible claims

Table 12: Downgrading of credit rating of businesses (%)

	All		Model		Others	
	2002	2003	2002	2003	2002	2003
A	59.00	54.92	60.85	57.00	54.09	49.39
B	28.06	28.41	27.83	28.02	28.67	29.46
C	7.34	8.19	6.13	6.96	10.56	11.46
D	4.18	6.34	3.89	5.92	4.96	7.44
E	1.42	2.14	1.31	2.09	1.72	2.25
Total	100.00	100.00	100.00	100.00	100.00	100.00

The same change is seen in all three cases. The number of customers with an A credit rating falls, while the numbers of all the other credit ratings rise. This confirms the assumption that banks rate new customers too generously. This allows them better lending terms (lower interest rates). Later customers are (generally) downgraded to a lower credit rating. During any subsequent customer downgrading, the

terms (interest rates, etc.) generally remain unchanged. The risk premium thus remains unchanged, while the downgrading of the customer means banks must create extra provisions for uncollectible claims.

3. 2002 MODEL

The credit risk model employs a method based on calculating the probability that a particular business has a specific credit rating with regard to the value of selected indicators.

Using a single selected latent variable (the business's credit rating), the model presented allocates businesses with a specific level of risk to credit rating categories with regard to the value of selected indicators, and can analyse the expected migration of businesses between several credit ratings. It can be used to assess which credit rating a particular business is most likely to have at a future time. The model was assessed using a random-effect multinomial ordered probit model for panel data. The model was presented in detail in the Financial Stability Report for 2003.[15]

The population under observation comprises businesses that between 1995 and 2003 borrowed from at least one of the banks still in business today. This criterion was chosen because the interest is in how banks give businesses credit ratings in the future. It is therefore best to examine how they have done so to date. To assess the probability of a change in the credit rating of businesses, there is a need for indicators calculated from figures in the financial statements, some of which are given below. A unit in the population is uniformly designated as the trio of year – business – bank. The model was assessed for the 1995 to 2002 period.

Description of indicators

The short-term debt ratio in the previous year is short-term financial and operating liabilities as a proportion of assets in the previous year, and indicates the short-term liabilities per unit of assets. The larger a business's short-term debt ratio is in the previous year, the worse its credit rating is.

Liquidity (net cashflow per unit of sales) represents a business's ability to pay its liabilities. Good liquidity improves the business's credit rating.

Cashflow from operating activities as a proportion of revenues (depreciation and profit minus losses as a proportion of revenues) gives evidence of the proportion of revenues represented by inflows from operating activities. These inflows are one of the best indicators of a company's performance. All stable, mature and profitable companies are expected to generate sufficient cashflow from operating activities to be able to repay their creditors and owners.

Demand (sales per unit output) represents a variable showing the size and stability of demand.

In order to control the macroeconomic elements common to all customers and lending that change over time, dummy variables for the years were included.

* * *

When the coefficients of the 2002 model were assessed, with the aid of the actual distribution of credit ratings the critical value of the latent variable was set to distinguish between good and bad loans using a specific level of risk. Loans to businesses with D and E credit ratings were classed as bad loans. Among the businesses used to assess the 2002 model, there were 1,109 with a D or E credit rating in 2002, equivalent to 7.82%. In 2003 there were 1,405 such businesses, equivalent to 8.02%. The critical value (1.155) was set such that the number of businesses that in 2002 had a value of the latent variable greater than the critical value was equal to the number of businesses given a D or E credit rating. Table 13 gives a comparison of the actual structure of the credit portfolio and the distribution of the latent variable with regard to the critical value. There were 1,112 units whose latent variable for 2002 was greater than 1.155.

[15] Financial Stability Report 2003, Bank of Slovenia, 2004

Table 13: Comparison of actual structure of credit portfolio and distribution of latent variable for 2002

	Total (number)	Rated D or E (number)	Rated D or E (number)
Actual figure	14185	1109	7.82
2002 model	14185	1112	7.84

With the critical value of the latent variable set, the 2002 model was subsequently used to forecast the structure of the credit portfolio and the proportion of bad loans (loans made to customers given a D or E credit rating) for 2003. The coefficient of the dummy variable for 2003 was required for the forecast. It was obtained by making a repeat assessme nt of the coefficients of the model, this time for the 1995 to 2003 period (referred to as the 2003 model).

The forecast for the structure of the credit portfolio obtained for 2003 with the aid of the 2002 model was compared with the actual figures and the estimated structure of the credit portfolio obtained with the 2003 model. The results are given in Table 14.

Table 14: Comparison of actual structure of credit portfolio with model forecasts for 2003

	Total (number)	Rated D or E (number)	Rated D or E (number)
Actual figure	17523	1405	8,02
2002 model	17523	1782	10,17
2003 model	17523	538	3,07

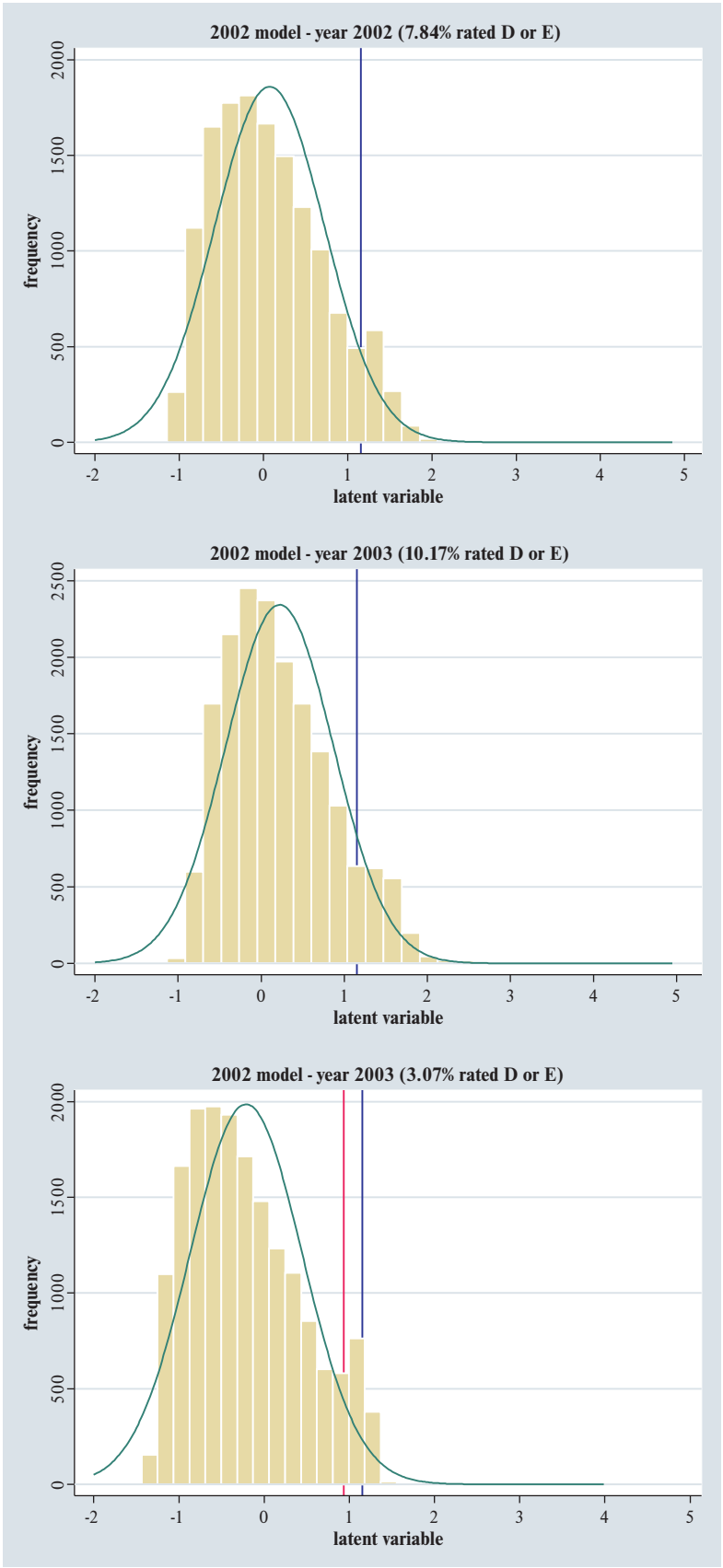
The percentage of customers given a D or E credit rating in 2003 was defined with the aid of the 2002 and 2003 models as the number of customers whose 2003 latent variable was greater than the critical value set in the 2002 model on the basis of the actual structure of the credit portfolio for 2002. The 2002 model forecast that 10.17% of loans would be bad in 2003, which was 2.15 percentage points more than the percentage of loans actually assessed as bad by banks. By contrast, with no change in the critical value of the latent variable, the 2003 model forecast that just 3.07% of loans would be bad in 2003.

This is a reflection of the fall in the proportion of bad loans on the balance sheets of Slovenian banks. In 2003 bad loans fell considerably. The forecast of 3.07% is primarily the result of banks' aggressiveness in attracting new customers and thus a greater market share, and the aforementioned over-optimistic credit ratings given to businesses. In giving credit ratings to businesses, banks only take account of the current situation, while the model also takes account of a time component, its assessments being based on historical data over the longer period.

Figure 7 shows the frequency distribution of the latent variable and the estimated proportion of bad loans for 2002 and 2003. The blue vertical line indicates the latent variable's critical value of 1.155. Latent variable values greater than the critical value (right of the blue line) represent customers given a D or E credit rating. The pink vertical line on the third graph in Figure 7 was set in a similar manner to the blue line, except that the latent variable's critical value of 0.935 in this case was determined using the 2003 model and the actual figures for 2003. There were 1,405 customers whose latent variable calculated using the coefficients of the 2003 model was greater than 0.935 in 2003, equivalent to 8.02%.

Taking all this into consideration, it can be concluded that banks systematically give businesses better credit ratings when concluding new transactions (granting new loans), and a snapshot of the credit risk situation therefore shows better ratings than the actual situation. The model assesses the 1995 to 2002 (or 2003) period, while the actual figures for banks' current assessments neglect the time dimension.

Figure 7: Distribution of latent variable for 2002 and 2003



4. DEFINITION OF TYPE AND SIZE OF RISK FACTOR SHOCKS

In defining the types and sizes of the shocks, there was a focus on possible but generally less probable events. The basis was historical experience. As in the integrated approach to stress tests, the size of the simulated shocks in the risk factors was limited to the largest historical changes, those occurring with a statistical probability of 5% between 1995 and 2003. The variance was noted for individual risk factor economic variables. The size of the shock was defined as double the standard deviation.

The short-term debt ratio and liquidity were chosen as the risk factors.

SHOCK 1: An increase in the short-term debt ratio
In defining the shock of an increase in the short-term debt ratio, the short-term liabilities per unit assets for all businesses used in the calculation were increased by 1.99.

SHOCK 2: A deterioration in liquidity
When the shock of a deterioration in liquidity was defined, the liquidity of all businesses was reduced by 108.39 (net flow per unit sales).

5. RESULTS OF PIECEWISE APPROACH STRESS TESTS

The stress tests were conducted with the aid of the 2002 model examined above. This made it possible to assess the effects of the shocks in liquidity and corporate borrowing on the structure of the credit portfolio. The variables in the model were calibrated with regard to the selected shock, and the model was used to assess the consequences for the banking sector.

The key finding from the stress tests conducted is that a rise in businesses' short-term debt ratio has a significantly larger impact on the banking sector than a deterioration in businesses' liquidity. This is unsurprising, as an increase in the short-term debt ratio entails a restructuring in the way businesses are financed.

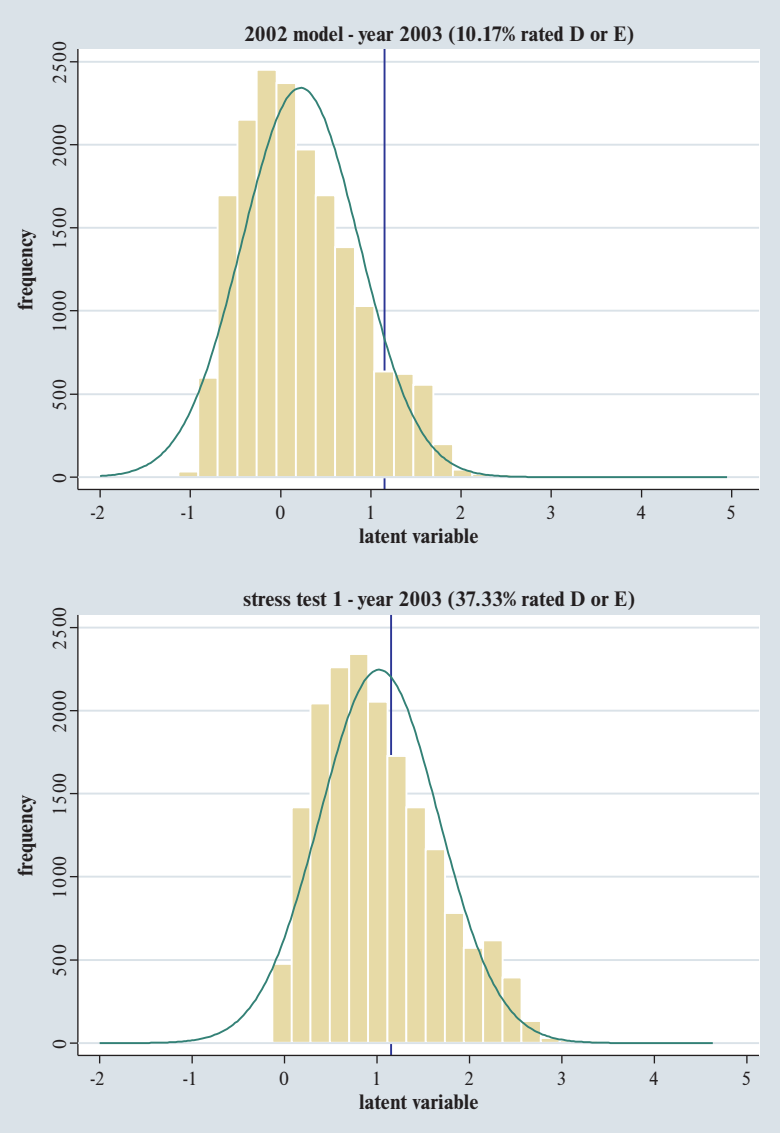
The effects of the simulated shocks were observed in light of the proportion of bad loans (Table 15).

Table 15: Effect of individual shocks on proportion of bad loans for 2003

	Total (number)	Rated D or E (number)	Rated D or E (percentage)
Actual figure	17523	1405	8.02
2002 model	17523	1782	10.17
Shock 1: increase in short-term debt ratio	17523	6541	37.33
Shock 2: deterioration in liquidity	17523	2645	15.09

SHOCK 1: An increase in the short-term debt ratio

Figure 8: Distribution of latent variable for 2003 under shock 1

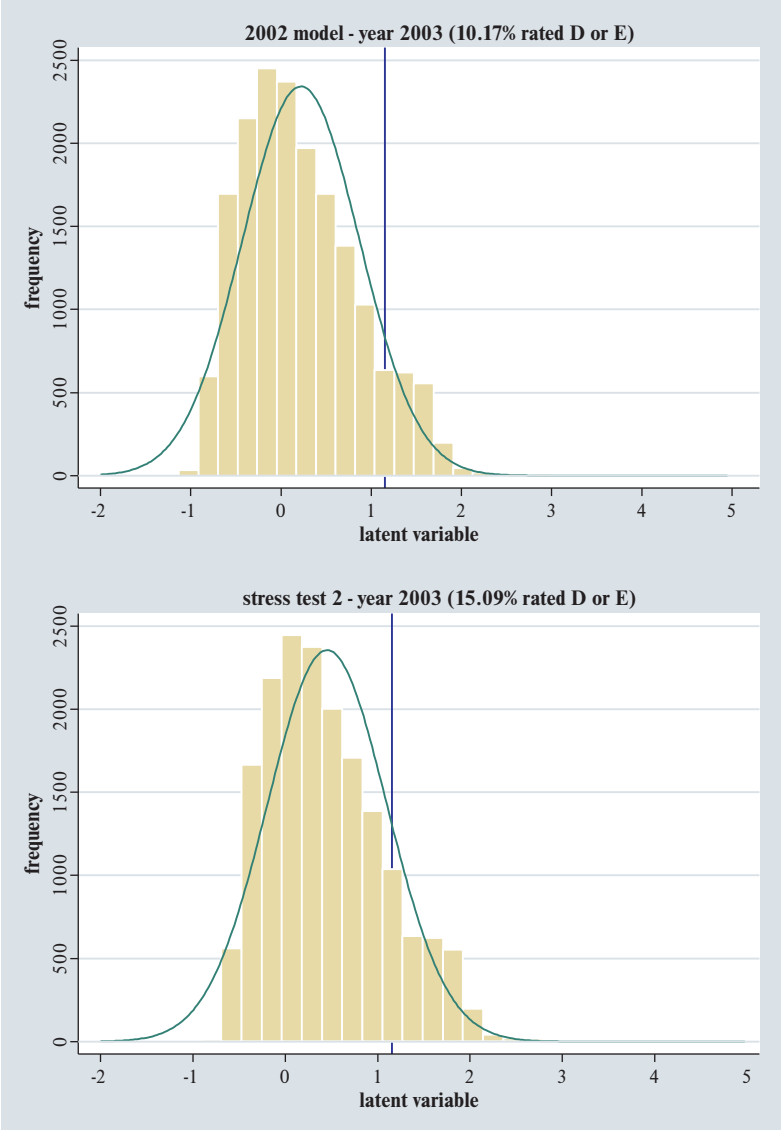


After businesses' short-term debt ratio was increased by 1.99, the proportion of bad loans rose sharply by 27.16 percentage points to 37.33%. The short-term debt ratio is an indicator of great significance to banks in giving businesses credit ratings. A rise in the short-term debt ratio entails a decrease in equity at the expense of a higher proportion of debt capital. The distribution of the latent variable for 2003 under shock 1 is given in Figure 8.

SHOCK 2: A deterioration in liquidity

The shock of a deterioration in businesses' liquidity entails a greater likelihood for banks that their customers will not settle their liabilities regularly. With a decline in liquidity (by 108.39), the proportion of bad loans rises by 4.92 percentage points to 15.09%. The consequences of a liquidity shock on the proportion of bad loans and the structure of the credit portfolio can be seen in Figure 9.

Figure 9: Distribution of latent variable for 2003 under shock 2



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Interest Taxation under the New Tax Legislation

Mitja Čok, PhD, and Marko Košak, PhD[17]

1. Introduction

The new tax legislation, more specifically, the Personal Income Tax Act and the Corporate Profit Tax Act, has also had certain effects on the operation of banks in Slovenia.

The new Personal Income Tax Act (ZDoh-1, Official Gazette of the RS No. 54/2004 and subsequent amendments) thus eliminated the earlier privileged taxation status of bank interest, which ever since Slovenia gained independence had been a form of income from capital not subject to taxation. This taxation status of interest had come under a great deal of criticism, especially from the advocates of a larger role for the capital market in the transfer of financial savings in the economy.

In addition to the new personal income tax, the year 2004 also saw the passage of the Corporate Income Tax Act (ZDDPO-1, Official Gazette of the RS No. 40/2002 and the subsequent amendment), which, under certain conditions, increases the tax burden on Slovenian banks in their operation by introducing a withholding tax on interest paid abroad. This gives rise to the question whether such taxation solutions have too great effect on the relative competitive position of banks either in comparison to other parts of the financial sector or in comparison to foreign banks or their subsidiaries. The paper therefore focuses on presenting both views on the taxation of interest, possible consequences are described, and certain alternative proposals for alleviating the resulting unfavourable conditions for banks are mentioned.

The second chapter deals with an overview of inequalities in the treatment of capital income under the new Personal Income Tax Act. The third chapter presents an overview of various interest taxation practices in the countries of the European Union (EU) and certain transition countries. The fourth chapter deals with an analysis of the possible consequences of the inclusion of interest in personal income tax. The fifth chapter deals with the taxation of interest after a deduction at source as part of the corporate profit tax, and the sixth chapter presents alternative proposals for correcting the resulting conditions and conclusions.

2. Treatment of capital incomes in the Personal Income Tax Act (ZDoh-1)

In the Personal Income Tax Act (ZDoh-1) capital incomes[18] are treated in different ways:

- Income from leasing property (rent):

The personal income tax base includes rent from leasing movable and immovable property reduced by the real proven cost of maintaining the property or by 20% of the standard costs.

- Income from transferring property rights:

The personal income tax base includes income from transferring property rights reduced by 10% of the standard costs.

- Dividends:

The personal income tax base includes dividends reduced by 35%[19].

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[17] Both from the Faculty of Economics, Ljubljana University.

[18] The term "capital income" refers to income from leasing property, income from transferring property rights, interest, dividends, income from mutual funds and profits earned through capital disposal.

[19] This reduction means a relief of the double taxation of profit as it would otherwise be taxed twice in its entirety at the level of the company through tax on profits and at the level of the shareholders through personal income tax.

- Interest:

By law, interest on loans, debt securities, deposits with banks and saving banks and other similar receivables from debtors, income from financial leasing and income from life insurance is subject to taxation.

The personal income base includes nominal interest, while some types of interest are taxed only above the amount of SIT 300,000. These types of interest are as follows:

- on cash deposits by natural persons with banks and saving banks, including income from saving agreements according to housing saving plans (except for the ten-year plan, whose interest is not taxed),
- on cash deposits by natural persons with banks and saving banks that are residents of other EU Member States,
- on debt securities traded on the stock market in Slovenia and on recognised stock markets in other EU Member States,
- the part of the income from investments in mutual funds in the form of interest.

In the rest of the text a single term, *bank interest*, will be used for these types of interest, which will be taxed above the amount of SIT 300,000, while for the other types of interest, which will be taxed in their entirety, the term *ordinary interest* will be used.

For income from life insurance the tax base is the difference between the received disbursement and the deposit, and for financial leasing it is the part of the disbursement to the lessor which does not represent a repayment of the principal.

- Capital gains (equity earnings):
  Capital gains made through sales of various types of capital are treated in different ways, depending on the capital with which they were generated:
  - real estate: capital gains are taxed if the capital disposal was carried out within ten years of the purchase of the immovable property. Exceptionally, capital gains are not taxed for dwellings (residential houses) where the taxpayer has permanent residence and where he actually lived three years prior to disposal;
  - predominant ownership share: capital gains are taxed irrespective of the time that elapses between the disposal and acquisition of the predominant ownership share. After three years, the income tax base includes only 40% of the generated capital gains;
  - securities and shares in legal entities which are not part of the predominant ownership share. Capital gains are taxed if the disposal was carried out within three years of the purchase of the securities or share.

  The exception (capital gains are not taxed) applies to the first disposal of shares or capital acquired in the process of the ownership transformation of companies. Capital loss incurred by the taxpayer through the disposal of capital may be deducted from the generated capital gains in a particular year.

- Income from mutual funds:
  Income resulting from investing in a mutual fund is essentially divided into:
  - income resulting from the distribution of the net profits of the mutual fund,
  - income resulting from the distribution of the revenues of the mutual fund in the form of dividends, interest, profits generated from investments and from other revenues of the mutual fund.

  Income generated through the disposal of a mutual fund voucher is also divided into essentially equal parts. The individual parts of income which have different sources are taxed in ways applicable to the individual forms of capital income. From the point of view of the investor it thus makes no difference whether he earns capital incomes independently (through his own investments) or by investing into mutual funds.

We can conclude from the above that the law does not treat individual types of capital income equally and thus introduces hidden cedularity into the regular concept of an integral personal income tax.

The periods in which the capital profits generated are subject to taxation vary as different lengths of this period apply to different types of capital. The individual forms of capital profits are also treated unequally with regard to the level included in the tax base. Some capital incomes are thus included in the base in their entirety (ordinary interest), after a possible absolute or proportional reduction (actual or 20% standard costs for rent, 10% standard costs for transfers of property rights, a 35% reduction for dividends etc.) or above a certain threshold (SIT 300,000 for bank interest).. Bank interest is also the only form of capital profit which is discriminated against with regard to the absolute level.

The expected interest taxation will thus bypass most individuals with relatively small deposits (approximately SIT 10 million at a 3% annual interest rate). In terms of consistency, it would then be logical that other forms of capital income also be excluded from taxation up to a certain absolute level.

It should be stressed that the taxable part of bank interest (i.e. the amount above SIT 300,000) will be introduced into personal income tax gradually: 10% in 2005, 25% in 2006, 40% in 2007 and 75% in 2008. This gradualness is welcome for banks as in at least the coming years (by the end of the transitional period) it will effectively eliminate the risk of flight for most savings. The remaining unknown is the time horizon of long-term savers with large deposits, which, in all likelihood, exceeds two or three years as there is a possibility that such savers simply anticipated all the effects of interest taxation immediately, disregarding the time shift from the previous period, which can effectively mean that in their investment decisions they still take into account beforehand the full inclusion of interest above the amount of SIT 300,000.

A special problem in introducing interest taxation is the "demonstration" effect, which appeared as early as the announcement of the introduction of taxes on interest on bank deposits. Namely, (at least) during the introduction of the Act, savers had a very modest knowledge of all the details of interest taxation (i.e. effective taxation rates), which resulted in an excessive response from savers, who, additionally encouraged by low interest rates, decided to redirect their savings from bank deposits into alternative forms of investment. The extent of this phenomenon is hard to quantify as it is impossible to assess to what degree the empirically established slower growth in deposits[20] was helped by a reduction in interest rates and to what degree by the announced taxation of interest.

As portfolio investments are the closest (and most frequent) alternative to bank deposits, it is sensible to compare the effective interest taxation rate to the effective taxation rate for capital profits from portfolio investments which do not yield interest. It should be taken into account that effective rates vary among taxpayers primarily due to different individual marginal rates, which depend on the total level of taxpayers' taxable income, while the use of the taxation threshold for interest taxation also has a direct effect on the effective tax rate.

Due to all the aforementioned limiting factors, Table 1 illustrates a comparison between the effective tax rates in the first five years after ZDoh-1 came into force which cover the period of the gradual inclusion of interest into the tax base.

[20] Banks' liabilities to households in 2004 were only 8.1% higher than in 2003, while the rise in total assets was 11% in the same period. The slower growth in deposits by households is also reflected in a smaller share of these deposits in total assets, which stood at 41.5% of total assets at the end of 2004 and at 42.3% of total assets at the end of 2003.

Table 1: Comparison between the effective tax rates in the first five years after the introduction of ZDoh-1 taking into account the interest taxation threshold at SIT 300,000 and the marginal personal income tax rates of 37%.

	Year	2005	2006	2007	2008	2009
(A)	Capital profit from portfolio investments	37,0%	37,0%	37,0%	0,0%	0,0%
	Transitional period	10,0%	25,0%	40,0%	75,0%	100,0%
(B)	Amount of interest received	Marginal tax rates at a personal income tax rate of 37%				
PIT 37%	400.000	0,9%	2,3%	3,7%	6,9%	9,3%
	600.000	1,9%	4,6%	7,4%	13,9%	18,5%
	800.000	2,3%	5,8%	9,3%	17,3%	23,1%
(C)	Amount of interest received	Marginal tax rates at a 15% cedular tax				
CT 15%	400,000	0,4%	0,9%	1,5%	2,8%	3,8%
	600,000	0,8%	1,9%	3,0%	5,6%	7,5%
	800,000	0,9%	2,3%	3,8%	7,0%	9,4%
(D)	Amount of interest received	Marginal tax rates at a 20% cedular tax				
CT 20%	400,000	0,5%	1,3%	2,0%	3,8%	5,0%
	600,000	1,0%	2,5%	4,0%	7,5%	10,0%
	800,000	1,3%	3,1%	5,0%	9,4%	12,5%

Note: PIT = personal income tax; CT = cedular tax
Sources: Own calculations.

The comparison shows that, from the standpoint of an individual depositor, bank deposits with a maturity of up to three years will be burdened by a basically lower effective tax rate (segment B of Table 1) than the capital profit from the portfolio investment cashed before the expiration of the three-year period (segment B of Table 1). For investments with an investment horizon longer than three years a comparison between the effective tax rates in segment (A) and segment (B) of Table 1 shows that portfolio investments have an absolute preference as capital profits from these investments are not taxed after the expiration of three years, while there are no time restrictions for interest taxation. If the aforementioned method of taxing capital profits survives, we may rightly expect two types of consequences:

- A change in the time structure of bank deposits as investments in deposits with a maturity of more than three years will be taxed, while capital profits from portfolio investments will not. In investments in, for instance, mixed mutual funds, this difference becomes somewhat relative as that part of the returns of a mutual fund resulting from interest will be taxed in the same way as bank interest.
- The described process may, of course, lead to a different saving structure as especially the longer-term investment forms with fixed returns will become less interesting, while portfolio investments for longer periods will become more interesting.
- The described difference in the tax burden on returns on interest and returns in the form of capital profits from portfolio investments will especially be present in taxpayers in the highest income tax categories, who will therefore adjust the structure of their investments even more quickly.

Table 1, in segments C and D, shows the still effective tax rates for the taxation of interest if interest were taxed with a single 15% or 20% cedular tax. This method of taxation would not eliminate the tax preferences of portfolio investments with a maturity of more than three years, but would help considerably reduce the differences between the taxation of interest and the taxation of capital profits from portfolio investments for taxpayers from the highest income brackets, whose returns on interest, under the applicable Personal Income Tax Act, may also be burdened with a 50% marginal rate of taxation upon the expiration of the previous period.

3. Interest taxation in other EU states and the implementation of Directive 2003/48/EC concerning interest taxation.

3.1. Contents of Directive 2003/48/EC concerning interest taxation

As stated in the Directive, it concerns the regulation of taxation of incomes from savings in the form of interest paid to citizens of EU Member States. The problem the Directive is grappling lies in the fact that before the adoption of the Directive, interest taxation in the EU area was not harmonised despite numerous earlier attempts. A particular problem was posed by the issue of taxation of interest paid to citizens of EU Member States in countries other than their home countries, i.e. paid to non-residents. Due to the privileged tax status of non-residents in certain EU Member States and due to considerable differences in taxation methods (and tax rates) between EU Member States, it was therefore possible for citizens to achieve an effectively lower tax rate by investing their savings outside their home countries or to avoid paying interest tax altogether. An additional problem is that states which are not EU members and which, due to their geographical proximity (e.g. Switzerland, Andorra, Monaco and San Marino) and/or due to the traditional attractiveness of their local financial centres for financial investments (e.g. the US, Switzerland), also constitute important destinations for savings from EU Member States. The attractiveness of these states for financial savings from other states is, of course, based on the relatively favourable terms of interest taxation, which these states, as a rule, provide in their territory for non-residents.

The final (main) goal of the Directive concerning interest taxation, as stated in the Preamble to the Directive, is the effective taxation of interest incomes from savings paid out to residents of individual Member States in other Member States, which also means that taxation should be in line with the tax regulations of the resident state. The use of the national tax legislations of individual states is thus planned for interest taxation, and the Directive therefore does not constitute an attempt to introduce supranational tax regulations but only provides a legal basis for the more effective implementation of national regulations consistently to all the citizens of an individual Member State regardless of where they earn interest incomes - in their home country or abroad. The goal of effective interest taxation, defined in this way, could be achieved by consistently implementing a system for the automatic exchange of information through which information about interest paid to each individual would be automatically collected by the tax agency of his state of residence. Consistent implementation of the system for the automatic exchange of information in all EU member countries is seen as the best possible way of preventing tax evasion and avoidance in the EU area in the future.

Despite the awareness of the necessity to consistently implement a system for the automatic exchange of information, Directive 2003/48/EC gives the three EU member countries, i.e. Belgium, Luxembourg and Austria, a transitional period for introducing the system for the automatic exchange of information. During the transitional period, these three states will not provide information about interest paid to individual residents of other Member States but will use withholding tax with a proportional 15% rate, which will gradually increase, for the taxation of all interest paid to residents of other Member States. It is interesting to note that all three states which have won a special position will be able to use information about interest paid to their citizens in other Member States that will be included in the system for the automatic exchange of information without any problems and in its entirety.

Withholding tax will thus constitute proportional taxation of all interest paid to non-residents in the territory of Belgium, Luxembourg and Austria. In the first three years following the implementation of the Directive (from 2005 through 2007) the tax rate for withholding tax will be 15%, rising to 20%

in the subsequent three-year period (from 2008 through 2010) and to 35% after six years (by the year 2011)[21]. Taxes collected in this way will not entirely belong to the state that will collect them: during the negotiations a division formula was also agreed upon according to which 75% of the collected tax will belong to the state of origin of the owners of the deposits and 25% of the collected taxes will belong to the state in which the tax on paid interest will be collected. It therefore follows from this that all three states, indirectly with exceptions, through the distribution of collected taxes, will also provide individual states with aggregate information about the volume of savings with financial institutions in Belgium, Luxembourg and Austria.

The Directive also allows for the possibility of a non-resident depositor authorising a bank to disclose his information or to send information about interest paid to the tax agency of his home state. In this case, banks in the states with a transitional period will also have to ensure the automatic exchange of information for a client whose interest will eventually, of course, be taxed in accordance with the regulations of his home state. Here it should also be mentioned that the Directive allows for the prevention of double taxation as, in principle, it gives taxpayers the right to have interest, as a source of income, always taxed in accordance with the tax regulations of the home state.

The Directive on interest taxation therefore exclusively regulates the taxation of interest that is paid to non-residents in individual states and in no way infringes on national tax regulations. The selection of the taxation method and tax rates at which interest paid to residents of individual EU Member States is taxed therefore completely falls within the competence of the nation states. That is why personal income taxation schemes vary greatly between Member States. Some of these differences are highlighted in further text, where a brief comparison is provided between EU member countries and certain transition states with regard to interest taxation.

3.2. Current regulation of interest taxation in EU Member States and certain transition states

Despite years of efforts to make things simpler, the present differences in interest taxation methods among the 15 "old" members of the EU are significant. The common characteristic of all these states is that interest paid to natural persons is taxed while the taxation method and tax rates vary. With some generalisation, three approaches are in use:

1. Taxation of interest with a cedular withholding tax, in which interest is taxed proportionally at a single rate regardless of the amount or in the amount exceeding a certain threshold. In these cases tax is, as a rule, calculated and deducted by the agency disbursing the interest (e.g. a bank) at the time the interest is paid out, and such tax is also final.
2. Inclusion of interest as one of the forms of capital income in the personal income tax base. In this case, the interest tax burden depends on the level of total income (interest and non-interest income) of the taxpayer and personal income tax rates.
3. A taxpayer decides himself if the interest received will be included in the entirety of all the income received and therefore taxed as part of personal income tax or if it will be subject to cedular taxation.

[21] The Directive stipulates that the transitional period for Austria, Belgium and Luxembourg may also end ahead of schedule if agreement is reached with Switzerland, Liechtenstein, San Marino, Monaco and Andorra on exchanging information on request (in keeping with the OECD agreement on the exchange of tax information) with the simultaneous use of withholding tax and if the USA also commits itself to exchanging information on request (in accordance with OECD standards).

Among the EU countries, a purely cedular withholding tax system for interest taxation exists, e.g. in Finland (29%), Greece (15% and certain special rates) and Italy (27% for interest and securities with fixed returns and a maturity of up to 18 months). Withholding tax is also used in Austria (25%), Belgium (15%)[22] and Portugal (20%); however, taxpayers in these countries have the option of including interest in personal income tax, which means that interest may also be taxed at personal income tax rates.

Table 2: Indicative outline of tax rates and methods for taxing interest on bank deposits and bonds in "old" EU states, Switzerland, the US and Japan

Government	Tax rate for bank deposits	Tax rate for bonds	Note
Austria	25	25	Inclusion in personal income tax possible (optional)
Belgium	15	15	Inclusion in personal income tax possible (optional)
Denmark	59	59	Rate corresponds to highest rate from personal income tax scale.
Finland	29	29	
France	25	25	Different special tax rates
Greece	15	15	Different special tax rates
The Netherlands	–	–	Taxation on the basis of imputed income
Ireland	22	22	
Luxembourg	38.9	38.9	Rate corresponds to highest rate from personal income tax scale
Germany	51.2	51.2	Rate corresponds to highest rate from personal income tax scale.
Portugal	20	20	Inclusion in personal income tax possible (optional)
Spain	48	48	Rate corresponds to highest rate from personal income tax scale.
Sweden	30	30	
Italy	27	12.4	For maturities below 18 months, also for bonds 27%
United Kingdom	40	40	Rate corresponds to highest rate from personal income tax scale
Japan	20	20	Inclusion in personal income tax possible (optional)
Switzerland (Zurich)	41	41	Rate corresponds to highest rate from personal income tax scale.
US (NYC)	45.6	45.6	

Source: W. Becker, EU taxation of savings income coming down the home straight?, 2003

On the other hand, there are states in which interest is treated as an integral part of personal income tax and is subject to taxation as all the other non-interest incomes of taxpayers (e.g. Denmark, Germany, Luxembourg, Spain, United Kingdom). Consequently, due to the varying personal income tax rates, the effective interest taxation rates vary significantly and are, as rule, quite dependent on the level of all other incomes received by taxpayers. In addition, there are numerous exceptions in individual states which sometimes allow for interest received by taxpayers not to be taxed at all[23].

Even this quite modest and simplified comparison of interest taxation methods in EU states shows that there are major differences among EU members of long standing in the method of taxing interest paid out

[22] In Belgium, for instance, at present interest up to EUR 1,250, paid for a special saving product, is not taxed. Taxpayers have two options with regard to interest that is subject to taxation. They may be taxed with withholding tax at a 15% rate, which is also the final tax; or, they may report interest in their income tax declaration, where they do not pay a 15% tax on interest but a personal income tax on interest as on all other incomes. The inclusion of interest in the tax base for calculating personal income tax is therefore optional and depends on the decision of the individual taxpayer.

[23] In the United Kingdom, for instance, interest and other returns on savings in special accounts and in investment schemes (ISA, PEP, TESSA) are not included in the personal income tax base, while all the other interest received raise the personal income tax base.

to natural persons, in some cases even completely preventing a direct comparison of tax burdens between states. It is, therefore, obvious that individual states adjust the interest taxation method to their own national tax regulations and that it is by no means possible to speak of the existence of any informal, let alone formal, standards or norms that would govern the method and level of interest taxation for residents of individual EU Member States.

It is surprising that up until the beginning of 2003, when an agreement was reached on the contents of Directive 2003/48/EC, despite numerous efforts, some of which started as early as 1967, it had been impossible to reach agreement on unifying the taxation of interest which is paid to non-residents in EU Member States notwithstanding the fact that this was a burning issue for many Member States due to tax evasion. Total disharmony is indicated even by the fact that certain EU Member States treated EU non-residents differently than residents, in some EU Member States tax authorities treated non-residents in absolutely the same way as residents, while information was even being exchanged between some states.

Table 3: Interest taxation in some transition states in central and eastern Europe (2002)

Government	Tax rate	Taxation method
Albania	10	Withholding tax (at source)
Czech Republic	15	Withholding tax (at source)
Estonia	0	
Georgia	10	Withholding tax (at source)
Croatiaa	0	
Latvia	0	
Lithuania	0	
Macedoni	0	
Poland	20	Withholding tax (at source)
Slovakia	15	Withholding tax (at source)
Slovenia	0	
Ukraine	20	Integral part of personal income tax

Sources: P. Oravec, 2002

As can be seen from Table 3, the differences between the interest taxation burdens in transition states in central and eastern Europe were not equal either. In principle, this group of states may be divided into those where interest was not taxed at all (Estonia, Croatia, Latvia, Lithuania, Macedonia, Slovenia), the reason for which is most frequently found in the stimulation of saving in domestic currencies, and states where interest was taxed, though at relatively low rates, with cedular taxation being the dominant form. According to data from a study done by Slovakia's central bank for the set of states included in Table 3, interest taxation seems to be treated as an integral part of personal income tax only in the Ukraine.

From Slovenia's point of view, two findings need to be pointed out with regard to the aforementioned overview of interest taxation in selected transition states:

- Those countries which in 2004, together with Slovenia, became EU members (the Czech Republic, Estonia, Latvia, Lithuania, Poland, Slovakia, Cyprus, Malta and Hungary), are, by virtue of their membership, automatically bound to implement Directive 2003/48/EC concerning interest taxation in the sense of being included in the system for the automatic exchange of information, which means that Slovenian tax authorities will automatically obtain information about interest paid for a particular tax year for Slovenian citizens who are recipients of interest in these states, which will, of course, prevent Slovenian citizens from evading tax in this respect.
- The position of Croatia is interesting, as interest is not taxed there, and this is a country that borders on Slovenia and with which Slovenia has relatively intensive migration (e.g. tourism) and economic

relations. Even though Croatia did not become a member of the EU in 2004, as Slovenia did, which is why the obstacles to the flow of capital and people are essentially greater than among EU state members, part of the savings could, in theory also move to Croatian banks, due to the lower tax rates, especially if the fact that prominent foreign banks have majority stakes in the more important banks in Croatia is taken into account. That is why the dimension of deposit safety should not be called into question despite numerous negative feelings encouraged by the complications concerning foreign exchange savings deposits by slovenian Ljubljanska Banka in Croatia in the early 1990s.

4. Consequences of interest taxation for Slovenian banks in the context of the implementation of Directive 2003/48/EC

First, it should be pointed out that the so-called tax package, an integral part of which is Directive 2003/48/EC concerning interest taxation and on which agreement was reached within ECOFIN in January 2003, after which it was formally adopted at an ECOFIN session on 3 June 2003, does not impose any requirements on Member States with regard to interest taxation for residents in their home states. Interest taxation in EU Member States remains entirely within the competence of individual states and these states may change it, adjust it and regulate it as they see fit[24].

In compliance with Directive 2003/48/EC concerning interest taxation, Slovenia will have to join the system for the automatic exchange of information, through which it will provide all EU Member States (therefore, including Austria, Belgium and Luxembourg, which were not included in the system in the initial stage) with information on all interest payments to citizens of other EU Member States in the territory of the Republic of Slovenia on a case-by-case basis, i.e. for each individual separately.

In practical terms, this means that the Slovenian banking system will by no means be attractive for the inflow of foreign savings (by individuals) from other EU Member States just for tax reasons and irrespective of the level of interest taxation in Slovenia. On the other hand, due to the differences in the interest taxation burden, Slovenian savings (i.e. savings by natural persons who are Slovenian residents) may fly into other states (whether EU members or not) which will not be included in the system for the automatic exchange of information and will at the same time have (other conditions remaining the same) an effectively lower interest taxation burden.

The fact is that the most favourable conditions for the mobility of savings have effectively been established among the EU members themselves (e.g. the free flow of capital, unified payment operations, a single bank licence...), which is why banks in Austria, Belgium and Luxembourg, i.e. the states which, within the EU, will not be included in the system for the exchange of information, will be the most accessible destination for a possible flight of savings. In addition to these states, the states with which agreements on so-called equivalent measures will be or have already been concluded will undoubtedly be interesting unless these measures are based on the automatic exchange of information (Switzerland, Liechtenstein, San Marino, Monaco, Andorra), while a third group of states certainly comprises all those EU non-members with which agreements on equivalent measures will not be signed and which at best will be obliged to exchange information by other international agreements and standards (e.g. within the OECD) which, however, cannot realistically be expected to ensure the automatic exchange of information.

[24] It should be pointed out here that the Code of Conduct, which is an integral part of the tax package, expressly concerns the taxation of legal entities and not natural persons.

Tables 4 and 5 show marginal effective tax rates for the taxation of interest incomes in Slovenia for the period from 2005 on (taking into account the taxation threshold of SIT 300,000) and a comparison with tax rates after a deduction at source, which in this period will be used in three states with transitional arrangements (Austria, Belgium, Luxembourg) for the taxation of the interest of savers from other EU Member States. The actual effective rates in Slovenia will, of course, depend on the level of incomes (both interest and non-interest incomes) of each individual taxpayer and on the gradual inclusion of interest in the taxable base.

Table 4: Marginal effective tax rates for interest in the amount of SIT 500,000; a taxation threshold of SIT 300,000 and a comparison with tax rates in states with a transitional period are taken into account

Year	Rate in states with a transitional period	Gradual inclusion of interest in the taxation base under Zdoh-1	Personal income tax rates				
			16%	33%	37%	41%	50%
2005		10%	0,6%	1,3%	1,5%	1,6%	2,0%
2006	15%	25%	1,6%	3,3%	3,7%	4,1%	5,0%
2007		40%	2,6%	5,3%	5,9%	6,6%	8,0%
2008		75%	4,8%	9,9%	11,1%	12,3%	15,0%
2009	20%	100%	6,4%	13,2%	14,8%	16,4%	20,0%
2010		100%	6,4%	13,2%	14,8%	16,4%	20,0%
2011 and on	35%	100%	6,4%	13,2%	14,8%	16,4%	20,0%

Sources: Own calculations

Table 5: Marginal effective tax rates for interest in the amount of SIT 800,000; a taxation threshold of SIT 300,000 and a comparison with tax rates in states with a transitional period are taken into account

Year	Rate in states with a transitional period	Gradual inclusion of interest in the taxation base under Zdoh-1	Personal income tax rates				
			16%	33%	37%	41%	50%
2005		10%	1,0%	2,1%	2,3%	2,6%	3,1%
2006	15%	25%	2,5%	5,2%	5,8%	6,4%	7,8%
2007		40%	4,0%	8,3%	9,3%	10,3%	12,5%
2008		75%	7,5%	15,5%	17,3%	19,2%	23,4%
2009	20%	100%	10,0%	20,6%	23,1%	25,6%	31,3%
2010		100%	10,0%	20,6%	23,1%	25,6%	31,3%
2011 and on	35%	100%	10,0%	20,6%	23,1%	25,6%	31,3%

Sources: Own calculations.

In the comparison in Tables 4 and 5, the logical question is whether there may be circumstances in which the effective rates for interest taxation in Slovenia would be higher than the rate of withholding tax in the states with a transitional period, among which Austria is particularly interesting due to its geographical proximity. In such circumstances the so-called flight of savings could occur.

A comparison between the effective interest taxation rates in the case where a taxpayer receives SIT 500,000 in interest (Table 4) indicates that not in a single tax category would the effective rate exceed the rate of withholding tax in neighbouring Austria, which means that at this level of received interest, there is no tax-related motive for the flight of savings. A somewhat different picture emerges with the payment

of interest in the amount of SIT 800,000 where the effective interest taxation rates after 2008 in higher tax categories are higher than in neighbouring Austria, which could be a motive for the flight of savings into Austrian banks. In this respect, a special problem would be posed by the years 2009 and 2010, when a 20% tax rate would still be applicable in Austria, while in Slovenia the period of gradual transition will have been completed and the entire interest received will be included in the taxable base.

In addition to a possible flight of savings, the costs related to the introduction and implementation of the described interest taxation system should also be taken into account. Costs do not appear only in connection with the preparation and processing of information and in connection with the required training and hiring of staff but also as the costs of payment operations or advance remittances to the state. The costs of establishing the infrastructure that will make possible tax agency services are certainly not negligible either.

In any case, banks will have to monitor closely all possible subsequent interventions in the system of interest taxation (such an intervention, for instance, will certainly occur before the introduction of the euro, when at least the cash amounts specified by law will change) as a change in the threshold up to which interest is not taxed may again affect the effective tax burden on taxpayers in all personal income tax categories.

5. Corporate Income Tax Act, the operation of Slovenian banks and the EU's Directive 2003/49/EC

The Corporate Income Tax Act (ZDDPO-1), adopted in 2004, introduces a number of novelties compared to the earlier corporate profit tax. Among these novelties, particularly important for banks is the introduction of a 25% withholding tax, which companies will have to pay along with the payment of interest to foreign legal persons. Article 68 in Title XI of the aforementioned act (taxation of incomes originating in Slovenia) stipulates that a 25% tax should be paid for the following:

- dividends and particularly defined dividend-like incomes,
- interest, except for interest which is paid or the payment of which is guaranteed by the Republic of Slovenia,
- payments for the use of copyright and property rights,
- lease payment and
- payments for services provided by performers and athletes if these payments belong to another person.

The exception, i.e. the absence of tax, applies to incomes not listed above, which are paid to:

- the Republic of Slovenia or to the local self-government unit,
- the Bank of Slovenia,
- a resident taxpayer who notifies a disbursement agency of his tax identification number,
- a non-resident taxpayer who must pay a tax on corporate profits earned through activities in or through a business unit in Slovenia and who notifies a disbursement agency of his tax identification number in the case of incomes paid to this business unit.

The rest of the articles of the Act also specify the terms under which withholding tax is not calculated for payments made to foreign legal entities (non-residents) and refer to the eligible ownership, form, residency etc. of the company which is the payer. In essence, these terms mean that the tax is not paid if the payment is made between associated companies from different EU states.

These legal regulations mean that banks with headquarters in Slovenia (which are not dependent banks or branches of foreign banks) must pay a 25% withholding tax on all interest they pay abroad. The criterion for a dependent or associated company is at least a 25% ownership stake in the equity of the bank for the duration of at least two years. The following transactions will therefore be burdened with this tax:

- payments of interest on loans taken by banks abroad,
- payments of interest on bonds abroad,
- interest on international interbank deposit deals.

The Act further specifies that a rate different from the general 25% rate should be used if it is so stipulated in keeping with international agreements governing the avoidance of double taxation. The rates in these agreements vary and stand at 0.5 or 10%. In reality, such arrangements create for banks additional technical problems related to internationally dispersed recipients of interest, e.g. in the case of syndicated loans or securities, as recipients of interest may be from quite different states with which Slovenia has stipulated different rates of withholding tax in its agreements on avoiding double taxation.

The provisions relating to business operations among associated entities follow EU directives governing the taxation of legal entities. Interest taxation is governed by Council Directive 2003/49/EC of 3 June 2003 on a common system of taxation applicable to interest and royalty payments made between associated companies of different Member States. The purpose of the directive is to eliminate possible double taxation of these payments, i.e. to allow for these payments to be taxed only once in an EU Member State. This can be achieved by means of arrangements (in the way and under the terms) in accordance with which interest and royalties are not taxed in the EU Member State in which they are generated (this Member State thus gives up part of its tax income), while the directive does not prevent EU Member States from applying taxation to the interest and royalties received by its companies, permanent business units of its companies or permanent business units which are in this EU Member State. Member States would have to implement the directive by 1 January 2004, while a transitional period has been set for Spain, Portugal and Greece for budgetary reasons[25].

In other states the payment of interest to foreign legal entities is mostly taxed if it has to do with loans to companies, but financial institutions are exempted from it. According to available data, most EU states (except for some new members) do not have similar regulations. In Austria, for instance, interest paid to foreign companies (non-resident legal entities) are not taxed with withholding tax, while in France interest on loans taken abroad, bank deposits etc. are exempted from withholding tax.

That is why the competitive position of Slovenian banks financed on international capital markets is deteriorating compared to dependent banks or branches of foreign banks financed through their parent banks. Foreign banks will in all likelihood request the payment of the entire interest in financing Slovenian banks, regardless of the signed agreements on avoiding double taxation, and the amount of withholding tax will mean an additional cost for Slovenian banks.

[25] The other two directives that are taken into account in ZDDPO-1 are Council Directive 90/434/EEC of 23 July 1990 on the common system of taxation applicable to mergers, divisions, transfers of assets and exchanges of shares concerning companies of different Member States with amendments andCouncil Directive 90/435/EEC of 23 July 1990 on the common system of taxation applicable in the case of parent companies and subsidiaries of different Member States, which concerns the taxation arrangements in connection with the division of profits.

6. Alternative proposals for overcoming current difficulties and a conclusion

In our opinion, the form of bank interest taxation with a net cedular tax (i.e. outside the system of an integral personal income tax) would be more suitable for the current circumstances in Slovenia, with two possible variants:

1) Tax on bank interest with a single proportional rate, e.g. 15%, with which all bank interest would be burdened.

2) Tax on bank interest with a single proportional rate, e.g. 15%, and a taxation threshold, e.g. SIT 300,000. Such tax is progressive in nature as the average tax rate rises along with the rise in the base. This form of tax would probably be more acceptable for the regulators due to its progressiveness, while at the same time it is possible to change the rate of progressiveness by changing the taxation threshold.

The technical details of the tax (definition of interest, rate, method of collection etc.) would be laid down in the personal income act, and the tax itself would not be a part of the integral personal income tax. The personal income tax form would have a line on which taxpayers would enter the annual amount of interest and the interim advance payments on this tax, and it would be assessed separately from the integral personal income tax. Only a possible balance of this tax could be offset against the annual integral personal income tax.

We mention the use of a 15% tax rate here only by way of illustration as the tax rate could also be higher or lower - in any case, relatively low (less than 20%).

Cedular arrangements also exist in some other states which otherwise have an integral personal income tax (e.g. Sweden), and the proposed solution therefore would not depart from the established practices (European Tax Handbook, 2003). The fact is that incomes from capital due to its mobility are more difficult to tax than incomes from labour, and as stated by Stanovnik (2002), there is a noticeable effort abroad to increasingly tax capital incomes on a cedular basis In Zdoh-1 some taxation of individual capital incomes already includes hidden (implied) cedularity, which essentially means that capital incomes are clearly and in their entirety not included in the integral personal income tax, i.e. that they are taxed in a hidden, cedular manner. The introduction of a proportional cedular tax would only mean the open acknowledgment of a concept which is already included in Slovenia's tax legislation.

The advantages of a proportional cedular 15% tax would be as follows:

- The possibility of savings spilling from the banking sector into other forms of investment and abroad would probably be smaller, which would especially be the case with taxpayers receiving higher incomes in the form of interest,
- the arrangements would be simple and transparent,
- the Finance Ministry could accurately assess the level of this tax on the basis of data from banks.

There is also a third possibility, i.e. that interest as a form of capital income would remain untaxed, i.e. that a zero rate would be used, although, in our opinion, this possibility does not seem feasible.

With regard to withholding tax on interest which banks (financial institutions) pay abroad to non-resident legal entities, it would be best if interbank deals were excluded from this system. Such arrangements would eliminate the difference between banks which are dependent banks or branches of foreign banks and can be financed through their parent banks and banks which are none of that.

Due to all of the above, we believe that in introducing interest taxation with personal income tax and withholding tax as part of corporate profit tax, an appropriate degree of caution and moderation is required. That the regulators are also aware of this is evident from the radical amendments to the current Zdoh-1 compared to the earlier working versions of the act (the raising of the taxation threshold and the programme for a gradual increase in the share of taxable interest). Unfortunately, this is not the case with corporate profit tax (except for the fact that retroactivity has been eliminated). One should also be aware of the fact that any taxation of interest, with the other conditions remaining unchanged, would mean a change in net returns (returns on taxes) on interest-bearing investments and would affect the position of the banking sector. Since Slovenia's economy is one of the so-called bank economies, which means that the financing of companies by banks is comparatively more important than their financing through the capital market, the use of tax instruments which encourage the restructuring of investments into investment damage in the banking sector and affect (in a discriminatory way) the status of individual banks, would have to be extremely cautious and carefully planned, especially when for non-fiscal reasons saving in banks becomes less interesting than the alternative forms of investment.

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Measuring Share Undervaluation in Slovenia

Simon Mastnak[26]

1. Introduction

Are shares undervalued or overvalued? This is quite certainly one of the oldest questions on international capital markets. Every day millions of investors seek undervalued shares with which they intend to achieve above-average returns. Meanwhile, they are not in the least disturbed by numerous academic disputes about the efficiency of a market in which there would be neither undervalued nor overvalued shares.

When discussing the undervaluation and overvaluation of share, the profitability of shares must always be compared to some other form of investment. The manager of an investment fund, for instance, distributes the assets of the fund so as to achieve the highest expected returns on them. He thus purchases shares when their expected returns are higher than the returns on other types of investments (bonds, money market instruments). Shares are therefore undervalued when their potential yield is higher than the potential yield of a similar, easily exchangeable investment.

2. Stock market bubbles – from tulips to the Internet

A stock market bubble is a widely accepted expression for tangible share overvaluation. Past examples warn us of the dangers that threaten investors if they allow their own greed to lead them to purchase shares at unreasonably high prices. At such moments share markets behave in accordance with the theory of the greater fool. Under this theory, a share is worth what the next fool is willing to pay for it. Most authors (Malkiel, 1999) cite the tulip bulb mania in 16-century Netherlands as the first stock market bubble in history.

What at least today seems quite a bizarre story began in 1593 when a botany professor brought an interesting new plant of Turkish origin from Vienna to the Dutch city of Leyden. He wanted to sell the bulbs at the highest possible price, but not even in his wildest dreams could he have imagined the wave of enthusiasm that the plants were going to generate. The tulips were attacked by an otherwise harmless virus, called Mosaic, which caused the bulbs to be variegated. The more variegated the bulbs were, the more expensive they were. The tulip mania, as the phenomenon is known around the world, peaked in January 1637, when the prices of bulbs rose twenty fold in a single month. The price of a bulb was so high at the time that an "investor" could have bought a house in Amsterdam for the same amount of money. The prices then dropped at the same rate as they had risen, burying with themselves a host of naive investors, who had been too intoxicated by the smell of money.

Back in 1600, investors still did not have at their disposal the panoply of toys that present-day botany professors play with. Information spread slowly and was difficult to verify. Despite all the progress made by capital markets in the second half of the previous millennium, the list of stock market bubbles is longer than we might think. From the British companies with possessions in India in the 17th century to the American dotcoms in the 20th. The pattern is always similar. Bubbles stick to the investments which currently have a relatively small value but will "definitely" rise 100% or more in a year or two. Bubbles also appear in investments whose value is difficult to assess. Companies with few assets and virtually no revenue but with new products or services that will become household names in a few years are ideal

[26] Ljubljana Stock Market, Ljubljana.

for the appearance of bubbles. A case in point is what happened in the 20th century, mainly in the US, in the area of the Internet. As the expectations of the first investors become fulfilled, more and more arrive in the market with ever greater expectations. Soon unbelievable evaluations are made, without any foundation in the real operation of companies. At the peak of the Internet fever, for instance, the market price of the company Priceline.com equalled the value of the five largest air carriers in the US. However, Priceline only sold tickets for them. The following question, therefore, sums up an investor's dilemmas: "How much is a share worth?"

3. Value of shares

A share is a security which represents a part of the equity of the company that issued the shares. In the long term, the price of a share must therefore approach the internal value of the share. It should be borne in mind that it is the price of a share that determines the market value of the company. Thus a company that declares bankruptcy cannot have a market value much higher than zero. On the other hand, a company with years of successful development and several billion euro in assets cannot have a market value equal to zero. The share market may thus be regarded as the rater of the value of companies.

4. Economic and psychological yield

A number of problems may arise in the practical evaluation of companies. When an investor buys company shares on the market, he does not buy only its present but, primarily, its future. The basic question is therefore how much the purchased company will be worth in a few years, when the investor decides to cash the investment. Due to the main characteristic of the future, its unpredictability, it is very difficult to asses the future value of shares. It may be said that investors on the stock market trade in expectations. The price of each share on the market thus reflects two components:

– the current economic value of a share (static component) and
– the value of the expected development of the company (dynamic component).

The static value of a company is obtained if the market values of all the assets owned by the company are added together and if the debts are then deducted from this sum. The measuring of the static value of a company may entail a number of problems. Much of the equipment used by the company in production has a market value that is quite difficult to determine. The values in the balance sheet are often of no help in this, as evidenced from the large differences between the market and book values of shares (P/B).

The main purpose of each company is to create added value for its shareholders. This it achieves by having a favourable balance. A company's profit is directly added to the company's equity, thus increasing the value of its shares. The future value of shares thus depends on the future business results of the company. Companies operating with above-average success will thus have a higher P/B indicator than those operating less successfully. Investors will be willing to pay more for a tolar of equity of a successful company than for a tolar of equity of a less successful company.

The future profits of companies are always under the influence of numerous factors, which are quite difficult to predict in advance. That is why the price of shares always also includes an element of speculation. With regard to the future, investors may be more or less optimistic. Stock exchange bubbles appear in the periods of extreme optimism on stock markets. At those moments the prices of shares include quite high expectations regarding the future operation of companies. These expectations are then very hard to fulfil. It is characteristic even of the new industries, which initially grow quite rapidly, that after several years their rate of growth converges on the growth of the more mature industries.

5. Measuring the expected returns

In the long term the expected return on shares depends primarily on the operation of the company and is thus more or less equal to economic yield. The effect of psychological returns weakens in the long term as periods of optimism and pessimism cancel each other out in the long term. That is why most models for measuring the undervaluation of shares focus on the long-term expected return on shares. The manager of the world's largest mutual fund, John Bogle, has created a model which divides return on shares into economic and psychological returns (Bogle, 1999). In his model, economic returns are measured by the rate of growth in company profits and by dividends. On the other hand, psychological returns are measured by a change in the T/D (price/profit) indicator.

The T/D indicator shows how many tolars investors are willing to pay for a tolar of the company's profit. In optimistic times, the value of the indicator may rise even beyond 100 , while in periods of pessimism it may drop even below seven. The meaning of the T/D indicator has given rise to a great deal of controversy over the years. The marketing approach of Wall Street in shaping the indicator is quite responsible for this. The T/D indicator is nothing other than the inverse expression for the economic return on a share (ROE measured by the market value of equity). In periods of stock market bubbles, when T/D approaches 100, the expected return on shares approaches 1% (100-1). It is easy to see that such an explanation of this indicator would deter many investors from buying shares. On the other hand, the value of T/D seems unlimited at first glance, and, as a rule, in times of stock market bubbles, numerous studies appear proving that even values of this indicator ranging from 500 to 1,000 may be justified.

6. Problems and solutions with the T/D indicator

The problem with the T/D indicator is that it measures the return on shares on the basis of data on profit in the preceding year (as the future profit is not known). This means that with the approach of the announcement of new business results the expected return apparently drops (if the new profit is higher than the earlier one). This problem can be avoided by taking into consideration the profit forecasts by stock market analysts. The best known international model for assessing the undervaluation of shares (FED model) uses such forecasts as input data (Bose, 1999). In their calculations they take into account the average assessment of profit growth by numerous analysts who monitor individual shares on a daily basis.

7. Evaluation of shares

Low return on shares (a high value of the T/D indicator) is not enough in and of itself for declaring shares as overvalued. Namely, at any moment the investor decides to invest in individual types of investments with regard to the expected returns. In addition to returns, two more factors play an important role in business decisions: risk and liquidity.

Shares are overvalued when the investor has at his disposal another form of investment which, given the same risk and liquidity, brings him higher return. The aforementioned FED model, by comparison, uses the return of US ten-year state bonds. Due to the significant difference in safety between state bonds and shares it does not come as a surprise that the model is more successful in measuring the undervaluation than the overvaluation of shares. In other words, when return on shares drops below return on bonds it is quite likely that shares are effectively undervalued. On the other hand, higher return of shares than on bonds is still not a sufficient condition for the undervaluation of shares.

8. Problems in designing a model for measuring the undervaluation of shares in Slovenia

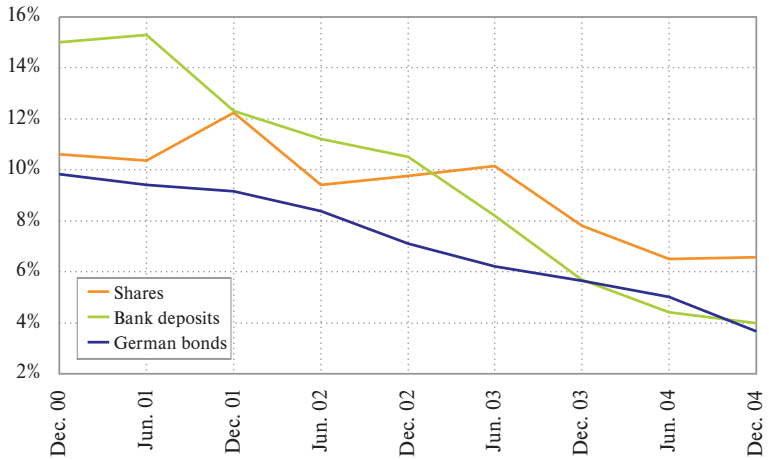
There are numerous problems in measuring the undervaluation of shares in Slovenia. If the intention is simply to transplant the FED model to Slovenia, there are difficulties in measuring return on shares and bonds. A comparatively small number of shares is traded on the domestic stock market. Only fifteen are currently included in the main stock market index. The business results of a single company have a big effect on the value of the T/D indicator for the entire market. There are also few stock market analysts who forecast the business results of companies. That is why the use of forecast business results may distort the results.

Problems are also encountered on the side of debts. Namely, the time line of return on ten-year state bonds is too short. There are also few other alternatives for measuring return on debtor investments. The most available data is that on long-term bank interest rates, which are quite different from state bonds in terms of safety and liquidity so that the results may again be distorted.

9. Are Slovenian shares overvalued?

For the purpose of this comparison I have designed a portfolio consisting of nine shares which were included in the SBI 20 index throughout the period from 31 December 2000 until 31 December 2004. These shares are as follows: Krka, Mercator, Petrol, Gorenje, Luka Koper, Pivovarna Laško, Intereuropa, Merkur and Droga Portorož. The shares are weighted in the portfolio with market capitalisation. I measured return on the shares by means of the D/T indicator, and I used mid-year data on market prices. I took the profits of the companies into account in the current year. In calculating D/T on 31 December 2002 I thus took into account the market prices of shares on 31 December 2002 and the profits of the companies for the year 2002. On the day the calculation was made the company was still unable to publish its profit, although it can be assumed that the investors were able to predict the business result fairly well, and it was already built into the price of shares. For mid-year I took into account profit for the preceding year. This means that in calculating D/T on 30 June 2003 I took into account profit for 2002. For integral return on the shares I also took into account the dividends. I took into account the dividends paid out in the preceding year. This means that on 31 December 2002 I took into account the dividends paid out in 2002.

Figure 1: Expected return on Slovenian shares, bank deposits and German bonds in the period 2000-2004



For bank deposits I took into account return on bank deposits over one year for the population with tolar revaluation.

A comparison between the expected return on shares (measured as D/T) and long-term bank deposits between 2000 and 2005 produces quite an unusual picture. At the beginning of this period, bank interest rates stood at around 15%. That is why domestic shares were comparatively expensive for investors at that time - in other words, they were overvalued. Their expected return was only 10.6%. At that moment, a rational investor would rather decide to invest in a bank deposit.

In reality, the picture was quite different. Economic return on shares between 2000 and 2004 stood at 19.8% a year. (The cumulative profit of the included companies increased by this much on average.) To this should be added 2% in return on dividends. In addition, during these years the owners of shares in the aforementioned companies also received nearly 10% of psychological return (return due to a change in the evaluation of shares, i.e. a rise in the T/D indicator). The overall return for the owners of the aforementioned portfolio was thus over 30%, or almost three times as much as the owner of a bank deposit received in the same period.

10. Where did this high return come from?

During the same period a bank deposit brought the investor a significantly lower return. Even though return on the deposit at the beginning of the period stood at 15%, return for the investor was in reality lower in the next four years. This is the consequence of falling interest rates. Bank savers thus nominally earned only about 10.8% annually. In view of these results, it may be claimed that the changes in domestic interest rates due to Slovenia's admission to the European Union were relatively predictable. Investors were thus able to predict that bank interest rates would drop further and further with time, and they selected what at first glance was a less profitable investment in shares.

Due to this assumption, I made the following comparison. In it I compared return on domestic shares to German ten-year bonds. This changes the picture to a degree. In comparison to the German bonds, the Slovenian shares throughout the period between 2000 and 20004 were undervalued and are also undervalued at this moment. At the beginning of the period, the German bonds (at the end of 2000) had a return of a little below 10% (adjusted to the Slovenian tolar). During the same period domestic shares had the expected return of 10.6%.

Developments after 2000 indicate that Slovenian investors successfully predicted at least two trends:
– that domestic interest rates would drop significantly,
– that the profits of the companies would rise above average (during the relevant period by as much as 19% a year).

As the consequence of this course of events, the actual return on Slovenian shares in the last four years rose quite above the expected return (30% against the expected 10.6%). About two-thirds of the growth is due to the good operation of Slovenian companies, while the remaining third is the result of the psychological return (rise in the T/D indicator). The main reason for the rise in T/D lies in lower bank interest rates. Due to low interest rates, investors were willing to reduce their expected return when investing in shares and thus push the prices of shares ever higher.

11. Expected return on shares in the next four years

The future return on shares will continue to depend on the factors mentioned above. Interest rates are now at levels from which they are not very likely to drop essentially any lower. On the other hand, the question is how much longer domestic companies will be able continue to increase their profits this fast (by 12% last year).

Table 1: Matrix of returns on Slovenian shares in the next four years

			Average growth in company profit						
		Implied interest rate	4%	6%	8%	10%	12%	14%	16%
P/E - end of period	8	12.5%	-15.8%	-14.2%	-12.6%	-11.0%	-9.5%	-7.9%	-6.3%
	10	10.0%	-11.1%	-9.4%	-7.7%	-6.0%	-4.4%	-2.7%	-1.0%
	12	8.3%	-7.0%	-5.2%	-3.5%	-1.7%	0.0%	1.8%	3.5%
	14	7.1%	-3.4%	-1.6%	0.2%	2.1%	3.9%	5.7%	7.5%
	16	6.3%	-0.2%	1.7%	3.6%	5.5%	7.4%	9.2%	11.1%
	18	5.6%	2.7%	4.7%	6.6%	8.6%	10.5%	12.5%	14.4%
	20	5.0%	5.4%	7.4%	9.4%	11.4%	13.4%	15.4%	17.4%
	22	4.5%	7.9%	10.0%	12.0%	14.1%	16.1%	18.2%	20.2%
	24	4.2%	10.3%	12.4%	14.5%	16.5%	18.6%	20.7%	22.8%
	26	3.8%	12.5%	14.6%	16.7%	18.9%	21.0%	23.1%	25.3%
	28	3.6%	14.5%	16.7%	18.9%	21.1%	23.2%	25.4%	27.6%
	30	3.3%	16.5%	18.7%	20.9%	23.1%	25.3%	27.5%	29.8%

			Average growth in company profit						
		Implied interest rate	18%	20%	22%	24%	26%	28%	30%
P/E - end of period	8	12.5%	-4.7%	-3.1%	-1.5%	0.1%	1.7%	3.2%	4.8%
	10	10.0%	0.7%	2.4%	4.0%	5.7%	7.4%	9.1%	10.7%
	12	8.3%	5.3%	7.1%	8.8%	10.6%	12.3%	14.1%	15.8%
	14	7.1%	9.4%	11.2%	13.0%	14.8%	16.7%	18.5%	20.3%
	16	6.3%	13.0%	14.9%	16.8%	18.7%	20.6%	22.5%	24.3%
	18	5.6%	16.3%	18.3%	20.2%	22.2%	24.1%	26.1%	28.0%
	20	5.0%	19.4%	21.4%	23.4%	25.4%	27.4%	29.4%	31.4%
	22	4.5%	22.2%	24.3%	26.3%	28.4%	30.4%	32.5%	34.5%
	24	4.2%	24.9%	27.0%	29.1%	31.2%	33.2%	35.3%	37.4%
	26	3.8%	27.4%	29.5%	31.6%	33.8%	35.9%	38.0%	40.2%
	28	3.6%	29.7%	31.9%	34.1%	36.2%	38.4%	40.6%	42.8%
	30	3.3%	32.0%	34.2%	36.4%	38.6%	40.8%	43.0%	45.2%

Source: Matrix summarised according to Bogle, 1999. Data: Ljubljana Stock Exchange

If companies managed to maintain the rate of profit growth from the previous year, investors would expect favourable returns, provided interest rates are maintained under the level of 8% in the next four years. Given the current situation, this seems quite a probable scenario. It should be borne in mind, of course, that the profit growth of 12% is quite high at the level of the entire market and that in the long term a drop even in this rate should be expected and therefore an additional drop in return on shares. To maintain the 20% returns on shares, interest rates would have to drop by another quarter (to 3%) or companies would have to increase the rise in profit to 16%. Each of these scenarios is possible in reality, although, in my opinion, their probability is comparatively small.

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