The impact of the euro introduction on banking sector

Part 1

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The European Economic Community has undergone many changes in order to expand and deepen cooperation since 90th years of 20 century. One of the important changes was the introduction of the common currency, the euro, in the year 2002 and its pre-stage in the year 1999 – the system of irrevocable fixed exchange rates of national currencies. These institutional changes considerably interfere with services provided by banks. A part of the revenues of banks is made up by fees of conversion of domestic currency to foreign currency and vice versa. On the other hand, new opportunities for deals and bank operations open up with the introduction of the common currency, which represents a potential for revenue increases. When using the common currency, the payment transactions can be simplified, which opens up possibilities for cost reductions. Thus, the introduction of the common currency can influence the profitability of banks in both directions.

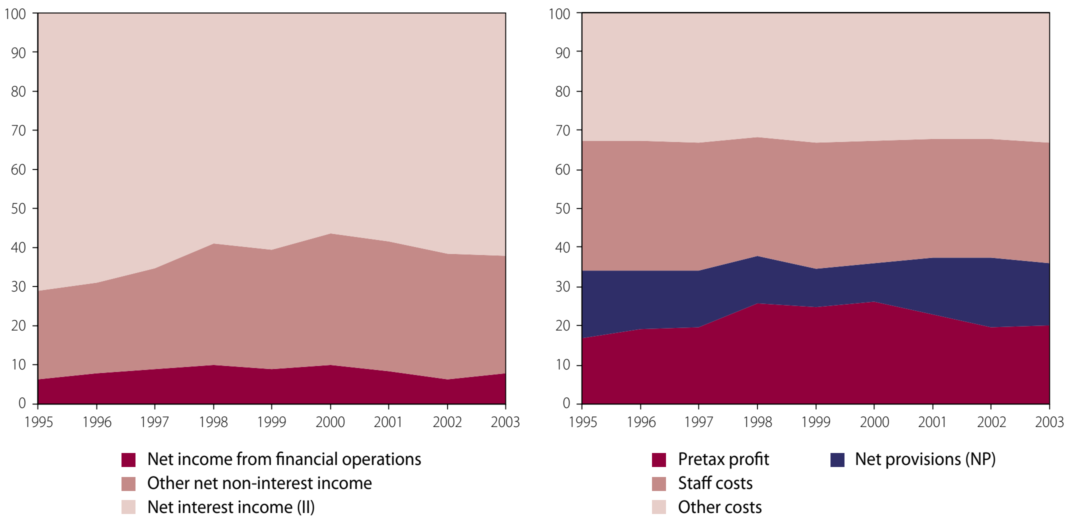
The main objective of this study is to ascertain the impact of the euro introduction on the profitability of the euro area banking sector and to try to estimate the possible impact of the euro adoption also on the Slovak banking sector by means of structural and cyclical changes detected in the analyzed countries.

Banks with foreign capital are the main type of banks active in Slovakia. Such banks have the necessary know-how of their mother companies as regards the bridging of possible negative impacts of the euro introduction (loss from foreign exchange operations) on the profitability and the capitalizing on those positive impacts.

PROFITS AND LOSSES OF EURO AREA BANKING SECTOR

In this study, we have primarily focused on the annual aggregates of the items of profit and loss accounts of the euro area banking sectors and for comparison's sake we have chosen three countries not using the euro – the United States (US), Switzerland (CH) and the United Kingdom (UK). We have found out that the year 1999 has brought about a positive growth of net interest income and gross income from the total of financial activities in most banking sectors of the euro area. A decrease in the level of net non-interest income was recorded by 55% of the euro

Chart 1 Structure of the profit and loss account (%)



Source: OECD.

Table 1 Data on the annual average levels of the banking sectors of the whole EMU, CH, UK and US before and after the introduction of the euro, 1994 –2003

	EMU, Σμ		INDEX T1/T2			
	T1	T2	EMU	CH	UK	US
Assets	11,615,998	16,892,814	1.45	1.38	1.82	1.41
Loans to customers	5,186,835	7,665,955	1.48	1.17	1.84	1.41
Deposits of clients	4,677,006	6,537,884	1.40	1.28	1.65	1.37
Capital	551,160	855,429	1.55	1.42	2.07	1.52
GIFA	286,368	387,021	1.35	1.37	1.54	1.45
NII	90,374	150,258	1.66	1.37	1.67	1.68
OE	186,207	247,043	1.33	1.35	1.44	1.36
Profit	55,562	88,143	1.59	2.36	1.64	1.49

Legend: T1: 1994-1998, T2: 1999-2003, Σμ: sums of average annual data by country in ths. EUR, EMU = 11 banking sectors, previous sums of average annual data are used in the EMU ratios, OE: operating expenses, GIFA: gross income from financial activities, NII: net non-interest income.
Source: OECD.

Table 2 Data on the individual annual average ratios of the banking sectors in the whole EMU, CH, UK and US before and after the introduction of the euro, 1994–2003

	T1				T2				INDEX T1/T2			
	EMU	CH	UK	US	EMU	CH	UK	US	EMU	CH	UK	US
Loans/Assets	0.447	0.516	0.532	0.631	0.454	0.425	0.545	0.629	1.02	0.82	1.02	0.997
Deposits/Liabilities	0.403	0.47	0.53	0.68	0.387	0.43	0.49	0.66	0.96	0.91	0.92	0.97
Capital/Assets	0.047	0.056	0.041	0.082	0.05	0.056	0.048	0.088	1.06	1	1.17	1.07
OE/GIFA	0.65	0.587	0.612	0.628	0.64	0.58	0.57	0.59	0.98	0.99	0.93	0.92
ROE	0.101	0.078	0.267	0.214	0.103	0.133	0.228	0.211	1.02	1.71	0.85	0.99
ROA	0.0048	0.0045	0.0117	0.0183	0.0052	0.0074	0.011	0.0192	1.08	1.64	0.97	1.05

Legend: T1: 1994-1998, T2: 1999-2003, EMU = 11 banking sectors, previous sums of average annual data are used in the EMU ratios, OE: operating expenses, GIFA: gross income from financial activities.
Source: OECD.

area banking sectors partly caused by lower net income from financial operations.

We endeavored to set up a detailed representation of the structure of the profit and loss account, where the levels of items are piled up on each other based on their percentage (Chart 1).

The year of the euro introduction has had a direct negative impact on the level of gross income from financial activities by means of lower non-interest income only in three countries of the euro area (Germany, Finland and Luxembourg). These banking sectors have failed to cover the losses caused by lower net income from financial operations and other operating income by means of interest income, as in the case of France, Portugal and Spain. Austrian, Belgian, Irish and Dutch banks managed to use effectively the given year without a lower level of non-interest income and to ensure a positive growth of their gross income from financial activities.

When comparing the average levels of the income of euro area banking sectors (Table 1) in the periods before and after the adoption of the euro, we have found out that the gross income from financial activities went up by 35% and the non-interest income even by 66% (similarly to the UK or the US). For the period after 1998 we have found out that the average level of pretax profits in the whole EMU increased and its growth rate was even higher than in the US.

Despite a non-decelerated growth rate of the operating expenses (except for Finland), seven banking sectors (Belgium, France, Ireland, Italy, Portugal and Spain) managed to continually improve efficiency by means of growing gross income. This was also reflected in their ratio to the gross income from financial activities of euro area banking sectors, which on average decreased or remained almost unchanged. We assume that efficiency has been reached by reducing the number of credit institutions, in some cases also by the number of subsidiaries and by increasing the concentration (e.g. by means of strategic mergers of banks) of banking sectors of the entire euro area and of other areas, as has also been the case of the UK.

Banks merged not only after the introduction of the euro, but also before, however, the years 1998 and 1999 recorded generally higher number of mergers and acquisitions, whether on the international or on the domestic market.

Faster growth of loans

During the period under review, loans to customers grew faster than deposits. This can be also seen in the increase of the average loans to assets ratio in the case of euro area banks, as well as UK banks. On average, loans to customers made up about 45% of the assets during the entire period under review. The value of the capital to assets ratio in the period after the adoption of the euro was higher both in the euro area and outside the EMU, which has possibly contributed to a faster resolution of crises that occurred in the period. The ROE increased, on average, after 1999 within the banking sectors of the euro area by 2%, although Germany, Ireland, Luxembourg and Portugal recorded a deterioration of profitability together with the UK and US as a result of the financial market crisis in 2001-2002. The banking sectors also improved, on average, their ROA relative to the period before 1999. The mentioned percentages are shown in Table 2.

To put it briefly, the arising implication for Slovak banking sector is as follows: the introduction of the euro and a common monetary policy will promote the use of more interconnected and liquidly integrated money and capital markets, which on the one hand entail a growth, but on the other hand also a competitive environment.

The adoption of the euro as a common currency in 1999 coincided with the period 2000–2003, when the already mentioned crisis on the European and global financial markets occurred caused by a decrease in the GDP growth. Based on investigations of the ECB, the diversification of loans was sufficient to absorb the given shocks and the banking sector remained robust, albeit with a lower profitability. However, the profitability was not as low as in 1994, a year marked by bond market turmoil.

No negative impact of the euro introduction is expected

Based on the reviewed items, we do not expect a considerable negative impact of the euro introduction in Slovakia, because the period after 1998 in the absolute majority of the euro area banking sectors was characterized by:

- higher net non-interest income despite a year-on-year decrease in 1999 (direct influence of the euro introduction), 2001 and 2002 (financial market crisis),
- higher gross income from financial activities,
- higher pretax profits, a better ROA and ROE,
- higher concentration of banking sector,
- and improved cost efficiency in general.

Based on our results we thus expect a possible negative impact of the euro introduction to be only of short-term nature. In the long-run, the situation of the Slovak banking sector will improve by means of a simpler and less risky access to European financial markets, increases in fees, a simpler implementation of products of the mother company and the introduction of new products, and further increases in effectiveness, e.g. by means of strategic mergers or structural changes.

Within our study, first we are going to focus in detail on statistical data, predominantly provided by the OECD, on the banking sector in 11 euro area countries, particularly: Austria (AT), Belgium (BE), Germany (DE), Finland (FI), France (FR), Ireland (IE), Italy (IT), Luxembourg (LX), the Netherlands (NL), Portugal (PT) and Spain (ES) for the time period 1994 – 2003, and we will also take into consideration 3 countries outside the EMU (Switzerland (CH), the UK and the US).

First we are going to deal with the general structural analysis and development of the balance sheet items in the individual banking sectors. Then we will look at the profitability of the banking sectors of the countries under review in the periods before and after the introduction of the euro at the national level, taking into account Slovak banks, too.

In the whole of our study, when talking about the introduction of the euro, we will mean the year 1999, when the foreign exchange rate was fixed and the euro entered the non-cash circulation.

Structural analysis of banking sector (1994 – 2003)

Most banking sectors underwent restructuring and a concentration process. Geographic expansion to the markets of Southeastern Asia, Central and Eastern Europe and Latin America became more popular. The banking sectors of Spain, the Netherlands and Ireland had the highest number of foreign mergers and acquisitions (M&A) as a percentage of total mergers and acquisitions. The banking sectors of Germany, Finland, Austria, Italy and France were primarily focused on M&A on the domestic market. A generally higher number of mergers and acquisitions was recorded in 1998 and 1999, both on the international and the domestic market, as compared to the previous years. Germany, Austria, Italy and France made up 80% of the total M&A in the banking market in 1995 to 1999. The mentioned countries are also characterized by the highest number of credit institutions in the member states.[1]

The number of credit institutions fell

While in 1995, the number of euro area credit institutions was 8,240 in 2003 their number decreased by 31%, which in sum had no impact on the importance of the banking sector in the economy. The amount of banks was decreasing not only in the euro area, but also outside the EMU. In the case of Switzerland, the UK and the US, the number of credit institutions fell by 21%.

In 1998, the Belgian banking sector belonged to the moderately concentrated banking sectors[2]. Following the introduction of the euro, its concentration index (the Herfindahl index) has been

1 ECB (Dec. 2000): Mergers and Acquisitions Involving the EU Banking Industry.

2 If the HI is below 0.1, the index is called non-concentrated, if the HI is between 0.1 and 0.7 the concentration index is moderate and if the banking sector is concentrated, the HI is higher than 0.17.

Table 3 Number of local branches

	AT	BE	DE	FI	FR	IE	IT	LX	NL	PT	ES	CH	UK
1994	4,683	19,159	44,436	1,828	26,200	-	22,433	367	7,269	3,155	35,544	3,807	11,075
1995	4,686	18,304	44,012	1,612	26,606	1,300	23,370	356	6,729	3,447	36,251	3,727	10,601
1996	4,694	17,963	43,585	1,409	26,303	1,517	24,103	-	6,822	3,766	37,079	3,600	12,070
1997	4,691	17,259	43,013	1,306	26,386	942	25,170	-	7,032	4,121	37,634	3,395	11,863
1998	4,576	15,391	41,680	1,268	26,689	1,026	26,195	-	6,792	4,307	38,639	3,147	11,501
1999	4,576	14,503	40,934	1,209	26,101	977	27,140	-	5,493	4,735	38,986	2,922	11,271
2000	4,556	13,696	39,327	1,221	26,231	880	28,194	-	5,151	4,895	38,967	2,849	11,427
2001	4,546	12,173	37,259	1,282	25,724	970	29,279	-	4,720	4,804	38,676	2,813	10,899
2002	4,471	10,975	35,187	1,265	26,110	926	29,829	17	4,269	4,714	38,673	2,724	10,754
2003	4,401	10,011	33,623	1,263	26,136	924	30,468	17	-	4,754	39,405	2,676	10,600

Source: OECD.

Table 4 Number of employees (in ths.)

	AT	BE	DE	FI	FR	IE	IT	LX	NL	PT	ES	CH	UK	US
1994	71	76	724	34	409	-	360	18	109	61	246	117	387	1,483
1995	71	77	724	31	408	33	360	18	111	60	245	116	382	1,478
1996	71	77	716	27	404	32	350	19	116	60	242	116	416	1,484
1997	71	77	718	26	397	33	346	19	120	60	242	115	419	1,530
1998	69	76	718	24	398	34	343	20	129	57	242	114	409	1,613
1999	70	76	723	24	394	38	340	21	147	57	239	115	409	1,644
2000	69	76	725	25	399	35	344	23	154	54	239	120	407	1,658
2001	70	76	717	25	407	41	344	24	153	52	240	115	437	1,691
2002	70	75	699	25	411	37	341	23	146	52	238	113	449	1,725
2003	67	72	679	24	410	36	337	23	-	51	239	108	455	1,746

Source: OECD.

already at the level of 0.15 and it was gradually increasing to a level of 0.20 in 2003[3]. For the concentrated banking sector of Finland, it has not been expected that its index will continue to grow, but compared to 1997 (0.21) the HI increased by 13% in 2003. For other countries of the euro area with a non-concentrated domestic banking sector index the Herfindahl index (HI) was continually increasing in most cases. In sum, one can talk about an upward HI trend not only in the EMU, but also e.g. in Switzerland.

During the period under review, privatization of state-owned banks by foreign banks was a frequent phenomenon. It was an excellent opportunity for foreign banks to strengthen their position in the rather closed domestic market of the respective country, which resulted in an increase in competitiveness and subsequent advantaging of the customers.

The banks of Austria, France, Germany and Italy became important players in Central and Eastern Europe because of a low number of banks and the use of the possibility of effective profits abroad.

Financial innovations enabled the banks to handle the risk more efficiently due to a more sophisticated approach to risk management by means of securitization, interest derivatives and structured finance. European banks have generally capitalized on their diversification of activities. But due to bad conditions on the domestic markets in 2001 and 2002, their ambitions in private banking, investment banking and asset management were put down many times.

The banks also started to invest more in projects supporting the use of internet or telephone banking in the field of simple customer retail transactions. However, the use of these instruments was restricted by a slow development because of costs associated with technological innovations in electronic banking and an economic slowdown between 2000 and 2003, the result of which was a considerable amount of unfulfilled projects with respect to that period. Nevertheless banks have not given up the vision in case of cost reduction by means of electronic banking.

The bank customers started to show higher interest in the less risky coupon and money funds and savings books. The banks had to rely on more complex investment strategies. Mergers have increased the resilience of banks and have eliminated less efficient players out of the banking market. There has been much restructuring, whether in terms of the number of employees or the number of branches (Tables 3 and 4).

3 *The increase in the index was due to the merging of two large banks – Dexia Bank Belgium and Artesia, ECB (2002) Structural Analyses of the EU Banking Sector.*

The euro area banking sectors of Germany, Austria, Finland, Belgium and the Netherlands have shown interest in reducing the operating expenses and increasing efficiency by means of lowering the number of local branches. Switzerland and the UK reacted in a similar way by structural changes over the period under review. However, one cannot unambiguously state that the reductions have had a positive impact on the decrease in cost efficiency.

The development of balance sheet items (1994 – 2003)

The total annual assets showed an upward trend and in our econometric estimates they had significantly positive profit elasticity. The highest annual growth, on average by 15%, was recorded in 1997 and 1999 within the banking sectors of the euro area supported by the growth in the level of securities (shares, bonds, …) and in the case of Italy and Spain by means of a faster growth of the volume of granted loans. During these two years the Irish banking sector recorded above-average positive growth rates[4]. The year 2002 left its mark in the growth rate and in five cases (AT, BE, DE, FR and NL) the level of the indicator has been reduced. Banks outside the EMU detected the highest year-on-year growth rates of the volume of total assets in the earlier years 1996 and 1997.

It is interesting to compare financial investments[5], which have played an important role in our empirical estimates on the impact of the euro on the banking sector. The adoption of the euro and decrease in foreign exchange or interest risks could support a positive trend in the amount of financial investments. Later on, we will also talk about their positive relation to net non-interest income and profits. This item was growing at a high rate – by 22% p.a. – until 1999, with the exception of Ireland and Finland, which have recorded extreme fluctuations. The year of the euro introduction has brought high year-on-year growths, but because the total performance of the economies was slowing down between 2000 and 2003, the average degree of growth of this item from 1999 to 2003 fell to a level of 14.5%.

In general, the growth rate of loan demand decelerated, which partly decreased also the net interest income. The growth of the volume of loans provided to customers in the euro area has shown a downward trend. In 2001 and 2002, there were even year-on-year decreases in the banking sectors of Germany and Luxembourg and also of Switzerland[6]. According to non-consolidated ECB data, since 2002 loans to households have represented one of the main activities, which made up 30% of the total concluded loans both in the euro area and in the UK and the US, where the value increased up to 35%, which in turn created a potentially important source of credit risk[7]. During the whole period loans to customers formed the absolute majority of assets in the banking sectors of Finland, the Netherlands and from 1998 also of Spain.

Box 1

Structure of the profit and loss account

1. Interest income
2. Interest expenses
3. **Net interest income (1–2)**
4. Net income from financial operations
5. Net fees and commissions
6. Other operating income
7. **Net non-interest income (4+5+6)**
8. **Gross income from financial activities (3+7)**
9. Operating expenses
10. **Net income from financial activities (8–9)**
11. Net provisions
12. **Pretax profit or loss (10–11)**

Belgium, Luxembourg and Spain were the only countries of the euro area, in which the volume of customer deposits exceeded the amount of loans granted over the entire period under review. It has to be noted that the banking sectors of Belgium and Luxembourg were largely geared on claims towards foreign countries in addition to lower their domestic loans. The most marked slowdown of the growth rate of deposits was recorded in 2002, due to the average trend only at 1%. Customer deposits made up 43.5% of the total liabilities of the euro area banking sectors in the time period before the euro introduction and since 1999 the percentage has decreased on average by 3 percentage points.

The growing level of capital should be a guarantee of higher income even in the case of crises [Vennet, De Jonghe, Baele 2004]. During the whole period under review, the given item showed a positive trend. The main increase in the capital to assets ratio occurred in 1999, when the average value was at 5.3%; in 2002 the capital have already made up 6.3% of the assets of euro area banks. A value of the indicator with respect to total assets over 6.5% was reached by three banking sectors – the Italian, Portuguese and Spanish banking sector – and out of countries outside the EMU by the American banking sector.

In 2003, various large firms announced preliminary profits from the tightening of foreign demand, although an increased growth of the economy was recorded only in the second half of the given year. The main factors of higher profits as early as in 2003 were: good conditions in financial markets, further restructuring, cost reductions and reductions in the creation of provisions.

An analysis of the profit and loss account of banking sector (1994-2003)

Before starting a detailed analysis of the profit and loss account of the banking sectors observed, it is important to provide an overview of its general structure shown in Box 1.

4 Irish banks have also recorded above--average growths of the volume of the granted loans over the entire period under review, which also explains the unusually high growth rates of the assets mentioned. The economy of this country is known for its booming character, which has supported an above-average demand for loans.

5 The item financial investments consist of investments in commercial companies with significant influence and with controlling interest, debt securities procured in primary issues not designed for trading, zero-coupon government bonds held to maturity, bonds issued by CB and foreign banks of issue, other zero-coupon bonds held to maturity, coupon bonds held to maturity, bills of exchange and drafts held to maturity and securities created by securitization and held to maturity.

6 Switzerland was interesting in the field of private banking and asset management, because 1/3 of all foreign expansion initiatives in that country came from Luxembourgian banks (Brasili, Vulpes 2006).

7 ECB (Nov. 2004): EU Banking Sector stability.

Table 5 Net income from foreign exchange operations (X)

	AT	X/GIFA	BE	X/GIFA	IT	X/GIFA	LX	X/GIFA	NL	X/GIFA	ES	X/GIFA
	ths. EUR	%	ths. EUR	%	ths. EUR	%	ths. EUR	%	ths. EUR	%	ths. EUR	%
1994	-	-	475	4.8	-	-	176	3.8	174	1.0	313	1.2
1995	309	3.0	179	1.7	-	-	197	4.1	193	1.0	175	0.7
1996	291	2.7	315	2.7	-	-	245	4.8	226	1.0	567	2.0
1997	312	2.8	427	3.4	4,433	8.8	259	4.5	254	0.9	655	2.3
1998	340	2.8	539	3.9	5,050	9.0	353	5.0	347	1.0	505	1.7
1999	139	1.1	615	4.5	2,960	5.1	295	4.4	293	0.8	367	1.2
2000	144	1.1	534	3.3	2,558	3.9	298	3.7	294	0.7	771	2.2
2001	239	1.7	303	2.1	2,443	3.5	284	3.5	279	0.6	285	0.7
2002	229	1.7	230	1.6	1,399	2.0	312	3.8	310	0.7	135	0.3
2003	234	1.7	270	1.8	2,734	3.9	281	3.7	277	0.6	-1 196	-0.1

Source: OECD, NBS and other national central banks.

Table 6 Slovak banking sector

	1998	1999	2000	2001	2002	2003	2004	2005	2006
mill. SKK	5,500	5,394	5,234	5,404	4,689	4,228	3,789	4,477	10,026
X/GIFA, %	17.0	21.0	16.0	15.9	10.5	9.0	7.6	8.2	16.0

Source: OECD, NBS and other national central banks.

Income from financial activities

Gross income from financial activities (*GIFA*) of the euro area banking sector, consisting of net interest and non-interest income, tended to grow all over the time period. When comparing the average annual levels before the introduction of the euro and after the euro adoption, we found out that Ireland, having increased its income by 145%, was the country with the highest growth of the given indicator. Only three euro area banking sectors (DE, FI and LX) showed a lower growth of income from financial activities in 1999 than in the previous year. A similar phenomenon has not occurred in the remaining banking sectors. Such a decrease in the growth rate was mainly due to the lower net non-interest income (*NII*) and only in the case of Finland also by a decrease in net interest income (*II*). Apart from the above-mentioned countries, a year-on-year decrease in the level of *NII* in the year of the euro introduction occurred also in the banking sectors of France, Portugal and Spain. By comparing the average values of annual net non-interest income in the time period before and after the euro introduction no decreases in the euro area banking sectors were recorded.

Net non-interest income was made up by net income from financial operations, other operating income and net fees and commissions. While examining the item net income from financial operations, including net income from foreign exchange operations, we found out that the banking sectors of Austria, Luxembourg and Portugal recorded a deterioration of average profit from this item following the introduction of the euro. Germany, Ireland, Italy and the Netherlands, on the other hand, showed better results than the banking sectors outside the euro area, particularly Switzerland or the United States. A negative year-on-year growth in income from financial operations in 1999 was recorded in six euro area countries (AT, BE, FR, LX, PT and ES) and even in the US (-0.96%). In these euro area banking sectors the average decrease was at -27.5%.

Furthermore, we have analyzed the item net income from foreign exchange operations, because we assign an important role to this item within the total income. The item is particularly important in the Slovak banking sector, because it constituted more than 10% of the gross income from financial activities with the exception of the years 2002, 2003 and 2004. Tables 5 and 6 show the course of this income and its percentage of the *GIFA*. We managed to obtain only data for Austria, Belgium, Italy, Luxembourg, the Netherlands and Spain.

One can see that none of the countries achieved percentages as high as Slovakia prior to the introduction of the euro. Italy approached the parameters of the Slovak banking sector probably most, although only with two observations. Belgium, as the only banking sector of those countries, did not record lower income from foreign exchange operations. The year-on-year level decreased on average by 31.8% in the remaining countries. However, only three out of five countries under observation (AT, LX and ES) recorded a direct negative impact of a decrease in income from foreign exchange operations on the growth of net income from financial operations in 1999. Italy and the Netherlands managed to cover the losses from other income from financial activities.

Table 7 Operating expenses, year-on-year change, (in %)

	AT	BE	DE	FI	FR	IE	IT	LX	NL	PT	ES	CH	UK	US
1994	6.6	1.3	4.1	-23.6	0.8	-	0.6	13.1	2.7	4.9	-1.0	-0.3	-0.1	3.1
1995	20.0	1.1	6.4	-24.6	1.0	-	4.9	7.4	10.9	7.4	5.1	6.9	6.2	4.3
1996	4.0	6.2	5.1	-17.2	2.2	3.3	3.5	7.0	16.7	9.1	3.9	32.1	8.3	7.5
1997	1.5	5.2	6.3	-19.3	2.6	28.4	3.0	5.2	27.2	8.1	4.9	10.7	5.2	5.2
1998	3.4	7.1	7.5	41.3	3.9	12.0	-1.1	9.3	22.7	4.2	5.0	-10.3	-0.4	13.4
1999	3.2	5.5	13.6	-27.8	4.1	42.8	3.4	11.6	15.5	8.0	4.6	18.1	6.1	5.6
2000	6.0	8.3	10.8	-5.8	7.1	15.7	4.6	17.8	19.8	7.2	11.7	13.8	11.1	5.8
2001	5.1	2.0	4.6	6.2	0.6	16.6	4.4	5.2	2.1	-0.1	1.2	-3.5	14.8	4.4
2002	0.9	-4.4	-3.7	-8.3	0.8	11.4	4.7	-13.7	-2.2	5.2	6.0	-5.4	13.8	1.9
2003	-0.7	-4.5	-1.6	11.8	2.8	-4.9	4.8	-3.8	-0.5	-0.2	-0.5	-3.8	3.2	5.6

Source: OECD.

Table 8 Staff costs, year-on-year change, (in %)

	AT	BE	DE	FI	FR	IE	IT	LX	NL	PT	ES	CH	UK	US
1994	7.02	1.07	3.19	-4.33	-0.72	-	3.30	16.63	2.34	4.06	-2.81	-2.45	1.58	4.08
1995	7.02	1.15	5.59	-16.23	1.17	-	2.83	4.21	10.81	7.61	6.10	4.20	5.95	5.11
1996	3.67	4.92	3.24	2.68	2.57	2.38	4.53	4.78	14.01	6.58	3.91	9.34	4.75	5.94
1997	1.76	0.19	3.58	-21.33	3.28	21.78	-0.03	5.06	25.47	9.00	5.01	11.03	3.14	6.66
1998	1.96	3.73	5.09	9.42	2.25	12.64	-3.49	4.40	27.64	-1.80	4.75	-5.14	-2.56	9.95
1999	2.75	3.24	10.05	4.26	4.33	38.10	0.04	12.25	17.81	6.03	5.57	28.34	7.46	8.36
2000	2.19	4.93	9.52	5.86	-	18.90	0.86	15.71	18.94	7.93	14.28	14.51	4.99	3.35
2001	4.39	0.92	2.54	10.69	-	10.86	1.02	5.13	5.37	-6.07	-2.00	-2.39	13.11	5.84
2002	1.75	-1.46	-3.64	-1.22	-	11.46	4.69	3.69	-2.00	3.51	7.16	-3.61	10.05	6.63
2003	0.39	-1.50	-0.08	1.82	-	-7.51	5.07	-4.29	-2.05	1.28	-2.15	-1.32	9.62	7.94

Source: OECD.

It has to be pointed out that income from foreign exchange operations did not exceed 10% of the *GIFA* during the period under observation and not even 4% after 1999.

As for the banks in Slovakia, it is doubtful whether they will be able to prevent a possible decrease in the income from financial operations after the introduction of the euro. The banking sector in Slovakia has traded and still trades predominantly in the currency USD (80%) on the foreign exchange market and trades with euro, making up approximately 17% of the total volume of foreign exchange operations, came second. Following the introduction of the euro, on the one hand, the foreign exchange risk decreases for trading in US dollars and the access to futures and interest derivatives becomes less complicated for us, but at the same time we lose the possible additional income brought about by the SKK/EUR exchange rate. However, there is at least the positive finding that the Slovak banking sector would show average annual profits of SKK 8,854 million over the last 6 years even without the net income from foreign exchange operations.

The average annual level of net fees and commissions both in the euro area and outside the euro area increased on average by 88% prior to and following the introduction of the euro. In the banking sectors of Belgium, Ireland, Italy and Portugal, the growth of the item was even higher than 100% against the period before the euro adoption. The annual level of the net fees and commissions, however, has been increasing continually as early as from 1996 and their positive trend continued until 2000 in the banking sectors of the euro area and also Switzerland.

We found out that the net fees and commissions were an important part of non-interest income and made up 50% of the *NII* in four countries of the euro area (DE, IE, LX and NL). Italy and Portugal joined these banking sectors after the adoption of the euro. Belgium was the only country, which decided to concentrate less on income from fees and commissions and concentrate more on income from financial operations. While before 2000 the Belgian income from financial activities made up more than 50% of the *NII*, after 1999 this figure was still higher than 37%. In the remaining banking sectors, this percentage was below 39% over the entire period. Here it has to be pointed out that the Slovak net income from foreign exchange operations itself made up on average 38% of the net non-interest income from 1998 to 2006.

Table 9 Cost-to-income ratio

	AT	BE	DE	FI	FR	IE	IT	LX	NL	PT	ES	CH	UK	US
1994	0.65	0.72	0.61	1.40	0.71	-	0.68	0.45	0.67	0.62	0.60	0.56	0.64	0.65
1995	0.69	0.68	0.64	1.12	0.66	0.59	0.68	0.47	0.67	0.65	0.63	0.56	0.64	0.63
1996	0.69	0.66	0.64	0.89	0.70	0.58	0.67	0.47	0.67	0.64	0.62	0.66	0.62	0.63
1997	0.69	0.64	0.64	0.73	0.69	0.58	0.69	0.44	0.69	0.60	0.61	0.63	0.61	0.61
1998	0.68	0.64	0.58	0.86	0.68	0.52	0.61	0.39	0.71	0.55	0.61	0.52	0.57	0.63
1999	0.69	0.66	0.68	0.71	0.68	0.52	0.61	0.46	0.68	0.59	0.63	0.55	0.55	0.61
2000	0.67	0.60	0.69	0.57	0.66	0.50	0.56	0.45	0.71	0.59	0.61	0.56	0.56	0.61
2001	0.68	0.63	0.70	0.38	0.62	0.56	0.55	0.47	0.70	0.57	0.56	0.60	0.57	0.59
2002	0.70	0.68	0.64	0.61	0.65	0.51	0.60	0.40	0.71	0.61	0.57	0.59	0.61	0.57
2003	0.69	0.62	0.73	0.50	0.64	0.51	0.61	0.41	0.67	0.54	0.54	0.61	0.57	0.57

Source: OECD.

Operating expenses

During the period under review, from 1994 to 2000, the operating expenses of the banking sectors of the euro area tended to increase. At the time of preparations of the euro introduction, the operating expenses (*OE*) of 11 European Union countries grew on average. A similar phenomenon also occurred in the observed banking sectors outside the EMU. The years 1999 and 2001 were marked by a positive growth of the indicator, which increased from 1998 by further 29% on average in the euro area. In 2002 and above all in 2003, a reduction in operating expenses (Table 7) was recorded in most banking sectors. In general, however, it can be said that the time period following the introduction of the euro has brought about a higher average *OE* level in all countries under review except Finland, which recorded on average lower costs than before 1999.

The years 1999 and 2000 were characterized by the highest year-on-year growth of staff costs both in the banking sectors of the euro area and also in Switzerland. A reduction of the annual level of the item occurred in some countries as early as in 2001 and the other banking sectors have reacted in a similar way over the following years, with the exception of the UK and US, which continued to record a positive growth over the given period (Table 8).

Effective euro area banking sectors

Ireland and Luxembourg were among the euro area the most effective banking sectors, their "cost-to-income ratio" (*OE* to *GIFA* ratio) did not exceed 60% over the whole period under review (Table 9). In the case of Finland, the operating expenses of 1994 and 1995 have even exceeded gross income from financial activities, but the subsequent restructuring of the banking sector had a positive impact on a continuous decrease of the ratio down to the level of 38% in 2001. The Netherlands (as the only euro area country) recorded a deterioration of efficiency by 1% on average during the period after the adoption of the euro. The average *OE* to *GIFA* ratio of the reviewed banking sectors outside the monetary union, similarly to the other banking sectors of the euro area, decreased after the introduction of the euro as compared to the period before 1999, despite higher operating expenses.

Net provisions

By the item net provisions (*NP*) we mean the difference between the costs of their creation and income from their use, because later on the *NP* is deducted from the net income from financial activities. It means that if the value of net provisions is positive, the costs exceed the income from their use, which has a negative impact on the level of profit. All banking sectors of the countries under

Table 10 Pretax profit

	AT	BE	DE	FI	FR	IE	IT	LX
1994–1998	1,736	2,550	19,673	29	6,533	1,631	7,424	2,596
1999–2003	2,508	4,512	11,066	2,203	20,072	4,183	17,864	3,418
Index	1.44	1.77	0.56	75.97	3.07	2.56	2.41	1.32

	NL	PT	ES	EMU, Σμ	CH*	UK*	US*
1994–1998	5,639	1,249	6,502	55,562	6,783	11,021	81,476
1999–2003	10,147	2,114	10,056	88,143	16,008	18,078	121,456
Index	1.8	1.69	1.55	1.59	2.36	1.64	1.49

*Σμ: average pretax profit for the given periods in ths. EUR, *national currency.*
Source: OECD.

Table 11 ROA, average for the given periods

	AT	BE	DE	FI	FR	IE	IT	LX
1994–1998	0.0040	0.0038	0.0056	0.0005	0.0020	0.0144	0.0052	0.0054
1999–2003	0.0045	0.0055	0.0021	0.0150	0.0057	0.0106	0.0096	0.0053
Index	1.13	1.45	0.38	30.00	2.85	0.74	1.85	0.98

	NL	PT	ES	EMU*	CH	UK	US
1994–1998	0.0072	0.0077	0.0087	0.0048	0.0045	0.0117	0.0183
1999–2003	0.0064	0.0080	0.0089	0.0052	0.0074	0.0113	0.0192
Index	0.89	1.04	1.02	1.08	1.64	0.97	1.05

** This ROA is the ratio of average sums of pretax profits to assets by country, Σμ/Σμ.*
Source: OECD.

Table 11a ROE, average for the given periods

	AT	BE	DE	FI	FR	IE	IT	LX
1994–1998	0.089	0.143	0.130	-0.0002	0.053	0.202	0.074	0.221
1999–2003	0.094	0.155	0.051	0.266	0.116	0.158	0.133	0.168
Index	1.06	1.08	0.39	-	2.19	0.78	1.8	0.76

	NL	PT	ES	EMU*	CH	UK	US
1994–1998	0.154	0.079	0.098	0.101	0.078	0.267	0.214
1999–2003	0.156	0.066	0.099	0.103	0.133	0.228	0.211
Index	1.01	0.84	1.01	1.02	1.71	0.85	0.99

** This ROE is the ratio of average sums of pretax profits to capital by country, Σμ/Σμ*
Source: OECD.

review, except Finland, recorded positive *NP* over the 1994–2003 time period, therefore we will focus on the year-on-year growth of that item.

The years 1997 and 1998 were predominantly characterized by a positive growth of the net provisions both in the euro area and outside the euro area. In 1999, the level of the *NP* decreased by 19.3% on average. In the following two years most banking sectors started to prepare for a decrease in the quality of assets, which led to a positive growth of net provisions. In general, a higher income from the use of provisions than in the previous year was recorded in 2003. Behind that story were firms of various sizes, which started to announce preliminary profits and their action started to calm down the situation.

Profitability

When comparing the average levels of both return on equity and return on assets[8], three euro area banking sectors (DE, IE and LX) recorded a decrease in profitability in the period prior to and after the adoption of the euro. As for countries outside the EMU, the UK and US also recorded a decrease in the average return of equity (ROE) levels during the euro period. Belgium, Ireland, Luxembourg and the Netherlands were countries, which on average maintained a return on equity above 14% during the whole period. Because ROE itself does not contain the debt of the banking sector in addition to capital in the denominator, as with the return on assets (ROA), we put therefore more weight to the interpretation of ROA in terms of macroeconomics. Return on assets also informs us of the ability to use funds raised by means of loans and bonds. Banking sectors with the highest ROA, on average, prior to the introduction of the euro included the banking sectors of Ireland, Portugal and Spain and since 1999 the Irish banks have been joined by Finish and Italian banks. In general it can be said that the ROA of six euro area banking sectors improved by 56% except Finland, which recorded an above-average increase of that indicator (Table 11).

In general, pretax profit calculated by means of the difference between net income from financial activities and *NP* in the period after the introduction of the euro recorded a higher average profitability level than in the previous years (Table 10). The German banking sector, which was worst off, was an exception. The other sectors were characterized by robustness and no negative profits were recorded during the whole period, except for Finland in 1994 and 1995, when the operating expenses exceeded gross income.

The average year-on-year growth of profits in 1999 reached 27% within euro area countries, except Germany and Luxembourg, whose growth decelerated as opposed to their EMU neighbors. In the case of Germany, this negative phenomenon was driven primarily by a rapid decrease in other operating income. In that year, in addition to equally lower operating income, the Luxembourgian banking sector achieved a 35 percent

8 The ROE is expressed as the ratio of pretax profits to equity and the ROA by means of the profits to assets ratio.

reduction in net income from financial activities mainly due to a loss from foreign exchange operations. Countries outside the EMU increased their profits by one fourth on average. It can be thus said that all baking sectors, except two exceptions, recorded higher profits in 1999 as compared to the previous year.

At times of failure of majority corporations, the burst of the technology bubble and the resulting unfavorable situation on the financial markets in 2001 and 2002, a predominant part of the banking sectors recorded a negative growth of pretax profits. In addition to focusing on highly liquid low-risk instruments and a better risk management, the previous higher non-interest income in 2000 was exploited to get over the crisis. That short time period was characterized by a boom on financial markets. In general, demand for foreign securities arose, because of financial deregulation and the euro introduction. In favor of the resulting situation was a low-inflation environment with a low interest rate. In 2003, the profitability of the banking sectors (except GE and IT) grew on average by 26% through higher non-interest income and lower net provisions as a result of a calming down of the situation on the financial markets.

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