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SCHOOL OF BUSINESS ADMINISTRATION KARVINÁ

FUTURE OF THE BANKING

AFTER THE YEAR 2000

IN THE WORLD AND IN THE CZECH REPUBLIC

VII

COMPARISON OF THE BANKING SECTORS IN TRANSITION ECONOMIES

PROCEEDINGS FROM THE INTERNATIONAL CONFERENCE

KARVINÁ 2002
THE CZECH REPUBLIC

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INTRODUCTION

In September 2002, it was the seventh time that the International Conference, *Future of Banking after the Year 2000 in the World and in the Czech Republic,* took place at the School of Business Administration, Silesian University, in Karviná. Every year it focuses on a specific topic of the banking sector development, and this year, the topic was *Comparison of Banking Sectors in Transition Economies*.

The conference was introduced, like in the past years, by papers of our keynote speakers, Martin Fuchs from HSBC, the chairman of the board of the Association for the Capital Market, and Robert Balik, Professor of Haworth College of Business, Western Michigan University, U.S.A. Their papers were warmly welcomed by the conference participants. Martin Fuchs overviewed the capital market development in the Czech Republic during the last ten years. He focused on banking and non-banking security dealers, investment funds and public market organisers. He also paid specific attention to the insurance of a client´s deposits with security dealers, as is demanded by the EU Directives. Robert Balik´s presentation dealt with mergers and acquisitions in Eastern Europe. He compared mergers and acquisitions in Central European countries and in Baltic countries and outlined a possible future development in this area. Underscoring globalisation and the progress in information technologies, he described the banking sector development in the U.S.A. This year, also, my paper was presented as a main paper. The most important reason for this proceeding was that the grant of GAČR 402/00/0312 "Comparison of the Banking Sectors in Transition Countries" is ending this year. The topic of the conference and the overview of the 3-year project in my presentation paved the way to researchers participating in the project and in my case to present some findings of the analysis.

In the afternoon and the following day, the meeting of registered participants was divided into two sections. The first one focused on *The Comparison of Banking Sectors in Transition Economies*, and the second was called *The Banking Sector and Capital Market*. More then 30 participants, including our foreign guests, presented their papers. After every paper very interesting and rich ideas surfaced in the discussion. There was a supportive working and friendly environment in both sections.

A vast majority of the papers presented at the Conference is included in the Proceedings, which you are holding in your hands. They are also published on the University website and you can find them in *www.opf.slu.cz/pb2000/sbornik2002*. The papers are classified according to content. The proceedings show viewpoints of the banking sector in the Czech Republic and all over the world in their development and their different prospects. Different views of the participants are reflected in various topics they focused on. Arguments of ideas and views were the main contribution of the conference, which not only influenced the practical scope of activities of the banks' managing staff but also directed scientific activities of the university workplaces both in the Czech Republic and abroad. That is why the conference has been understood as a regular meeting of banking experts as well as academic and scientific specialists from universities.

For the fifth year in a row, some graduates of the School of Business Administration of Silesian University took part in the conference. The School of Business Administration was founded in 1990, and nowadays, nearly 2000 students study here. Most of the graduates who majored in Finance work mainly in the finance sector now. Some of them are already practicing in well-known banking, leasing, insurance, audit, and other financial firms and institutions. It was a great pleasure to have the opportunity to welcome one of our graduates Martin Fuchs as our guest speaker this year. We believe that we will have a chance to meet more graduates at the International Conference in 2003.

We expect next year´s Conference, to take place on October 16-17, 2003. The Program Committee now has a difficult decision on which topics to choose among those that have been considered. Let us wish its members good luck and let us hope next year´s conference will again bring fruitful papers and rich discussions.

Stanislav Polouček

School of Business Administration

Silesian University

Karviná, 15th November 2002

THE CZECH CAPITAL MARKET ASSOCIATION AND INVESTMENTS IN FOREIGN FUNDS

Martin Fuchs

Key words

capital market, the Czech capital market Association, investment funds, transparency

1. Introduction

As a great deal of research work confirms, the Czech capital market is relatively little developed, particularly in comparison with the level of the development of the Czech economy and its banking sector. The inadequate legislative, insufficient regulation and supervision from the side of the state agencies, as well specialist professional associations are considered as one of the causes of this state. The Czech Capital Market Association (CCMA), which was established in April 2000, is one of the professional associations, which should at least mitigate this discrepancy.

2. The Czech Capital Market Association

The Czech Capital Market Association (CCMA) was established in April 2000. Its objective is to achieve, by means of development, standardising, and popularisation of the capital market in the Czech Republic, the creation of a capital market compatible with the EU capital market environment. Its members are prominent stock brokers, further licensed participants of the capital market and some law and auditing companies (appendix 1). It associates forty-five renowned participants of the Czech capital market, who represent:

- 85% share in the stock market of Prague Stock Exchange, a.s.,
- 90% traders in foreign funds in the Czech Republic,
- all market-makers in the Czech bond market,
- most of the market-makers in the stock market of Prague Stock Exchange, a.s.,
- most of the participants of the foreign exchange market in the Czech Republic.

The board of directors CCMA is pentamerous, and its members are Jan Bárta (ČSOB, a.s.) Petr Koblic (CA IB Securities, a.s.), Marek Belšan (Weinhold Legal, v.o.s.), Petr Šrámek (lawyer) and Martin Fuchs (HSBC Bank plc – affiliated branch Prague), who is its chairman.

According to the "Articles of Association" it is an interest association of legal entities and in order to achieve its objective, the CCMA in particular holds lectures, seminars, conferences, publishes studies, legal opinions, and ethical standards, participates in raising comments on bills and decrees related to the capital market, and supports education in the area of the capital market. For achieving its objectives, the CCMA also establishes its work sections, work groups, and ethics commission.

A very significant part of the activities of the CCMA is the presentation of its standpoints and work materials to the legislative motions and legislative concerning the capital market, collective investing, steps of the Securities Commission (SC), primary issue (IPO) and other areas, which deal with the object of activities of the CCMA. Last year, (November 2001) e.g. the CCMA expressed open disagreement with the prices, which had been introduced by the Securities Centre since August 2001 and in compliance with the objective of its activity it based the reasoning on the way and its transparency of this act. To the last activities of the CCMA belongs the completion of the motion to the new legal regulations for the multi-stage registration of the investment instruments. The CCMA intends to discuss this motion with all subjects, who are active in the capital market, especially with the corresponding state agencies held responsible for legislative of the capital market. The motion, which is worked out in the article wording, is a result of several month-work of a special working group of the CCMA and it represents the first complex model of the registration of the investment instruments in the domestic legislative. The motion introduces an unified registration system of the investment instruments, which adjusts the registration of the entered and documentary investment instruments by licensed subjects, and thus it eliminates the state, when the keeping on file of the investment instruments was not complexly regulated.

3. CCMA and the transparency of the capital market

In compliance with its function, MMCS has introduced since September 1st 2001 duty to notify of members and standing partners of the CCMA. It applies for those members, who are licence holders of the Securities Commission for performing the activities of a stock broker as amended or licence holders of the Securities Commission for performing the activity of collective investing under the Act No. 591/1992 Coll., on investing companies and investing funds as amended.

The reason for the institution of duty to notify is an effort of the CCMA to contribute to the increase in the transparency and credibility of the domestic capital market. Pieces of information, which the CCMA gains within duty to notify, are in the form of press news and information is provided to a broad public and it is published on the websites of the CCMA (http://www.akatcr.cz/), with an exception of sensitive information, which is intended to the ethic commission of the CCMA.

Duty to notify the members of the CCMA is divided into four segments of the capital market, which the CCMA provides: trading in securities, asset management, collective investing and investment banking. The Ethic Commission and the board of directors watch over respecting duty to notify.

4. Foreign collective investing in the Czech Republic

Foreign collective investing belongs in transitive economies to very attractive areas of investing on the capital market. It ensues from the findings of the CCMA that in October 2002, 576 foreign funds were registered in the Czech Republic. Total property assets in these funds of the citizens amounted to the volume of 23, 151 milliard CZK. The structure of investments in dependence on the fund type reveals that investors have greatest interest in bond funds – the distribution of instruments into individual forms of the foreign funds was towards June 30, 2002 the following:

- bond funds 7,87 milliard CZK,
- money market funds 5,83 milliard CZK,
- stock funds 4,84 milliard CZK,
- secured funds 2,39 milliard CZK,
- funds of funds 1,51 milliard CZK,
- mixed funds 0,70 milliard CZK.

Further information on history of the investments of the Czech citizens into foreign funds and its volume are evident from the enclosed diagrams.

5. Conclusion

Collective investing in the developed economies is a stable and standard sector of the capital market. The growing transparency of the Czech capital market, to which the CCMA significantly contributes, creates prerequisites for the Czech Republic and other transitive economies.

Abstract

Kolektivní investování je v ekonomicky vyspělých zemích stabilním a standardním sektorem kapitálového trhu. Jak ale potvrzuje celá řada studií, český kapitálový trh je relativně málo rozvinutý, zvláště při srovnání s úrovní rozvoje české ekonomiky a jejího

bankovního sektoru. Nedostatečná legislativa, nedostatečná regulace a dohled jak ze strany státních orgánů, tak odborných profesních sdružení jsou považovány za jednu z příčin tohoto stavu. K rostoucí transparentnosti českého kapitálového trhu však významně přispívá CCMA, která vytváří předpoklady k tomu, aby tento rozpor zmírnila.

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Appendix 1

A list of the members and standing partners

Stock brokers

ABN AMRO Bank N.V.
ABN AMRO Asset Management (Czech), a.s.
ATLANTIK finanční trhy, a.s. (financial markets)
Baader Securities, a.s.
CA IB Securities, a.s.
Citibank a.s.
Commerzbank Aktiengesellschaft
Commerzbank Capital Markets (Eastern Europe), a.s.
CONSEQ Finance spol. s r.o.
Conseq Investment Management, a.s.
Credit Suisse Asset Management (Praha) a.s.
Česká spořitelna, a.s.
Československá obchodní banka, a.s.
ČSOB Asset Management, a.s.
Deutsche Bank AG - Filiale Prag
eBanka, a.s.
HSBC Bank plc - pobočka Praha (affiliated branch Prague)
HVB Bank Czech Republic a.s.
ING Bank N.V., organizační složka (organisation body)
ING Investment Management (C.R.), a.s.
Patria Finance, a.s.
Raiffeisenbank a.s.
Société Générale, pobočka Praha
Wood & Company, s.r.o.
ŽB - Asset Management, a.s.

Other licensed participants of the capital market

BNP Paribas
Julius Baer Investment Funds Services Ltd.
RM - Systém, a.s.

Law and auditing companies

Altheimer & Gray
Arthur Andersen Česká republika, k.s.
Clifford Chance Pünder
Havel & Holásek v.o.s.
Kocián, Šolc, Balaštík
Linklaters v.o.s.
Lovells sdružení advokátů (Association of lawyers)
Procházka Randl Kubr, law office
Vyroubal, Krajhanzl, Školout a spol.
Weinhold Legal, v.o.s.
White & Case, Feddersen

Other participants

CRA Rating Agency, a.s.
Credit Suisse First Boston (Praha) a.s.
The Financial Markets Association of the CR (A.C.I.)
Čekia
Český klub obchodníků s dluhopisy (Czech Club of bond traders)

Apendix 2

HISTORY IN THE CZECH REPUBLIC

Since 1993 a Distribution of Foreign Funds Especially Through Foreign Banks Branches and Selected Trades (Thousand Funds Choice)

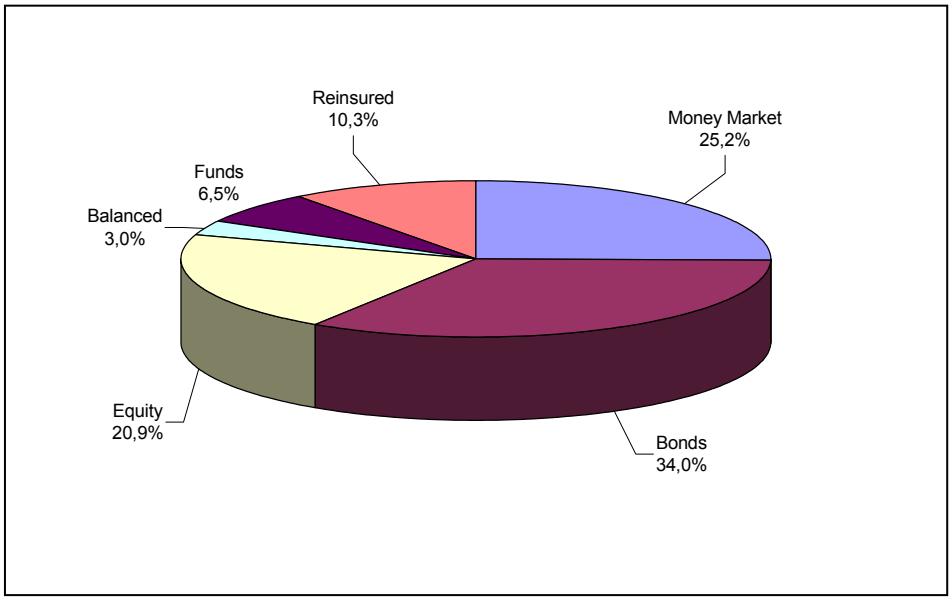
Since 1998 a Distribution Based on Permision of Security Commision

Public Offering (Securities Law Act)

Since 2002 a Distribution Based on Registration Granted to Foreign Investment Company by Security Commision is Taking Place

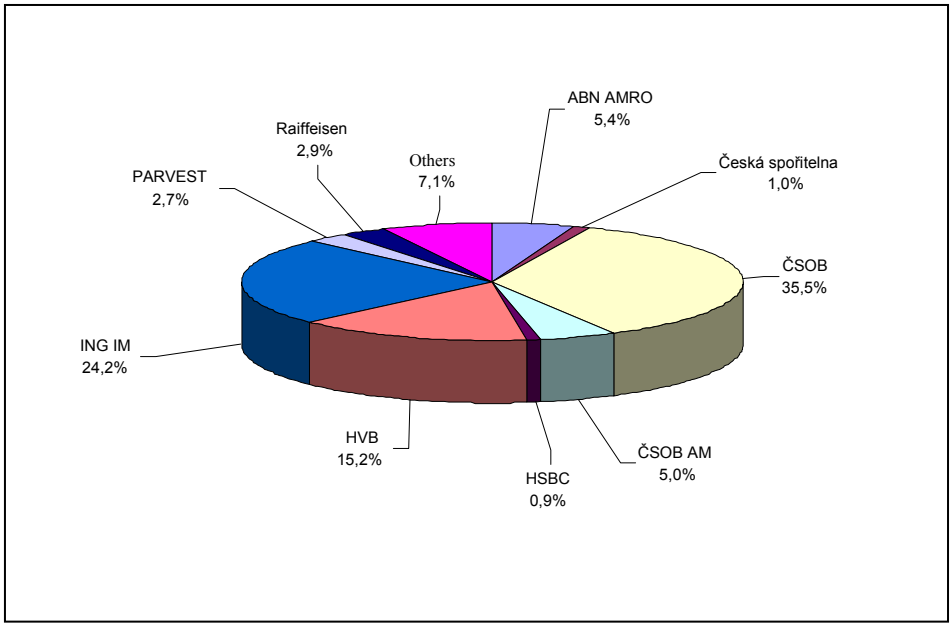
August 2002 Czech Republic is "Full" of Foreign Funds (576)

Figure 1– Amount of the Czech Republic Citizens´ Investments into the Foreign Funds By Types (%)



Source: http://www.akatcr.cz

Figure 2 – Amount of the Czech Republic Citizens´ Investments into the Foreign Funds by Financial Intermediares



Source: http://www.akatcr.cz

FINANCIAL INSTITUTION MERGERS AND ACQUISITIONS IN CZECH REPUBLIC, HUNGARY, POLAND, AND SLOVAK REPUBLIC, 1989-2001

Robert Balik

Key words

mergers, acquisitions, financial institutions, transition countries, privatization

1. Introduction

Four countries in Central Europe, Czech Republic, Hungary, Poland and Slovak Republic, started the transformation from centrally planned to market economies in the late 1980s. For two of these countries there was both a political and economic transformation. In January of 1993 two countries, the Czech Republic and the Slovak Republic, were created out of the former Czechoslovakia.

Mergers and acquisitions (M&As) constitute one important part of this transformation to a market economy. M&As where the acquiring firm is primarily from Western European countries are especially important because these acquiring firms should be a source of managerial skill, something that is lacking in these four Central European countries (Svejnar, 1995).

2. Purpose

This research is a brief empirical analysis of the number of M&As within the financial institutions industry in these four countries. Additionally investigated is the acquiring nation for each of these M&As. Exhibit 1 shows how the financial institutions were placed in eight categories using the four-digit SIC (Standard Industrial Classification) code. This classification consolidates a few of the categories in the M&As database. For instance, the first category combines Commercial Banking (Four digit SIC codes 6000, 6021, 6022 and 6029) with Bank Holding Companies (Four digit SIC code 6712). M&As in this category is also investigated.

The descriptive results should be helpful to anyone wanting to study mergers and acquisitions in these four Central European countries. Additionally, these results should be useful for public policy decisions.

Table 1 – SIC Code: Standard Industrial Classification

Exhibit 1: SIC Code: Standard Industrial Classification Co		
	Financial Institution Category	Four digit SIC code
1	Commercial Banking, Bank Holding Companies	6000, 6021, 6022, 6029, 6712
2	Savings and Loans, Private Savings Banks	6035
3	Other Financial	6099
4	Credit Institutions	6141, 6153, 6159
5	Real Estate, Mortgage Brokers, Brokers	6162, 6169, 6512, 6519, 6531, 6552
6	Investment & Commodity Firms, Dealers, Exchanges	6211, 6221, 6231, 6282, 6289, 6722, 6726, 6798, 6799
7	Insurance	6311, 6321, 6331, 6351, 6371, 6399, 6411
8	Holding Companies, Except Banks	6719

3. Background

Each of these four countries had various degrees of private enterprise under communism and also took varying routes to privatization. For instance, in Czechoslovakia the amount of annual Gross Domestic Product produced by private enterprises prior to 1989 was usually less than five percent. In contrast, during this same time period the percentages in Hungary and Poland were much higher. In Poland, most of the agricultural production was privately owned and in Hungary many small businesses were privately held. According to Gray (1996, p.102):

> In many ways the CSFR (Czech and Slovak Federal Republic) has been less prepared for radical economic reform than Poland, where private enterprise was tolerated throughout the communist era, or Hungary, which began reforming in the late 1960s. The CSFR had been ruled by one of the most hardline communist regimes from 1968 until the end of the 1980s and even the most rudimentary forms of private enterprise had been forbidden.

The transition to capitalism also took different paths. The Czech Republic with its voucher privatization program between 1991 and 1995 was the first country to privatize ("in name") a relatively large number of large enterprises. Starting in 1995 Poland began the process of implementing a voucher program than had the goal to increase the number of large industrial and financial firms that will be private or no longer government owned. Additionally, as part of its transition to capitalism Poland and Hungary allowed more investment by foreign firms. This is reflected in the number of mergers and acquisitions by foreign firms (Blishen, 1996; Hawkins, 1996).

4. M&A Literature Review

While the type of M&A is not analyzed here a brief review is provided. M&A transactions fall into three basic categories:

1) asset acquisitions,

2) mergers,

3) stock acquisitions.

Research in the United States indicates that each type of transaction has different consequences with respect to legal obligations, acquisition procedures and tax consequences (Marred, 1993). In an asset acquisition an acquiring company purchases part or all of the assets of the acquired firm. The acquiring company purchases only the assets it desires and does not have to take on all of the acquired firm's liabilities. The acquired or target firms legally remains in existence after the transaction, although it may be liquidated after a major asset sale where the funds obtained are returned to shareholders. The transaction is normally executed by the managements of the target and acquiring firm. If the transaction is particularly large it may have to be voted on by the acquired firm's board of directors.

In a merger transaction the acquired company is dissolved into the acquiring company. The acquired company ceases to exist as a separate entity. The transaction can be executed through an exchange of stock or assets. The procedures for executing a merger transaction tend to be fairly straightforward (Marred, 1993). On the downside, mergers often require the approval of both the acquiring and acquired firm's shareholders and the acquiring firm assumes all of the target's liabilities.

A stock acquisition occurs when the acquiring firm buys shares in the acquired firm from shareholders. If the stock of the acquired firm is privately held, the acquiring firm can deal directly with these shareholders. If the acquired or target firm is a wholly-owned subsidiary of another company the transaction is conducted by the management of the acquiring firm and the target's parent. If the common stock of the target is publicly traded the acquiring firm may have to deal with a large group of disorganized shareholders. In these instances, a tender offer is usually announced for the publicly traded shares outstanding. While a tender offer is a transaction that is conducted between the acquiring firm and the target firm shareholders, the acquiring firm normally negotiates the transaction with the target's board of directors and managers.

An advantage of stock acquisitions is that they tend of be easy to execute and can be accomplished quickly (Marred, 1993). The transaction involves an exchange of stock certificates for payment. An acquiring firm can also purchase part ownership in a company through a stock acquisition. One of the problems with stock deals is that the acquiring company assumes all liabilities of the target and that the deal can be resisted by a firm's management and/or board of directors.

5. M&A Database

SDC's (Security Data Company) Worldwide M&A database is the source of the descriptive data presented here. This data includes the name and country for each target firm, name and country of each acquiring firm, date that each merger or acquisition was announced and the type of transaction. This database contains information on M&As where the value of the transaction exceeds $1 million, the value in not disclosed (because the target firm is privately held or a subsidiary), or the purchase resulted in at least a five percent ownership of the acquired firm.

Since most of the M&A data in the SDC database does not have asset size and stock market information of the target firm the empirical analysis presented is limited to only the number of mergers in each country each year from 1989 through 2001.

6. Conclusion

Tables 2 through 7 at the end of this paper contain the M&As information. They are:

- Table 2: Number and percentage of all Financial Institution M&As for each country fore each year,
- Table 3: Number and percentage of Banking M&As for each country for each year,
- Table 4: Acquiring nation firm for Banking M&As in Czech Republic for each year,
- Table 5: Acquiring nation firm for Banking M&As in Hungary for each year,
- Table 6: Acquiring nation firm for Banking M&As in Poland for each year,
- Table 7: Acquiring nation firm for Banking M&As in Slovak Republic for each year.

Key observations:

- during this 13 year period the SDC database listed a total of 6,663 M&As where the target firm was in one of these four countries. And 1,008 of this total was for a M&A where the target firm was in the financial services industry in one of these four countries (Table 2),
- as expected Poland, which has by far the largest population, had the largest number of overall M&As, 2.545, and the largest number in the financial sector, 483 (Table 2),

- also, as expected, the Slovak Republic, with the smallest population) had the least M&As, 346 M&As of all type and 59 in the Financial sector (Table 2),

- the percentage of all M&As that were in the financial sector in all four countries was small until about 1995 (Table 2),

- except for 2001, the number of M&As generally increased (Table 2),

- the percentage of Financial Institution M&As than was in the banking sector was the highest in Poland, 50.9% (Table 3),

- except for the Slovak Republic, most of the acquiring M&A firms in the banking sector that were not in the host country were from Germany (Tables 4-7),

- poland had the largest number, 106, and percentage, 43.1% (106/246) of banking sector M&As where the acquiring firm was from the home country (Tables 4-7),

- the relatively few M&As that had the acquiring firm from the United States (Tables 4-7). For instance, in Poland only 12 of the 246 Bank M&As had the acquiring firm from the United States,

- while not explicit from the Exhibits only seven of the banking sector M&As had an acquiring firms from one of the other countries studied (Tables 4-7). They are: firms in Hungary acquiring one banking firm in Slovak Republic and three banking firms in Czech Republic, Slovak Republic acquiring two in Czech Republic, Czech Republic acquiring one in Poland. (Note, only a firm from Hungary acquiring a bank in the Slovak Republic is shown explicitly in the exhibits below. The other examples are in the Other acquiring firm column).

Abstract

Fúze a akvizice patří k typickým rysům vývoje ekonomicky vyspělých zemí v posledních desetiletích a velice výrazně ovlivňují také bankovní sektor. Ve stati je porovnán objem fúzí a akvizicí v zemích V 4 se Slovinskem a pobaltskými zeměmi (Litva, Lotyšsko, Estonsko). Údaje vycházející z podrobné databáze americké „Security Date Company Worldwide“ umožnily informovat také o posledních změnách ve struktuře bankovního sektoru v USA.

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Table 2 – Financial Institution M&As, Number and Percent of All/Total M&As

Exhibit 2: Financial Institution M&As, Number and Percent of All/Total M&As												
	Czech Repbulic			Hungary			Poland			Slovak Republic		
Year	Fin. Inst. M&A	All M&A	% Fin. Inst.	Fin. Inst. M&A	All M&A	% Fin. Inst.	Fin. Inst. M&A	All M&A	% Fin. Inst.	Fin. Inst. M&A	All M&A	% Fin. Inst.
1989	0	0	n.a.	4	18	22.2%	0	5	0.0%	0	0	n.a.
1990	1	21	4.8%	1	34	2.9%	2	19	10.5%	0	0	n.a.
1991	2	89	2.2%	6	93	6.5%	11	79	13.9%	0	1	0.0%
1992	5	89	5.6%	9	84	10.7%	2	64	3.1%	0	2	0.0%
1993	6	77	7.8%	8	124	6.5%	5	104	4.8%	5	23	21.7%
1994	3	88	3.4%	14	131	10.7%	30	122	24.6%	6	55	10.9%
1995	22	149	14.8%	36	328	11.0%	65	284	22.9%	3	32	9.4%
1996	19	164	11.6%	38	212	17.9%	60	263	22.8%	17	47	36.2%
1997	23	130	17.7%	24	124	19.4%	42	193	21.8%	0	11	0.0%
1998	12	129	9.3%	22	120	18.3%	46	175	26.3%	2	11	18.2%
1999	32	287	11.1%	45	274	16.4%	64	361	17.7%	3	39	7.7%
2000	41	329	12.5%	38	297	12.8%	100	521	19.2%	10	62	16.1%
2001	27	220	12.3%	28	161	17.4%	56	355	15.8%	13	63	20.6%
All	193	1,772	10.9%	273	2,000	13.7%	483	2,545	19.0%	59	346	17.1%

Table 3 - Banking M&As, Number and Percent of All/Total M&As

Exhibit 3: Banking M&As, Number and Percent of All/Total Financial Institution M&As												
	Czech Repbulic			Hungary			Poland			Slovak Republic		
Year	Bank M&A	Fin. Inst. M&A	% Bank	Bank M&A	Fin. Inst. M&A	% Bank	Bank M&A	Fin. Inst. M&A	% Bank	Bank M&A	Fin. Inst. M&A	% Bank
1989	0	0	n.a.	1	4	25.0%	0	0	n.a.	0	0	n.a.
1990	0	1	0.0%	1	1	100.0%	0	2	0.0%	0	0	n.a.
1991	1	2	50.0%	3	6	50.0%	7	11	63.6%	0	0	n.a.
1992	3	5	60.0%	3	9	33.3%	2	2	100.0%	0	0	n.a.
1993	6	6	100.0%	6	8	75.0%	5	5	100.0%	4	5	80.0%
1994	1	3	33.3%	5	14	35.7%	23	30	76.7%	2	6	33.3%
1995	9	22	40.9%	17	36	47.2%	34	65	52.3%	0	3	0.0%
1996	10	19	52.6%	17	38	44.7%	32	60	53.3%	12	17	70.6%
1997	6	23	26.1%	13	24	54.2%	26	42	61.9%	0	0	n.a.
1998	6	12	50.0%	10	22	45.5%	22	46	47.8%	1	2	50.0%
1999	10	32	31.3%	9	45	20.0%	36	64	56.3%	2	3	66.7%
2000	10	41	24.4%	14	38	36.8%	35	100	35.0%	9	10	90.0%
2001	7	27	25.9%	14	28	50.0%	24	56	42.9%	9	13	69.2%
All Years	69	193	35.8%	113	273	41.4%	246	483	50.9%	39	59	66.1%

Table 4 – Banking M&As in Czech Republic, Acquiror Nation

Exhibit 4: Banking M&As in Czech Republic, Acquiror Nation												
		Acquiror Nation										
Year	Bank M&A	Czech Republic	Germany	France	United Kindgom	United States	Italy	Russia	Austria	Bene-lux	Other	Un-known
1989	0	0	0	0	0	0						
1990	0	0	0	0	0	0						
1991	1	1										
1992	3	1	1			1						
1993	6	2			1				1		1	1
1994	1								1			
1995	9	3	1						1	1	3	
1996	10	6			1					1	1	1
1997	6	3	1		1					1		
1998	6	3			1	1				1		
1999	10	6				1			1	1	1	
2000	10	4	4				1			1		
2001	7	4	1	1					1			
Total	69	33	8	1	4	3	1	0	5	6	6	2

Table 5 – Banking M&As in Hungary, Acquiror Nation

Exhibit 5: Banking M&As in Hungary, Acquiror Nation												
		Acquiror Nation										
Year	Bank M&A	Hungary	Germany	France	United Kindgom	United States	Italy	Russia	Austria	Bene-lux	Other	Un-known
1989	1						1					
1990	1		1									
1991	3		2									1
1992	3		1	1							1	
1993	6	3	1			1			1			
1994	5	2	1			1			1			
1995	17	7	1	1	1	1	1				2	3
1996	17	7	2	1				2		2	2	1
1997	13	5	1		1	1	1		1	1	1	1
1998	10	7							2			1
1999	9	2	1				1		1	1	1	2
2000	14	7	3				1		1	1		1
2001	14	4		3		4			1	1	1	
Total	113	44	14	6	2	8	5	2	8	6	8	10

Table 6 – Banking M&As in Poland, acquiror Nation

Exhibit 6: Banking M&As in Poland, Acquiror Nation												
		Acquiror Nation										
Year	Bank M&A	Poland	Germany	France	United Kindgom	United States	Italy	Russia	Austria	Bene-lux	Other	Un-known
1989	0											
1990	0											
1991	7	1					1					5
1992	2	1		1								
1993	5				1					2		2
1994	23	12	5			1				1		4
1995	34	21	4	1		2				2	2	2
1996	32	20			3				1	2	4	2
1997	26	14	3	1	1	2			1	2	2	
1998	22	4	5	1	1	3		1	2	1	4	
1999	36	11	10				1		1	5	6	2
2000	35	11	6	1		3				1	8	5
2001	24	11	1	3		1				5	3	
Total	246	106	34	8	6	12	2	1	5	21	29	22

Table 7 – Banking M&As in Slovak Republic, Acquiror Nation

Exhibit 7: Banking M&As in Slovak Republic, Acquiror Nation												
		Acquiror Nation										
Year	Bank M&A	Slovak Republic	Germany	France	United Kindgom	United States	Italy	Russia	Austria	Bene-lux	Hung-ary	Un-known
1989	0											
1990	0											
1991	0											
1992	0											
1993	4								4			
1994	2	2										
1995	0											
1996	12	7					1			1		3
1997	0											
1998	1	1										
1999	2	1										1
2000	9	2		1			2		1	1		2
2001	9	2			2	1	3				1	
Total	39	15	0	1	2	1	6	0	5	2	1	6

COMPARISON OF BANKING SECTORS IN CENTRAL EUROPEAN TRANSITION COUNTRIES[1]

Stanislav Polouček

Key words

comparison, transition countries, banking sector, the Czech Grant Agency

1. Introduction

In developed, as well as in transition countries, the banking sector has been characterized by deregulation, globalisation, progress in technologies, diversification, mergers and acquisitions, as well as the changing economic and social environment and the growing heterogeneity of its structure. In transition countries, today´s banking sector, its structure and its development, has been notably influenced in its early years of transformation. A huge privatisation process, including the privatisation of large government owned banks, played a crucial role. In this context, the issue of optimal organization of competition within the banking industry and between the banking industry and other financial industries has been revitalized[2]. Growing competition indicates that most of the intermediation functions and products, offered by banks, can effectively be offered by many other financial institutions or by financial markets.

At the Department of Finance, Silesian University, School of Business Administration, a 3-year grant (2000 – 2002) was financed by the Grant Agency of the Czech Republic (GAČR). Its goal was to focus on the development of banking sectors in the 90s and to analyse changes in their structure, as well as to compare the banking sector development in Central European transition countries (above all in the Czech Republic, Slovakia, Hungary and Poland) with other transition and selected developed countries.

In this research, an extensive team of researchers participated. They were from Silesian University, School of Business Administration in Karviná (Lumír Kulhánek, Daniel Stavárek, Michaela Roubíčková, Petra Růčková, Pavel Jiříček, Jana Janoušková, Pavla Konkolská, Stanislav Polouček), Masaryk University, Faculty of Economics and Social Sciences in Brno (Kamil Fuchs) and the Czech National Bank in

[1] The paper is published with the support of the Czech Grant Agency (grant GAČR No. 402/00/0312 „Comparison of the Banking Sector Development in the World and in the Czech Republic in the 1990s“).

[2] MULLINEUX, AW., GREEN, CHJ. (ed.) *Economic Performance and Financial Sector Reform in Central and Eastern Europe. Capital Flows, Bank and Enterprise Restructuring.* Cheltenham, UK, Northampton, MA, USA: Edward Elgar, 1998, p. 136.

Prague (Jan Frait, Roman Matoušek). Many Ph.D. and M.A. students helped with data collection or particular research activities (Monika Bialonczyková, Marek Dohnal, Jan Hon, Pavla Vodová, Radka Zapletalová). Among other outcomes a book is right now being prepared for a publisher. Its structure, covering the most important topics of the research, is the appendix of this paper.

2. Banking Sector in Transition Economies

Banking sectors in four compared countries has undergone a rapid change during the last 10 years. The number of banks increased in all these countries very rapidly in the first phase of transition, as well as the number of bank branches and subsidiaries.

This can be considered as usual and understandable at the beginning of the transition process aimed at establishing a market economy, needing the corresponding banking sector. The number of banks and their branches grew much slower in the following years, and in most countries, we can observe the decline in the number of banks during the last several years (Tables 1 - 4).

Table 1 - Number of Banks in Czech Republic (for banks carrying on activities for clients as of December 31 of the given year)

	1993	1994	1995	1996	1997	1998	1999	2000	2001
Banks, total	**52**	**55**	**55**	**53**	**50**	**45**	**42**	**40**	**38**
of which: large banks	5	5	5	5	5	5	5	4	4
medium-sized banks	2	5	10	9	13	12	12	11	10
small banks	32	30	24	19	13	12	9	8	8
foreign bank branches	7	8	10	9	9	10	10	10	9
building societies	5	6	6	6	6	6	6	6	6
banks under conservatorship	1	1	0	5	4	0	0	1	1
For information: banks without licenses	0	1	4	6	10	18	21	23	25

Source: Czech National Bank (www.cnb.cz/_bd/2000/tables/01.htm)

Table 2 - Number of Banks in Slovakia (for banks carrying on activities for clients as of December 31 of the given year)

	1996	1997	1998	1999	2000	2001
banks without foreign property participation	10	11	10	11	7	6
banks with foreign property participation	14	14	14	12	14	13
foreign bank branches	5	4	2	2	2	2
Banks, total	**29**	**29**	**26**	**25**	**23**	**21**

Source: National Bank of Slovakia (www.nbs.sk)

Table 3 - Number of Banks in Poland (for banks carrying on activities for clients as of December 31 of the given year)

	1993	1994	1995	1996	1997	1998	1999	2000	2001
banks with majority state equity	29	29	27	24	15	13	7	7	7
banks with majority Polish equity	48	42	36	32	39	39	31	20	16
banks with majority foreign equity	10	11	18	25	29	31	39	47	48
Banks, total	**87**	**82**	**81**	**81**	**83**	**83**	**77**	**74**	**71**

Source: National Bank of Poland (www.nbp.pl)

Table 4 - Number of Banks in Hungary (for banks carrying on activities for clients as of December 31 of the given year)

	1993	1994	1995	1996	1997	1998	1999	2000
banks with majority state equity	12	12	12	7	2	3	3	4
banks with majority foreign equity	16	18	21	24	30	28	29	33
banks with majority Hungarian equity	12	13	9	11	15	13	11	5
Total	**40**	**43**	**42**	**42**	**47**	**44**	**43**	**42**

Source: Nationl Bank of Hungary (www.mnb.hu)

At the beginning of the 90s, the Capital Adequacy Directive and the Basel Committee´s recommendations on bank soundness were accepted by all Central European countries. This was the only way to make the banking sector more credible. Boosting the banks capitalization was very expensive for government budgets but an important impact for bank privatization. Government budget deficits and persistent inefficiency of banks were among major reasons for privatization.

The development of the banking sector development was quite volatile in transition countries during the last decade. Data about the rate of growth of assets and net earnings confirm this fact (Tables 5 - 7).

Table 5 - The rate of growth of assets and net earnings of the banking sector in the Czech Republic (1993 - 2000, in % in comparison to previous year)

	1994	1995	1996	1997	1998	1999	2000	2001
assets	**18,05**	**21,11**	**10,69**	**8,16**	**8,12**	**6,98**	**8,33**	**2,27**
net earnings	**- 35,94**	**- 78,28**	**753,54**	**- 112,06**	**- 628,97**	**177,06**	**367,43**	**15,19**

Source: Own calculations on the basis of Czech National Bank data

Table 6 - The rate of growth of assets and net earnings of the banking sector in the Slovak Republic (1993 - 2000, in % in comparison to previous year)

	1994	1995	1996	1997	1998	1999	2000	2001
assets	**14,90**	**20,15**	**26,62**	**8,41**	**2,50**	**- 3,33**	**10,03**	**9,66**
net earnings	**5,30**	**- 3,50**	**- 7,06**	**18,51**	**2,00**	**- 16,49**	**24,28**	**3,63**

Source: Own calculations on the basis of National Bank of Slovakia data

Table 7 - The rate of growth of assets and net earnings of the banking sector in Poland (1993 - 2000, in % in comparison to previous year)

	1994	1995	1996	1997	1998	1999	2000	2001
assets	**34,01**	**36,87**	**32,31**	**25,69**	**29,03**	**14,10**	**18,49**	**22,67**
net earnings	**247,71**	**771,96**	**53,15**	**0,97**	**- 61,40**	**80,30**	**37,73**	**10,95**

Source: Own calculations on the basis of National Bank of Poland data

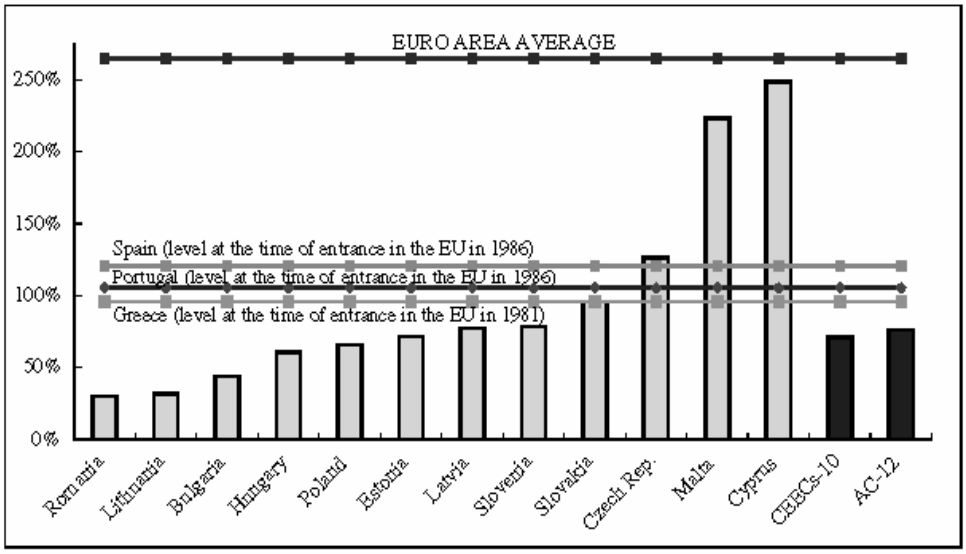
The rate of growth of a sector is used as the main indicator of its attractiveness because most entrepreneurs want to work and to be present at rapidly developing markets. On the other hand we can expect a relatively low probability that a new entrepreneur will enter markets in a more developed phase of a sector´s life cycle. As data in Tables 5 – 7 confirm, despite a relatively high volatility, the rate of growth of

banking markets and its earnings in transition countries were quite dynamic, above all, from the point of view of assets growth and, in the case of Poland, from the point of view of net earnings as well. This is the reason for understanding that the offer of products was increasing not only from old institutions, but from newly established companies as well.

Banking sectors in Central European transition countries have now stabilized. These banking sectors compare closely to standards of smaller developed countries in the number and structure of banking institutions as well as the number of locations. But a lot of data confirm that these sectors are underdeveloped as to the size and depth. A relatively low level of financial and banking intermediation has been confirmed not only by our research[3], but by other studies as well (Chart 1).

Chart 1: Size of the banking sector (2001)

(banking assets in % of GDP)



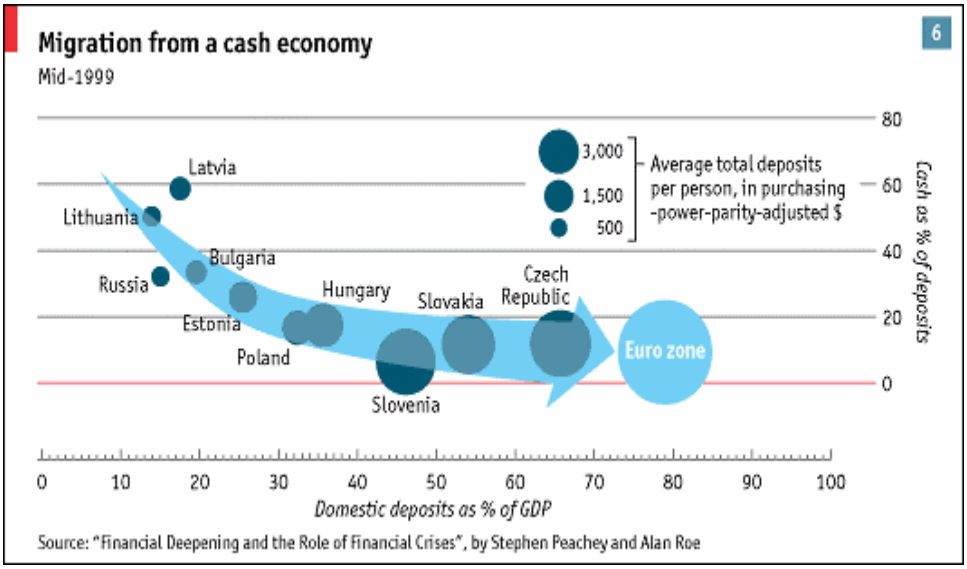
Sources: ECB, IMF's International Financial Statistics and Accession Countries' National Central Banks.

Source: THIMANN, CH. (ed.) Financial Sectors in EU Accession Countries. European Central Bank. Frankfurt am Main: European Central Bank, July 2002, p. 18.

[3] Preliminary results have already been published in POLOUČEK, S. Jaký máme finanční systém? (Which financial system do we have?) *Bankovnictví*, X, 2002, no. 6-7, p. 16-17. ISSN 1212-4273 and in POLOUČEK, S. The Role of Banks and Capital Markets in Developed and in Transition Countries. In *Finance.* Veliko Tarnovo: ABAGAR, 2002, p. 749 – 759. ISBN 954-427-477-4.

In order to be competitive, banks in Central European countries have no other chance then to boost their capitalization. Growing activities and thus, growing assets are demanding more and more capital. Greater capitalization also helps to reduce costs of borrowed funds for banks. That is very important for Central European countries where capital markets are underdeveloped and where a large share of savings is not deposited in banks. Nevertheless, the migration from a cash economy (Chart 2) is relatively slow and complicated in these countries.

Chart 2 – Migration from a cash economy



Source: A Survey of Finance in Central Europe. The Economist, 2002, September 14, p. 19.

3. Conclusion

The banking sector is undergoing an outstanding curative process in transition countries. Research confirms that restructuring and privatization of the banking sector has been very rapid. The banks profitability, capitalization and asset quality has improved. Data and comparison with developed countries confirm that a lot of improvement in many areas of banking intermediation can be expected in the near future. Banking sectors in Central European transition countries will be further influenced upon joining EU.

Abstract

Současné bankovní sektory tranzitivních ekonomik byly výrazně ovlivněny počátkem transformačního procesu. Především privatizační proces, týkající se také velkých bank, zcela změnil charakter bankovního sektoru. Článek jednak charakterizuje nejvýznamnější kvantitativní změny v bankovních sektorech v zemích V 4, jednak informuje o 3-letém grantu, který byl řešen katedrou financí na Obchodně podnikatelské fakultě Slezské univerzity v Karviné. Ten byl věnován jednak charakteristice změn v bankovních sektorech zemí V 4 v 90. letech, jednak srovnání těchto změn s vývojem v některých ekonomicky vyspělých zemích z hlediska konkurence, koncentrace, dopadů bankovních krizí, regulace a dohledu. Specifická pozornost byla ve výzkumu věnována měnové integraci tranzitivních ekonomik do evropských měnových struktur

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Annual Reports: Czech National Bank, National Bank of Poland, National Bank of Slovakia.
Bank Supervision:. Czech National Bank, National Bank of Poland, National Bank of Slovakia.
The Banker, The Economist.

1. Banking sector in transition economies

An overview of the banking sector focuses on transition economies in Central Europe (the Czech Republic, Poland, Slovakia and Hungary). It is introduced by the analysis of intermediation changes in 1996 – 2001 in some transition countries and developed countries – the shares of the banking sector and financial market in intermediation are compared (bank deposits, market capitalisation of shares, outstanding value of corporate bonds). Further, the overview of the banking sector and its development follows.

2. Banking regulation and supervision

Specific features of the banking sector are reflected in regulation and supervision. That is why the next chapter of the book devoted to the above-mentioned topic is an integral part of the view on the banking sector development in transition countries during the last years. In the author´s use of the normative approach, not only are the problems of the regulator during the period considered revealed, but alternative solutions to key problems are offered as well. Attention is paid to the consolidation and recapitalisation of the banking sector as well as often discussed problems linked to entering and leaving the banking sector. The role of newly established small and medium sized banks at the beginning of transition process is analysed thoroughly.

In this chapter the coordination between monetary policy and bank supervision policy holds a special position. It is argued on the basis of a case study from the Czech Republic that in the second half of the 90´s the restrictive steps of bank supervision were strengthened by the restrictive monetary policy. This combination brought about a dramatic decrease in lending activities of commercial banks and following economic recession.

The analysis of bank supervision during the transition process also embraces international comparisons. A banking sector and the role of the regulator are compared not only among transition countries aspiring to join the EU. Attention is also paid to the convergence and following integration of the banking sector of these countries into an integrated financial and bank market of the EU.

3. Concentration and competition in the banking sector

In the third chapter concentration in the banking sector is overviewed. The analysis attempts to find arguments confirming or refuting an often-applied thesis: the higher the concentration of a sector the less the competition in this sector. Closer attention is further given to the concentration in the banking sector – it is measured by absolute indicators: by a concentration ratio and by the Herfindahl-Hirschman index for the Czech Republic, Poland and Slovakia. Assets, loans and deposits of the three largest banks are used as a basis for the comparison.

4. Effectiveness of the banking sector

An analysis of selected issues linked to the changes in effectiveness and profitability of the banking sector in recent years is included in the fourth chapter of the book. The topic is covered by three different approaches, which brings the possibility for comparison and variety. The survey also analyses the influence of privatisation and the difference between the government and private ownership regarding effectiveness, profitability and some other aspects of banking entrepreneurship.

The first part of this chapter presents a theoretical background in effectiveness and profitability. Basic approaches towards understanding the topic are overviewed and their

links and typical differences are specified. The introduction of dominant methods used in measuring effectiveness and profitability and underlying pros and cons of these methods is an integral part of this chapter.
The following part of this chapter includes an original cross-border analysis of X-efficiency of banks in selected transitive economies (Poland, the Czech Republic, Hungary, Slovakia) and in some EU countries (Finland, Belgium etc.). The analysis is based on a method widely used nowadays – Data Envelopment Analysis (DEA). The DEA method is not only able to qualify an efficient bank but also to specify the reasons for inefficiency of the rest of the banks. The bank is understood to be both a financial intermediator and a conventional company, and the effectiveness is analysed separately according to each function. The analysis incorporates the influence of the size of the bank and its ownership structure (government vs. private, domestic vs. foreign) on effectiveness as well.
The third part of chapter four presents an analysis of profitability, asset quality and bank capitalization in the Czech Republic and in Poland based on ratio analysis. It focuses on finding the influence of privatisation on all basic aspects of bank activities. The data and the comparison with developed countries confirm that we can expect further improvement in transition countries´ banking sectors from the point of view of capital endowment and assets quality. On the other hand, as for profitability, the banking sectors in transition countries have already reached (among other reasons, due to the privatisation) striking improvement.
The effectiveness of the bank sector and its profitability are very seriously influenced by risk: the higher the risk, the higher (ceteris paribus) demanded yields are and the higher the profitability of the banking sector is. That is why the fourth part of chapter four incorporates an analysis of five factors that affect the risk of bank profits in the Czech Republic, Poland and Slovakia: credit risk, liquidity risk, interest rate risk, capital risk and exchange rate risk. The paper comes to the conclusion on the basis of the regression analysis that the profitability of banks in these countries is driven, above all, by capital and interest rate risks.

5. Financial Crises in Central and Eastern Europe

This chapter of the book focuses on financial crises. It starts by raising questions about whether there is any significant effect of currency crises on economic performance in countries that have experienced such events. Fulfilling this goal, in the first part we estimate an investment equation. This equation involves a one-period lagged investment ratio, size of government sector, degree of openness and a variable that should approximate the effect of currency crisis. We have found that the investment ratio has a mild persistence of about 0.55 per cent. The size of the government sector has a significant negative and the degree of openness a positive effect on investment. The instantaneous effect of a currency crisis is negative and significant to about 1.3 percentage points. The long-lasting impact of this event on investment is also negative and significant to about -0.4 percentage points in each year following the crises (in this respect we let the effect last to the end of the sample). In the second part we have estimated the growth equation that involves an investment ratio, degree of openness, size of government sector and variables approximating the impact of currency crisis as explanatory variables. Insignificance of those dummy variables would propose a presence of solely indirect effect of currency crises on economic performance through investment. However, our findings suggest that there is a significant direct effect of currency crises on economic growth. This is even slightly higher in the long run to about

0.4 percentage points. Further, our estimates point out significant positive impacts of investment and openness on economic performance. However, when we relaxed the restriction on the common coefficient of the latter variable the evidence of its impact was rather mixed. Finally, the effect of the size of the government sector is negative and significant (although only at a level of 10%). Even though we have used only a limited set of explanatory variables and have not precisely considered the possible endogeneity of certain variables, our findings illustrate the effect of currency crises on selected variables well.

6. Exchange rates and monetary integration in transition countries

Particular macroeconomic trends linked to the euro introduction are one of the specific recent features of the Czech economy as well as of other transition countries´ economies. These trends seriously influence the financial sector primarily through the exchange rate development. In the existing monetary integration in Europe, we can hardly find examples of countries that have, from one point of view, quite a different structure of relative prices with strongly undervalued exchange rates in comparison to purchasing power parity, while from another point of view the macroeconomic targets derived from the Maastricht criteria. The Maastricht criteria imply the convergence of inflation and interest rates in the process, when international financial markets even now incorporate the asset prices projection of their currencies denomination into the euro.

That is the reason why the chapter first deals with particular trends of nominal and real exchange rates in transition countries underlying the identification of trends and fundamental factors bringing these trends. In the following step this framework is embedded into a broader view of convergence of these economies and the assumptions, processes and effects of the euro introduction as well as potential effects of the euro introduction itself are named.

COMPARISON OF THE BANKING SECTOR IN TRANSITION ECONOMIES

THE SLOVAK BANKING SECTOR AFTER THE PRIVATIZATION OF THE LARGEST BANKS

Mária Klimiková

Key words

privatization of banks, restructuring of banks, classified assets

1. Introduction

The years at the turn of the millennium were in the sign of the considerable consolidation of the banking sector in the Slovak finance. Slovak owners without necessary know how and with an unreal concept of the bank management, have often brought many banks to the verge of bankruptcy. The privatization of the Slovak banks was started late; the privatization process was finished very systematically according to the specified parameters in advance.

2. Restructuring of banks

The effort to solve the problem of the banking sector in Slovakia was projected into concrete tasks, which were a consequence of the government's resolution no. 90/1999. The National Slovak Bank in cooperation with the Ministry of Finance of Slovakia have prepared "A proposal of a program for the restructuring of banks and the restructuring of the corporate sector", to which related the government's resolution of Slovakia no.908/1999, which contained the proposal of the first stage of the pre-privatization of the selected banks.

The restructuring process took place on the three levels.

The first step was the strengthening of the portfolios of the state banks by shifting precarious and loss-making credits into Slovenska konsolidačna, a.s., and partly into Konsolidačna banka, š.p.ú. The transfer of credits followed in two stages:

- **in the first stage,** there was a transfer of the classified credits at the end of the year 1999 from VÚB in the amount of 45,0 milliard Sk, 22,8 milliard Sk from SlSK and 6,4 Sk from IRB. The classified credits were shifted mainly to Slovenska konsolidačna, a.s. (62,7 milliard Sk) and the rest to Konsolidačna banka (11,5 milliard Sk).

- For the financial backing of the transfer of credits, parent banks of Slovenska konsolidačna and Konsolidačna banka granted credits, for which the state gave a guarantee. The existing adjusting items and bank reserves were used for making up the adjusting items for the rest of the classified credit portfolio. The purpose of the legal stage of the restructuring was to adjust the credit portfolios of banks with an aim of increasing their capital adequacy to the minimal standard level of 8%, to secure their liquidity, to increase profitability and the price before the proper privatization.

- **the second stage** of transferring the classified credits in the amount of about 31 milliard Sk took place in June 2000. The transfer was implemented exclusively to Slovenska konsolidačna, a.s., (table l).

- Within the second stage, the credits from Slovenska sporitelna were transferred in the face value, however the amount of the created adjusting items was catered for. SISP gained only 74% of the book value of the transferred assets in the second stage. The result of the restructuring is capital adequacy of about 10% according to the international bookkeeping standards, the proportion of the classified receivables under 20 % in the total receivables and sufficient liquidity. By displacing credits, the restructuring of banks was completed and the government does not expect any further adjusting of portfolios of the privatized banks.

Table 1 - The transfer of the classified credits into the consolidating institutes

Bank	Transfer of credits (thousand Sk)		
	Konsolidačná banka, š.p.ú	**Slovenská konsolidačná,a.s**	**Together**
VÚB,a.s.	**7 602,8**	**58 641,3**	**66 244,1**
I. Stage	7 602,8	37 642,2	44 945,0
II. Stage	0	21 299,1	21 299,1
Slovenská sporiteľňa, a. s.	**2398,1**	**29 998,1**	**32 396,2**
I. stage	2398,1	20 398,8	22 796,6
II. stage	0	9 599,3	9 599,3
IRB,a.s.	**9 507,5**	**4 969,2**	**14 476,7**
I. stage	1 394,4	4 969,2	6 363,6
Displacement of credits into DBV	8 112,1	0	8 113,1
II. stage	0	0	0
Displacement of credits together in the 1st stage	**19 508,4**	**62 710,2**	**82 218,6**
Displacement of credits together in the 2nd stage	**0**	**30 898,4**	**30 898,4**

Source: Bank Supervision of National Bank of Slovakia

The second and not less crucial step in the restructuring of banks was their **recapitalization**. The Ministry of Finance increased the share capital of VÚB by 8,9 milliard Sk, SlSP by 4,3 milliard Sk and IRB by 5,7 milliard Sk in December. By the capital strengthening of banks, there was an increase in the state shareholder's share in banks, and there was a better position of the state within the privatization preparation. The aim of that step was the increase in capital adequacy of banks to the recommended standard of an 8 % level.

The third prerequisite of the successful restructuring and the advantageous starting position into privatization was the strengthening of the creditor's position by an amendment on bankruptcy and compensation. Banks obtained thus a stronger position for collecting claims.

3. Some results of the restructuring of banks

The result of the above-stated restructuring steps is the overall improvement of the position of the banking sector. Factually, one can state the following results:

- capital adequacy of the restructured banks is minimally 8%,
- the quality of the credit portfolios of banks increased, the volume the classified credits of the entire banking sector noticeably declined and the coverage of these credits increased by adjusting items,
- the situation in liquidity of the banking sector increased,
- the banking sector has a surplus of sources,
- the decrease in interest rates on the inter-banking market was projected into the clients' interest rates.

Within the restructuring of the banking sector, the non-credit sources of NBS were maximally utilized, and their profit was used when the share capital was increased. Such a process brings negatives for the very NBS in connection with its economic result.

The capital strengthening of banks, which was implemented by transferring problematic credits to the consolidated institutes, means an increase in the volume of the public debt. One should take notice of the costs of the banks' restructuring. The cost reduction for the restructuring will be feasible from the incomes of the paid off credits in the consolidated institutes. In reality, it is not possible to expect a higher paying off of receivables than 10%. The part of sources was gained also from the incomes for the sale of banks. According to experts' opinions, the restructuring cost should not only endure the state budget, but also the restructured banks.

Table 2 - Total maximal costs of the restructuring of banks

	SLSP	VÚB	IRB	TOGETHER
Transferred credits	32,4	63,2	6,4	102
Cash	-	3	-	3
Anticipated interest costs	17,97	35,07	3,55	56,59
Together	50,37	101,27	9,95	161,59
Increase in the capital share from ŠR in the year 1999	4,3	8,9	5,7	18,9
Interest rates paid off from ŠR in the years 1999-2000	-	-	-	10,7
TOGETHER	54,67	110,17	15,65	191,19

Source: Ministry of Finance of Slovakia

One should add interest costs and lifting expenses of the consolidated institutes to the all-in cost. As against the costs, there are anticipated returns from the privatization of the strengthened banks and the sale of the assigned assets. The consolidated institutes will make an effort to reduce the fiscal state loss by these returns. The loss making classified credits in the portfolios of banks were replaced by receivables towards the consolidated institutes with the government liability.

Based on the amendment of the state budget for the year 2001, the Slovak government decided to issue government bonds for the purposes of the restructuring of the credit portfolios of banks in the amount of 102 milliard Sk, which were intended for strengthening the selected banks (SLSP, VÚB a IRB). The privatization of large banks is successfully concluded. In spite of many efforts, the smallest Slovak bank – Banka Slovakia, and Poštová banka still remain in the hands of the state, where the state has controlling interest by Slovenska konsolidačna, a.s.

Slovenská sporiteľňa – was privatized by the Austrian Erste Bank at the initial price of 18,4 milliard Sk, which correspondents to a 1,78 multiple of the estimated book value of SLSP towards 31. 12. 2000. The final price for the state majority was decreased to 13,7 milliard Sk after additional adjustments. Slovenská sporitelňa is going through a transformation process. The international rating agency Fitch gave Slovenska sporiteľna a new, more positive rating in December 2001. SLSP showed a net profit of 2,1 milliard Sk according to the Slovak booking standards for the year 2001. The balance sum of the bank rose from 191 milliard Sk in the year 2000 to almost 217 milliard Sk at the end of the year 2001. The granted credits attained a contrary trend, the receivables to the clients declined almost by a half. SLSP registered only 24 milliard of the credits granted towards the end of the year 2001, what represents one tenth of its activities. Capital adequacy of the bank exceeded 20% towards the end of the year.

Všeobecná úverová banka – was privatized by Intesa Bci, S.p.A. Milan. The balance sum recorded a positive development, which rose interannually by almost 15% to almost 180 milliard Sk, and the structure sum was improved too. The consequence of applying the conservative and prudent credit policy was a decline in the credits'

proportion and there was a strengthening of securities. On the liabilities' side, the proportion of the primary sources increased.

The bank realized a profit in the amount of 5,67 milliard Sk in the year 2000. The realized profit is a result of writing off reserves and adjusting items.

The final offer of Intesa Bci represents a 1,45 multiple of basic capital towards 30 June 2001. VÚB managed a profit of 1,54 milliard Sk in the year 2001. Interannually, it registered an 11% multiple of deposits. The bank registered almost 41 milliard Sk of the credits, which were granted to the clients towards the end of the year 2000. In spite of the restructuring, the bank still assigns five milliard crowns of the credits, which were unsecured by adjusting items, to the classified ones (12 % off the credit portfolio). In the financial statement of VÚB, there is still a side of 4,8 milliard Sk from the previous years. Capital adequacy reached 31,7 %.

Investičná a rozvojová banka, a.s. – was privatized by OTP bank. According to the government's resolution, the state sold directly 92,55 % of shares for 700 million crowns. The price, which the state obtained for IRB, amounts to the net value of the bank's business stock. The state expanded 14 milliard Sk for strengthening the bank.

The balance sum of the bank lowered in the year 2000 as against the year 1999 by about 6% to 27,4 milliard crowns, what was brought about by the decrease in credits by 10,6 %. The primary deposits of the bank increased in the year 2000 as against the year 1999 by 28,8 %, which represents an increase of 2,25 milliard Sk. Capital adequacy reached a level of 12,53% towards 31.12.2000.

4. Conclusion

By the entry of the foreign banks, banks are well provided with capital. The competitiveness of banks is growing, which will lead to the improvement of portfolio products and services. Foreign investors are the accelerators of the changes; they bring new banking methods into banks. From that perspective, banks are becoming modern banks also in the region and outside the region. Last but not least, new technological approaches and communication channels are being put through, which will thus lead to the cost reduction, to the increase in effectiveness, and to the contentment of the most demandable clients.

The position of the banking sector in Slovakia is given in table 3.

Table 3 - The position of the banking sector in Slovak Republic

Typ banky		93	94	95	96	97	98	99	00	1Q 01	2Q 01	3Q 01*	4Q 01**	2Q 02***
Central bank	a	1	1	1	1	1	1	1	1	1	1	1	1	1
	b	1	1	1	1	1	1	1	1	1	1	1	1	1
Banks without foreign property participation	a	10	9	10	10	11	10	11	7	7	6	6	6	3
	b	9	8	9	10	11	10	11	7	7	6	6	6	3
Banks with foreign property participation	a	8	10	14	14	14	14	12	14	14	15	15	13	15
	b	7	10	13	14	14	14	12	14	14	15	15	13	15
Foreign bank branches	a	9	10	9	5	4	2	2	2	2	2	2	2	2
	b	9	9	9	5	4	2	2	2	2	2	2	2	2
SR Total	a	29	30	34	30	30	27	26	24	24	24	24	22	21
	b	26	28	32	30	30	27	26	24	24	24	24	22	21

Source: materials of National Bank of Slovakia

a) a number of commercial banks and bank branches of the foreign banks, which were granted a licence,

b) a number of commercial banks and foreign bank branches, which started their activities,

c) * Slovenská sporiteľňa, a.s. reclassified into the bank group with foreign property participation,

d) ** Všeobecná úverová banka, a.s. reclassified into the bank group with foreign property participation,

e) *** Investičná a rozvojová banka, a.s. reclassified into the bank group with foreign property participation.

Abstract

Roky na prelome tisícročia sa v slovenskom finančníctve niesli v znamení zásadnej konsolidácie bankového sektora. Slovenskí vlastníci bez potrebného know-how a často s nereálnou predstavou o riadení peňažného ústavu doviedli viaceré banky na pokraj kolapsu. Významným rokom v r. 2001 bolo odštátnenie slovenských veľkobánk. Rozhodujúci podiel v Slovenskej sporiteľni, a.s., ktorá dominuje na Slovensku v oblasti vkladov, získala rakúska Erste Bank. Privatizáciu Všeobecnej úverovej banky, a.s. zavŕšil v novembri podpis zmluvy o kúpe majoritného podielu 94,47 % talianskou bankou Intesa BCI. IRB vláda predala maďarskej banke OTP. Privatizácia slovenských

bánk bola odštartovaná oneskorene, privatizačný proces bol ale uskutočnený veľmi systematicky podľa vopred vyšpecifikovaných parametrov.

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[2] TENCER, J. Reštrukturalizácia bankového sektora. *Biatec*, 1998, no. 12.

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Internetové stránky bánk

THE BANKING SECTOR IN POLAND AFTER THE PERIOD OF OWNERSHIP TRANSITION

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Barbara Siuta

Key words

banking system, restructurisation, foreign capital

1. Introduction

The functioning of Polish banking system has been influenced essentially by the transition of Polish economy. The greatest progress has been made in the field in the Polish banking system, which quickly adjusted to the rules of the free market economy. However, Poland's aspiration to join the European Union brings the necessity for further institutional, legal and cultural adjustment of Polish banking system to European standards. Matching security demands with the rules of free enterprise, a flow of capital, services and goods constitute the basic standards for legal regulations in the homogenous market of financial services that are obligatory in the European Union.[1] The aim of this paper is to describe the condition of Polish banking system after hitherto carried out ownership transition.

2. The role and tasks of the banking system in Poland

The banking system in Poland constitutes the main part of the financial system which is composed of banks, trust institutions, pension funds and also a public capital sector containing the central budget, local budgets and non-budget funds.[2] The funds collected in banks constitute over 90% of the funds of the entire financial sector.[3] In the economic reality performance there are two types of the banking system. The first kind is bank - orientated and called as continental or German-Japanese. The opposite one

[1] NESTERAK, J. The Polish Banking System against a background of the European Community. In *Future of the Banking after the Year 2 000 in the World and in the Czech Republic. VI.* Privatization of the *Banking Sector*. Proceedings from the International Conference. Karviná: OPF SU, 2001. ISBN 80-7248-129-0.

[2] GODULA, E. Kapitał zagraniczny w polskim sektorze bankowym. *Międzynarodowa Szkoła Menedżerów*. Warszawa, 2001, p. 10.

[3] CZEKAJ, J., OWSIAK, S. *Prywatyzacja a rynek kapitałowy w Polsce*. Warszawa: PWN, 1999, p. 67.

is based on the functioning of the security market and is described as English-American[4] (table 1).

The *clear* domination of banks exists today in financial systems of EU members, especially in Germany, France, Italy and Spain. On average, 75% of the funds in EU countries come from banks and the remaining amount comes from the capital market.[5] Banks also play the dominating role in the Polish financial system. Their main importance is justified by not only by the quantity of funds collected but also the influencial participation in the capitalisation of the Stock Exchange, engagement in the trust funds, insurance companies or leasing companies as well as in stockbroker activities.[6]

The Polish National Bank (Narodowy Bank Polski NBP) plays the most important role in the Polish banking sector, as the central bank, and the commercial banks, whereas the much lesser role is performed by the co-operative and specialistic banks i.e. investment and mortgage ones. The Chairman of NBP, The Monetary Policy Council (Rada Polityki Pieniężnej) constitute the managing bodies of the National Polish Bank. In addition, the Committee for Bank Supervision (Komisja Nadzoru Bankowego) has been established according to the law concerning the National Polish Bank. This Committee sets rules of performance and supervises activities of other banks in accordance with the law and regulations. The General Inspectorate of the Banking Supervision acts as an executive body of Committee for Bank Supervision.

[4] POLAŃSKI, Z. System finansowy w Polsce. *Lata dziewięćdziesiąte*, 1997. Warszawa: PWN, 1997, p. 30.

[5] BAKA, W. Wpływ europejskiej integracji monetarnej na strategie banków komercyjnych. Prawo Bankowe, 2000, no. 3, p. 26.

[6] BAKA, W. Sektor finansowy w gospodarce polskiej - stan i perspektywy w obliczu integracji europejskiej. In: *Ekspertyza, Raport* , 1998. Warszawa: RSSG, 1998. no. 33, p. 47.

Table 1 - The basic features of German-Japanese and English-American system

ENTERPRISES FINANCING	**ENTERPRISES FINANCING**
Great importance of internal financing	Great importance of external financing
External financing through anonymous capital markets	Internal financing for the individually negotiated bank credits with constant interest rate
Emphasis on short-term passive connections between financial institutions and firms	Emphasis on the long-term, active close connections between financial institutions and firms
No involvement in shareholding of other companies	Involvement in shareholding of other companies
TYPES AND ROLE OF FINANCIAL INSTITUTIONS	**TYPES AND ROLE OF FINANCIAL INSTITUTIONS**
High degree of specialisation of institutions	Low degree of specialisation of institutions
Short-term credit activity-minded banks	Long-term credit activity-minded universal banks
High tendency towards creation of financial innovations	Smaller tendency towards creation of financial innovations
THE STOCK EXCHANGE	**THE STOCK EXCHANGE**
Further developed	Less developed
POLICY OF CENTRAL BANK	**POLICY OF CENTRAL BANK**
Open market operations	Performance
MECHANISM OF PAYMENT	**MECHANISM OF PAYMENT**
Debit transfer (cheque system)	Credit transfers (giro system)
Accounting *Houses/ Clearing*	Post office

Source: POLAŃSKI, Z. The financial systém.In: The financial system in Poland in the nineties, 1997. Warsaw: PWN, 1997, p. 31.

Polish National Bank as the central bank performs three functions. It acts as:

- the monetary policy maker using such instruments as: compulsory (statutory) reserves rates, open market operations, discount and pledge policy, and currency policy,

- the national bank as an emissive-bank - has the emissive monopoly and organises the circulation and shapes the supply of currency and also organises financial service for governmental institutions and organisational units of national purposeful funds and as well as services in the sphere of treasury securities,

- the Bank of banks through creation of the stable development of strong banking system and through performing as a credit-giver of the last instance.
  Tasks of commercial banks include:[7]

- transformation of the *time-preference* structure and transformation of the risk-preference according to companies' needs,

[7] KOSTRZEWA, W. Bank Centralny a sektor banków komercyjnych. *Bank i Kredyt,* 1994, no. 6, p. 17.

- mobilisation of savings and using them to finance the investments in the national economy, whereas the banks are to decide about choosing the profitable projects and supervise the use of the funds designed for these investments,

- keeping the central accounting and economic clearing system in co-operation with the central bank .

The efficiently functioning banking system is one of the most important *links* crucial for development of the national economy. While evaluating the last 10-year period of banking system transformation in Poland (1990-2000), one needs to state that this system provides a suitable realisation of financial and credit services to ownership changes in Polish banking system have contributed to a large extent to the below listed:

- improvement of the effectiveness of banking system in the holistic view,

- bank obtaining the access to national capital as well as to the foreign capital,

- increase of the competition between banks,

- introduction of new banking technologies,

- development of capital market through increasing capitalisation of the Stock Exchange and increasing a number of companies quoted on the Stock Exchange.

The level of bank employees' expertise may be estimated positively as well as computer-telecommunication technologies implemented by banks.[8] These statements prove that the banking system in Poland can be considered an equal partner for the same systems in the European Union. As regards the existing connections between the economy competitiveness, employment and efficiency of the national banking system one needs to consider a strong influence of the ownership structure in Polish banking.

3. Participation of the foreign capital in Polish banking sector

The participation of the foreign capital in the world banking systems is quite diverse, but there is a tendency not to exceed over 20% threshold of shares. The share at less than 20% amount exists among others in such countries as: Italy (3%), German (4%), Japan (6%), Holland (7%), Portugal (7%), Brazil (7%) Switzerland (9%), Spain (10%), Austria (13%), France (14%). The share of foreign capital at amount over 20% is noticed among others in: Argentina (45%), Great Britain (57%) or in Hungary (60%). The above quoted figures point that particular countries are cautious about an uncontrolled inflow of the foreign capital to national banking sectors.

[8] JAWORSKI, W. L. Polskie banki wobec wejścia do europejskiego systemu bankowego. In: *Polskie banki w drodze do Unii Europejskiej, praca zbiorowa pod redakcją W.L.Jaworskiego*, 1999. Warszaw: Poltext, wydanie II, 1999, p. 67.

The idea of coexistence of both, domestic and foreign commercial banks is accepted in the majority of EU countries, however, considering the importance of national banking system for the economic policy, it is believed that the domestic capital should play the dominating role in the national banking system. The countries accepting such a conception conduct specific policy towards the national banking systems.[9] This policy is also enforced with the share of the national capital in the banking sector assets. Already at the beginning of the nineties this share in some countries amounted to: 87% in Portugal, Greece 84%, Italy 68%, Germany 50%, France 42%.[10] Currently the countries of EU have not resigned of partially leaving the bank capital in the hands of state, either.

Considering the situation in the EU countries, one needs to refer to the functioning conditions of the transformed banking system in Poland. For the information about the condition of ownership transition of the banking sector in Poland in the nineties: The table 2 presents participations in a balance sum of particular groups of banks presented.

*Table 2 - Participation of bank groups in the balance total** of the banking sector in the years of 1993-march 2002 [%]*

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002 *
1. Commercial Banks in total	93.4	94.7	95.2	95.4	95.5	95.7	95.8	95.8	95.5	95.3
a) Commercial banks with national capital dominating	80.4	76.1	68.3	66.5	49.3	45.9	23.9	22.9	23.3	24.4
b) Commercial banks with private capital dominating	13.0	18.6	26.9	28.9	46.2	49.8	71.8	72.9	72.2	70.9
- domestic capital	10.4	15.4	22.7	15.1	30.9	33.2	24.6	3.4	3.2	3.0
- foreign capital	2.6	3.2	4.2	13.7	15.3	16.6	47.2	69.5	69.0	67.9
2. Co-operative Banks	6.6	5.3	4.8	4.6	4.5	4.3	4.2	4.2	4.5	4.7
3. Bank Sector	100	100	100	100	100	100	100	100	100	100

* *up to march 2002*

** *Assets in net amount lessened by extinguished debt and with purposeful reserves and for depreciation.*

Source: The financial situation in the first quarter of the year 2002. Warsaw: Synthesis by NBP GINB, July 2002, p. 27.

Table 3 shows the participation of particular groups of banks in the primary and complementary funds of banking sector in Poland.

[9] OBAL, T. Zwiększony nacisk konkurencji, *Bank 1998*, no. 12, p. 27.

[10] BAKA, W. Wpływ europejskiej integracji monetarnej na strategie banków komercyjnych.Prawo Bankowe, 1998, no. 3, p. 50.

*Table 3 - The participation of particular groups of banks in the basic and complementary funds** in 1993-march 2002*

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002 *
1. Commercial banks in total	92.0	94.3	94.6	95.1	95.2	95.6	95.6	95.5	95.4	95.4
a) Commercial banks with national capital dominating	76.8	72.6	61.4	55.9	34.0	33.2	16.4	14.2	12.5	12.5
- directly owned by the Treasure of State	72.8	66.7	55.4	43.7	25.6	25.7	14.0	11.9	10.6	10.6
b) Commercial banks with private capital dominating	15.2	21.7	33.2	39.2	61.2	62.4	79.2	81.3	82.9	82.9
- domestic capital	13.0	18.0	25.6	18.3	37.2	37.7	29.0	3.7	2.7	2.7
- foreign capital	2.2	3.7	7.6	20.9	24.0	24.7	50.2	77.6	80.2	80.2
2. Co-operative banks	8.0	5.7	5.4	4.9	4.8	4.4	4.4	4.5	4.6	4.6
3. Bank sector	100	100	100	100	100	100	100	100	100	100

* *up to march 2002*

** *up to 1997 - the primary capital, including the stock capital; the contributions declared but unpaid towards the primary capital; the spare and reserve capital; the undivided financial outcome from the previous years; the net financial outcome of turnover year)*

Source: The financial situation in the first quarter of the year 2002. Warsaw: Synthesis by NBP GINB, July 2002, p. 28.

In the years analysed, the participation of banks with national capital dominating, in the total sum of assets of banking sector was systematically decreasing from 80.4% in 1993 to 23.3 in the year 2001. The growing share of commercial banks with private capital dominating, originally was caused by an increasing *engagement* of the Polish capital (from 10.4% in 1993 to 33.2% in 1998) to reach the level of share of 3.2% in 2001 only. This situation resulted from the fact that the Polish banks with the national capital as well as with private have been taken over by the foreign capital. Thereby the share of foreign capital became dominating in the Polish banking system.

The structure of particular groups of banks in the primary and complementary funds of the banking sector is more unfavourable for the domestic capital since this share in case of the banks with national capital dominating amounts only to 12.5% in the year of 2001. The share of private banks with the Polish capital dominating is very low and amounts merely to 2.7% in the year of 2001. It shows unambiguously the leading role of the foreign capital in the Polish banking system, and thereby, the relatively small abilities of the government to influence functioning of this system and stimulating the economic processes in Poland. The currently existing situation in the ownership seems to be irreversible. Actually, it is similar to the situation of Great Britain, but one needs to pay attention to the fact that this country is considered an international financial centre (Godula, p. 33). To recapitulate, one may state that the banking system in Poland has become excessively dependent on the foreign capital coming from various sources.

4. The capital connections in the commercial bank sector in Poland

In 2001 there were 71 commercial banks in Poland, including 7 with national capital dominating, 48 with foreign private capital dominating and 16 with Polish private capital dominating. In fact, considering the capital connections of banking system, the number of independent economic subjects is smaller than the number of the banking licences issued. The existing connections on the market may be divided into:

- domestic (internal) - where the body acting in accordance with a domestic (national) licence can perform the capital control over another subject having domestic banking licence,

- external - in which the independent organisational bodies function, however remaining dependent on the same foreign or domestic proprietor.

The capital connections existing in the banking sector in the years 1994 -2000 are presented in tables No. 4 (the internal connections) and No. 5 (the external relationships). A number of internal as well as external capital connections in commercial banks sector in Poland in the years 1994 -2000 remains significant. As regards internal connections, the Bank Handlowy w Warszawie (The Trade Bank in Warsaw), Bank Polska Kasa Opieki - Grupa PeKaO S.A. *(Polish Guardian Bank, Ltd.)*, Bank Współpracy Regionalnej (Regional Co-operation Bank) - taken over by Deutche Bank - belong to the dominating repeatedly connections subjects. In many cases, it turned out that the subjects primarily dominating in internal combinations with the Polish capital became encompassed with the controlling interest by the foreign investors, - which is shown in the table 6.

The following banks belong to this *group*: Bank Handlowy S.A. /Trade Bank/ (62,0% of foreign capital), Powszechny Bank Kredytowy S.A. /General Credit Bank/ (43,5%of foreign capital), Bank Przemysłowo-Handlowy S.A. /Industrial-Trade Bank/ (86,41%of foreign capital), PeKaO S.A /Polish Guardian Bank. Ltd./ (52,1% of foreign capital) - i.e. four of the seven listed in table 6 commercial banks.

Table 4 - The internal (domestic) capital connections in commercial banks in Poland in the years 1994 - 2000

	The dominating subject	The period of occurrence of the capital connection
Bank Rozwoju Budownictwa Mieszkaniowego (Bank of Development of the Housing Construction Industry)	Bank Gospodarstwa Krajowego (Bank of National Economy)	Since March 1999
Cuprum Bank	Bank Handlowy w Warszawie (Trade Bank in Warsaw)	Since April 1994
Bank Rozwoju Cukrownictwa (Bank of Development of Sugar Factory)	Bank Handlowy w Warszawie (Trade Bank in Warsaw)	Since 1998
Bank Depozytowo Kredytowy (The Deposit-Credit Bank)	Bank Polska Kasa Opieki – Grupa PeKaO S.A. (Polish Guardian Bank, Plc)	October 1996 - December 1998
Powszechny Bank Gospodarczy (General Economic Bank)	Bank Polska Kasa Opieki – Grupa PeKaO S.A. (Polish Guardian Bank, Plc)	October 1996 - December 1998
Pomorski Bank Kredytowy (Pomorski Credit Bank)	Bank Polska Kasa Opieki – Grupa PeKaO S.A. (Polish Guardian Bank, Plc)	October 1996- December 1998
Hypo Bank Polska (od 2000 roku Hypo Vereinsbank Bank Hipoteczny) Hypo Bank Poland (since 2000 Hypo Vereinsbank Mortgage Bank)	Bank Przemysłowo-Handlowy (The Industrial-Trade Bank)	Since October 1999
BWR Real Bank	Bank Współpracy Regionalnej (Bank of Regional Co-operation)	October 1996 - March 2000
DEG Bank Secesyjny (później BWR Bank Secesyjny) DEG Secession Bank (afterwards BWR *Secession* Bank)	Bank Współpracy Regionalnej (Bank of Regional Co-operation)	April 1994 - May 1999
Bank Współpracy Regionalnej (Bank of Regional Co-operation)	Deutsche Bank Polska (Deutsche Bank Poland)	since March 2000
BIG Bank	Bank Inicjatyw Gospodarczych BIG (Bank of Economic Initiatives)	In the whole horizon of analysis
Prosper Bank	Kredyt Bank PBI (później Kredyt Bank) Credit Bank PBI (afterwards Credit Bank)	since May1997
Bank Regionalny w Rybniku (Regional Bank in Rybnik)	Kredyt Bank (Credit Bank)	January 1994 – December 1995.
Górnośląski Bank Gospodarczy (Upper Silesian Economic Bank)	Powszechny Bank Kredytowy (General Credit Bank)	Since July 1995
Gliwicki Bank Handlowy (Merchant Bank of Gliwice)	Wielkopolski Bank Kredytowy (Wielkopolski Credit Bank)	November 1996 - October 1999

Source:www.nbp.pl/publikacje/materiały_i_studia/pl.

Table 5 - The external capital connections in commercial banks in Poland in the years 1994-2000

Hypo Bank Polska, Vereinsbank Polska (potem HypoVereinsbank Polska) Hypo Bank Poland, Vereinsbank Poland (afterwards Hypo Vereinsbank Polska)	Bayerische Hypo und Vereinsbank	Since June 1998 to October 1999
Bank Rozwoju Energetyki i Ochrony Środowiska „Megabank"(Power Industry and Environment Conservation Development Bank "Megabank"), Vereinsbank Polska	Bayerische Vereinsbank	Since 1995 to 1998
Bank Śląski, ING Bank N.V. Oddział w Warszawie (Sillesian Bank ING N.V. Bank - Department in Warsaw)	ING Bank N.V.	Since July 1996
Bank Własności Pracowniczej – Unibank, Bank Komunalny Worker Property Bank Unibank; Communal Bank	MeritaNordbanken	Since December 1999
Wielkopolski Bank Kredytowy, Bank Zachodni Wielkopolski Credit Bank, Western Bank	AIB Eurpean Investments Limited	Since September 1999
GE Capital Bank, Polsko-Amerykański Bank Hipoteczny (później GE Bank Mieszkaniowy) (Polish-American Mortgage Bank - afterwards GE Housing Bank)	GE Capital Corporation	Since November 1999
Bank Staropolski; Powszechny Bank Budowlany Invest Bank (od 1996 Invest Bank) Staropolski Bank; General Construction Invest Bank (since 1996 Invest Bank)	Spółki powiązane z P.Bykowskim Companies connected with P. Bykowski	Since 1994 to 1999, with the exception of the years1996-1997, when the Staropolski Bank was under the capital control of the National Treasury
Rheinhyp-BRE Bank Hipoteczny, BRE Bank (Mortgage Bank)	Commerzbank AG	Since October 2000

Source: http://www.nbp.pl/publikacje/materiały_i_studia/pl.

Table 6 - The controlling shares of foreign investors in commercial banks in Poland

Bank Przemysłowo-Handlowy (Industrial Trade Bank)	Bayerische Hypo-und Vereinsbank AG (86.41%)
Powszechny Bank Kredytowy S.A. (General Credit Bank)	Bank Austria Creditanstalt Int AG (43.5%)
Wielkopolski Bank Kredytowy S.A. (Wielkopolski Credit Bank)	AIB European Inwestments Ltd (60.1%)
Bank Zachodni S.A. (Western Bank)	AIB European Inwestments Ltd (80.0%)
Bank Śląski S.A. (Sillesian Bank)	ING Bank NV (55%)
PeKaO S.A. (Polish Guardian Bank, Plc)	Konsorcjum UniCredito Italiano i Allianz AG (52.1%)
Bank Handlowy S.A. Trade Bank	Bank of New York (22.2%), JP Morgan (16%), Zurich Insurance Company (17.4%), Swedbank (6.4%)

Source: http://www.upcfc.org.

The remaining three banks listed in table 6: Bank Śląski S.A. /Silesian bank/ (55%of foreign capital), Bank Zachodni S.A. /The Western Bank/ (80% of foreign capital), Wielkopolski Bank Kredytowy S.A. /Wielkopolski Credit Bank/ (60,1%of foreign capital) – have been already listed in table 6, as the domestic commercial banks dependent on the foreign investors.

The analysis of the data presented in tables 4-6 confirms the conclusion regarding a strong expansion of foreign capital on the banking sector in Poland. In our opinion, Polish banking sector is too excessively dependent on the foreign capital. The fact that out of the three banks in Poland listed among the 1000 biggest banks in the world only one remains under control of the domestic capital (PeKaO BP S.A. Polish Guardian Bank Plc.) confirms our conclusions. The expansion of foreign capital into the Polish banking system was partly due to the capital connections in the sector of Polish commercial banks.

5. Conclusion

The Polish banking system may be perceived as the one that provides a suitable realisation of financial and credit services. The ownership transition in this field have contributed to:

- improvement of the efficiency of banking system in the holistic view,
- by obtaining banks access to both: domestic and foreign capital,
- increasing the competition between banks, and simultaneously an increase of concentration of banking activity,

- introducing new banking technologies and increasing the level of knowledge concerning banking,

- development of capital market through increasing capitalisation of the Stock Exchange and an increasing number of companies quoted on the Stock Exchange.

One also needs to consider the simultaneous disadvantages of ownership transition in Poland. The transition resulted in an excessive dependence of banking system on the foreign capital. Prevention from the total dependence of the Polish banking system on the biggest western banks is today's challenge for the Polish government. Nevertheless, the implementation of this task in Polish circumstances is extremely difficult.

Abstract

Fungování polského bankovního systému je významně ovlivněno přechodem polské ekonomiky na tržní hospodářství. Velký pokrok byl učiněn v oblasti aktivity poských bank, které si rychle osvojily pravidla podnikání v tržní ekonomice. Cílem příspěvku je popsat podmínky na bankovním trhu po změně vlastnických struktur.

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SOME ISSUES OF THE FUNCTIONING OF THE MORTGAGE BANKING IN SLOVAKIA AND PROPOSALS FOR SOLVING ITS PROBLEMS

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Key words

mortgage banking, mortgage system, mortgage credit, mortgage down payment requests, commercial banks, interest rate from mortgage credit, block system, liberal block system

Introduction

The analysis of the particular processes of the mortgage banking in Slovakia refers to the fact that there are considerable differences between methodological and legislative fundaments of the mortgage banking on one side, and the realization of the mortgage businesses on the other side.

The main factor, which induces this state, is the fact that the mortgage businesses are situated into universal commercial banks. It appears that this dominant feature in combination with the diversion from the principles of the mortgage banking marks the execution of almost all mortgage businesses in Slovakia. The aim of the contribution is to point out these specific features, which do not rather impede the current state of applying the system of the mortgage banking in Slovakia, but which can bring about the building in of specific features of the system for a long period.

Mortgage banks did not often need any capital for establishing the mortgage businesses into their portfolio. This compromise solution was necessary in a period of establishing the mortgage banking in Slovakia, whereas the strict insistence on earmarking one milliard Sk into the mortgage institution alone would discourage banks' interest from providing services of that kind.

The requirement for a minimal capital of the mortgage bank was met only formally, thus the logic of the function of capital in the mortgage bank was refuted with an impact on the real safety in the business of the mortgage bank. In this respect, we are talking here about capital arbitrage too, which is also referred to in economics' literature. There are many examples of capital arbitrage but their common character is en effort to keep capital on the minimal required level because capital adequacy can be reached with a low capital on the required level of 8% owning to many financial innovations. Between two main realizations of capital arbitrage belongs securitization of assets with recourse, without recourse.

The location of the mortgage businesses into universal commercial banks may bring about some deformations of the mortgage system in Slovakia. The up to the present time development indicates that nine existing commercial banks have gained a licence for providing the mortgage businesses and no other institution has entered this sphere besides the existing universal banks.

The mortgage banks keep an analytic file of the mortgage businesses separately but they do not show profits or losses from the mortgage businesses but for all businesses of the universal bank. The main requirement for the security of the mortgage businesses is that banks should not show a loss from the mortgage businesses. The non-necessity of following the result of the mortgage businesses mainly in connection with an immense growth of the volume of the mortgage credits may expose the Slovak mortgage banks to risks. Banks have competed in granting mortgage credits by lowering interest rates, which was welcomed by consumers. The interest rates from the mortgage credits amount to 10%, the up to the present issued down payment requests had returns of 7,8 % do 10 %. Banks rely either on the low paid interest primary deposits or are not compelled to do an economic calculation because they are not prevented from managing with a loss. The price adjustments of the mortgage credits to the prices of the primary sources may lead to the pushing out of the sources, which are gained by issuing mortgage securities from the mortgage banking system, which then may result in many risks and the system of the mortgage banking may then fall behind in Slovakia.

Another area for assessing the state of the mortgage banking is the strictness of the rules and links, which are required by methodological principles of the mortgage banking. The rules of the mortgage banking are necessary to be respected in the strictly mortgage banks within the system of the mortgage down payment requests.

Whilst in Slovakia there is not any independent mortgage bank nor the system of mortgage down payment requests is not applied strictly, the existing mortgage system in Slovakia may be defined as an interface between the deposit model and the model of mortgage down payment requests even though the legislative is adjusted to the model of down payment requests. The model of down payment requests sets up stricter rules of functioning, so the legislative of the mortgage banking is prepared to more demanding forms of enforcing these businesses.

Understanding the mortgage banking proceeds from the principles of the block system in Slovak Republic. The rule of the lower returns – higher guarantees is sufficient both for the initial stage of the development of the mortgage banking, and it gives a greater guarantee to the investor. Although a rigorous block system was approved, it would be appropriate to consider the advantages of the liberal block system.

The advantage of the liberal block system for a bank is a possibility to use the sources better gained from issues, generally it enables to grant a larger number of mortgage credits by a multiple provision of the same sources. The stated advantage is of a big importance in circumstances, when the acquisition of sources on the capital market is problematic, and therefore it would be good to take into account to what extent it would be appropriate to apply the given system in the circumstances of Slovak Republic. The fact of a bank's giving up relatively hard gained sources by means of issuing the

mortgage down payment requests in the interest of keeping the equality of systems argues for the block system.

On the contrary to a widespread opinion that mortgage down payment requests are highly safe from the investment's point of view, the position of the down payment requests in Slovakia does not reach the level, which would correspond to the preferential position of the owners of the mortgage down payment requests in case of a bank failure. The right of priority of the owners of the mortgage down payment requests is not contained in any legal norm (it was regulated in the Civil Judicial Order), and therefore the position of the mortgage down payment requests does not differ much from the position of the owners of some other bank bonds. The practical assertion of the view can be seen particularly in the legitimacy to recommend the mortgage down payment requests as obligatory components into the portfolios of the institutional investors. The following reasons obstruct the unequivocal "yes" opinion:

1. the absence of the right of priority of the owners of the mortgage down payment requests,

2. the pure mortgage banks do not carry out the mortgage businesses (the part about the capital of the mortgage bank deals with these problems),

3. a small number of businesses on the secondary market for the reasons of the low liquidity of the capital market, from which the problems arise in transferring them into the liquid form.

The approval of the recommendations, so that insurance companies, pension funds and other institutions buy the mortgage down payment requests, would solve the problem of the lack of the long term sources of the mortgage banks, but one has to consider the interests of all participated subjects in an equal degree.

It would be feasible to realize the rectification of this area if it was legislatively adjusted so that receivables of the owners of the mortgage down payment requests were satisfied preferentially in case of bankruptcy of the mortgage bank (e.g. by exemption from assets in bankruptcy).

Meeting this requirement is the most crucial moment from the point of view of the possibility to recommend the involvement of the institutional investors into buying the mortgage securities.

No bank has used the possibility to gain sources by issuing the temporary mortgage down payment requests in Slovakia yet. It is partly connected with the situation on the capital market, partly with the risk of the non-placement of relatively high-priced sources into the mortgage credits, but also with the fact that there is not any independent mortgage bank and commercial banks dispose of sufficient primary deposits, which are appropriate for refinancing the mortgage credits.

Nevertheless, the observance of the limit of granting the mortgage credit to the amount of 70% of the deposit value is not clear in connection with the possibility of granting the credit over 70% up to the amount of 10% of the mortgage credits granted by

the mortgage bank (i.e. the mortgage of the second class). In this case, there are no restrictions of granting the credits under the mortgage credits for the selected clients, who are liable for the credit by other means than by intangible property. It is all the same to the clients, whether the bank registers their mortgage as the first or the second-class credits. The mortgages of the second class, as these are often referred to, which are over 70% of the granted mortgage credits, cannot be utilized for the proper funding of the mortgage securities, they can be then granted from other sources, such as the issue of the mortgage down payment requests. The mortgages of the first class are granted in Slovakia though, so the differentiation of the first and the second class does not have a practical meaning. The mortgage of the second class is only another deregulation of the mortgage banking in Slovakia for cases, when the client has not met all requirements, the bank has the possibility to grant him the mortgage credit, and the volume of other granted mortgage credits is limited.

If the mortgage of the second class has a meaning of part of the Slovak mortgage banking, it would be more appropriate for the limit of 10% to be over the mortgage credit in relation to one credit (but not to the entire volume of the granted credits). Thus one client could even grant the credit of the first class to 70% of the intangible value, and the credit of the second class to the amount of 10% of 70%, together then to the amount of 77% of the intangible value.

The pieces of knowledge of the interest returns from the linearly and annually mortgage down payment requests lead to the conclusions that the support of the interest returns from the mortgage down payment requests appears more effective and efficient from the support's point of view of the returns from the down payment requests or from the mortgage credits. It induces the change in generating the interests between the linear and annual payment of interest. The linear method generates more interests; in case of the annual method, the lowering principal generates the interests.

The stated advantage is possible to apply and to evaluate only in the pure mortgage banks. Until there are no pure mortgage banks in Slovakia, all mortgage banks have a character of the universal banks with a license to grant the mortgage businesses, but it is impossible to prefer this advantage and to emphasize the direction of the state assistance to the products of the mortgage banking.

For the given reason, it is possible to understand the solution of the state assistance of the mortgage credits in Slovakia by means of subsidies of interests from interests.

In the area of the state assistance of the mortgage banking in Slovakia, one may suggest the support of the mortgage credits with the maturity date of maximum twenty years. The recalculations lead us to the fact, which are obvious in the given chart, that the maturity of eleven years seems optimal from the point of view of the highest decrease in the payments and the slightest increase in interests.

Table 1 - Survey of the monthly annual payments of the mortgage credits with a different maturity date expressed in the years, at the original interest rate of 10%, the sum of the credit one million crowns, the monthly payment frequency and the state assistance of interests from the mortgage credit of 4,5 %.

1	2	3	4	5	6	7	8	9
Maturity of the credit in the years	Redemption	Not reduced monthly payment	The sum of monthly payments for the entire period	Interest for the whole period	Redemption for the reduced monthly payment after the state assistance by 4,5 %	Monthly payment reduced after the interest state assistance	**3 - 7** Monthly amount of the state assistance in the absolute expression	**8 times number of payments** Total sum, which the state contributes to mortgage
4	0,0253626	**25 362**	1 217 406	217 406	0,023256	**23 256**	**2 106**	101 088
5	0,0212469	**21 246**	1 274 816,5	274 816,5	0,019101	**19 102**	**2 144**	128 640
6	0,0185258	**18 525**	1 333 858,8	333 858,8	0,016337	**16 337**	**2 189**	157 608
7	0,0166011	**16 601**	1 394 494	394 494	0,014369	**14 369**	**2 232**	187 488
8	0,0151741	**15 174**	1 456 717	456 717	0,012899	**12 899**	**2 275**	218 400
9	0,0140786	**14 078**	1 520 491	520 491	0,011759	**11 759**	**2 319**	250 452
10	0,0132145	**13 214**	1 585 745	585 745	0,010852	**10 852**	**2 362**	283 440
11	0,012519	**12 519**	1 625 618	625 618	0,010113	**10 113**	**2 206**	291 192
12	0,0119507	**11 950**	1 720 905	720 905	0,009501	**9 501**	**2 449**	352 656
13	0,0114784	**11 478,4**	1 790 636	790 636	0,008986	**8 986**	**2 492**	388 752
14	0,0110819	**11 081,9**	1 861 773,6	861 773,6	0,008548	**8 548**	**2 533**	425 544
15	0,010746	**10 746**	1 934 281,4	934 281,4	0,008170	**8 170**	**2 576**	463 680
16	0,104589	**10 458,9**	2 008 124	1 008 124	0,007843	**7 843**	**2 615**	502 080
17	0,10212	**10 212**	2 089 261,3	1 089 261	0,004556	**7 556**	**2 656**	541 824
18	0,0099983	**9 998,4**	2 159 654	1 159 654	0,007303	**7 303**	**2 695**	582 120
19	0,0098125	**9 812,6**	2 237 261	1 237 261	0,007078	**7 078**	**2 734**	623 352
20	0,0096501	**9 650,1**	2 316 042,9	1 316 042	0,006877	**6 878**	**2 772**	665 280
21	0,0095077	**9 507,8**	2 395 956,4	1 395 956	0,006699	**6 699**	**2 808**	707 616
22	0,0093824	**9 382,4**	2 476 959,7	1 476 959	0,006538	**6 538**	**2 844**	750 816
23	0,0092717	**9 271,7**	2 558 989,2	1 558 989	0,006392	**6 392**	**2 879**	794 604
24	0,0091738	**9 173,8**	2 642 054,4	1 642 054	0,006260	**6 260**	**2 913**	838 944
25	0,0090869	**9 086,9**	2 726 070	1 726 070	0,006140	**6 140**	**2 946**	883 800
26	0,0090097	**9 009,7**	2 811 026,4	1 811 026	0,006031	**6 031**	**2 978**	929 136
27	0,0089409	**8 904,9**	2 896 867,5	1 896 867	0,005931	**5 931**	**2 973**	963 252
28	0,0088795	**8 879,5**	2 983 536,8	1 983 536	0,005839	**5 839**	**3 058**	1 027488
29	0,0088247	**8 824,7**	3 071 009	2 071 009	0,005755	**5 755**	**3 069**	1 068 012
30	0,0087756	**8 775,7**	3 159 246,7	2 159 246	0,005677	**5 677**	**3 098**	1 115 280

Conclusion

There is one feature predominant in the area of the mortgage banking in Slovakia, and that is the position of the mortgage businesses into the existing commercial banks, which requires research of the influence of the stated feature on the

existing system of the mortgage banking. This paper is trying to solve partially these issues in relation to the capital of the mortgage bank, the determination of the model of functioning, the mortgages of the first and the second class, and therefore adequacy of the mortgage securities for the institutional investors. It concentrates on the suggestions and incentives; we are aware of the fact that success lies in introducing the mortgage banking in Slovakia, even though there were not positive economic conditions for the development of the long-termed products.

Abstract

V oblasti hypotekárneho bankovníctva na Slovensku sa prejavuje ako dominantná črta umiestnenie hypotekárnych obchodov do existujúcich komerčných bánk, čo si vyžaduje skúmanie vplyvu uvedenej črty na existujúci systém hypotekárneho bankovníctva. Tento článok sa pokúša o čiastkové riešenie týchto otázok vo vzťahu ku kapitálu hypotekárnej banky, k vymedzeniu modelu fungovania, hypotéky prvej a druhej triedy a vhodnosti hypotekárnych cenných papierov pre inštitucionálnych investorov. Sústreďuje sa na námety a podnety, sme si však vedomí toho, že úspechom je už samotné zavedenie hypotekárneho bankovníctva na Slovensku napriek tomu, že v čase jeho vzniku neboli priaznivé ekonomické podmienky na rozvoj dlhodobých produktov.

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READINESS OF THE BANK OF LATVIA FOR THE INTEGRATION IN THE EUROPEAN SYSTEM OF CENTRAL BANKS

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Key words

central bank, Maastricht criteria, EMU, monetary instruments, independence of the central bank, exchange rate require, information system

1. Introduction

According to the Maastricht Treaty of 1992 the so-called Maastricht criteria for the Member and accession states of the EU were developed for joining the European Monetary Union. The criteria include important issues like price stability, low budget deficit, stability of the currency rate, etc. The criteria were developed as important pre-conditions for successful and stable operation of the European Monetary Union (further EMU).

2. Possibilities of the Bank of Latvia to integrate in the EMU

The Bank of Latvia has the most responsible and important role in Latvia concerning the integration in the EMU and introduction of the euro currency. The basic principles of the monetary policy of the Bank of Latvia (further BoL), its aims and instruments as well as the degree of independence of the central bank meets the EMU requirements already in 2002: first, the primary aim of the BoL as well as ECB is the price stability; secondly, the BoL follows the aspects of the independence of the central bank set earlier by ECB. BoL fully meets the EMU requirement on free flow of capital, as Latvia possesses one of the most liberal regimes of capital flow in the world. Besides the monetary instruments used by BoL are practically the same as the ones used by the ESCB (European System of Central Banks).

When integrating in the ESCB it might be necessary to change the frequency of the application of monetary instruments or some technical details (like deposit maturities or bid procedures), however, these changes could be implemented in a very short time.

Movement towards the membership first in the exchange-rate mechanism (ERM II) and then in the EMU makes us think about corresponding changes in the exchange rate regime. Disregarding that Lithuania and Estonia have pegged their national currency solely to euro, some Latvian economists consider that the issue has to remain unchanged until Latvia joins the European Union; the existing regime meets the needs of Latvia. The peg of Latvian Lat to the SDR currency basket represents the "golden middle" in the exchange rate policy as it takes into account aggregate or average interests of the economy subjects of Latvia. Changing the exchange rate policy of Latvia now would be dangerous for the development of economy. Besides rumors about the changes in the national exchange rate policy might cause instability in the local financial markets as well as in no way would promote the attraction of foreign investments. We must also remember that Latvia has to meet the convergence criteria and adjust to the circumstances of the euro zone and only then peg the rates of the lats and euro. Along with the EU integration and increasing integration of the Latvian economy in the Euro zone, the pegging of the lats might be reconsidered in favor of the euro. Along with the introduction of the euro in Latvia, the central bank of Latvia – the Bank of Latvia will become a part of the Euro system and the Head of the Bank of Latvia will become member of the Council of the European Central Bank.

The Statistics Department of the Bank of Latvia is responsible for the preparation of the national balance of payments and monetary statistics of banks in Latvia in accordance with the requirements of the international, including the EU, institutions.

The preparation of the data on the balance of payments already now corresponds to the requirements of ECB and the Statistics Bureau of the European Community (Eurostat). According to the resolution of the Council of BoL already starting from 1 January 2001 the bank and monetary statistics have been prepared in full compliance with the EU requirements.

Although the Statistics Department took over the responsibility for the preparation of the national balance of payments only in 2000, a significant progress has been achieved in meeting the requirements of the EU institutions in the area. By the application of the latest technology and enlarging the range of information providers as well as improvement of the methodology for preparation of the balance of payments all necessary pre-conditions were created in order the Bank of Latvia could start publishing the national balance of payments every month (basic indicators) rather than only quarterly in 2001, which allowed BoL to fit into the deadlines for the preparation of the balance of payments set by ECB. The due deadlines for preparation of the data are provided also in the sector of bank and monetary statistics. The Statistics Department has established and maintains the list of the monetary financial institutions of the Republic of Latvia. A specific format is applied for sending the data (Gesmes).

Information has been compiled on the methods of data collecting, processing and review preparation on bank, monetary and payment balance statistics for ECB publications "Money and Banking Statistics in the Accession Countries: Methodological Manual" and "Accession Countries: Balance of Payments/International Investment Position Statistical Methods".

The Statistics Department is continuing to work on the preparation of the flow statistics and calculation of the influence of seasonality on the time rows of data. The Department specialists are implementing a many-sided analysis of the influence of increasing the threshold of the non-bank external payments set by the EU on the quality of the preparation of the balance of payments of Latvia.

In November 2001 the BoL representatives participated in the ECB seminar for the EU accession countries, where they received information on the ECB unified information systems and the structure of communications, which comprised both a joint data transmission network and teleconference system.

In the nearest future ECB has planned to modernize its existing communication infrastructure as well as several information systems therefore ECB did not offer more detailed information on the tasks of the central banks of the accession countries in the area. However, BoL will be able to integrate fast in the unified infrastructure of information systems and communications as a range of the applied technologies and standards are well known in BoL and the qualification of specialists is sufficient to cope with the task. Besides the gross real time settlement system of Latvia SAMS is fully prepared for the integration into the European unified settlement system TARGET – the only thing to be still done is to acquire the module license from the company "Logica TARGET."

For successful integration in the unified environment of ECB systems several BoL Departments will have to carry out a significant job - such as Statistics Department, Monetary Policy Department, Foreign Exchange Department and others as the operations or functions lying under their supervision will have to be adjusted to the work in the new environment.

BoL Legal Department co-operates with the Legal Services of ECB and participates in the preparation of the ECB annual edition "Report on the Status of Legal Preparation of Accession Countries in the Areas of Community Law of Concern to Euro system." This edition analyses the harmonization of the regulatory enactments of the EU accession countries with the acquis communautaire in relation to the Euro system. Particular attention is paid to the strengthening the independence of central banks in national legislation on central banks.

Based on the commentaries of the ECB Legal Services in the edition "Report on the Status of Legal Preparation of Accession Countries in the Areas of Community Law of Concern to Euro system", the Legal Department has designed the draft law "Amendments in the Law on the Bank of Latvia" and sent it for assessment to the Legal Services of ECB.

The lawyers of BoL participate in the annual seminars of the ECB Legal Services in order to get acquainted with the operation of the ECB system and latest amendments in the acquis communautaire.

In order to inform the inhabitants about the introduction of the euro in the form of cash, in 2001 BoL engaged in the partnership programme organized by ECB

"Euro Partnership." The programme provides for a unified and ECB co-ordinated euro publicity policy in the EU member and accession states.

In the framework of "Euro Partnership" an informative booklet has been created for wide audience as the result of co-operation between ECB and BoL. It provides information for the users of euro banknotes and coins on the design and anti-counterfeit measures of the currency, its value and possibilities to exchange the former currencies of the EMU states as well as other issues connected with euro.

Starting from the middle of summer 2001, the Bank of Latvia is using the opportunities to inform the multiplicators connected with spreading information on the euro. The lectures taking place in the Bank dealing with the euro are mainly offered to the people using the obtained knowledge for spreading the information further. Those are academic staff, teachers, lecturers, and others. The biggest of the projects was the excursion of the winners of the Latvian Olympiad of Basic Economics to the Central Bank of Germany and ECB, where young people from 26 rural districts of Latvia and 7 suburbs of Riga received rich information on euro and obtained a lecture material in English. Now it has been translated into Latvian and Russian and the young people deliver the lectures in educational institutions, to teaching staff, Non Government Organisations, societies etc. Most of the participants of the group have published articles about the introduction of euro in their local press.

Based on the materials prepared by "Euro Partnership" and the Public Relations Department of the BoL information set has been made for journalists preparing thematic information on the euro. As a result several high quality information sets have been published in the biggest mass media of Latvia.

However, the Bank of Latvia has to work harder in informing the public about the euro currency and regularly translate commentaries of foreign specialists on the issue as in the referendum the inhabitants of Latvia might as well vote against the introduction of euro instead of the lats in Latvia (as it is suggested by several studies carried out in Latvia). It must be admitted, though, that none of the sceptics of euro integration and euro has carried out detailed research on the issue and developed a further development model of the country.

One of the basic tasks of the BoL as well as that of the central banks of the EU countries is to promote safe and efficient operation of settlement systems. The BoL has to harmonize the settlement systems of Latvia with the systems of the EU countries following the guidelines set by ECB and international standards. It is necessary in order the settlement systems of Latvia successfully operated in the integrated EU settlement system after Latvia joins the EU.

The BoL has successfully introduced the new calculation of the gross real time settlements SAMS, which stands for the interbank automated settlement system and conforms to the ECB requirements for joining the integrated European payment system TARGET.

At the moment SAMS makes its settlements in lats, however, with the integration in the TARGET system BoL will have to ensure settlements in euros and

carry out transborder settlements among all central banks of the EU countries and ECB. Therefore it will be necessary to change the working hours of the BoL settlement systems.

The Payment Systems Department supervises the payment systems of Latvia in accordance with the ECB practice. The Law on the Bank of Latvia has been amended and now provides for the same responsibilities of the central bank concerning payment systems as the Maastricht Treaty and Statutes of the ECB system envisage it. The Board of BoL has approved its policy regarding payment systems. The Payment Systems Department has intended to produce a publication on the role of BoL and its tasks concerning payment systems. Besides BoL is working on designing regulatory enactments in accordance with the EU directives and recommendations. Together with the Commission of the Financial and Capital Market the BoL is continuing to work on the introduction of the EU Directive "Settlement finality." The draft law is being designed to protect large-scale systematically significant payment and securities settlement systems as well as their users from the risks, which could arise as a result of the insolvency of a member of the system. To provide for the same level in the protection of the consumer rights as it is in the EU, the Payment Systems Department of the BoL has created recommendations regarding the electronic means of payment. Besides it is continuing to work on the recommendations for issuing electronic money in Latvia.

We would like to remind that besides being a unit of settlements the single European currency euro also represents one of the most important EU symbols. It is planned that euro will become the second most significant currency along with the US dollar not only in the world, but also in Latvia.

The task of the Cashier's and Money Operations Department of the BoL is to obtain euros in due time so that along with the US dollars the inhabitants of Latvia could buy euros. The BoL is already offering such a possibility for market stabilization, however not for commercial purposes.

Starting from 1 January 2002 euros are sold in banks and currency exchanges, however, experience proves that people trust the currency bought by the BoL most. It has a particular importance at the beginning, when people are not yet acquainted with the new currency and have to take care not to obtain counterfeited money.

According to the ECB instructions the countries, which do not belong to the euro zone can obtain euro banknotes from a central bank of some of the euro zone countries. Continuing the long-term co-operation with the central bank of Germany Deutsche Bundesbank, the BoL is purchasing euros in Germany.

The Foreign Exchange department of the BoL has established contacts with ECB and is continuing the long-term co-operation with several national banks by organizing mutually necessary consultations on different investment issues.

In order Latvia could join the EMU, the Foreign Exchange Department of the BoL will have to cope with the following tasks:

- rearrange the structure of the foreign reserve portfolio currencies of the BoL,

- establish two separate groups of the governors of foreign reserves: one of them will manage the ECB reserves, the other – the reserves remaining the property of the Bank of Latvia,

- connect the information systems of the BoL and ECB.

The restructuring of the portfolio structure of the BoL foreign currency reserves is the task, which can be carried out fast. The establishment of separate groups for the supervision of particular foreign reserves will be necessary, when Latvia joins the EMU.

The authors of the article believe that Latvia could access the EU in the nearest five or six years and what concerns the integration in the EMU, Latvia is not expected to have big complications and obstacles for it to be postponed for two years (the transition period).

3. Conclusion

The Bank of Latvia has the most responsible and important role concerning the integration in the EMU and introduction of the euro in Latvia. The basic positions of the monetary policy of the Bank of Latvia, its aims and instruments as well as the degree of the central bank independence meets the EMU requirements already in 2002: first of all, the primary aim of the Bank of Latvia, as that of the ECB, is price stability; secondly, the Bank of Latvia complies with all independence aspects set by the EMU. The Bank of Latvia fully meets the EMU requirement on free capital flow as the capital flow regime of Latvia is one of the most liberal ones in the world; thirdly, the monetary policy instruments used by the Bank of Latvia are practically the same as in the ECB system.

Upon integration in the ESCB system it might be necessary to change the frequency of the application of monetary instruments, revise their relative significance or particular technical details (for example, deposit maturities or bid procedures).

For successful joining the integrated environment of the ECB information systems, a lot of work will have to be done by several departments of the Bank of Latvia, such as Statistics, Monetary Policy, Foreign Exchange Operations, Payment Systems Departments and others as the operations or functions in their supervision will have to be adjusted to the work in the new environment.

In general, we must approve of the work done by the Bank of Latvia and the work that has been started for the integration in the EU. It can be said about all main administrative institutions of the Bank of Latvia. The policy followed by the Bank of Latvia is fully consistent with ECB and legislation in the banking sector has been fully harmonised with the EU legislation.

The authors believe that Latvia could join the EU in the nearest five of six years and Latvia should not expect big obstacles or complications, which could postpone its joining the EMU for two years (the transition period).

Abstract

Autoři příspěvku uvažují o možnostech Litevské národní banky integrovat se do Evropské měnové unie a analyzují úlohu Litevské národní banky jako národní centrální banky. Příspěvek poskytuje detailní přehled oblastí, kde jsou přijímací kritéria (Maastrichtská kritéria) splněna a kde ne.

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COMPARISON OF BANK SUPERVISION STRUCTURE IN TRANSITION COUNTRIES

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Key words

banking supervision, institutional structure of banking supervision, central bank

1. Introduction

The end of the 20th and beginning of the 21st century is marked by rapid growth of the financial markets. The basic task of the financial as well as bank supervision is to ensure the stability of the financial market, and provide primary protection for consumers. In connection with the principle of controlling the domestic country, financial supervision as well as bank supervision is in the competence of the European Union member states. The structure of the supervision is not unified. In some countries the classical (sector) structure is applied, elsewhere the structure of supervision undergoes a transformation, and there are countries where integrated bodies of supervision have been established which represent the latest conception of the institutional structure of supervision of the financial market.

2. Institutional Structure of Supervision in the Developed Market Economies

The institutional structure of bank supervision in developed market economies varies. Three models for performing bank supervision have been created. From historical point of view, the Ministry, the Central Bank or a specialized institution can be entrusted with the task to carry out bank supervision, i. e. some institution which is to some extent independent from currency institutions and from the government. At the beginning the bank supervision was entrusted to a ministry or a ministry department, most often the Treasury. Examples of countries where bank supervision was entrusted to the ministry of finance are Austria, Canada, Japan and Scandinavian countries. In Greece and Ireland bank supervision was later overtaken by the central bank. In most countries the Central Bank was the institution commissioned by bank regulation and supervision - Australia, Portugal, Spain. But the number of countries is rising where bank supervision is separated from the central bank and is taken over by a specialized institution. Most often it is a government institution - France, USA, or a state institution - Belgium, Finland which enjoy a bigger autonomy than other governmental or state institutions because a

safe development of the banking sector is a long-term interest which requires a higher rate of independence.

In international practice there are also quite specific solutions. For example the USA have a relatively complicated system of several types of institutions. Except the Central Bank (Federal Reserve System USA), further specialized state institutions work here - Office of the Controller of the Currency as a government institution, State Banking Authorities for single states of the USA, Federal Deposit Insurance Corporation, which except deposit protection, is entrusted with supervision of thousands of small banks. It carries out supervision on-site as well as many other activities connected with bank supervision. Such an institution which has a similar form to a ministry has spread primarily in countries where in the centre of interest in the field of bank supervision is the supervision of the access into the banking sector and supervision of the ownership relations at the expence of supervision of everyday bank activities. This form of bank supervision can work only on condition that the development of the banking sector is slow, access into the banking sector is easily controllable and it is possible to regulate the activities of the banks considerably.

Constant changes in financial services as well as deregulation of the financial sector, considerable innovation in the financial area, impetuous development of financial products and techniques, arising of new types of risks require a change in the institutional structure of the bank supervision.

Research itself in the field of bank regulation and supervision has focused its attention on defining and determining relevant aims and on questions connected with the efficiency of bank regulation and supervision. Little attention was given to issues concerning the institutional structure. At present these issues are becoming part of political and public discussion as well. The question, whether the efficiency of bank regulation and supervision while reaching their objectives can be influenced by certain institutional structures, is becoming an increasingly important issue.

From historical point of view financial institutions in many countries - banks, insurance companies, stockbrokers were supervised by specially established institutions. Each supervising institution regulated and controlled a certain type of financial institution. In connection with the origination of financial conglomerates - groups of companies under common management whose exclusive or overwhelming activities consist of providing services in at least two different financial branches (banking, insurance, stockbroking) - a dilemma arises, namely whether the combination of different types of institution (banks, insurance companies, stockbrokers) leads to raising or decreasing the overall risk which is characteristic for this institution. By combining risk of different fields inside one institution the risk of every field of entrepreneurial activity is being reduced. This way the probability of failure of an institution is lowered which is from the supervision's point of view positive. In case of failure of the financial institution, however, the potential costs will rise because the failure will have an impact on the whole field of the entrepreneurial activity.

The inception of financial conglomerates has also an effect on financial innovation which impairs some traditional differences between different types of financial products and contracts.

Changes in the field of risks and as a result of financial innovation make some of the traditional approaches in the field of supervision questionable. Financial institutions which carry out a wide range of business activities running different, more complex risks, require a complex supervision. In most countries a specialized supervision of prudential business practices of banks, insurance companies and stockbrokers was applied. The aim of complex supervision is to make the financial conglomerates liable to control of more specialized institutions of supervision or a single institution which oversees all activities.

When carrying out supervision of more institutions there is a danger that prudential supervision based on its own principles can fail when recording complex risks of the institution as a whole. In fact the overall risk can be bigger than the total of partial risks. At the same time the total gum of capital for covering the risks can also be smaller than the total capital. Therefore the key problem of supervision of a financial conglomerate is the question whether there are risks inside the conglomerate which are not liable to supervision of any specialized institution.

A possible solution of the problems is the substitution of independent specialized institutions of prudential supervision over banks, insurance companies and stockbrokers by a single integrated institution of supervision which would ensure supervision over the whole activity of the financial conglomerate from one centre. At the same time the information flow as well as the coordination of regulatory requirements and efficient mechanism for coordination of activities would be ensured in case of problems in the financial conglomerate, or in the classical financial institution.

Monitoring carried out on the consolidated principle (by means of unifying the balance sheet) seems to be a solution. According to this principle, assets and liabilities of the assembled companies are aggregated and requirements on capital adequateness are determined from the perspective of overall position of the conglomerate.

Integrated bodies of supervision of financial market which include bank supervision, supervision of insurance companies, and supervision of capital market, present the latest way of arranging supervision of financial market. Historically the first country to introduce an integrated institution of supervision was Norway (1986). Switzerland, Japan and Australia followed. The best known institution of integrated supervision is FSA in Great Britain, which was established in 1997. In the same year Állami Pénz és Tökepiaci Felügyelet was founded in Hungary. Currently, integrated supervisions are created in Latvia, Estonia, Germany, Austria, Finland, and other countries.

3. Institutional Structure of Supervision in Transition Countries

In transition countries, similarly to countries with developed market economy, the institutional structure of supervision is not uniform. In Hungary a specialized institution is created, which carries out supervision of financial market, which means supervision of the banks as well, in Poland there is formally no institution which uses the

technical services of the central bank, in the Czech Republic and Slovak Republic the Central Bank is entrusted with the task of supervision.

Poland

The Commission for Bank Supervision is a formally independent institution of bank supervision in Poland. It was established in January 1998 when the law on banks from August 1997 and the law on National Bank of Poland lost their validity. The Commission is responsible for:

- stating behaviour principles of banks which are connected with the safety of the banking sector,
- supervision of adherance to statutes and legal regulations by banks,
- performing regular surveys about the financial situation of the banks and about the development on the financial market as well as about the development of the banking sector,
- suggestions about the organizational structure of the bank supervision as well as determining the procedures of performing bank supervision.

Members of the Commission are the President of the National Bank of Poland, who is also the President of the Commission, the Minister of Finance, who is the Vice-President of the Commission, the Deputy of the President of the Republic Poland, president of the Bureau for controlling the bank special-sinking fund, and others.

Hungary

From January 1st, 1997 a specialized institution Állami Pénz és Tökepiaci Felügyelet was entrusted with bank supervision. This institution was an administrative department of the National Bank of Hungary, which is authorised in the field of permitting, and which is responsible for supervision of prudential behaviour of banks. The Central Bank, however, has also certain rights and responsibilities in the field of bank supervision. As for the banking sector, it is responsible for liquidity because the Central Bank is creditor of last instance, it is responsible for licencing and regulation of financial market, as it is the representative of currency policy.

The Hungarian bank supervision can only give licences for performing bank transactions or foreign exchange transactions for financial institutions.

With effect from April 1 2000, the Parliament established the Hungarian Financial Supervisory Authority (HFSA) with the Act CXXIV. of 1999. HFSA is the general legal successor of the Hungarian Banking and Capital Market Supervision, the

State Insurance Supervision and the State Pension Fund Supervision. The Supervisory Authority is a legal entity and operates as an independent budgetary agency.

The newly established Hungarian Financial Supervisory Authority, as the single statutory body for financial services industry in Hungary exercises statutory powers under the Act CXII of 1996 on Credit Institutions and Financial Enterprises, Act CXI of 1996 on the Offering of Securities, Investment Services and the Stock Exchange, Act XCVI of 1995 on Insurance Institutions and Insurance Activities and Act XCVI of 1993 on Voluntary Mutual Benefit Funds (and certain other legislation).

The objectives of the enlarged Supervisory Authority are to promote the smooth operation of the money and capital markets, to protect the interests of clients of financial institutions, to enhance transparency of markets and the maintenance of fair and regulated market competition through the permanent surveillance of the prudent operation of organisations and entities engaged in financial services, supplementary financial services, clearing house activities, investment and fund management activities, commodity exchange transactions, insurance and insurance broker activities, insurance consulting, mutual insurance funds, private pension funds, public warehouses, venture capital companies, investment funds, investment fund management companies, exchanges and their members (hereinafter together: financial institutions).

In pursuit of these objectives in all financial sectors, the HFSA:

- authorises all financial businesses, firms and individuals operating in these sectors,
- keeps the records required by law and controls the information system operated at the financial institutions, investment service providers, issuers, the exchanges and the clearing house, at insurance firms and pension funds as well,
- regularly monitors and evaluates compliance with the laws and regulations governing the financial services industry,
- examines, analyses and evaluates the prudent operation of financial institutions, the business activities of investment service providers and those of insurance brokers and pension funds,
- investigates, where appropriate, suspected business malpractice in its sphere of competence and takes enforcement actions,
- comments on statutory instruments under preparation concerning the financial and capital markets, the insurance and pension fund sector and submits proposals for the adoption of such statutory instruments,
- assists the operation of the National Deposit Insurance Fund, the Investor Protection Fund.

Czech Republic

In accordance with the article 44 of the Act on the Czech National Bank, bank supervision in the Czech Republic is entrusted to the Czech National Bank.

The Czech National Bank performs Supervision of:

- the activities of banks, foreign bank branches and any consolidated groups that contain a bank having its registered address in the Czech Republic, and of the sound operation of the banking system (banking supervision),
- the activities of entities other than banks licensed pursuant to special legislative acts,
- the safe, sound and efficient operation of payment systems.

Supervision includes:

- the assessment of licence and permit applications pursuant to special legislative acts,
- supervision of adherence to the conditions stipulated in licences and permits,
- inspection of adherence to laws, insofar as the Czech National Bank has the power to conduct such inspections under this Act or special legislative acts, and inspection of adherence to the decrees and provisions issued by the Czech National Bank,
- the imposition of remedial measures and penalties where shortcomings are detected pursuant to this Act or a special legislative act.

As soon as 1998 The Agreement on Cooperation was signed between The Czech National Bank, the Commission for Securities and Ministry of Finance in performing bank supervision and state oversight. This cooperation includes first of all:

- information exchange about banks and other financial institutions which are subject to supervision,
- cooperation in controlling activities in the framework of supervision of banks and financial institutions belonging under state supervision performed by the Commission for Securities and by the Ministry of Finance,
- consultations among the signatories of the Agreement and exchange of further information.

Slovak Republic

Performing banking supervision in the Slovak Republic in accordance with the article 36 of the Act on the National Bank of Slovakia has been entrusted to the National Bank of Slovakia since 1993.

The National Bank of Slovakia oversees the safe functioning of the banking system and banks, the Deposit Protection Fund, other entities, and groups of entities, where required by a special law. During the overseeing activities the National Bank of Slovakia performs activities:

- sets rules for prudential business practices and safe operation of overseen entities and other requirements with regard to business conducted by overseen entities pursuant to separate regulations,

- monitors compliance with the provisions of Act on the National Bank of Slovakia and special regulations, conducts proceedings and issues permits, licenses and makes other decisions,

- opinions and recommendations pursuant to special regulations and oversees the implementation of decisions issued thereby, including compliance with the conditions stipulated in the decisions,

- performs off-site and on-site supervision of the overseen entities, thus ascertaining the objective situation and other important facts about overseen entities, mainly deficiency in their activities, the causes of such deficiencies, the possible repercussions, and the persons responsible for the deficiencies found.

In recent years, in order to upgrade supervision, the National Bank of Slovakia emphasizes the on-site supervision while devoting an increased attention to the system of risk management. In spite of all efforts, the standard of supervision does not correspond to the standards of supervision in EU countries. The reasons for this situation can be found in the political and economic situation in Slovakia, as well as in the banks where the internal control did not work efficiently.

Since November 1st 2000 the Bureau for Financial Market was authorized to perform supervision of capital market and insurance. The standard of supervision performed by the Bureau for Financial Market has not achieved the standard of bank supervision yet.

Such supervision of financial market requires further coordination. The Slovak Republic chose using the model of integrated supervision of financial market within the framework of the central bank, that is the National Bank of Slovakia which has the right of issuing legislative regulations.

4. Conclusion

The institutional structure of supervision of the financial market is not unambiguously regulated by uniform guidelines of the European Union, and there is no uniform model. Countries of the European Union as well as the transition countries gradually create conditions for establishing and functioning of an integrated model of supervision of the financial market in the framework of their national bank or in the framework of a specialized institution. It is not important who will be entrusted with the integrated supervision, but it is important to ensure that the supervision of the financial market is functional and effective.

Abstract

Príspevok je zameraný na inštitucionálnu štruktúru bankového dohľadu. V úvode poukazujeme na nejednostnosť inštitucionálnej štruktúry dohľadu v krajinách s vyspelou trhovou ekonomikou, a v krajinách Európskej únie. Druhá časť príspevku je venovaná porovnaniu inštitucionálnej štruktúry bankového dohľadu v tranzitívnych krajinách – v Maďarsku, Českej republike a v Slovenskej republike. Ani v týchto krajinách inštitucionálna štruktúra bankového dohľadu v súčasnosti nie je jednotne upravená.

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COMPARISON OF CENTRAL BANKING IN ADVANCED TRANSITION COUNTRIES

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Key words

central bank, monetary policy, inflation targeting, core inflation, disinflation

1. Introduction

Contribution consider a range of issues which relate to inflation targeting of central banks. Literature on inflation targeting was mostly based on experience of developed countries, which find the new strategy efficient in stabilising low inflation[1]. Nevertheless, in the transition countries, a typical goal of monetary policy is to disinflate instead of stabilising low price level. Central banks of Czech Republic, Hungary and Poland find it efficient in disinflation process too. The National Bank of Slovakia left the currency peg in October 1998 and since February 2000 it performs so called qualitative monetary policy based on main interest rate setting. Till now the National Bank of Slovakia did not move to formal inflation targeting, although its decisions have to be also based on a good qualitative understanding of the determinants of inflation. Research in advanced transitive countries found that high inflation tends to be associated with monetisation of excessive fiscal deficits, aggravated by a high degree of indexation of wages and prices and frequent devaluation of the exchange rate. How it is in the Slovak conditions?

The contribution is divided into two main parts. In the first one we analyse preconditions for inflation targeting and their fulfilment in transitive countries, in the second part we try to identify main determinants, which influence the Slovak core inflation.

[1] In chronological order Inflation Targeting was applied in New Zealand, Canada, Australia, the United Kingdom, Sweden, Finland, Spain, later Czech Republic, Hungary, Norway, Izrael, Poland.

2. Preconditions for Inflation Targeting and Their Fulfilment in Transitive Countries

In the literature, several preconditions for successful inflation targeting have been identified[2]. In the following paragraphs we will consider such as reasonably low inflation in comparison with other inflation targeting countries, public support for price stability, clearly defined objective of achieving price stability and absence of other nominal objectives, sufficiently independent central bank, absence of fiscal dominance, development of financial markets, well-developed money market, and capacity of the central bank to model and forecast inflation.

Reasonably low inflation in comparison with other inflation targeting countries

The direct comparison of price levels in transition countries with those prevailing in advanced inflation targeting countries would be inappropriate[3]. Price development in all transition countries was influenced by a large-scale deregulation of prices. Emerging countries have experienced a history of moderate and high inflation, associated with either expansionary fiscal and monetary policies and/or large depreciation of exchange rate. According research done in this field, inflation rates in countries in transition have been highly sensitive to various internal and external price shocks, particularly those arising from large changes in import and food prices.

In the Czech - Slovak Federative Republic, following a large devaluation and liberalisation of prices at the beginning of the 1990s, prices grew relatively fast during the first half of the decade. After split in 1993, the exchange rate played an important role in containing inflationary pressures. The National Bank of Slovakia abandoned the currency peg in October 1998 and since then conducts monetary policy increasingly with inflation considerations in mind in the environment of flexible exchange rate regime. As it is seen on chart, the higher price liberalisation took place in 1998 and 1999, since then the inflation fell to about 2.7% in August 2002.

The Czech National Bank abandoned the currency peg in 1997 in the face of large capital inflows and increases in wages far in excess of productivity growth. The inflation rose to over 10% in 1998, but then fell to about 2% in 1999, and since then it is on very similar position. The annual rate in September 2002 was 2.7%.

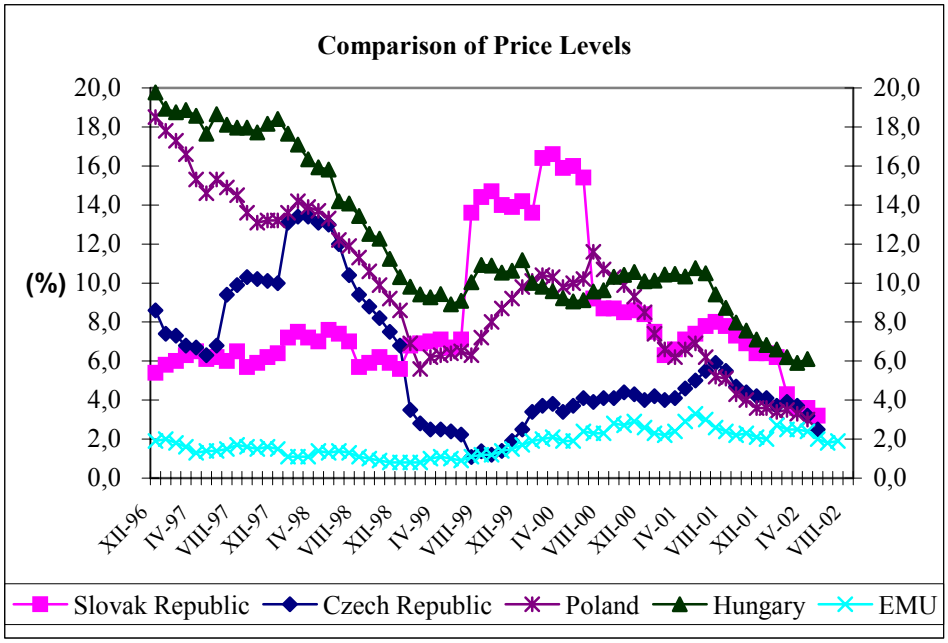
The average rate of inflation in Hungary rose from about 14% in 1980s to over 25% in the first half of the 1990s, a period od two large devaluations, growing fiscal problems and large relative price shifts. Following a comprehensive fiscal stabilisation programme accompanied by monetary tightening and a switch to a preannounce crawling peg system in 1995, the inflation rate declined in the second half of 1990s. The annual rate of inflation in September 2002 in Hungary is 4.6%.

[2] See, for example SVENSSON (2000), HORSKA (2001).
[3] See, for example HORSKA (2001).

Poland experienced hyperinflation in the early part of the 1990s. Following a broad-based stabilisation programme including an exchange rate peg, Poland succeeded in arresting the rapid growth in prices. However, inflation stabilised within the range of 30-60%. Reflecting pressures stemming from a crawling peg, backward-looking indexing of wages, high fiscal deficits, capital inflows and liberalisation of regulated prices. The subsequent stabilisation efforts, however, reduced the inflation rate to a single digit level by 1999. The annual rate of inflation in August 2002 in Poland is 5.5%.

Comparing price level in so called advanced transitive countries it is evident, that the Slovakia is doing well and it might not impede adoption of inflation targeting.

Figure 1 – Comparison of Price Levels



Public support for price stability

Central banks in developed countries, which applied inflation targeting, wishing strengthen their confidence, provide a detailed explanation of specific policy decisions and their impacts on target fulfilment in the so-called „Inflation Reports“, which are usually published quarterly. Aiming to strengthen transparency of monetary policy, the information about voting by each member of Bank Board should by periodically published.

In the case of analysed advanced transition countries, the Czech, Hungarian and Polish central banks publish quarterly so-called „Inflation Reports“. The difference is that the Polish report is more back-ward looking and does not include an explicit inflation forecast, while Czech and Hungarian reports include inflation forecasts in form of Fan Charts.

As a further contribution to transparency, the inflation reports of the Czech and Hungarian national banks analyse the future course of the factors influencing the inflation development and give forecasts for other major macroeconomic variables such as GDP and its components, current account or foreign demand.

The National Bank of Slovakia releases its economic forecasts in the form of an annual monetary programme, which might be subject of revision carried out regularly in the second quarter, while the analyses of current developments are published monthly. So in this precondition the National Bank of Slovakia does not reach the frequency of providing detailed explanation of monetary strategy comparing to its partners.

Clearly defined objective of achieving price stability and absence of other nominal objectives

The credibility and transparency of inflation targeting depends upon the clearly defined objective of achieving price stability and absence of other nominal objectives like a pegged exchange rate. On the other side all central banks in advanced transitive countries maintain the right to intervene in foreign exchange markets when it is necessary for monetary policy reasons.

The Czech Republic introduced inflation targeting in December 1997 and in April 1998 all details of a new strategy were announced. The CNB is targeting so called net inflation and it defines escape clauses, by which a deviation from the medium term objective should be clarified.

In the first stage of adoption of inflation targeting by the PNB in Poland, the crawling peg was not abolished, but the tolerance band was widened from ±12.5% to ±15% on March 1999. In April 2000 the NBP joined the „pure“ inflation targeting with a floating exchange rate regime.

In 2001 crawling peg applied in Hungary was replaced by pure inflation targeting. The central bank build successful communication channel to economic subject and it well influence their inflationary expectations.

As to Slovak conditions, the fixed exchange rate was abolished in October 1999 and since then the only objective of monetary policy is price stability. It is in line with inflation targeting.

Sufficiently independent central bank

Independence of central bank means the ability of a central bank to conduct monetary policy independently of political pressures. There are identified fields of independence: personal, financial, institutional, and operational.

In the case of the NBS, an Act on Central Baking adopted before split of Czecho-Slovak Federative Republic in 1992, included requirements independency with one exception. The only problematic was direct financing of the government deficit till April 2001, when a new Act on Central Banking was adopted. Till then the NBS is sufficiently independent central bank.

As to NBP, in the beginning of 1998 when the National Bank of Poland Act was adopted, the independence was strengthened by giving primacy to price stability and by prohibition of direct financing to the government. The decision power on monetary policy has Monetary Policy Council (MPC), which consists of the President of the NBP and nine other members appointed in equal numbers by the President of the Republic of Poland, the Sejm and the Senate of the Parliament. In 2004, when the terms of all current members will expire, the appointment of new members may face political pressures. Therefore, the provision for reappointment and overlapping membership should be incorporated into the law about MPC. The HNB fulfil all requirements of sufficiently independent central bank. The paragraph on direct financing was already removed from the act on the central bank.

In 2001 the Czech Parliament approved changes in the act on central banking, by which personal, financial, and operational independence of central bank was diminished (inflationary goal has to be consulted with a government, the Premier is responsible for appointment of the Bank Board, wages of employees are restricted by law, the budget is controlled by the Parliament). It is evident, that it has to be changed before the EMU entering.

Absence of fiscal dominance

Monetary policy has a limited control over inflation development under the condition of fiscal dominance, which is very often the problem in developed countries as well. Problem with fiscal dominance appeared in the Slovak Republic, Poland, Hungary, and during last years in the Czech Republic as well. The general government deficits are still very high, public debts as a percentage of GDP have already decreasing trend as all these candidate countries need to qualify for Maastricht criteria to join EMU[4].

[4] General government deficits should not exceed 3% of GDP, and public debts should not exceed 60% of GDP.

Developed financial markets

Privatisation of the banking sector is virtually finished in all advanced transitive countries[5]. In all described countries the banking sector was cleaned up from bad loans. Most developed financial sector seems to be in the Czech Republic (bank assets amount 130% of GDP), following Hungary, Slovak Republic (97%) and Poland (50%).

Another factor which influence development of financial markets is capital liberalisation. Capital flows were completely liberalised in Czech Republic and Hungary, following Slovak Republic only last year. As to Poland there are still the capital controls, which require the prior approval on non-bank short-term capital flows.

Well-developed money market

The money market in the Slovak Republic is shallow and not yet fully developed. Similar situation is in Poland. Better conditions can be seen in the Czech Republic and Hungary.

Capacity of the central bank to model and forecast inflation

The ability of the central bank to model and forecast inflation depends on the statistical attributes of inflation. While econometric studies in the CNB and the HNB proved evidence of monetary transmission channel, decisions of the MPC in Poland and the Bank Board of the NBS rely mainly on a wide range of indicators of potential inflationary pressures rather than on a specific inflation model.

3. Determinants of the Slovak Core Inflation

The aim of our research was to identify determinants of the Slovak Core Inflation. We have tested development of predetermining variables:

- exchange rate SKK/EUR (data of DEM till January 1, 1999 were artificially transformed into EURO),
- industry prices,
- prices of food-staff,

[5] In the Slovakia there is only the smallest Bank Slovakia in the process in privatisation. In the Hungary there is OPT Bank, previous Savings Bank, in the hand of the state, which has at the moment best ratings).

- nominal wages,

- lagged core inflation which dynamized our model with lag i, where i=-1, -2, -3.

For analyses were used data published by the Slovak Statistical Office[6] and data which are available at the web site of the National Bank of Slovakia www.nbs.sk. Data from January 1993 till August 2002 were sezonaly adjusted and to make them stationary first differentials and natural logs were used. Modelling was done in standard way – specification, quantification and verification. In future an application phase will follows. All of these phases are overlapping and it is impossible to isolate them.

In phase of specification of model the following steps were done:

Theoretical qualitative analyses – priory economic hypothesis were formulated. Following monetary theory we identified several hypothesis: Slovak inflation might be cost pushed, Slovak inflation might reflect development of external conditions, or Slovak inflation might be result of supply shocks in economy.

Mathematical formulation of relations, selecting proper and available data in which signs were predicted according monetary theory and previous experience with their development.

In quantifying parameters a software product STATISTICA was used. By a step regression statistically relevant variables were included into MODEL 1:

1. exchange rate (KURZ),

2. core inflation 1 period lagged (CORRLAG1),

and alternative into MODEL 2:

1. exchange rate (KURZ),

2. index of industry prices (CP),

3. core inflation 2 period lagged (CORRLAG2).

[6] SU SR, Selected indicators of the economic development in the SR, 2001 (in Slovak language).

Results from STATISTICA are as follows:

MODEL 1:

Regression Summary for Dependent Variable: CORRCPI

R= ,99999225 R^2 = ,99998450 Adjusted R^2 = ,99998415
F(2,88)=2839E3 p<0,0000 Std.Error of estimate: ,40043

	BETA	of BETA	St. Err.	t (88)	p-level
KURZ	,060751	,028465	2,13422	,035606	
CORRLAG1	,939508	,028349	33,14119		,000000

MODEL 2:

Regression Summary for Dependent Variable: CORRCPI
R= ,99998816 R^2 = ,99997631 Adjusted R^2 = ,99997549
F(3,87)=1224E3 p<0,0000 Std.Error of estimate: ,49788

	BETA	of BETA	St. Err.	t(87)	p-level
KURZ	,092351	,035020	2,63707	,009904	
CP	,019221	,014837	1,29550	,098575	
CORRLAG2	,887710	,038416	23,10757		,000000

Both models were economically and statistically verified (including individual parameters). At the same time statistical verification ex post was done. All parameters in both models fulfilled expected signs in line with economic theory and at the same time they are statistically significant on 10% level of significance. More over with an exception of price index in industry they are significant also on 5% level. High parameter of the coefficient of determination prove statistical significance of the model as whole.

From a point of econometric verification the autocorrelation was tested. Durbin-Watson statistics equal to 2.07 in Model 1 and 2,13 in Model 2 allow reject hypothesis on existence of autocorrelation.

Possible problems which might caused multicolinearity and heteroskedasticity in model is currently studied by software Eviews. As pair coefficients of correlation are close to zero, it can be assumed, that in model 1 there is no multicolinearity. The fact is, that a relatively strong correlation between development of wages, prices in industry and prices of food-stuff caused, that wages and prices of food-stuff were not statistically significant while explaining changes in core inflation.

4. Conclusion

As it follows from the above analyses, some of the theoretical preconditions of the inflation targeting are not fulfilled even by advanced transitive countries in which central banks applied this strategy in past. Advantages of this strategy, especially possibility to influence inflationary expectations of economic agents, much exceed potentional disadvantage. It would become reality in case, if central banks can not reach their goals and they would loose the confidence of economic agents.

Models including in contribution show that Slovak core inflation has a strong inert character and it is influenced mainly by development of the exchange rate. In the future we will focus on autoregression models and their potential utility in the core inflation forecasting.

Abstract

Metóda inflačného cielenia bola pred viac ako desaťročím uplatnená niektorými centrálnymi bankami vyspelých krajín a umožnila im stabilizáciu cenových hladín. Aj centrálne banky tzv. rozvinutých tranzitívnych krajín (okrem Národnej banky Slovenska) prešli na túto stratégiu, aj keď ich cieľom bolo postupné znižovanie inflácie na rozdiel od udržiavania nízkej cenovej hladiny. Príspevok definuje základné podmienky úspešného fungovania inflačného cielenia a dáva čiastkovú odpoveď na otázku, či sa Národná banka Slovenska môže pridať k Českej národnej banke, Národnej banke Maďarska a Poľska a zaviesť inflačné cielenie do praxe.

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THE FORMS OF INTERNATIONAL ACCOUNTING HARMONISATION IN THE BANK SECTOR (IN THE RELATION WITH THE ENTRY OF THE CZECH REPUBLIC INTO THE EUROPEAN UNION)

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Key words

harmonisation processes, international accounting harmonisation, European Union Guidelines, international accounting standards, generally accepted accounting principles, amendment to accounting law, Czech national accounting standards, Czech Republic, European Union

1. Introduction

The process of an accounting harmonisation lies in overcoming existing differences among particular national accounting systems. The Czech Republic, supposing the integration in the world economy (as well as the European Union), has to reconcile with such a development too. Therefore, wide specialist community should be interested not only in the knowledge of a Czech accounting modification but also the problems of an international accounting harmonisation.

The paper focuses on the principal changes occurring after the amendment of Law on Accounting no. 563/2001 of the Collection with effect from 1.1.2002 and arising from the international accounting harmonisation, particular forms of the harmonisation, including the relation to the accounting of the Czech Republic. The world economic development, mutual co-operation, multinational companies' operation and world capital market development carry a further need of an accounting harmonisation.

The success of the accounting harmonisation is dependent on several aspects. Above all, we have in mind the overall maturity and harmonisation of the law (primarily of the business law), financial market, tax system as well as the social security system, overall level of management and administration of businesses and a number of other factors.

Therefore, the following part of the paper pays attention to the harmonisation processes in the Czech Republic and determines the particular forms of the international accounting harmonisation.

2. Determination of Harmonisation Processes in the Czech Republic and the Relation with the Entry of the Czech Republic in the European Union

In connection with the entry of the Czech Republic in the European Union, the questions concerning the process of accounting unification in particular countries, regions or on the international scale become more and more relevant. The efforts for the international accounting harmonisation have already existed for several decades. Their result should be a unified accounting modification in all the countries, no matter whether within the frame of regional formations, whole continents or even in the whole world.

Today there are several trends in the accounting harmonisation both within Europe and the USA (generally and also in the bank sector):

- harmonisation within the frame of the European Union - European Union Guidelines,
- harmonisation in the USA - Generally accepted accounting principles (US GAAP),
- efforts for the global harmonisation - International accounting standards (IAS).

In the European Union there are three accepted EU guidelines relating directly to accounting:

- 4 guideline from year 1978 on the accounting statement of companies of certain legal forms,
- 7 guideline from year 1983 on the consolidated financial statement,
- 8 guideline from year 1984 on qualification presumptions and auditors' work.

Accounting is further influenced by a number of guidelines of a business and legal character, such as e.g. 3 guideline from year 1978 on mergers of business companies, 6 guideline from year 1978 on the split of business companies, 11 guideline from year 1989 on the publication of subsidiaries, 12 guideline from year 1989 on self-proprietorships (a company with a single owner), a business form of European multinational forms.

Besides the accepted guidelines the bodies of the EU Council prepared also the proposals of other guidelines which have not been accepted so far. The member EU countries gradually ratified the accepted guidelines and included them into their national modifications within the course of the 80's, the last one at the beginning of the 90's. In the 90's the development of EU guidelines seemed to be slowed down and only at the

beginning of 2000 the European Committee came with the proposal of changes in the existing guidelines, in the sense of capital market development, development of financial services and financial instruments. The Document of the European Committee for changes in guidelines follows the world development trends and aims to enable the procedure identical with the modifications included in IAS (International Accounting Standard) also for the member EU countries, especially in the area of appreciating.

In June 2000 the European Committee issued a document dealing with the strategy.

Economy of businesses inevitably heads for the global integration. A lot of businesses have the world economic power, balance sum and turnover several times bigger than a number of states. Information on financial economy of businesses and their particular members is of a considerable importance for a lot of different users.

The necessity of accounting harmonisation was recalled by the EU formation and is confirmed in the Roman Treaty from 25 March 1957. In this connection the next part of the paper tries to clarify the process of European accounting harmonisation, its procedure and present tasks and perform its comparison with the world trends of accounting harmonisation as well as the trends in the Czech Republic.

A principal problem can be considered a question which system of accounting our accounting should be harmonised with. In this connection a question can be raised which methodological procedures to choose and which basic problems must be solved in the process of the integration of our accounting in the European accounting standards.[1]

3. Comparative and classification studies

Within the frame of the work connected with the harmonisation of our accounting, it is also beneficial to make use of the conclusions included in a number of already elaborated comparative and classification studies.

1. As an example we can state the comparative study elaborated by the working group Federation of the European Accountants in 1997, which provides a more complex view on the accounting systems of 15 European countries (including the Czech Republic).

2. Very valuable information can be also found in the empirically - based study elaborated by PricewaterhouseCoopers company issued in October 1999 and updated in 2002. This study provides with the detailed identifications of similarities and differences among the three accounting systems (IAS, US GAAP and a system based on the Czech accounting principles).

[1] FIREŠ, B. S čím a jak harmonizovat naše účetnictví. *Účetnictví* 2001, no. 3, p. 34. ISSN 0139-5661.

3. In this connection it is worth mentioning the knowledge from the conference of International working group of experts on the international accounting standards titled "Accounting of Small and Medium-sized Enterprises" which was held within 10-12 September 2001 in Geneva. At this conference a proposal on the conception of the financial accounting and reporting for small and medium-sized enterprises was mentioned. This proposal comes out from so-called three-dimensional accounting frame, which defines three levels of companies ensuring easy permeability among particular levels. Each country defines its parameters for the inclusion of companies into particular levels according to its conditions and needs. One of the criteria can be e.g. the number of employees.[2]

Level 1 is represented by the businesses of a strategic importance with a big number of employees. Businesses included in this group are normally listed on the Stock Exchange. Within the frame of this group of businesses, we presuppose the use of International accounting standards in a full extent.

Level 2 is represented by the key businesses of the medium size with more than several employees. Regarding this type of businesses, the priority is not a public interest, the owners are not the managers of these businesses. In case of this group of businesses we presuppose the implementation of so-called “more concise” International accounting standards or a voluntary use of International accounting standards in a full extent.

Level 3 is represented by small businesses with a few employees (less than 5). They can be characterised by a simple subject of their activity, where the owners are at the same time also managers and also these are companies newly founded. The proposal for these companies lies in keeping of simpler double-entry bookkeeping on the accrual base which should not be in the contradiction with the basic rules of International accounting standards.

A part of the proposal became also an International accounting standard for small and medium-sized enterprises, which defines the content of an output (accounting statement) from this accounting and also focuses on a content, accounting policy and the way of estimating the value of particular items.[3]

4. The amendment of the Law on Accounting and its Changes in Relation with the Entry of the Czech Republic to European Union

The focus on the harmonisation within the frame of the European Union, as one of the three main streams the present accounting harmonisation follows, emerged from the existing situation in which the Czech Republic, striving for the entry into the European Union, is. To a certain extent, the Czech Republic approached the international

[2] MULLEROVÁ, L. Mezinárodní harmonizace účetnictví malých a středních podniků. In: *Účetnictví,* 2001, no. 12, p. 10-11. ISSN 0139-5661.

[3] MULLEROVÁ, L. Mezinárodní harmonizace účetnictví malých a středních podniků. In: *Účetnictví* 2001, no. 12, p.10-11. ISSN 0139-5661.

accounting harmonisation by the modification of the Law on Accounting no.563/1991 of the Collection[4] with effect from 1.1.2001. This amendment takes note of the requirement of particular EU guidelines.

The basic aim of the new law on accounting was the effort to reach a full compatibility of the content of the Czech legal accounting modification with the ES law valid in the European Union represented by particular guidelines of EU Council. The new legal modification simultaneously fulfils the tasks arising from the so-called "White Book", the evaluation of the European Committee on the request of the Czech Republic for the acceptance into the EU and also from a revised Recommendation or OECD Convention on struggling with corruption in international business transactions.

The amendment of the Law on Accounting no.353/2001 with effect from 1.1.2002, contrary to so far valid wording, stresses more some of the presumptions and general accounting principles stated in the Conception frame of the International accounting standards and in IAS 1. However, the amendment does not contain directly a conception frame of the Czech accounting. The creation of the conception frame of the Czech accounting represents a significant task, in fact, for a new legal modification of the accounting, which must be reached in the future.

The amendment of Law on Accounting is inspired by IAS 1 by the fact, that besides traditional parts of an accounting statement, that is a balance sheet, income statement (profit and loss account) and appendix, it gives an opportunity to require the cash flow statement and statement on changes of the own capital (§ 18). The amendment further takes into account that accounting units can also create an accounting statement in accordance with the International accounting standards (§ 19), besides an accounting statement in accordance with the Law on Accounting and relating executive regulations.

5. Creation of the Czech Accounting Standards

At the present time Czech national accounting standards (Czech accounting standards - National accounting standards) are being formed.

- The main reasons for their implementation lies in a need of accounting harmonisation which reflects the world economy development, mutual co-operation, influence of multinational companies and world capital market development.
- Announced Czech accounting standards do not represent a legally binding norm.
- Their base is a recommended modification of a certain area, group of property, type of an accounting case, when we have to precisely define a term, way of a solution or variants of solutions.

[4] In the Czech Republic, the accounting started to be unified in 1945 during the renewal pof the independent CR with the aim of rationalisation of keeping accounting in businesses, ensuring particular data for company management and creation of presumptions for inter-company comparison, facilitation of tax and financial inspections, etc.

- The main aim of issuing Czech accounting standards is determination of general principles in which a business can be able to utilise its own way of the solution of a concrete accounting case. Thus a certain comparison and certain unification of businesses can be realised, however, their individuality will not be restricted.

- The Czech Republic co-operates in the creation of national accounting standards with accounting experts from the whole world, above all from Europe.

- The Agency of Marketing and Social and Information Analyses (AMASIA, s.r.o.) elaborated a study on the preparations of small and medium-sized enterprises (from 10 to 250 employees) in the Czech Republic for the entry in the EU[5] for a Prague Euro Info Centre. The results of further research are stated by a number of other studies (e.g. the information from the department of communication strategy of the Ministry of Foreign Affairs (CR - MFA)[6] in September 2001.[7]

6. Conclusion

The present development of the world economy can be characterised by the international integration, which starts to show a global extent. Bigger and bigger flows of goods can be observed to run across the borders of countries. Various investors make use of differences among national economies for the effective allocation of their capital. Therefore, the participation of the Czech economy in the international economic integration becomes the life necessity.[8] The attention that is recently paid to the accounting and tax problems is not accidental. It is a manifestation of a number of facts which must be taken into consideration on the basis of the constant development.

The entry of the Czech Republic into the European Union is accompanied by a number of economic, legal and institutional conditions of the future "full membership" of our country in the EU. The speed of the acceptance of the Czech Republic in the EU depends on the ability to fulfil a number of criteria which were set for the acceptance of new member countries by the EU summit in Copenhagen in 1993.

Regarding the future modification of accounting of the Czech Republic as an EU member, it is necessary that there exists a connection to the international harmonisation of accounting. In the business sector in all countries a significant importance is attributed to all taxation laws including related laws (regulating business development).

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[8] KOVANICOVÁ, D. et al. *Finanční účetnictví v kontextu světového vývoje. Praha:* Polygon, 1999.

With respect to the prepared entry of the Czech Republic into the European Union questions concerning our accounting arise. The Czech Republic builds its system in connection with international accounting harmonisation and application of its individual forms. The paper moreover deals with comparison of accounting harmonisation within the European Union, USA and points out attempts for global accounting harmonisation.

The Czech Republic during its entering in to the EU structures cannot ignore the harmonisation requirements. The accounting and taxation rules must conform both the requirements of EU standards and international financial markets. The basic point now is a harmonisation of international accounting and taxation together with co-ordination between the particular countries of EU.

The attention paid to the accounting and taxes during recent days is not accidental. It is a question of many facts and ongoing changes, which occurs in today's life and must be considered. The other important point is that some topics are being discussed here with some pre-ignition and in dynamic way before the entering to EU.

Hence, the measurement and display of the financial effect of like transactions and other events must be carried out in a consistent way throughout an enterprise and over time for that enterprise and in a consistent way for different enterprises. There are underlying assumptions of international accounting harmonisation.

Abstract

Příspěvek se věnuje zásadním změnám po novele zákona o účetnictví č. 563/2001 Sb. s účinností od 1.1.2002 vyplývající z mezinárodní harmonizace účetnictví, jednotlivým formám harmonizace včetně vazby na účetnictví České republiky. Vývoj světové ekonomiky, vzájemná spolupráce, působení nadnárodních podniků a rozvoj celosvětového kapitálového trhu s sebou přináší další potřebu harmonizace účetnictví.
Vstup České republiky do Evropské unie je provázen řadou ekonomických, právních a institucionálních podmínek budoucího „plného členství" naší země v EU. Rychlost přijetí ČR do EU závisí na schopnosti splnění řady kritérií, které pro přijetí nových členských států stanovil summit EU v Kodani v roce 1993.V souvislosti se vstupem České republiky do Evropské unie jsou stále více aktuální otázky týkající se procesu sjednocování účetnictví v jednotlivých státech, regionech, popřípadě i v celosvětovém měřítku. Snahy o mezinárodní harmonizaci účetnictví existují již několik desetiletí. Jejich výsledkem by měla být jednotná úprava účetnictví ve všech státech, ať již v rámci regionálních seskupení, celých kontinentů nebo dokonce na celém světě. V současné době existuje několik linií snah o harmonizaci účetnictví jak v rámci Evropy, tak USA (všeobecně, jakož i v bankovním sektoru):

- harmonizace v rámci Evropské unie - Direktivy Evropské unie,
- harmonizace v USA - Všeobecně uznávané účetní zásady (US GAAP),
- snahy o celosvětovou harmonizaci - Mezinárodní účetní standardy (IAS).

Zaměření na harmonizaci v rámci Evropské unie, jako na jeden ze tří hlavních směrů, kterými se ubírá současná harmonizace účetnictví, vyplynulo ze stávající situace, v níž se nachází Česká republika usilující o vstup do integrující se Evropy. K mezinárodní harmonizaci účetnictví se ČR přiblížila do značné míry úpravou zákona o účetnictví č. 563/1991 Sb.[9] ve znění zákona č. 492/2000 Sb. s účinností od 1. 1.2001 a zejména pak novelou zákona č. 353/2001 Sb., s účinností od 1. 1. 2002. Tato novela zohledňuje požadavky příslušných směrnic EU.Základním cílem nového zákona o účetnictví se stala snaha dosáhnout plné slučitelnosti obsahu české právní úpravy účetnictví s právem ES platným v Evropské unii, zastoupeným příslušnými směrnicemi Rady ES.

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[7] http://www.euro.cz/., http://www.hkcr.cz/eu/pohled.html/.
[8] http: //europa.eu.int./en/comm/dg10/infocm/eumr_dial/.

[9] Zákon č. 563/1991 Sb., o účetnictví, ve znění pozdějších předpisů.

[9] V ČR se začalo sjednocovat účetnictví v roce 1945 při obnově samostatné ČR. Sledovala se tím racionalizace vedení účetnictví v podnicích, zajištění jednotných dat pro vedení podniku a veřejností vytvoření předpokladů pro mezipodnikové srovnávání, usnadnění daňových a finančních kontrol apod.

ESSENTIAL METHODS OF BANKS' EFFICIENCY MEASURING[1]

Daniel Stavárek

Key words

efficiency, bank, parametric approach, non-parametric approach, Data Envelopment Analysis

1. Introduction

Efficiency and profitability of banks and other financial institutions are very frequently discussed topics in economic literature. For a comprehensive and excellent analysis of performance of financial institutions see Harker and Zenios (2000). Berger and Humphrey (1997) survey 130 studies that apply frontier efficiency analyses to financial institution in 21 countries. They report that the majority of these studies are confined to the U.S. banking sector, and call the need to examine the efficiency outside United States.

2. Theoretical Framework of Efficiency and Profitability

The terms efficiency, profitability and productivity are often used interchangeably, but it is absolutely not correct from the methodological point of view because they are different concepts. Profitability and productivity can be characterised as a performance indicator of single unit and it is calculated without the need for benchmark, whereas efficiency is based on relativity and can only be calculated with respect to a reference point.

2.1 Types of Efficiency

Bank efficiency studies can be divided into those that examine scale and scope efficiency alone, and those that also examine X-efficiency. The scale and scope studies estimate an *average-practice* frontier, which relates bank cost to output levels and input prices. The technique implicitly assumes all banks in the sample are using their

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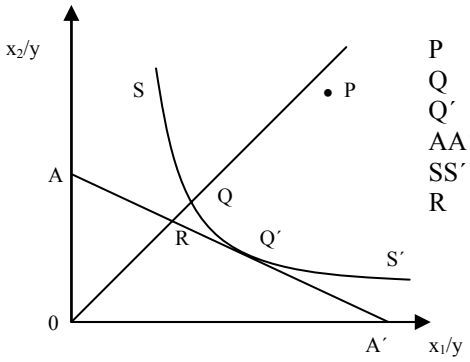
inputs efficiently – there is no X-inefficiency – and that the banks are using the same production technology[2]. Studies concerned with X-efficiency estimate a *best-practice* frontier, which represents the predicted cost function of banks that are X-efficient, and then measure the degree of inefficiency of banks in sample relative to this best practice technology[3].

X-inefficiency comes in two varieties. A bank is technically inefficient if it is using too many inputs to produce its outputs. In this case, the bank would not be operating on its production frontier but would be at some part in the interior. A bank is considered as allocatively inefficient if it is using the wrong mix of inputs to produce its outputs. In this case, the bank may be operating on its production frontier, but it is not minimising its production costs. We lay stress on X-efficiency in a further text.

In other words, technical efficiency reflects the ability of a bank to obtain maximal output from a given set of inputs, and allocative efficiency reflects the ability of a bank to use the inputs in optimal proportions given their respective prices and the production technology. These two components of X-efficiency are graphically demonstrated in Figure 1. We assume that a set of units (banks) use two inputs (x_1 and x_2) to produce a single output (y), under the restriction of constant returns of scale.

Figure 1 - Technical and Allocative Efficiencies



P	…	an inefficient unit
Q	…	a technically efficient unit
Q´	…	an allocatively efficient unit
AA´	…	the isocost line
SS´	…	the isoquant of efficiency
R	…	an hypothetical point on the isocost line indicating equal to Q´ costs

Knowledge of the unit isoquant of fully efficient units represented by SS´ permits the measurement of technical efficiency. The unit uses quantities of inputs defined by, for example, point P. Technical inefficiency can be defined by the distance QP, which is the amount by which all inputs could be proportionally reduced without a reduction of the output level. Technical efficiency is then usually expressed in percentage terms by the ratio QP/0P, which represents the percentage by which all inputs need to be reduced to achieve technically efficient production. Technical efficiency is commonly measured by the ratio 0Q/0P which is equal to one minus QP/0P.

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[2] See Berger, Hunter and Timme (1993) for a review of studies of scale and scope efficiencies of financial institutions and how these compare to best frontier efficiencies.

[3] Mester (1993).

Technical efficiency: $TE_i = 0Q/0P = 1 - QP/0P$ (2.1.1)

If the input price ratio represented by the slope of the isocost line AA´ is also known, allocative efficiency may also be calculated. The allocative efficiency of the unit operating at P is defined to be the ratio 0R/0Q since the distance RQ represents the reduction in production costs that would arise if production were to occur at the allocatively (and technically) efficient point Q´, instead of the technically efficient, but allocatively inefficient point Q.

Allocative efficiency: $AE_i = 0R/0Q$
(2.1.2)

The total efficiency is defined to be the ratio 0R/0P where the distance RP can also be interpreted in terms of cost reduction. We can show that the product of technical and allocative efficiency measures provides the measure of overall efficiency[4].

Total efficiency: $E_i = 0R/0P = (0Q/0P)x(0R/0Q) = TE_i \times AE_i$ (2.1.3)

2.2 Measurement of Efficiency and Profitability

One of the most frequently and widely used methods in evaluating performance of banks is ratio analysis. However this approach does not correspond with the defined concept of efficiency and in addition it proves to be insufficient in efficiency calculations involving multiple input and output, because ratio analysis is defined as a ratio of one input and one output. When all input and output factors cannot be transformed into one aggregate input or output unit, the input and output factors involved in measurement process need to be evaluated separately. This usually leads to meaningless results when ratios are analysed in isolation[5]. As the number of input and output factors increases, the vagueness in the analysis also increases because there are *xy* different ratios to be examined in the model where there are *x* input and *y* output factors.

Thus, it is argued that the derivation of a single efficiency index will provide a more operational and practical basis for evaluating the relative efficiency of competing agencies. However, ratio analysis is still viewed as a good and reasonable approach to measure partial aspects of overall bank performance, such as profitability, cost effectiveness, quality of loan portfolio, liquidity, productivity and others.

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[4] In Figure 4 we used an input oriented model, i.e. an isoquant representing constant output (y) determined through the quantities of two inputs (x_1 and x_2). Alternatively also output oriented model can be used. In this case a production possibility isoquant has to be determined representing output quantities (y_1 , y_2) achieved with a constant input of (x).

[5] To illustrate, while bank A has achieved a certain level of fee and commission income using high technology and small number of branches and tellers, bank B has preferred a more labour intensive model and has reached the same level of incomes using more personnel than modern technologies. In this case, the productivity (no efficiency) of bank A will be higher than of bank B when personnel expenditures are considered. However, when we take into account investments, bank B will appear as more productive.

We focus our study on frontier efficiency, which means how close banks are to a best-practice frontier. Efficiency literature tallies that differences in frontier efficiency among banks exceed inefficiencies attributable to incorrect scale or scope of output. However, there is really no consensus on the preferred methods for determining the best-practice frontier against which relative efficiencies are measured[6].

Two main empirical approaches to measure technical efficiency can be distinguished. They are non-parametric (mathematical programming) and parametric (econometric) approach and both of them employ different techniques to envelop a data set with different assumptions for random noise and for the structure of production technology[7]. These assumptions generate the strengths and drawbacks of both approaches that can be grouped under two categories.

(a) The parametric approach is stochastic and attempts to differentiate the effects of noise and the effects of inefficiency. The non-parametric approach is non-stochastic and commits the sin of not allowing for random error owing to luck, data problems, or other measurement errors. If random error exists, measured efficiency may be confounded with these random deviations from the true efficiency frontier.

(b) The parametric approach imposes a particular functional form (and associated behavioural assumptions) that presupposes the shape of the frontier. If the functional form is misspecified, measured efficiency may be confounded with the specification errors. The non-parametric approach impose less structure on the frontier.

As seen, the conflict between non-parametric and parametric approaches is important because the two types of methods tend to have different degrees of dispersion and rank the same financial institutions somewhat differently. It is not possible to determine which of these major concepts dominates the other since the true level of technical efficiency is unknown. Non-parametric approaches are represented mainly by Data Envelopment Analysis and parametric methods by Stochastic Frontier Analysis[8].

Figure 2 shows an input – output model of a set of units to be analysed and the application of three different approaches to the estimation of efficiency frontier: (a) an average practice function using least square estimators[9], (b) frontier estimated by parametric approach using maximum likelihood estimators, (c) piece-wise linear convex frontier estimated by non-parametric approach generated by linear programming.

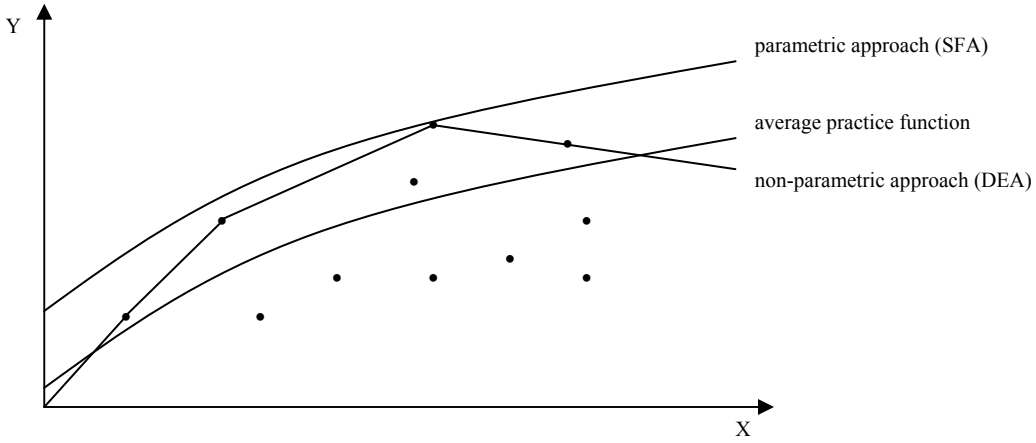
[6] Berger and Humphrey (1997).

[7] Non-parametric approach was developed by Charnes et al. (1978), while parametric approach was initiated by Aigner et al. (1977).

[8] Non-parametric approaches also include Free Disposal Hull method, whereas a functional form for the frontier is specified also by Distribution Free Approach and Thick Frontier Analysis as representatives of parametric approaches.

[9] See definition of the scale and scope efficiencies in the paragraph Types of Efficiency.

Figure 2 - Approaches to Frontier Estimation



In the following we will present the methodology of measuring efficiency using non-parametric approach obtaining an envelope function, i.e. we restrict ourselves to the Data Envelopment Analysis.

3. Data Envelopment Analysis

Data Envelopment Analysis (DEA) is a mathematical programming technique that measures the efficiency of productive units (in the most of DEA literature they are called Decision Making Units - DMUs) relative to other DMUs in the observed set, i.e. it estimates the relative efficiency of DMUs. DEA was first introduced by Charnes, Cooper and Rhodes (1978). Since then its utilization and development have grown rapidly including many banking-related applications. For a detailed review of these extensions and a bibliography of DEA studies see Emrouznejad and Thanassoulis (1996 a,b and 1997) or actual version of the most comprehensive and regularly updated list of DEA studies at: http://www.deazone.com/bibliography/index.htm.

The most usual way to calculate relative efficiency is a formation of the ratio of a weighted sum of outputs to a weighted sum of inputs. Within the DEA approach, multiple inputs and multiple outputs are reduced to a single virtual input and virtual output and finally to a single summary relative efficiency score. The gradual development of DEA illustrates the difficulty in identification of a common set of weights of all examined DMUs. DEA allows each DMU to place different importance on its particular input and output and consequently adopt different weights which show the DMU in the most favourable light in comparison to the other DMUs[10].

[10] Dyson et al. (1990)

The weights for both outputs and inputs are to be selected so as to calculate the Pareto-efficiency measure of each DMU. Pareto efficiency is attained when no input can be reduced without reducing of the output or when no output can be increased without increasing the input. Efficiency score of no DMU can be greater than unity. The DEA calculations are designed to maximize the relative efficiency score of each DMU, subject to the condition that the set of weights obtained in this manner for each DMU must also be feasible for all the other DMUs involved in the calculation.

The reference points (relatively efficient DMUs) that define the efficient frontier (as the best practice production technology) are identified in this way as well as interior points (relatively inefficient DMUs) that are below the frontier. DEA also recognizes, for inefficient DMUs, the sources and level of inefficiency for each of the inputs and outputs. DEA technique can be considered as an alternative approach to regression analysis. DEA is based on extremal observations, whereas regression analysis relies on central tendencies. While the regression approach assumes that a single estimated regression equation applies to each observation vector, DEA analyses each vector (DMU) separately producing individual efficiency measures relative to the entire set under evaluation[11].

A great number of models, specifications and versions can be found in DEA literature. We use the two most frequently applied models: the CCR model - after Charnes, Cooper and Rhodes (1978) and the BCC model - after Banker, Charnes and Cooper (1984). The basic difference between these two models is the treatment of returns to scale. While the latter takes into account the effect of variable returns to scale, the former restricts DMUs to operate with constant returns to scale.

3.1 CCR model

Under restriction that each DMU's efficiency is judged against its individual criteria (individual weighting system), efficiency of a target DMU_0 can be obtained as a solution to the following problem.

$$\max_{u,v} h_0(u,v) = \frac{\sum_{r=1}^{s} u_r y_{r_0}}{\sum_{i=1}^{m} v_i x_{i_0}} \tag{3.1.1}$$

subject to

$$\frac{\sum_{r=1}^{s} u_r y_{r_j}}{\sum_{i=1}^{m} v_i x_{i_j}} \le 1,\ j = 1,2,\ldots, j_0,\ldots, n \tag{3.1.2}$$

[11] Vujcic and Jemric (2002).

$$u_r \geq 0, \quad r = 1,2,\ldots,s \tag{3.1.3}$$

$$v_i \geq 0, \quad i = 1,2,\ldots,m, \tag{3.1.4}$$

where

h_0	...	technical efficiency of DMU_0 to be estimated
u_r , v_i	...	weights (variables) to be estimated
y_{rj}	...	observed amount of output of the r^{th} type for the j^{th} DMU
x_{ij}	...	observed amount of input of the i^{th} type for the j^{th} DMU
r	...	indicates the *s* different outputs
i	...	indicates the *m* different inputs
j	...	indicates the *n* different DMUs

The weights u_r and v_i in the objective function are chosen to maximize the value of the DMU's efficiency ratio subject to the less than unity constrains. These constrains ensure that the optimal weights for DMU_0 in the objective function does not imply an efficiency score greater than unity, either for itself or for any of the other DMUs.

Above DEA problem is a fractional linear program in which the numerator has to be maximised and the denominator minimised simultaneously, i.e. the problem has an infinite number of solutions. To solve the model it is first necessary to convert it into linear form by following a transformation developed by Charnes and Cooper (1962) for fractional programming. It allows the introduction of a constant

$$\sum_{i=1}^{m} v_i x_{i_0} = 1, \tag{3.1.5}$$

meaning the sum of all inputs is set to equal one. The obtained linear programming problem that is equivalent to the linear fractional programming problem (3.1.1 - 3.1.4) for DMU_0 and can be written as:

$$\max_u z_0 = \sum_{r=1}^{s} u_r y_{r_0} \tag{3.1.6}$$

$$\sum_{r=1}^{s} u_r y_{r_j} - \sum_{i=1}^{m} v_i x_{i_j} \leq 0, \; j = 1,2,\ldots,n \tag{3.1.7}$$

$$\sum_{i=1}^{m} v_i x_{i_0} = 1 \tag{3.1.8}$$

$$u_r \geq 0, \quad r = 1,2,\ldots,s \tag{3.1.9}$$

$$v_i \geq 0, \quad i = 1,2,\ldots,m, \tag{3.1.10}$$

For linear programs in general it is true that the more constraints the more difficult a problem is to solve. For any linear program a dual (partner) linear program using the same data can be formulated. The solution of either primal (original) program or the dual (partner) program provides the same information about the program being modelled. In the case of DEA switching to duality reduces the number of constraints in the model. Hence, for this reason, it is usual to solve the dual DEA model rather than the primal. The dual model for the above linear programming problem[12] for DMU_0 can be written as:

$$\min_{\lambda} z_0 = \Theta_0 \tag{3.1.11}$$

subject to

$$\sum_{j=1}^{n} \lambda_j y_{r_j} \geq y_{r_0}, r = 1,2,...,s \tag{3.1.12}$$

$$\Theta_0 x_{i_0} - \sum_{j=1}^{n} \lambda_j x_{i_j} \geq 0, i = 1,2,...,m \tag{3.1.13}$$

$$\lambda_j \geq 0, \quad j = 1,2,\ldots,n \tag{3.1.14}$$

where

Θ_0	...	technical efficiency of DMU_0 to be estimated
λ_j	...	a n-dimensional constant to be estimated
y_{rj}	...	observed amount of output of the r^{th} type for the j^{th} DMU
x_{ij}	...	observed amount of input of the i^{th} type for the j^{th} DMU
r	...	indicates the *s* different outputs
i	...	indicates the *m* different inputs
j	...	indicates the *n* different DMUs

The optimal solution of above problems Θ_0 represents the technical efficiency score of DMU_0. This result is usually called as technical efficiency or CCR efficiency. Efficiency scores for all DMUs are obtained by repeating of solving the problem for each DMU_j (j = 1,2,…,n). While DMUs with efficiency score $\Theta_j < 1$ are relatively inefficient, the efficiency score $\Theta_j = 1$ indicates relatively efficient units occurring on the efficiency frontier. However, among inefficient DMUs there are cases when higher efficiency can be reached but not through a proportional reduction of all inputs. Rather it is sufficient to reduce only one input. The problem arises because of the sections of the piecewise linear frontier which run parallel to the axes. The variable Θ_j as defined by the dual model cannot reflect this type of unproportional efficiency increase.

[12] The equations 3.1.6 - 3.1.10 represent an input-oriented CCR model, in which the maximisation is focused on seeking such weights which produces the greatest rate of virtual output per unit of virtual input. The second possible CCR model is output-oriented. It can be analogously obtained by output normalisation in the Charnes - Cooper linearisation.

Solution is based on the identification of the extreme cases that should be included in the optimisation program. This can be achieved by replacing the constraint that the weights equal to or are greater than some small positive quantity ε in order to avoid any input or output being totally ignored in determining the efficiency. This would lead to following modification of the primal model (3.1.6 – 3.1.10) and the dual model (3.1.11 – 3.1.14).

The modified primal model can be written as:

$$\max_{u} z_0 = \sum_{r=1}^{s} u_r y_{r_0} \tag{3.1.15}$$

$$\sum_{r=1}^{s} u_r y_{r_j} - \sum_{i=1}^{m} v_i x_{i_j} \leq 0, j = 1,2,...,n \tag{3.1.16}$$

$$\sum_{i=1}^{m} v_i x_{i_0} = 1 \tag{3.1.17}$$

$$u_r \geq \varepsilon, \quad r = 1,2,\ldots,s \tag{3.1.18}$$

$$v_i \geq \varepsilon, \quad i = 1,2,\ldots,m, \tag{3.1.19}$$

And the modified dual model is defined as follows:

$$\min_{\lambda} z_0 = \Theta_0 - \left(\sum_{i=1}^{m} \varepsilon s_{i_0}^{+} + \sum_{r=1}^{s} \varepsilon s_{r_0}^{-} \right) \tag{3.1.20}$$

subject to

$$-y_{r_0} + \sum_{j=1}^{n} \lambda_j y_{r_j} - s_{r_0}^{-} = 0, r = 1,2,...,s \tag{3.1.21}$$

$$\Theta_0 x_{i_0} - \sum_{j=1}^{n} \lambda_j x_{i_j} - s_{r_0}^{+} = 0, i = 1,2,...,m \tag{3.1.22}$$

$$\lambda_j \geq 0, \quad j = 1,2,\ldots,n \tag{3.1.23}$$

where

ε	...	some marginally small, but positive quantity
s^{+}_{r}	...	the slack variables for s outputs
s^{-}_{j}	...	the slack variables for m inputs

3.2 BCC model

The constant returns to scale assumption is only appropriate when all DMUs are operating at an optimal scale. Imperfect competition, constraints on finance, etc. may cause a DMU not to operate at optimal scale. To overcome this problem a DEA model with variable returns to scale has been developed. In this model the variables of technical efficiencies are measured which are confounded to scale efficiencies. This is done by adding the convexity constraint:

$$\sum_{j=1}^{n} \lambda_j = 1, \tag{3.2.1}$$

meaning that under variable returns to scale the λ add to one. The input-oriented BCC model for the DMU_0 can be written formally as:

$$\sum_{j=1}^{n} \lambda_j y_{r_j} \geq y_{r_0}, r = 1,2,...,s \tag{3.2.2}$$

$$\Theta_0 x_{i_0} - \sum_{j=1}^{n} \lambda_j x_{i_j} \geq 0, i = 1,2,...,n \tag{3.2.3}$$

$$\sum_{j=1}^{n} \lambda_j = 1 \tag{3.2.4}$$

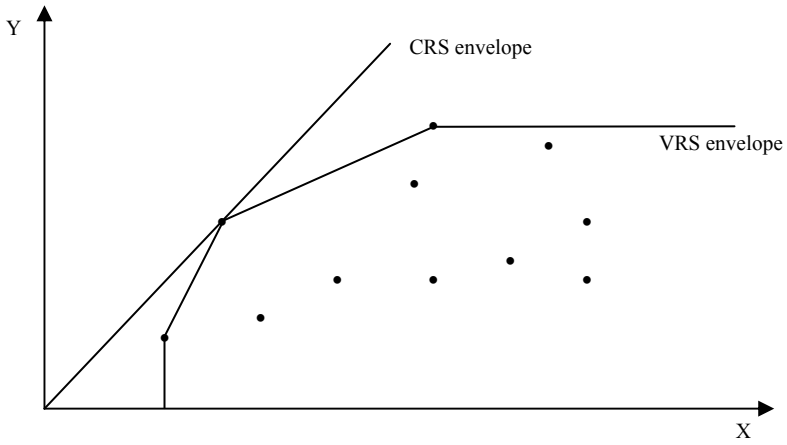
$$\lambda_j \geq 0, \quad j = 1,2,\ldots,n \tag{3.2.5}$$

The BCC efficiency scores are also called pure technical efficiency scores and they are obtained by running the above model for each DMU. The BCC model eliminates the scale part of efficiency from the analysis and therefore the CCR efficiency score for each DMU will not exceed the BCC efficiency score, which is intuitively clear since the BCC model analyses each DMU locally, i.e. compared to the subset of DMUs that operate in the same region of returns to scale, rather than globally[13].

Graphical illustration is showed in the Figure 3. The BCC model forms a convex hull of intersecting planes which envelopes the data points more tightly than the CCR's conical hull and thus provides technical efficiency scores greater than or equal to those obtained using the CCR model.

[13] Vujcic and Jemric (2002).

Figure 3 - CRS and VRS Envelope



4. Conclusion

There has never been a consensus about the best method and approach to measure the frontier efficiency of banks and other financial institutions. The parametric approaches impose functional forms that restrict the shape of the frontier, and the non-parametric approaches do not allow for random error that may affect measured performance. Attempts to remedy these situations by specifying more globally flexible functional forms in the parametric approaches and trying to implement stochastic versions of the non-parametric approaches should continue. By generalizing both types of approaches, the data will presumably have a better chance to yield results that are more accurate and more consistent across approaches.

In terms of applications, research on financial institution efficiency has largely focused on using institution efficiency estimates: (1) to inform government policy (e.g., by assessing the effects of deregulation, mergers, and market structure on industry efficiency); (2) to address research issues (e.g., by determining how efficiency varies with different frontier approaches, output definitions, and time periods); and (3) to improve managerial performance (e.g., by identifying best-practice and worst-practice branches within a single firm).

Efficiency and profitability of banks acquire a specific sense in unique circumstances of transition economies. Central European countries are no exception. Establishing of a two-tier banking system based on market principles, implementation of new methods and practices of banking regulation and supervision, huge amount of non-performing loans, financial or economic crises, entry of foreign banks through privatization process or establishment of new banks, mergers and acquisitions, massive expansion of modern banking products and technologies belong among these factors which affected efficiency and profitability of banks most significantly. Because of all reasons mentioned above, our research of efficiency of banks in central European

transition countries using Data Envelopment Analysis, whose final results will be published in monograph next year, is supposed to become a valuable contribution to future expert discussion.

Abstract

Příspěvek si ve své první části klade za cíl teoreticky vymezit efektivnost bank a odlišit ji od produktivity či ziskovosti. Předkládá definice a typologii základních variant efektivnosti společně s grafickou ilustrací. V druhé části se zabývá představením a zhodnocením základních metod využívaných k měření efektivnosti včetně analýzy hlavních předností a nedostatků dvou základních přístupů. Třetí část je detailněji věnována metodě Data Envelopment Analysis, která byla využita při výzkumu relativní efektivnosti bank tranzitivních zemí střední Evropy a bank z Belgie a Finska. Výsledky výzkumu budou společně s analýzami mnoha dalších aspektů transformačního procesu v bankovním sektoru v tranzitivních zemí publikovány v monografii kolektivu autorů, jež vyjde v zahraničí v první polovině roku 2003.

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ECONOMIC VALUE ADDED IN CREDIT ANALYSIS[1]

Jaroslav Sedláček

Petr Valouch

Key words

financial credit analysis, economic value added, client analysis from bank view

1. Introduction

Client credibility is for banks that lend money, the key criterion in decision process. Especially time and risk factors enter into this process. Very important questions are: How stable is this credibility? What kind of risk in lending money the bank undergoes? All banks try to decrease the measure of the risk as well as to eliminate uncertainty – that is why they use the financial credit analysis. The aim of this analysis is to appreciate the internal value (potentiality) of firm and its solvency that simply shows the strengths and weaknesses of every firm. The classical analysis methods use accounting data and make possible to observe the development of financial indicators in time or to compare in space. The branch values of indicators or calculated average values from portfolio of bank's clients can serve like comparative value. The solvency models can work with quantitative data to observe their development in time (to prediction period) and to estimate risk of their filling in the future, but they are not able to link non-financial side of solvency. It means that their effective using require active participation of an financial analyst motivated to know the real financial condition of firm.

For determination of internal value of firm is possible to use indicator EVA that makes possible to differentiate financially successful firms from unsuccessful or less successful.

2. Measuring of financial efficiency in a long-term period

If we assume the firm only from financial approach – like money - making machine, than the scale of success will be the increasing of its value in the long-term period. This concept of success comes from USA, and its aim is to increase owners

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wealth (shareholder value). The second concept used in Europe means reaching of profit for all stakeholders. Here the aim is not only satisfaction of shareholders, but also of creditors, business partners, employees, communes, towns, regions and state. They all are interested in a long-term prosperity of firm to fulfill their expectations (deliveries of products, goods, services, settled invoices, paid wages, paid interests, credit payments, tax and insurance payments).

The increasing of owners` wealth as first showed indicator ROE (return on equity) that should have been positive. But profit reaching only (positive value of ROE) need not mean yet the increasing of owners` wealth – this happens only if profit value is higher than alternative cost of capital[2]. This fact is performed by EVA that can be calculated:

$$EVA = (ROE - r_e) \cdot E$$

Where: r_e = return expected (for owner)
E = equity.

This define means, that if firm EVA should increase, than return on equity must be higher than expected return – alternative cost of capital (r_e). The alternative cost of capital of equity is calculated from this equation:

$$r_e = r_f + RMP$$

Where: r_f = return free rate, for example return of long-term bonds
RMP = risk market premium – difference between market return and r_f multiplied by market system risk.

To differentiate flourishing firms from unsuccessful is than sufficient to find the difference ROE - r_e (spread) and to file firms into one of following groups[3]:

1) firms creating value – ROE is higher than alternative cost of capital ($ROE > r_e$),

2) firms creating no value, but their ROE is higher than return free rate ($r_e > ROE > r_f$),

3) firms creating no value, but their ROE is lower than return free rate ($r_f > ROE > 0$),

4) firms in a loss, their ROE is negative ($ROE < 0$).

It is possible to assume about firms with positive indicator EVA, that they will bring wealth not only to owners, but will also cover entitlements of another stakeholders.

[2] It is return of alternative capital placement that the owner would receive, if he would the capital into bank instead of firm.

[3] Classification of firms is derived from model INFA created by Inka and Ivan Neumaier that comes out of value management theory that was successfully applied in a corporate sphere analysis on Ministry of Industry, CR.

Positive ROE is also important, because in this case the firm did not create value for owners, but reached revenue surplus after payment all costs in last accounting period.

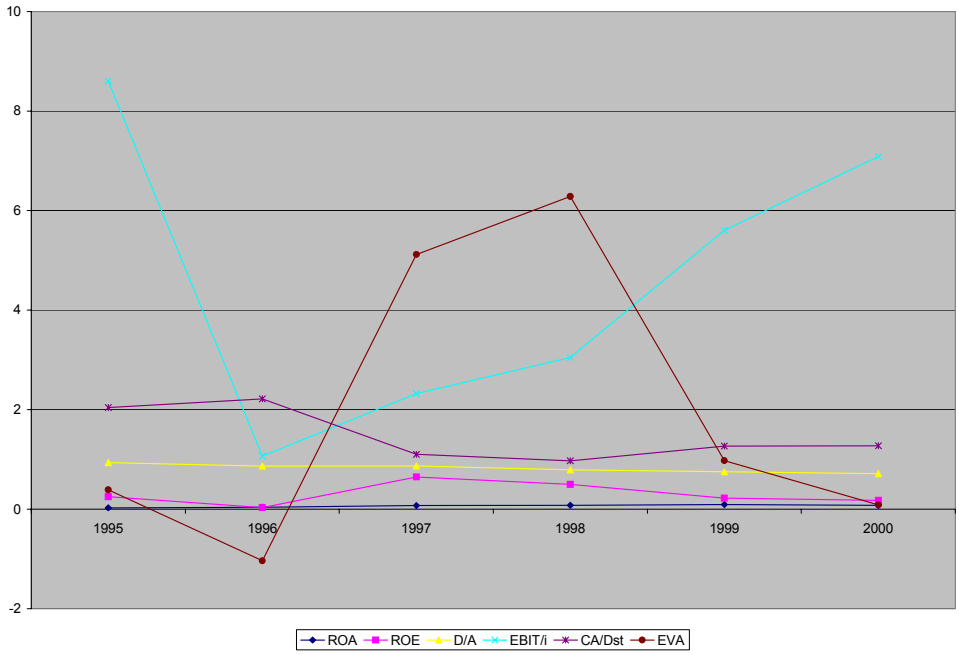
3. Creditor view

Creditor does not last on a high capital appreciation. He needs to be sure, that the firm will be able to repay a principal and interests of provided capital. He is not directly interested in indicator EVA, in increasing firm value that is why he prefers risk minimization and net profit (cash-flow) that is sufficient for repaying debt service. He expects that the firm will be able to satisfy entitlements of another stakeholders – wages to employees, insurance to institutions, taxes to state, paid interests for him, and besides that to create disposable profit in necessary size. For uncertainty minimization he uses a lot of indicators – for example overall indebtedness (D/A), interest coverage (EBIT/i), liquidity (current assets/short-term debts), etc. Except of this he is interested in developmental trend of financial situation of firm in the long-term retrospection, respectively its development in near future.

From principle of indicator EVA results that if the wealth of owners increases, than all stakeholders must fare well. Logically the firms that create value acquire more simply resources necessary for their financing, because they have larger ability to repay to banks not only required price for provided capital, but also to repay the principal. Vice versa for firms that destroy value is more difficult and more expensive to obtain new financial resources, which leads to reduction of their activities, to loss of opportunities, to acquisition and consecutively threat of their existence.

Firms that lie in a group 1 (EVA > 0), can optimize their capital structure, it means they can use debts (if they are cheaper than average cost of capital (interest rate < ROA)). Picture 1 shows the development of indicators EVA, ROA, ROE, indebtedness, interest coverage and liquidity of firm filed in group 1, picture 2 shows the same, but it relates to firm filed in group 4.

Figure 1 - Development of firm indicators that create EVA



Legend: return on assets (ROA = EBIT / assets)
return on equity (ROE = profit / equity)
debt assets ratio = debt / assets
interest coverage = EBIT / interests
current ratio = current assets / short-term debts

Source: Compiled on the basis of own results.

From comparison of both pictures results joyless financial situation of the second firm, because it is not able in long-term to create sufficient productive power for its economic development. Because of that is threatened the stability of owners relations and capital structure that press the firm to escalate the indebtedness. For creditors accumulates the risk of inadequate reserve of financial instruments of firm for repaying credits.

In credit analysis can be indicator EVA used especially for assessment of internal value of firm. The model nature form the invested capital to firm that is marked up of present value of indicator EVA. The calculation of firm value can be recorded by means of this equation:

$$HF = C_t + \sum_{t=1}^{n} \frac{EVA_t}{(1+WACC_t)^t} + \frac{\frac{EVA_n}{WACC_n}}{(1+WACC_n)^n}$$

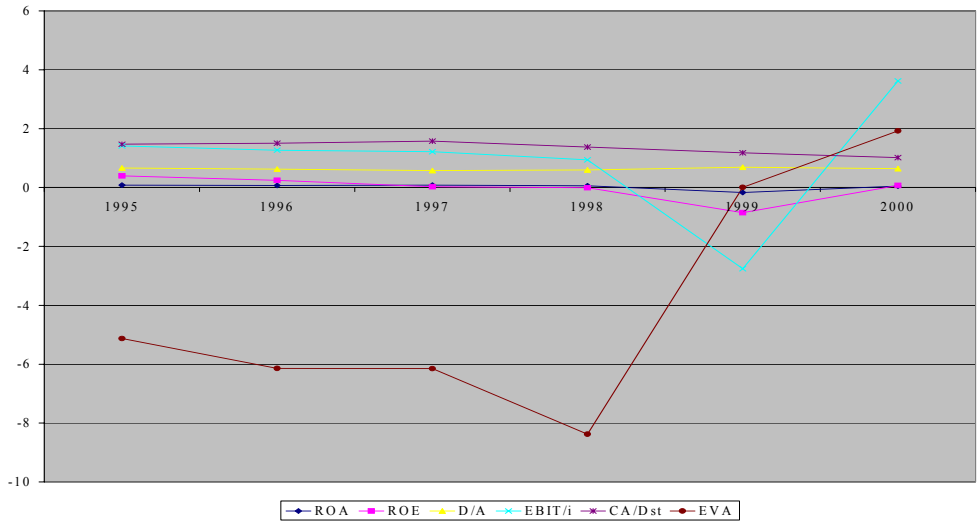
Where: WACC = weighted average cost of capital
C = invested long-term capital
t = number of years
n = length of predicted period

The real value of indicator EVA is determined from equation:

$EVA_t = NOPAT_t - WACC \cdot C_t$

NOPAT means Net Operating Profit After Taxes that can be calculated like EBIT (1-T). Parameter C_t is a sum of equity of firm and interested debts ($C = E + D_{lt}$) or also fixed assets and net working capital ($C = FA + NWC$). Weighted average cost of capital that are used not only for calculation of EVA, but also in a role of discount rate, are determined from prices of components of capital used for a firm financing.

Figure 2 - Development of chosen indicators of firm filled between groups 3 and 4



Source: Compiled on the basis of own research results.

4. Conclusion

In section of financial credit analysis has indicator EVA its position especially in measuring of potential efficiency of firm assets and in determination of internal value. It can be also a proof of an effective economy of firm, a stability of owner and capital structure and an existence of sufficient financial instruments of repaying debt service. It helps to the bank analyst in control of availability of revenues and of (i)legitimacy for exaggerated assets using.

It is necessary to bear in mind that the advantage of client analysis from creditor (bank) view is its comprehensiveness that rates the internal price of firm as well as its solvency and credit risk for the whole period of the credit relation.

Abstract

Cílem finanční úvěrové analýzy je určit vnitřní hodnotu firmy společně s její solventností. Metoda Economic Value Added, často užívaná jako nástroj firmeního finančního řízení k měření produktivity, může být s úspěchem využita rovněž v úvěrové analýze. Na základě diskontovaného EVA lze určit hodnotu firmy stejně jako vyhodnotit stabilitu vlastnických vztahů a existenci dostatečných finančních zdrojů pro zplácení cizího kapitálu.

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EFFICIENCY OF THE LARGE BANKS IN THE CZECH REPUBLIC BEFORE AND AFTER THE PRIVATISATION[1]

Pavla Vodová

Key words

bank efficiency, privatization, profitability, productivity, cost income ratio, competition

1. Introduction

The fact that new major owner will exercise his rights better to manage the bank is usually reported as one of the benefits of the bank privatisation by means of the foreign capital. As a result of the better management, the bank efficiency should increase.

The aim of this article is to consider whether the privatisation of the Czech big banks has led to a higher efficiency of these banks and whether this theoretical benefit of the bank privatisation was practically confirmed in the case of the Czech Republic too.

2. Privatisation of the big banks

The first privatised bank was CSOB. In 1999, the majority owner became the Belgian KBC. The KBC bought 65,69% of the shares of the bank for 40,047 billions CZK. The members of the privatisation were EBRD and IFC too.

The process continued with the privatisation of Ceska sporitelna. Because of the lower quality of Ceska sporitelna before the privatisation, Ceska sporitelna had to be recovered: the quality of the loan portfolio was improved by transferring bad loans valued at 10,4 billions CZK into Konsolidacni banka in 1998. The extra share issuing in March 1999 solved the problem of reaching the capital adequacy. The Austrian Erste Bank attached the majority by buying 52,07% of the shares for 19,381 billions CZK.

The privatisation of the big banks was finalised in 2001. The French Societe Generale bought 60% of the shares for 40,179 billions CZK. In this case, before the

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privatisation, bad loans had been transferred into Konsolidacni banka and it came to the capital increase too.

3. Evaluation of the bank efficiency

There are several methods how to measure efficiency. The most known and widely applied is the system of ratios. The weak point of ratios is the fact that the calculation results of some ratios are difficult to compare with the results for another bank. The differences in the business mix (for example orientation on the retail or wholesale banking), in the capital structure, in accounting practises and in the size of the bank and so on are namely not regarded in the ratio's construction. No two banks have absolutely the same portfolio; the capital structure and other characteristics, therefore comparing some banks' efficiency could lead to an inexact conclusion.

Nevertheless, the system of ratios could be applied in this paper because the aim is to consider whether the privatisation of the Czech big banks has led to their higher efficiency and not to claim which bank is the most efficient.

4. Big bank's efficiency

There is a great deal of ratios. The efficiency of CS, CSOB and KB is measured by five selected ratios in this article – two profitability ratios, two productivity ratios and the cost income ratio are calculated.

The most widespread criteria of efficiency are profit and ratios derivative from profit, for example ROAA and ROAE. **Return on average assets** (ROAA) measured efficiency of the bank business with no regard to the capital resources and the value of ROAA are calculated by the following formula:

$$ROAA = \frac{net\ \ profit}{average\ \ assets}$$

Return on average equity (ROAE) evaluates how the value of the shareholder's property is developing. The formula of ROAE is following:

$$ROAE = \frac{net\ \ profit}{average\ \ equity}$$

When the results of ROAE are deduced, it is important to know that the favourable values may sometimes indicate the shortage of equity instead of the appropriate level of profitability. The results of ROAA and ROAE of the Czech big banks are in table 1.

Table 1 – Profitability ratios of the big banks

ROAA	1998	1999	2000	2001	30.6.2002
CS	-1,80%	-1,64%	0,01%	0,39%	1,19%
CSOB	1,11%	1,11%	1,18%	1,05%	1,26%
KB		-2,51%	-0,01%	0,61%	1,90%
ROAE					
CS	-28,07%	-27,02%	0,18%	7,63%	12,11%
CSOB	10,19%	9,57%	14,26	16,49%	19,51%
KB		-55,03%	-0,10%	11,56%	32,80%

Source: annual reports, author's calculation

As the table shows, the profitability of all banks measured both by ROAA and by ROAE has been increasing in the last few years. In case of CS and KB this changes had already started before the privatisation. The increase in profitability is without question effected by the lower formation of provisions and adjustments after the loan portfolio recovery. The higher level of bank efficiency after the privatisation is therefore confirmed only in case of CSOB (its bad loans were not transferred into Konsolidacni banka).

There are some other methods of evaluating the bank efficiency: the bank productivity and the cost income ratio. **The productivity** of the bank could be expressed as a share of the bank assets on an employee or as a share of earnings of the bank business on an employee. **The cost income ratio** is calculated in the following formula:

$$Cost\ income\ ratio = \frac{operating\ cost}{operating\ income}$$

Table 2 shows how the position of the big banks in the sphere of productivity and costs changed.

Table 2 – Productivity and the cost income ratio of big banks

Assets per employees (in bilion CZK)	**1998**	**1999**	**2000**	**2001**	**30.6.2002**
CS	22,9	24,7	31,1	38,1	45,8
CSOB			58,8	61,3	83,2
KB		29,5	37,9	45,7	52,2
Earnings of the bank business per employees (in bilion CZK)					
CS	0,4	1,3	1,3	1,6	2,1
CSOB			2,0	2,4	3,2
KB		1,5	2,0	2,6	2,6
Cost inc. Ratio (in %)					
CS	143,03	109,62	96,79	91,58	76,24
CSOB	87,88	82,51	82,24	79,43	65,77
KB		123,14	100,01	85,67	63,42

Source: annual reports, author's calculation

The development trend of both productivity ratios (assets per employee, earnings of the bank business per employee) is increasing in all banks throughout the analysed period. The growing bank productivity is probably a result of the gradual staff reduction instead of privatisation.

The cost income ratio reaches better results too; the growth of the values of the cost income ratio originated in privatisation too. In case of CS and KB massive state assistance influenced the results of this ratio as well as profitability ratios, therefore it is difficult to come to some conclusions. For this reason the cost income ratio was calculated again exclusive of the cost on provisions and the adjustments formation – see table 3.

Table 3 – Modified cost income ratio

	1998	1999	2000	2001	30.6.2002
CS	98,26%	85,28%	86,45%	83,64%	75,21%
KB		81,93%	80,32%	63,27%	64,14%

Source: author's calculation

The values of the ratio indicate the growing bank efficiency though a much slower growth rate after the elimination of the influence of the loan portfolio's recovery too. The bank efficiency increases not only after the privatisation but also in the time of state ownership of these banks.

5. Conclusion

The aim of this paper was to consider on basis of elementary ratios whether the privatisation of Czech big banks has led to higher efficiency of these banks.

The values of all indicators are not surprising – they confirm that the efficiency of the Czech big banks has been increasing in the last few years. However, profitability ratios are influenced by the bank recovery before privatisation, the development trend of productivity ratios is growing throughout the analysed period. The improvement of the cost income ratio is the same.

The higher level of the bank efficiency is not only a result of the privatisation but also of other factors: the gradual staff reduction, a stronger competition and so on. Possibly, only in case of CSOB can be assumed that privatisation was the main factor that brings the growth of efficiency.

Abstract

Jako jeden z přínosů privatizace bank se obvykle uvádí skutečnost, že nový majoritní vlastník bude lépe uplatňovat svá práva při řízení banky a dojde tak ke zvýšení efektivnosti banky. Na základě vybraných poměrových ukazatelů je v příspěvku posuzováno, zda po privatizaci velkých českých bank došlo ke zvýšení jejich efektivity.

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THE IMAGE OF THE BANKS: THE RESULTS OF QUALITATIVE RESEARCH

Zdenka Konečná

Key words

bank, image, qualitative research methods

1. Introduction

The word "image" is being used very frequently these days. Despite the fact that it is not an original Czech term it has become part of a commonly used current vocabulary. According to Akademický slovník cizích slov (Academic dictionary of foreign words) (Praha, 1995) this term represents a picture, notion, appearance, idea, overall presentation of a person, thing or phenomenon very often created on purpose in order to achieve success. In American dictionary of marketing terms is the term "image" defined as "customers perception of a product, institution, trade mark, business or person, which can - but need not - correspond with reality (Bennett, 1988)." It is thus possible to perceive image as a certain notion of an individual created upon information gained.

2. Aim of study

The fundamental aim of the study presented[1] was to compare the contribution of individual qualitative methods used to identify the content of image of individual banks. The objects were four banking institutions currently operating at the Czech market. In the following text these banks were referred to as bank B1, bank B2, bank B3 and bank B4. With regards to the fact that the purpose of this research was an exclusively scientific one, it was not possible to use the real names of the banks in this text.

[1] The results were obtained in framework of research which was carried out at the University of Technology of Brno, Faculty of Business and Management in cooperation with the Institute of Psychology, Czech Academy of Sciences Brno in the years 1999-2001.

3. Methods used

On realization of the qualitative part of this project three research methods were used:

- individual interviews: an individual interview with each respondent was carried out. During these interviews the respondents were asked questions that were supposed to reveal their knowledge of the individual banks. Questioners were also finding out the respondents ideas and opinions about banks and their relation to them,

- association method: in this part of a qualitative research respondents were asked to try to imagine what in their opinion banks would be, if they were plants, animals and fairy tale creature. The aim was to find out special ideas of respondents about the actual banks,

- personification method: the respondents´ task was to imagine the individual banks as persons, which take part at a social event – party. The respondents were supposed to describe what was happening at the party - clothing, style and behaviour of the individual participants and then they were asked to try to estimate who is talking to whom or what cars they arrived by.

All respondents' answers were recorded through dictaphone during performing the individual qualitative methods and then transformed into written form in order to enable their further processing.

3. Sample

Within the qualitative research with took place in autumn 2001 the total number of people involved was 50 out of which 21 were women and 29 men. The structure of the explored group is documented in the following tables.

Table 1 - Group structure according age

Age	n	%
18-25	9	18
26-35	12	24
36-50	21	42
>50	8	16

Source: Author´s calculation

Table 2 - Group structure according education

Education	a	%
skill educated	3	6
high school educated	20	40
university educated	27	54

Source: Author´s calculations

4. Results

Within the qualitative research through the above mentioned methods the results described lower were obtained.

Individual interviews

At the individual interviews the respondents were asked to state as much information as they know about the banks concerned. In successive steps they indicated:

- if they have a bank account at the particular bank,
- if they have further personal experience with services provided,
- their idea of clients.

Bank B1 is very well known by majority of respondents. Only 10% of them claimed that they had no idea about this bank. Based on the answers this bank can be described as very well known, large, steady, reliable institution that provides classical banking products, employs helpful staff and enables non-problematic dealing with customers. Five respondents stated that they had had bad experience with this bank in the past. As far as the clientele is concerned, the respondents said that it mostly consists of large business companies (large, middle and small companies), people with higher incomes.

Bank B2 is less known than the previous one. More than 10 % of respondents stated that they did not have any particular notion about it. Those respondents who had personal experience with this bank consider it to be creditable and up-to-date with a wide range of services and professional staff. According to many respondents the credit of this bank suffered from the process of fusion with another bank. Most clients of this bank are, according to the respondents, entrepreneurs and people with high incomes.

The least known bank seems to be *bank B3*. Many respondents had never heard about it and more then half of them did not know anything about it. Respondents who had at least some notion stated that it is an electronic bank providing its services

mostly through the Internet. Some of them did not consider this way of providing banking services safe. Those who knew something about it considered the service fees expensive. The clientele of this bank consists (according to respondents) of businessmen, young, progressive and innovative people as well as people who do not have much time and need to be in touch with their bank quite often, working on computer every day.

Bank B4 is according to the obtained information very well known. The respondents perceive it as a traditional popular bank that many people mostly know from the past. Many of those who have personal experience with it remain being its clients out of persistence or because they do not want to change anything. Generally speaking bank B4 can be described as stable, ensuring security but on the other hand clumsy and non-flexible. Several respondents expressed their dissatisfaction with this bank or with some of its services. As implicated, this bank B4 is a bank for a wide clientele from a variety of social classes. According to the results obtained it is mostly used by elderly people and retired people who are more conservative but also by students who can use advantages it offers in the meantime.

The structure according to the level of experience with the individual banks is documented in the following table.

Table 3 - Group structure according to the level of experience with the particular bank

	great experience	little experience	no experience
B1	25	23	3
B2	18	24	6
B3	3	31	17
B4	34	13	3

Source: Author´s calculations

When the method of individual interviews was used the respondents first communicated their knowledge about the individual banking institutions and their personal experience with them. Especially in the cases when their experience was not good they were trying to provide more detailed information connected with the reason of their dissatisfaction. Those respondents who had a long-term good experience also expressed their own evaluation. On the contrary, those who had only a very shallow or no knowledge refused to answer the asked questions. The answers were more or less rational.

Association test

In the next part of the qualitative research the respondents were asked to imagine each bank as a flower, animal and a fairy-tale creature.

The comparisons obtained come from genuinely spontaneous reactions of respondents who were supposed to rely only on their feelings.

Bank B1 was most often compared to a big animal (a bear, hippo, elephant - - "because that´s really something impressive"). Expression of a positive approach can be seen in naming pets such as a cat or a dog – faithful companion. Antipathy was expressed through a comparison to a coyote or a fat rhino – "a thief". The most frequently named flowers were a rose and carnation. In connection to a rose the respondents gave reasons that pointed to its sovereign position among flowers. As more negative were stated those flowers which were characterized in more detail by the respondents – sunflower – "stinking, past blossoming", cactus – "portentous, not pleasant plant". The fairy-tale creatures included a queen, princess, sleeping beauty or a good wizard who represented rather positive relation towards the bank. Negative emotions were seen in a fat witch, hag, Trautenberg (a very grouchy man from a popular Czech fairy tale) or a pot that keeps cooking and fills everything with porridge ("because the bank is pushy").

In connection with *bank B2* the respondents named big animals – a horse, elephant, whale, bear or lion (in connection with its logo). The animals chosen probably reflect its size and controllability. Negative feelings are expressed for example by a chameleon, jackal or "cat-dog", which symbolizes the union with the another bank). Flowers include popular roses, sunflowers, tulips or daisies expressing positive approach towards this bank. Ordinary, less popular plants such as nettle, orache or rye were named to a very small extend. Also in case of fairy-tale creatures the respondents chose mostly creatures with good character such as a king, prince, st. Nicholas, princess, Little Red Ridding Hood or Ferda Mravenec (Freddie the Ant – a very popular and very positive creature).

In case of *bank B3* the imaginations were connected mostly with speed, dynamics, impetuousness and progressiveness. The respondents most often named a pike, eagle, wildcat, leopard, grass snake. The flowers mentioned were unusual, exotic such as orchis, crowtoe, hyacinth, anthuria, and snowberry. There were also flowers named (less often though) which are typically small in size like snowdrops, lilly of the valley, violet, daisy – probably referring to the size of the bank. The chosen fairy-tale creatures pointed to something mysterious – wizard, magician, Harry Potter. In the other creatures either positive (Nicolas, king, Snow-White, fairy, knight, elf) or negative (devil, ghost, Trautenberg) attitude towards the bank can be seen.

The group of animals to which *bank B4* was compared was very miscellaneous. The bank was associated with big animals such as a bear, hippo, tiger, elephant, lion, rhino, and cow. A certain positive emotional attitude could have been traced since much more often then with other banks diminutive pet names appeared – a little lamb, kitten, a little donkey, doggie, bunny. It is possible to mention a dog as a popular "sweetheart" pet too. On the other hand some respondents expressed a negative attitude – old scabby sick dog, pig, dairycow, frog, hen or a goose. Flowers mentioned by the respondents were mostly field flowers or garden flowers – pansy, daisy (referred to as "some ordinary plant") dahlia, violet, dandelion, wild thyme, campanula, lilly of the valley, sunflower, forget-me-not, daisy, peony, daffodil, lilac. Their choice seems to reflect most of all the perception of bank B4 as something which "belongs to us, is

ordinary, traditional, we have some feelings towards". The fairy-tale creatures mostly had positive characteristics and included: a good fairy, good king, princess, Snow-white, magic grandmother, good grandmother, Cinderella, Sleeping beauty, Emanuel the Butterfly (a very nice Czech creature), grandfather Mushroom. The character of Johnnie or a dull Johnnie "who seems to be dull but in fact is not". Most of the creatures were from Czech fairy tales.

The association test as one of the qualitative methods was a very demanding task for the respondents and many of them did not want to respond. Also subsequently when interpreting the obtained associations a lot of problems appeared, especially in those cases where it was impossible to determine what they reflect. If the idea of the respondent was a clear one, they usually stated by themselves the reasons of their choice. Sometimes the people asked answered totally by chance and were not able to explain their reasons. An important role was also played by the respondent knowledge and experience with the bank.

Personification method

In the last, personification, method the respondents task was to imagine the banks as people who meet at a party and to describe the type of cars they came by, their clothes, their behaviour, who they are talking to and what about.

Respondents imagined *bank B1* as a good-looking man who arrives to the party by an upper class car wearing a good quality suit. During the event he makes the impression of a financial specialist and speaks to men who are as elegant as him.

Bank B2 was imagined as a typical businessman who comes by a luxurious car of a well-known brand wearing an elegant suit. During the party he behaves professionally, is a bit self-contained and chooses whom he wants to speak to.

For *bank B3* most of the respondents chose a young, dynamic man who comes by a sport car wearing something more casual. During all attention will be focused on him, he will speak knowledgeably and will be trying to find new contacts.

Bank B4 was connected with an elderly man or a woman who comes by a Škoda car wearing something discreet. During the party s/he will not draw too much attention towards himself/herself and will decently talk to everybody.

The personification method was quite a difficult one for some respondents who were not able to imagine the individual banks as particular persons. Through this method it is possible to gain information especially about differences between banks that are perceived from the point of view of the respondent.

5. Conclusion

Three qualitative methods were used when realizing this scientific research. The first method of individual interviews brought clear information about the extent of the experience of respondents with the individual banks. This method can be seen as a very contributive one if the aim is to find the peoples´ awareness of a particular banking subject at a certain market, especially in the field of evaluation of provided services, approach to clients, evolution of activities having a social impact or personal experience with products provided by a bank. Through the association method a lot of miscellaneous information were gained. The usage of this method generally displayed that it is a demanding method to be used to carry out a research of image. This includes several reasons. The choice of comparisons represents quite a difficult task for the respondents. To interpret the results it is essential to know to what extend is the respondent familiar with the bank in question. The actual interpretation of the chosen comparisons is very demanding, since it is sometimes very difficult to determine what they actually reflect. It can be generally concluded that this method is very demanding both from the point of view of realization as well as interpretation. This method will probably be a useful one as a supplementary method used for interpretation of individual statements and in cases of combined information gained through more different methods. The last method of personification is suitable for gaining information concerning position, behaviour of banks at the market and perception of differences among banking subjects. The realization of this method was difficult especially for respondents with lower education who had problems to imagine a bank as a person. The information also included data about how professional the banks are, how well equipped, about efforts of banks and their evolutionary tendencies. From the overall point of view this method showed a perception of bank market rather than expression of a deeper relationship with particular banks.

In order to carry out a research in the field of image it is good to use the above mentioned methods in suitable combination or as supplementary methods depending on the aim of the research.

Abstract

Příspěvek prezentuje část výsledků výzkumného projektu „ Image banky, jako odraz názoru jednotlivce“, který byl uskutečněn na Vysokém učení technickém v Brně, fakultě podnikatelské. Projekt je založen na srovnání různých metod výzkumu image a na nalezení jejich výhod a nevýhod. Příspěvek prezentuje výsledky týkající se vybraných kvalitiativních metod.

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STUDYING YOUTH – A NEW GROUP OF CUSTOMERS ON THE BANK SERVICE MARKET IN POLAND

Edyta Rudawska

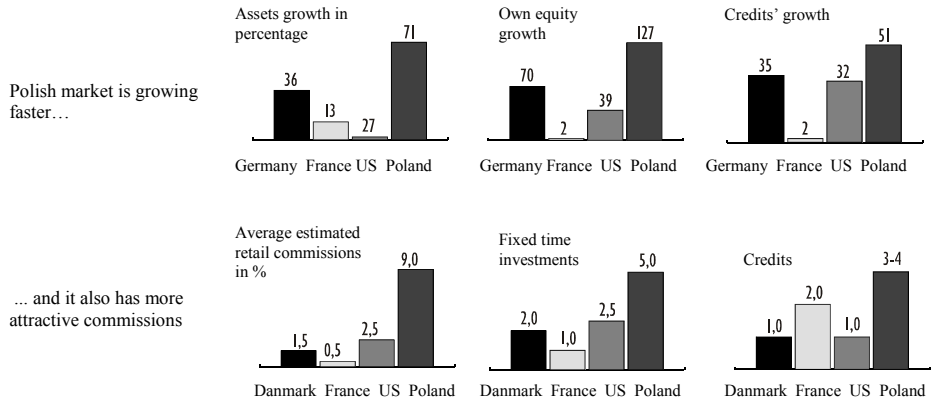
Key words

polish banking sector, students as bank customers, students' loyalty, students' behaviour in Poland

1. Introduction

To maintain or to strengthen the market position within raising inter- and para-banking competition the financial institutions are required to undertake certain activities in order to adjust to the new realities of the Polish market. In the market economy it is the customer, requiring certain services, who decide of the bank's position. In Poland almost 40% of the inhabitants do not use banking services, however, this figure slowly but systematically has been falling down for a couple of years. This raising need to use banking services by the Polish people might be due to the fact that, on one hand, they become more and more educated in the financial services area and, on the other hand, due to raising financial needs. The banks are needed by the customers not only to perform complicated financial operations but they also become a vital part of everyday life. Domestic banking services sector is one of the fastest developing ones in Polish economy and it is undoubtedly in its growing phase. Market growth degree is shown (among others) by the data presenting Polish banking sector attractiveness (fig. 1)

Figure 1 - Polish banking sector attractiveness



Source: POKOJSKA, M. Kolejność działań. Gorączka fuzji w polskim sektorze bankowym, Business Week/Polska, 1999, no. 9, p. 39.

A pursuit of developing market share growth by taking a part of customers over from the competition or by wining those, who have not yet used the company's services - is a characteristic feature of the growing markets, as shown by O. Walker, H. Boyd & J. Larreche.[1] So in the situation of growing banking services saturation degree in Poland, as far as the grown-ups are concerned, it is necessary for Polish banks to undertake some activities in order to win new groups of customers and search for long-term profits, for example among students.

2. Why the university youth?

While in the developed market economy countries, the young customers banking market development had been in progress since the 60s, in Poland the bank significance in serving the young customers had been raising in the second half of the 90s. The necessity of reaching students with certain actions by banks is due to a couple of reasons. Today's students are tomorrow's well-to-do social group – an elite absorbing western market's rules of acting. Students are a group of customers quite easy to gain. Although today this is not a wealthy group, this is the most attractive group for banks in the future, after graduation. It will be a group of customers the banks will be able to cooperate with for a long time. It should also be remembered that today's' students are tomorrows' well-to-do people. The necessity to invest in the university studying group is also driven by the fact that they are more and more forced to seek for the learning costs

[1] WALKER, O., BOYD, H., LARRECHE, J. *Marketing strategy. Planning and implementation*. Irwin McGraw Hill, 1996, p. 226.

funding by bank credits. It is connected with education follow-up raising costs, tuition introducing and dropping the real significance of the state financial aid for students. This inconvenient situation for the young creates chances for the banks. Strengthening financial position of young people also increases the attractiveness of the analysed market. For over 90% of Polish students job is a source of income during their studies. Young people in Poland are not constantly tied to any banking institution yet, so it is much easier to win them and start the process of transforming them into loyal customers in future. This will allow banks to keep their market position when the markets become fully matured ones and when the possibilities of expansion by winning new customers will become very much narrowed.

The reasons for targeting this group of customers by banks in Poland are to be as follows:

- in most of the highly developed countries the banking services sector is characterised as a very much-saturated one. This especially applies to grown-ups, being financially stable, having been tied to a chosen banking institution for years,

- new possibilities brought up by the system change caused students professional activity growth. There were many new work possibilities for the students. And that allows them to have at their disposal their own funds, which can be variably invested,

- today's students are the people who appreciate their independence; they are ambitious and aware of their own needs and potential. They do want to feel the world citizens with a credit card in their wallet and a chequebook in their pocket,

- more and more young people pay tuition and it seems like general tuition in Poland is only a question of time. So it looks like western behaviour of taking credits to cover the costs of studying is going to be popular also in Poland.

3. And what do the banks in Poland do about it?

Nowadays the young customers' activity in the banking services area is stronger and stronger. The banks, paraphrasing the old saying „What is bred in the bone will come out in flesh...„ use it in their marketing strategies targeted at wining young customers in order to shape them and keep them close as long as possible.[2] The reason is to have the students' friendly attitude during their studies, and have them been willing to continue the cooperation long years after graduation. Banks in Poland have been trying to create a product offer for students only for a couple of years. But the analysis show, that only few of them are aware of the benefits coming out of winning young people. In most cases banks prepare narrow and unattractive offer. Many banking institutions paying no attention to students' individual needs and possibilities also limit their offer to a standard one, having the requirements for the young students the same as for other customers. Most of the domestic financial institutions unfortunately unwillingly serve

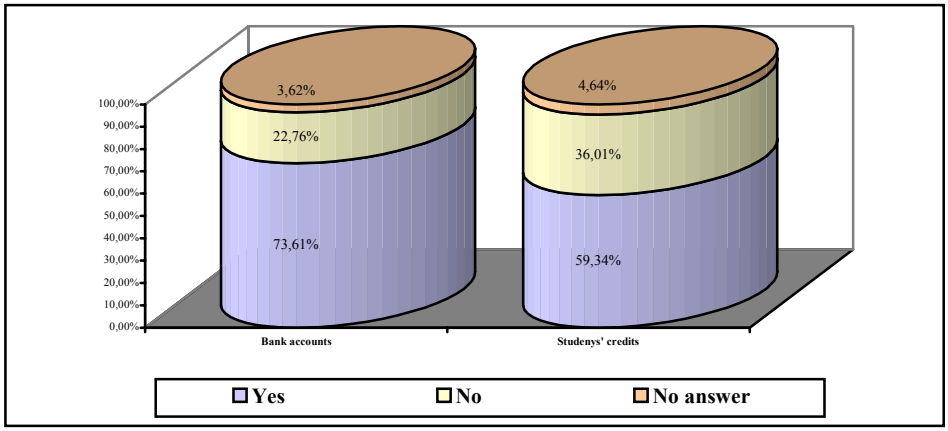
[2] OLEJNICZUK, A., MERTA. *Rynek młodych konsumentów*. Warszaw: Difin, 2001, p. 61.

the studying group. But even when preparing the basic offer for students, banks consider their low financial possibilities and high risk concerned. It results in complicated procedure and biurocracy discouraging young people from using bank service. Lack of outlooking for the benefits brought up by students years after graduation is considered to be a serious mistake.

4. Students on the banking service market in Poland

This banks' attitude can be alarming, considering the fact that youth usage of banking services is more and more common. This is reflected by the results of the research, which show that almost 68% of the polled ones use banking service.[3] This might be due to the fact that in almost half of the cases the salaries are automatically transferred to the bank account. It is mostly because of the employer or the university, which prefer to fulfil their duties that way. Young people are well oriented in the banks' offers. In the polled group a high degree of knowledge of the service conditions was observed (fig. 2). Three quarters of the polled declared to have the opening accounts conditions known. The percentage is almost 60% as far as the students' credits are concerned.

Figure 2 - The knowledge of products' conditions offered

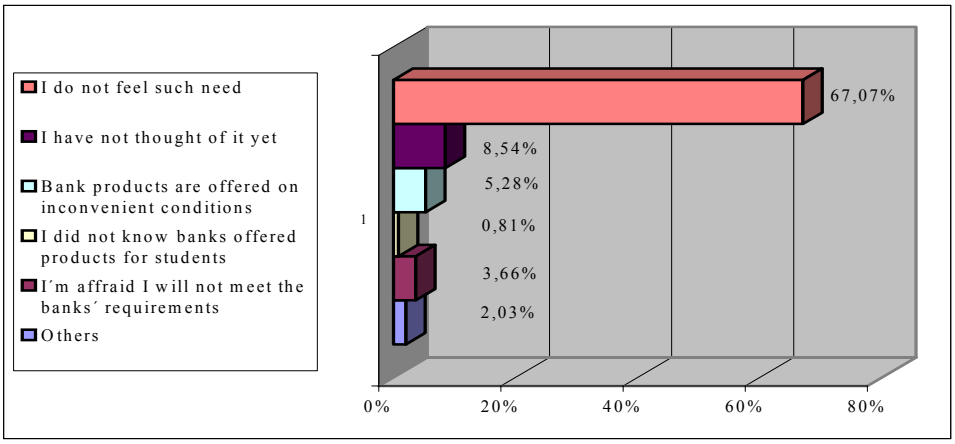


Source: Compiled on the basis of own research results.

[3] The research was conducted on the basis of grant financed by KBN in Warsaw titled „Strategies of creating students' loyalty towards banks ", registered nr 1 H02D 032 16. In this paper the author calls out two polls carried out by her in 1999. One of them was carried out among the West-Pomeranian province students who were the customers of one of the greatest banks in Poland. In order to have the analysis representative, every other student who was a customer of the mentioned bank, was polled. The other research of all-Polish nature was carried out among 1,200 students from six academic centres in Poland: Warsaw, Poznań, Gdańsk, Katowice and Szczecin. The research results were also presented in the unpublished PhD thesis: E. Rudawska, „Studying youth as bank customers", Poznań Economy Academy, Poznań 2001.

Growing competition plus the fact that the banking services sector not only in the world but also in Poland shows a great degree of saturation, as far as the grown-ups are concerned, cause a need to broaden the markets. So it seems necessary to find out the reasons why as much as 30% of the polled students do not take financial services. Most part of the polled group (67%) does not use bank services, because they do not feel such need (fig. 3). It is a great challenge for those who deal with marketing in bank, who should - according to the latest marketing concepts – not only adjust the offer to various clients' needs but also create new ones for potential customers. A small group of people do not use banking service, as they have not thought of it yet. The rest (5%) think the banks' products conditions are inconvenient or they fear not to be able to meet the companies' requirements. Only less than 1% of the polled ones did not realise the banks had products for students and thus did not use the service. Among the rest of the reasons the respondents listed most often lack of regular income and queuing.

Figure 3 - Reasons for not using bank services by students

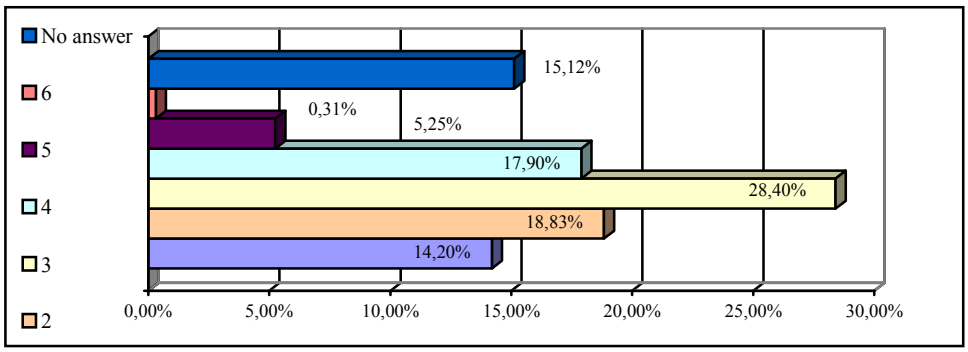


Source: Compiled on the basis of own research results.

Information, which seems to be optimistic for banks, is the fact that most of those who have not used bank services yet are going to do so in the future. Almost three quarters supported such action, and half of that are going to do so after graduating and getting work.

The research proves the students, as for a group who generally use bank services for a short time, use them quite often. Almost 60% contact the bank once or a few times a week, and every third one does so once a month. They usually use three financial products (fig. 4).

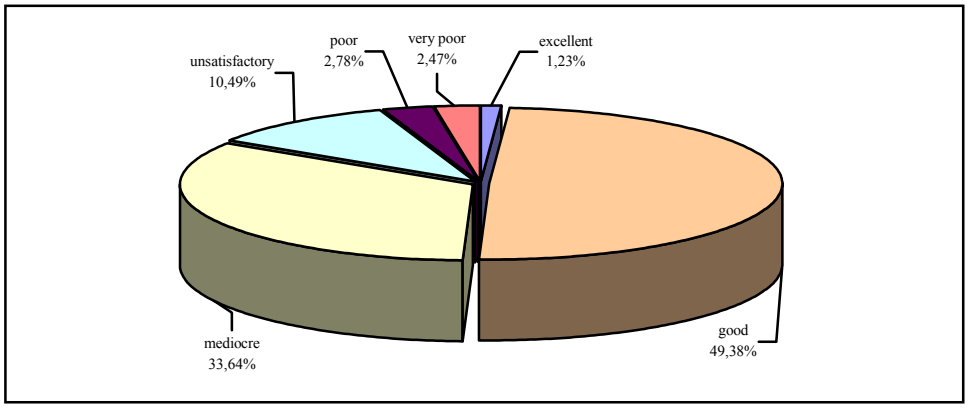
Figure 4 - The number of services used by students



Source: Compiled on the basis of own research results.

The quality of the financial services provided becomes vitally important while concerning the customers growing requirements and the fact that they become more and more critical in their opinions, especially when given a choice. The polled population is generally satisfied with the service quality offered by their banks. Fraction considering this quality as a good one is close to one half (fig. 5). Every third respondent measured it as a mediocre one, while a little over 10% as an unsatisfactory one. Data gained via research show good quality of the service provided by banks, but not an outstanding one (both positively and negatively), as the percentage of students delighted (1%) and discontent (about 2%) is a very low one.

Figure 5 - General evaluation of the service quality offered by banks



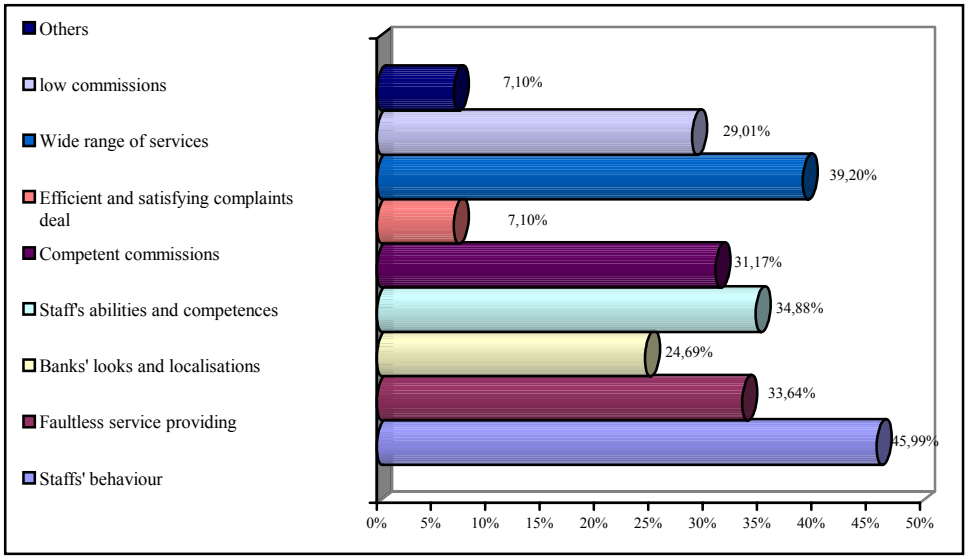
Source: Compiled on the basis of own research results.

Staff behaviour and a wide range of products decide of the service provided satisfaction mostly (fig. 6). These elements were pointed out by a little over 80% of the polled population. The following were put in the next order: staff abilities and competence (35%) and faultless service (the factor depended on the staff also) – 34%. Efficient and satisfactory dealing with complaints is of surprisingly low significance. Only for 7% of the polled it decides on the level of bank service satisfaction. It is probably due to the fact that Poles are not much willing to make complaints.

Among other factors, deciding on the level of service satisfaction, the respondents pointed out:

- cash machines availability,
- distribution network,
- service speed,
- safety,
- cash machines efficiency,
- long opening hours,
- simplified formalities.

*Figure 6 - Factors influencing the level of satisfaction of service offered**

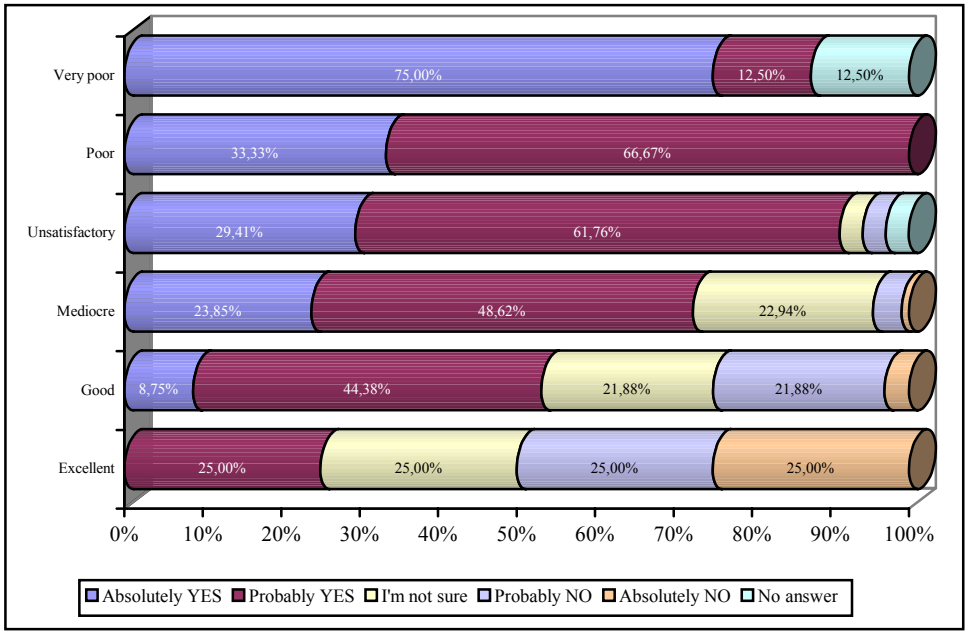


** The polled could give several answers, thus overall results exceeds 100%.*

Source: Compiled on the basis of own research results.

Taking care of the service quality seems to be especially important as this influences the bank shift decision, as the research show. Half of the people declaring that service quality is excellent would not change their financial institution. In the group finding it as a mediocre one almost three quarters absolutely or probably would move to the competitors. Fraction of the respondents doing the same as above is growing up even more in case of students finding the quality of the service as a poor or a very poor one. In this case it is as much as 99% (fig. 7).

Figure 7 - Service quality level of satisfaction vs. bank change liability

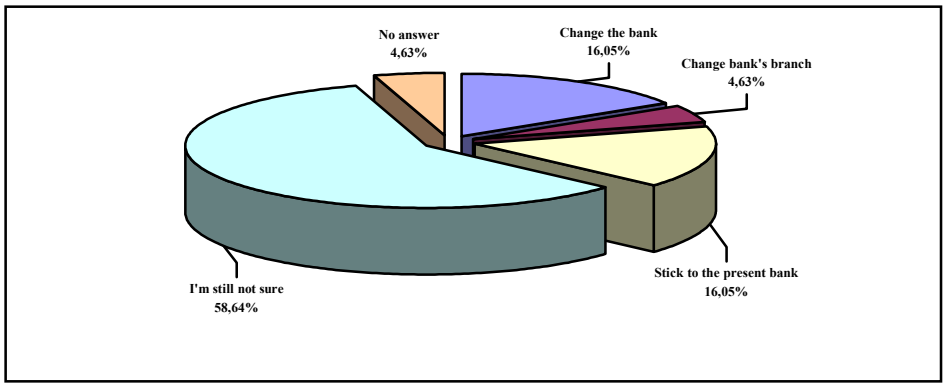


Source: Compiled od the basis of own research results.

Customers' future behaviour is very important for financial institutions. In case of students this applies to their plans about the bank after graduation. This is about having them won while their studies and investing quite a lot, and not having them lost after graduation, which is the time when young people start bringing profits. As it is reflected by the research most of the polled (59%) are not sure about their future behaviour yet (fig. 8). This creates a chance for banks, which should be aware of the necessity for taking a special care of those young people, working out their positive attitude and winning their long-term loyalty. It is possible via making up the service quality, as the slow service (as the research results show) is pointed out by a great deal of the polled as one of the main reasons for the bank change after graduation. The diagnosis conducted also shows a little over 20% of the students are going to stick to their banks or just to change their branch. Adding up 59% of the respondents who are not sure of their

future behaviour the bank might keep up as much as 79% of its present customers while taking proper marketing activities.

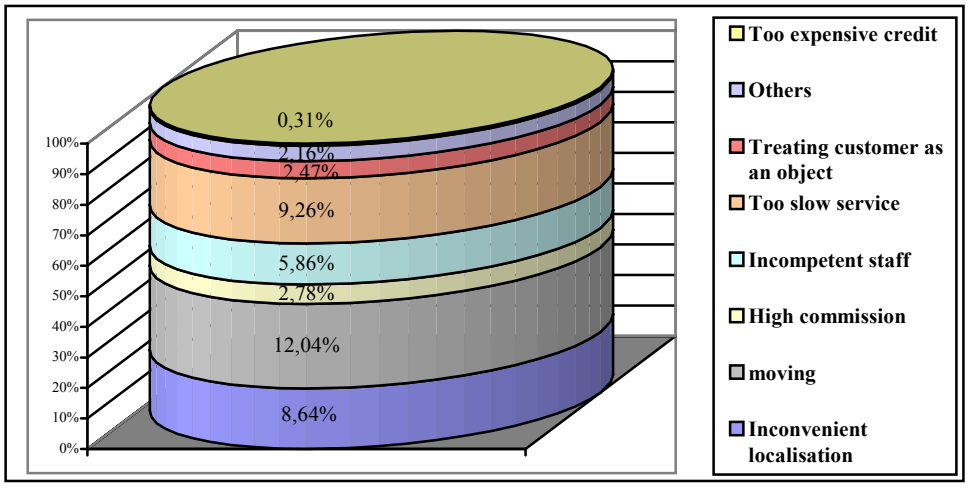
Figure 8 - What steps are you going to undertake after graduation?



Source: Compiled on the basis of own research results.

Among the polled population 16% are going to change their financial institution. It is worth noticing that the most important reason for such a change is moving out after graduation (fig. 9), which only proves thesis of necessity to take a special care of young people for having them changed only a branch and not the bank they presently stick to after moving.

Figure 9 - Reasons for bank change after graduation



Source: compiled on the basis of own research results.

5. Conclusion

Financial institutions addressing their marketing strategies towards student in order to gain them and keep them for long have to be aware of a long-time nature of such activities. It means the results will be seen only in a few years' time. So it is a very serious investment in the future. Observing the Polish banking sector it is clear that domestic financial institutions seem not to notice a great potential of the analysed group of customers, and what is more they unwillingly serve students. In most of the cases young people are treated as regular adult customers. The present offer does not reflect specific needs and abilities of the young people. Credit products are too expensive, complicated and not attractive in general. Half of the polled by the author proposed lowering the credits commission, and every third was in favour of simplifying the procedure and extending the duration of instalments. Only two banks offered overdrafts but unfortunately the conditions were very much inconvenient. It is the same with promotional activities, which are not even half as attractive as similar activities carried out by banks in the West. Domestic financial institutions' practice suggests that most of the banks are not interested in serving students due to high risk involved. So the banks lack a perspective treatment of this group of customers seems to be a serious mistake.

The author is convinced that a correct service of today's students and adjusting services to the changing lifestages of the youth would increase the banks' chances as far as wining future regular customers is concerned. Students' banking service market development depends not only on their financial behaviour. Equally important factor is the banks coming up with attractive and adjusted to the young people's needs offer.

Abstract

Na rychle rostoucím trhu bankovních služeb v Polsku jsou banky nuceny hledat nové způsoby získání výhod nad svými konkurenty. Jednou z možností je oslovit novou skupinu klientů, která doposud bankovních služeb nevyužívala. Skupinou s velkým rozvojovým potenciálem do budoucnosti, skupinou dosud bankovních služeb nevyužívající, jsou studenti. Banky působící na polském trhu si jsou dobře vědomi, jaký prospěch mohou získat krátce po ukončení studia studenty na vysoké škole. Vyvíjí proto aktivity vedoucí k zatraktivnění svých služeb určených studentům, snaží se tuto skupinu klientů zaujmout a získat si ji pro další spolupráci. Je tu tedy potřeba regulérní analýzy chování již zmíněné skupiny klientů, která je nezbytná pro přizpůsobení nabídky bankovních produktů v následujících životních etapách mladých lidí.

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TRANSPARENCY AND ACCOUNTABILITY OF EUROPEAN CENTRAL BANK AND NATIONAL BANK OF POLAND

Jacek Pietrucha

Key words

monetary policy, accountability, transparency, European Central Bank, National Bank of Poland

1. Introduction

The autonomy given to the European Central Bank (ECB) and national central banks is one of the most important institutional innovations introduced in connection with constituting the Economic and Monetary Union (EMU). The European System of Central Banks (ESCB) has a wide range of independence resulting directly both from treaty entries (Treaty on European Union and Protocol on the Statute of the European System of Central Banks and of the European Central Bank), and from additional interpretations made by the European Monetary Institute (EMI) [8, 308]. Due to the integration process with the European Union (EU) these regulations are also important to candidate countries, including Poland. Anyway, the National Bank of Poland received its autonomy already when the country passed to the new economic system in 1989.

2. Problem of accountability and transparency

Discussion on central bank autonomy should be accompanied by considering the problem of accountability and transparency. Accountability and transparency in a democratic society should be understood as the natural supplementation of central bank autonomy. No state organ should be excluded from democratic control. On the other hand there may be discrepancies between principles increasing the accountability and transparency range and autonomy and requirements of an effective monetary policy.

A whole series of general problems connected with the proper structure of public authorities in a democratic society and control principles of autonomous organs, which possess part of the executive authority powers, requires settlement. Without engaging here in detailed considerations, it seems that up to now, no model combining the benefits of autonomy with the necessary range of subjective accountability has been created. Increase of the accountability range may result in the limitation of real autonomy. On the other hand a suitable range of accountability is indispensable in a democratic society. It is possible to guarantee a certain basic level of accountability and

transparency also in the case of an autonomous central bank and it seems to be an important completion of independence.

The significance of transparency and accountability for the maintenance of central bank autonomy is visible particularly, when one takes into consideration the fact that the real range of autonomy may differ from its formal guarantees. The range of formal guarantees depends on legal entries. However, its real range may differ, rather considerably, from formal regulations. Naturally, relevant legal regulations increase the independence range, nevertheless, its real scale also depends on informal institutions. Even the most detailed and rigorous regulations do not guarantee autonomy (irrespective of the chosen model), if the necessity to separate the central bank from political decisions is not a value shared by politicians and society. Therefore, the true range of autonomy depends on the democratic traditions of society, and in particular the State's consideration of the law, traditions in contacts with the bank management and government, current economic and political situation and individual predispositions of government and bank management members.

The problem of maintaining real independence forces the central bank to educate society in the area of methods of conducting monetary policy and the impact it has on the economy, a clear and precise explanation of monetary policy trends and taken up decisions and participation in a public debate on monetary problems. The central bank should not resort to public dialogue and limit itself to the presentation of its interpretations ex cathedra, hiding behind the independence it possesses. True enough, during a short period of time, and even during a medium-term, one can imagine conducting of monetary policy that is incomprehensible or unaccepted by public opinion (that is the sense of autonomy – to separate the central bank from factors that could disturb the long-term nature of the monetary policy), however this does not seem possible in the long run. The central bank is therefore forced to solicit support for its policy even when its formal autonomy has been guaranteed. Autonomy based exclusively on legal guarantees can be suicidal to the central bank in the long run. Properly planned transparency and accountability of the central bank can be an element of search for certain legitimisation among society [10, 65].

It seems that the minimum range of accountability should signify:

- the obligation to submit regular information on the activity of public and parliamentary opinion,
- informing the government about monetary policy guidelines,
- answers to questions asked by the parliament,
- establishing a method of procedure in case of conducting an unlawful policy,
- distinct formulation of policy objectives and clear principles of its conducting, as this facilitates assessment of policy effectiveness.

Often, more controversial are the expressed recommendations pertaining to the subject which has the right to formulate the objective of monetary policy, catalogue of objectives and procedures of suspending operative objectives (override provision), as they are inconsistent with autonomy requirements in the range of objectives.

In discussions on monetary policy transparency two types of its possible meanings are emphasized:

- influence on the effectiveness of monetary policy,
- as an element of accountability of the central bank.

In literature there is no agreement as to the fact, whether a high degree of transparency increases the effectiveness of the monetary policy. Many authors are convinced that a certain range of secrecy is required in the case of monetary policy and increases its effectiveness [5; 6]. Other works show the negative effects caused by the lack of transparency, particularly emphasizing the fact that transparency can ensure higher predictability of monetary policy, thus contributing to the stability of monetary markets and inflationary expectations [4; 7]. However, it seems that although the significance of transparency has not been fully defined for the effectiveness of monetary policy, it is an important element of accountability of the central bank. This aspect of transparency is emphasized, among others by, A. Blinder [3, 95; see also 9, 9]. Transparency as presented below will primarily be seen from this aspect, as a supplement to accountability of the autonomous central bank.

Transparency can in particular signify:

- regular publishing of statistical data as per calendar published earlier,
- regular publishing of analyses of monetary policy conditions, undertaken actions and their effects,
- public announcement of decisions crucial for monetary policy, best of all, if they were to have a commentary containing an analysis of causes,
- distinct determination ex ante of principles implemented by the management of the central bank, defining the trends of monetary policy and factors taken into account the moment decisions are taken (this can take place through the formulation of monetary policy strategy having regard to a certain rule),
- publication of forecasts (including inflation forecasts) and assessment of dangers of monetary policy implementation,
- publication of the characteristic of the current and future monetary policy attitude,
- publication of voting results (including the indication of names of particular management members and how they voted),

- publication of official minutes from meetings of the bank management.

The central bank must also be ready to conduct a dialogue with independent study centres, financial markets representatives and economic publicists.

The Treaty on European Union and the Statute of the European System of Central Banks do not pay much attention to the problem of accountability and transparency. The obligations of making reports are regulated by Art. 113 Item 3, stipulating that "ECB directs annual reports from ESCB activity and in matters of monetary policy to the European Parliament, Council and Commission, as well as to the European Council. The ECB Chairman has the obligation to present a report to the European Council and Parliament, which can have a general debate on the subject. A hearing can be conducted by competent Parliament commissions on request of the Parliament or on the initiative of the ECB Chairman and other Management Board members." This takes place once every quarter and additionally, if necessary. As results from the article tenor, ECB is obliged to inform the EU organs, but these organs are not authorized to reject the report.

Article 15 of the Statute imposes on ECB the additional obligation of publishing, in a quarterly cycle at least, a report on ESCB activity and the balance-sheet at weekly intervals. All ECB reports should be distributed among the parties concerned free of charge. By virtue of Article 27 the Annual Reports of ECB and national bank are subject to audit by independent auditing companies. Article 35 stipulates that ECB actions and failure to act, in cases and on principles specified by the Treaty, are subject to verification and interpretation by the European Court of Justice.

Real accountability, and in particular ESCB transparency, is indeed wider than it results from the Treaty obligations. ECB publishes, among other things, a weekly balance of the Eurosystem and a monthly report on ESCB activity. Decisions concerning interest rates are made during regular meetings of the Council, after which press conferences are organized. A description and analysis of monetary policy trends and current monetary tendencies in the euro zone are published once every quarter in monthly reports. Internal ECB projections are announced once every half-year and confronted with forecasts of other centres. The policy objective is distinctly interpreted and the strategy is also made public. ECB publishes data pertaining, supply of money, interest rates and several other data describing the macroeconomic situation (both in the traditional version as well as in the Internet) in conformity with the published calendar.

Both in the area of accountability and transparency ESCB does not fulfil all the requirements formulated in literature on the subject. Due to a wide autonomy range ESCB's accountability is in fact limited to informative duties. The Treaty neither provides any influence of other organs on monetary policy trends, nor in the form of suspending the objective for a certain period of time, in case of deep recession. Furthermore, no sanctions have been defined for failing to pursue the objective. However, it should be stressed once more that there is a discrepancy between many conditions that are to guarantee autonomy and accountability. Greater accountability range can be achieved partly only at the expense of autonomy, higher autonomy at the expense of accountability. The autonomy model adopted for the European Central Bank, to a large extent, determines the regulations pertaining to accountability, especially in the

field of formulating monetary policy assumptions. Another factor determining the possibilities in the area of accountability is basically lack of an organ in the European Union that could participate in formulating objectives (as there is in Great Britain or New Zealand). For the time being the European Parliament, although constituted in result of free voting, is not a suitably strong subject. The European Commission status is similar to the ECB Council (appointment). In turn, ECOFIN is a body that assembles 15 (and shortly 25) members. Conferring competence in the range of an inflationary objective to the Council could signify more complicated procedures and difficulties with making decisions.

One can also point to certain deficiencies in the range of transparency, although ECB practice does not stray away considerably from the activity of other central banks. The European Central Bank decided about the non-publication of minutes from Council meetings and information on the standpoint of particular Council members during voting, explaining this fact with the danger of exerting pressure on Chairmen of national central banks. Furthermore, a complicated and inaccurate strategy does not fully comply with the requirements of transparency, because it is not made obvious which strategy aspects have a decisive role in when decisions on the change of interest are made.

3. Accountability and transparency of the National Bank of Poland

The model of autonomy, as well as accountability and transparency of the National Bank of Poland (NBP – Narodowy Bank Polski), is similar to the european model. In 1997 the National Bank of Poland Act determined autonomy on a level similar to the solutions adopted by the Maastricht Treaty. NBP has therefore freedom in formulating monetary policy guidelines (including interpretation of the goal) and a choice of monetary policy instruments. In these activities, in conformity with constitutional entries, NBP is independent. Therefore, the adopted autonomy model determines accountability.

Polish legislation does not stipulate NBP co-operation with the government when establishing the objective, nor does it allow the government to suspend the objective for a certain period of time. The National Bank of Poland has informative duties towards the government and parliament (presentation of monetary policy guidelines and annual report on monetary policy implementation), but the Sejm does not have the right to accept or reject these documents, nor to modify them in any way. NBP representatives also participate in meetings of parliamentary commissions and in plenary debates of the Sejm. In fact, personal autonomy guarantees the impossibility of recalling NBP management before the term of office comes to an end, but the Act on NBP stipulates that the term of office may be shortened as result of sentencing someone with a legally valid judgement for committing a crime. In this way, similar as in the case of ECB, accountability is implemented through informative obligations.

NBP transparency extent should be assessed much higher (as accountability):

- it publishes statistical data in conformity with a calendar published earlier (both in the form of an Information Bulletin and in the Internet),
- it announces decisions pertaining to interest rates during press conferences, together with an assessment of inflation dangers,
- the objective of monetary policy and its quantification is distinctly marked,
- it announces the strategy of monetary policy (medium-term strategy for the years 1999 – 2003) and policy guidelines for the given year,
- it publishes several studies and reports containing an assessment of the economic situation, among others the Inflation Report (every quarter),
- it publishes the Report on monetary policy implementation and a Report on NBP activity,
- it publishes voting results by name,
- it announces the policy attitude (neutral, expansive, restrictive).

The biggest deficiency, as compared with the catalogue of activities conformable with transparency of monetary policy, is the absence of publishing minutes from meetings of the Monetary Policy Council. Nevertheless, publication of voting results by name allows one to form an opinion on the subject of particular Council members.

L. Bini-Smaghi and D. Gros [2] conducted comparative analysis in the field of ECB transparency and other central banks in USA, Great Britain, Canada, Japan and the former central bank of the Federal Republic of Germany. As results from the comparison, transparency of the Eurosystem is lower than in the case of the Bank of England, but similar as in the case of other central banks and higher than in the case of the Federal Bank of Germany. Taking into account 15 determinants of the transparency extent the Bank of England obtained 24 points (a maximum of two points could be obtained for each determinant), whereas the Eurosystem 19 points. A lower number of points was obtained by both the Federal Reserve System, Bank of Japan and the Federal Bank of Germany (table 1). A similar index calculated for the National Bank of Poland assumes a value similar to that of ECB, whereas NBP's transparency should be evaluated higher, especially due to the publication of voting results by name. The National Bank of Poland definitely fits in the European model of autonomy, accountability and transparency.

Table 1 – An indicator of central bank transparency and accountability

	Total score	Total score without minutes and votes
Eurosystem	19	19
Federal Reserve	16	14
Bank of Japan	14	10
Bank of Canada	15	15
Bank of England	24	20
Bundesbank	13	13
National Bank of Poland	17	15

Source: *Bini-Smaghi, Gros 2001 and own calculations*

The differences between the European and Anglo-Saxon model (Great Britain, New Zealand) result from a completely different philosophy of providing credibility of low inflation orientated monetary policy. In the contract model, based strongly on the results of debate on the rule of dilemma and discretional actions of the Barro/Gordon model [1], the contract between the government and central bank management is to ensure the liquidation of inflationary bias. Microeconomic sanctions are indispensable for the bank management to implement the agreed objective. This is how creditability of conducted policy is obtained, and not through autonomy. In the European model it is assumed that the management of the central bank isolated from political pressures, and obliged to implement the objective of price level stability over a longer period (in result of a long term of office), will not be subject to inflationary distortion, and will thus conduct a credible policy. However, if autonomy given to the central bank is to have a real dimension, it must mean the giving up of certain solutions, that seem indispensable to advocates of the Anglo-Saxon model. Considerable differences mainly concern the problem of accountability, including the establishment of objective, suspension of objective, assessment of central bank activity and possible sanctions for failing to reach the objective. These elements of accountability are in an evident way in opposition with the essence of autonomy.

4. Conclusion

Smaller differences exist in the area of transparency. ESCB practice does not differ from the activity of Anglo-Saxon banks. The information policy and range of information made available should be favourably assessed. The slightly unclear strategy poses a bigger problem. The only important difference as compared with the Anglo-Saxon model is the absence of publishing minutes from bank council meetings and detailed voting results. To advocates of the Anglo-Saxon model this is one of the most important determinants of openness to the public, open access and predictability of actions of monetary authorities. By analysing the minutes one can make a better assessment of the real factors taken into account during decision-making by particular members of the bank management. This way it is easier to determine the future monetary

policy attitude. Simultaneously, the evaluation of bank activity by public opinion is made easier.

ECB management brings forward the argument that the publication of behaviour of particular members of the management during voting would make their independence doubtful, because it would increase the pressure exerted by national and other business groups. In conformity with the conception of ESCB activity members of the Council cannot act as representatives of their countries or any business group. The publication of voting results by name could unnecessarily bring about debates in particular countries on the way that a given national central bank chairman votes and could pressure the Council more strongly into making concrete decisions. Such reasoning seems understandable from the point of necessity to provide uniform monetary policy in the euro zone [11, 29]. However, at the same time it certainly restricts policy transparency and makes its assessment more difficult.

Abstract

Diskuze o nezávislosti centrální banky by měle být doprovázena uvažováním o problému dohledu a transparentnosti. Růst rámce bankovního dohledu může mít za následek omezení skutečné nezávislosti. Na druhé straně přiměřeně vytyčený rámec dohledu je v demokratické společnosti nezbytný. Také je možné garantovat určitý základní stupeň dohledu a transparentnosti v případě nezávislé centrální banky a to se zdá být důležitou součástí nezávislosti. Důkladně plánovaná transparentnost a dohled nezávislé centrální banky mohou být základními prvky hledání určitého uzákonění ve společnosti. Jak v oblasti dohledu, tak i v oblasti transparentnosti, nenaplňuje ECB všechny požadavky formulované v literatuře. Vzhledem k širokému vymezení rámce nezávislosti je dohled ECB omezen na informační povinnosti. Můžeme také poukázat na jisté nedostatky v rámci transparentnosti, jelikož se postupy ECB příliš neodlišují od aktivit ostatních centrálních bank. V případě Polské národní banky, podobně jako v případě ECB, je dohled prováděn prostřednictvím informační povinnosti. Transparentnost Polské národní banky by mohla být hodnocena lépe, zejména díky zveřejňování výsledků hlasování podle jmen. Souhrnem lze říci, že Polská národní banka určitě dobře zapadá do evropského modelu nezávislosti, dohledu a transparentnosti.

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OPERATIONAL AND INTERMEDIATE TARGETS IN THE MONETARY POLICY OF CZECH NATIONAL BANK[1]

Lumír Kulhánek

Key words

monetary policy, transmission mechanism of monetary policy, intermediate targets, monetary and financial indicators, Czech National Bank

1. Introduction

Monetary policy is generally characterised as a process, in which the central bank efforts to reach the preset goals by means of its mechanisms.[2] The strategy, which is applied to achieve these objectives, is being evolved and it is changing. The changes, which had taken place in the developed economies since the 1970s, had received new incentives and dynamics in the 1990s. We are going to leave out the area, in which a consensus was more or less reached – the issue of defining and setting the goal/goals of monetary policy.[3] We are going to pay attention to the application of targets and indicators in monetary policy. We are going proceed from the differentiation of operational targets and intermediate targets and from a systematical summary of transmission mechanisms of monetary policy. Following, there will be changes observed and considered in applying various targets in monetary policy of Czech National Bank since its establishment in the year 1993 to the present.

2. Transmission mechanisms of monetary policy

The traditional analysis of policymaking distinguishes objectives, instruments, intermediate targets, and indicators of monetary policy. The objectives are the ultimate goals of policy, the instruments and operational targets are the variables that central banks can control directly. The fact that there is not a direct connection between the instruments of the central bank and final goals of its monetary policy is together with the

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[2] See for instance KOTLÁN, V. and collective. *Monetary policy* Ostrava: VŠB-Technical University, 2000, p. 37.

[3] For a discussion concerning possibilities and goals of monetary policy see e.g. SANTOMERO, AM. What Monetary Policy Can and Cannot Do. *Federal Reserve Bank of Philadelphia Business Review*, 2002, no. 1, p. 1-4.

existence of long and variable lags in operation of the policymaking instruments one of the key issue of monetary policy. The linkage of the instruments and goals of monetary policy is often intermediated by other two variables (monetary quantities). Indicators and intermediate targets fall between the instruments and the objectives.[4] A concrete nature of targets[5] depends on the selected character of transmission mechanism of monetary policy, which is used by the corresponding bank. Contemporary literature offers concurrently to banks a series of various recommendations and alternative explanations concerning the course of transmission, which the central bank uses for attaining goals of monetary policy.

We can imagine mechanism of monetary policy as a chain of causal relations. It describes then how monetary policy affects inflation and output. In older literature, two transmission mechanisms were usually stated, which were based on various theoretical bases of Keynesian theory and monetarism.[6] According to them, monetary policy can be defined either in terms of an interest-rate target or in terms of a monetary-growth target. Under the monetary-growth target, monetary policy is based on the causal relation between the increase in the monetary base, the increase in the quantity of money and the change of the price level. With then interest-rate target, a relation between the development of the short term interest rates, long term interest rates, aggregate demand, HDP and employment rate is applied.

A later interpretation of the process of monetary policy abandoned the differentiation according to the adjectives of monetarism or Keynesianism, it noted the implementation of monetary policy in different regimes of the rate of exchange and transmission mechanisms of monetary policy were classified in more detail. According to the concrete quantities acting in a role of operational and intermediate criteria, the following were defined:

1. three fundamental transmission mechanisms of monetary policy in market economy,

2. partial (basic) modifications of fundamental transmission mechanisms,

3. other modifications of transmission mechanisms.

(1) In this conception, fundamental transmission mechanisms are constituted by transmission mechanism a) monetary, b) credit and c) exchange rate. *(2)* Their partial modifications are represented by a) monetary transmission mechanism with a short-term interest rate, b) credit transmission mechanism with a monetary base and c) exchange rate transmission mechanism with a short-term interest rate.

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[4] Indicators are variables that provide information on the current or future behavior of the objectives. As policymakers obtain new information about the likely behavior of the objectives by observing the indicators, they may adjust the settings of the instruments. Intermediate targets are variables that policymakers choose to focus on in place of the ultimate objectives.

[5] Problems of indicators of monetary policy are not followed further in the passage. For more details see e.g.: KULHÁNEK, L. Indicators for Inflation Targeting. In *Challenges for Business Administrators in the New Millennium*. Canakkale & Karviná: Canakkale Onsekíz Mart University & Silesian University, 2000, p. 450-456.

[6] Compare e.g. KOHN, M. *Money, Banking, and Financial Markets*. Chicago etc.: The Dryden Press, 1991, p. 782-789.

From the entire range of other modifications of transmission mechanisms (3), one may state first of all transmission mechanism based on the financial accelerator, transmission mechanism using GDP gap, monetary transmission mechanism using wealth effect, liquidity effect and Tobin's theory Q. Direct inflation targeting had won an exceptional position and a significant meaning among these since the 1990s of the 20th century.

According to Czech National Bank's definition, transmission mechanism of monetary policy is a "chain of economic links, which enables changes in the settings of policymaking instruments to lead towards desirable changes of inflation. The commencement of transmission mechanism is then a change of the settings of policymaking instruments."[7] It is obvious that financial sector responds first to the given change, where changes of behaviour of "intermediate" markets take place, and the settings of policymaking of instruments have a direct influence on them. Subsequently, the interaction of financial quantities and real economy takes place. The changes of financial quantities apart from a series of other "intermediate" targets lead to the changes of "target" markets, of which price development the central bank requests to influence.

The given description indicates that monetary impulse induced by the policymaking settings of the bank functions parallelly many ways, by means of different channels. The very channels of transmission of monetary impulses are in the centre of attention nowadays of all series of research work, which are carried out both by academic workplaces and on the premises of banks, including ECB[8] or Czech National Bank.

The classification of individual channels of transmission is not homogenous. The credit channel[9] is a traditional stated channel of functioning of monetary impulses. Its function can be indicated in the following way: increase or decrease in the interest rate, which is used as an instrument in monetary policy of the central bank (it is foremost two-weaks repo rate in the Czech Republic at the moment) and it leads to the increase or decrease in interest rates on the interbanking banking. Therefore, banks announce the increase or decrease in interest rates for granting credits and accepting deposits. The result is a drop or recovery of the investment activity as part of aggregate demand, and finally weakening or strengthening of pressure on the growth of the aggregate price level.

3. Strategy of monetary policy

According to the above stated three fundamental transmission mechanisms of monetary policy, main monetary political instruments are referred to, regardless of a

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[7] http://www.cnb.cz/_mpolitika/s6.htm/.

[8] ELS, van P., LOCARNO, A., MORGAN, J., VILLETELLE, J. *Monetary Transmission in the Euro Area: What Do Aggregate and National Structural Models Tell Us?* ECB Working Paper No. 94. Frankfurt am Main: ECB, 2001.

[9] Czech National Bank states this channel on its websites when clarifying transmission mechanisms.

series of their modifications. These are used by central banks nowadays for fulfilling the fundamental long-term objective of its monetary policy, or strategies for controlling inflation. There are four basic strategies that central banks have used to control and to reduce inflation:[10]

1. monetary targeting,

2. exchange rate pegging,

3. direct inflation targeting,

4. „just-do-it“[11] strategy.

It defines analogically fundamental types of regimes of monetary policy of Czech National Bank[12] and a number of authors in the Czech Republic and in the world. While monetary targeting, exchange rate pegging and usually „just-do-it“ strategy are defined as strategies using the intermediate target; inflation targeting is often defined as a strategy without the intermediate criterion. The embedding of monetary policy towards the medium-term intermediate criterion, which is realized by means of monetary aggregate in other strategies, nominal exchange rate or any other quantity, is not carried out in inflation targeting.[13] The central bank sets and publicly announces explicit inflation targets.[14] A question naturally arises how the settings of instruments of monetary policy are changed in inflation targeting, which influence the development of the operational criterion.

In this passage, we will consider an inflation prognosis as an inter-target (short-medium intermediate target) of monetary policy in the regime of inflation targeting. L. Svensson [15] applied this approach towards the end of the 90s. The changes of the settings of monetary policy are then realized on the basis of the comparison of the inflation prognosis (conditioned inflation prognosis) with the explicit inflation target.

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[10] See for more details: KULHÁNEK, L. Strategies of the Monetary Policy of the European Central Bank: Ins and Outs of Alternative Strategies. In *Monetary Policy in Transforming Economies*. Bratislava & Banská Bystrica: National Bank of Slovakia & Faculty of Finance Matej Bel University, (B+Business Centre), 1999, p. 34-49.

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Certain principles are to be respected in interest of efficiency of monetary policy in decision-making as for concrete strategies of monetary policy, or in selecting operational and intermediate criteria for monetary policy. As operational and intermediate inter-targets should be chosen such variables by the bank, of which characteristics ensure the completion of the minimal four following conditions:

a) the ability of the central bank to influence the development of the operational criterion by its instruments,

b) the accessibility and reliability of quantitative data and development of the operational and intermediate criterion,

c) the familiarity with the links or predictability of the links between the development of the operational and intermediate criterion,

d) the familiarity or predictability of the links (correlation level) between the development of the intermediate criterion and development of the final objective of monetary policy.

The terms stated ad a) and ad b) are utterly obvious and the discussion in that area is not lead. In contradiction with it, there are numerous discussions concerning the terms ad c) and ad d), accompanied by extensive empirical statistical research work for different countries. The situation is often complicated by practical problems, which can be categorized into 1) a lack of reliable data, 2) unforeseeable changes in the structure of economy, and 3) separating cause from effect in the data.

4. Development of monetary policy in the Czech Republic from a point of view of monetary targets

In assessing the development of monetary policy in the Czech Republic since the year 1993 from a point of view of transmission mechanisms applied, the two different periods and two different monetary policies have usually been stated - monetary targeting till the end of the year 1997 and inflation targeting since the year 1998 up to the present. In reality, we can define at least three different periods, though – on the basis of the above stated categorisation of transmission mechanisms and their modifications. In a detailed analysis of monetary policy with Czech National Bank in the observed period, it is necessary to consider both changes of operational criteria of the central bank, and the existing exchange rate regime of the CZK and its changes.

For that reason, we are dividing the development of monetary policy in the Czech Republic since the year 1993 into three stages (periods):

1. in the period of the years 1993-1996, when monetary transmission mechanism was applied in the primary form (regulation of monetary aggregate M2 by means of the monetary base or components of the monetary base),

2. the period of the years 1996-1997, in which a modified monetary transmission mechanism was applied (regulation of monetary aggregate M2 by means of the short interest rate),

3. the periods since the year 1998 up to the present, when inflation targeting is realized.

In the first and second defined period, which is until the end of the year 1997, Czech National Bank realized money stock targeting. The goal of the increase in money stock was determined for broad money – monetary aggregate M2.[16] The strategy of money stock targeting was realized in the circumstances of the fixed monetary exchange rate of the CZK[17] right from the very beginning in the Czech Republic. That is in circumstances, when central banks do not control autonomously the development of domestic money stock (do not fully set it).

In this situation, with reference to the external (foreign) factors of the determination of money stock, domestic money stock goes adrift to a certain extent (out of control) of the central bank. The contradiction was gradually growing between the obligation of securing the fixed exchange rate of the CZK and the effort to regulate the development of money stock in compliance with the set rate of growth of money stock in the Czech Republic. At the beginning of the year 1996 it became evident, that Czech National Bank would have to find a way out of this situation. The first reaction was the extension of the fluctuational zone of the exchange rate of the CZK at the end of February 1996. This step did not bring any essential solution of the problem and finally in May 1997, the central bank resorted to a flexible exchange rate (system of controlled floating). Hence, the second half of 1997 was a period of „pure“ monetary targeting since the target for growth of M2 was not modified and had been reached by the end of the year.

As it is obvious from the first table, in the periods of the years 1993-1997, the bank in the role of the operational criterion applied different quantities. First, Czech National Bank used monetary base,[18] then only its component (part) - free reserves, free reserves with over-writing rule. In the end[19], the central bank abandoned entirely the regulation of components of monetary base, and it started to use short-term interest rates as the operational criterion. Therefore, the period of the years 1996-1997 is referred to as a period, when the bank applied a modified exchange rate transmission mechanism.

[16] Rate of growth of monetary aggregate is depicted by Figure 1.
[17] The crown was pegged to a basket of currencies.
[18] ČNB targeted first the growth of aggregate M2, not only by affecting monetary base, but also monetary multiplier by changing rates of minimal compulsory reserves.
[19] At the turn of the years 1995/96 it gave up monetary base as the operational criterion of monetary policy and went over to control of short-term interest rates by means of repo operations.

Table 1 – Development in the period 1993-1997

	Operational Targets / /Instruments	Intermediate Target: M2 Growth (%)	M2 Growth (%)	EXCHANGE RATE PEG	CPI Inflation (forecast)	CPI Inflation
1993	Monetary base	16,0 ± 1	21	± 0,5	15	18
1994	Free reserves	13,5 ± 1,5	22	± 0,5	10	10
1995	Free reserves	15,5 ± 1,5	19	± 0,75	9	9
1996	Short term rates REPO rate	15 ± 2	8	± 7,5	9	9
1997	Short term rates REPO rate	10 ± 2	10	± 7,5 May: floating	8	9

Source: Czech National Bank, Annual Reports

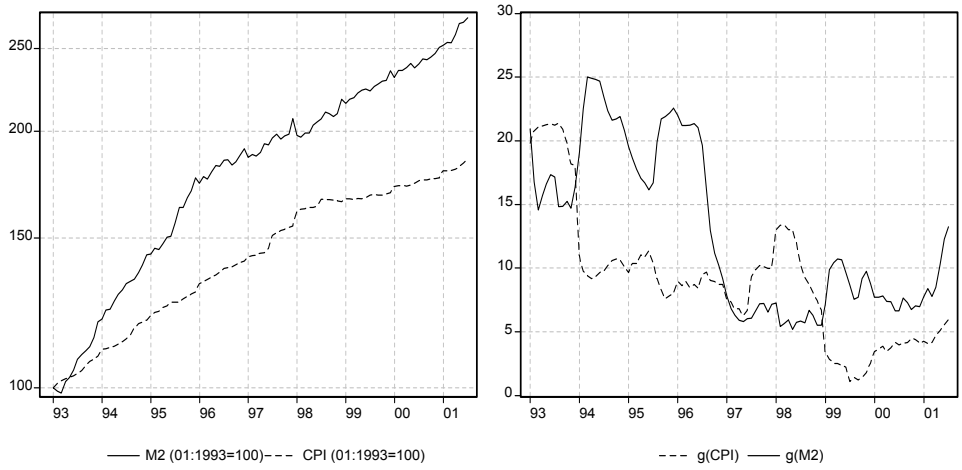
In the year 1993, Czech National Bank realized money targeting by means of the regulation of monetary base, which played a role of the operational criterion. At the same time, central banks carried out exchange rate interventions in the area of exchange rate by means of buying and selling foreign currencies for the domestic currency with the aim of stabilising the fluctuational exchange rate of the Czech crown in the range of ±0,5 percentage. In the year 1994, monetary policy was still based on the monetary transmission mechanism, free reserves were used in the role of the operational criterion. The gradual growth of the outer imbalance commenced to indicate a limited autonomy in regulating domestic money stock, money stock in the circumstances of the fixed exchange rate.

The fact that by affecting the monetary development it is not possible to fix concurrently the exchange rate and to control money stock in the country was manifested in the year 1995 and 1996. As early as in the year 1995, Czech National Bank had to react more markedly to the increased influx of foreign capital[20] while regulating domestic money stock. Furthermore, it responded by following interventions at the foreign exchange market and by sterilizing measures in the form of selling short-term securities – Treasury bills of Czech National Bank. Since February 28th, 1996, there has been the extension of the floating zone of exchange rate to ±7,5 percentage.

[20]Towards October 1st 1995, a new exchange rate Act N. 219/1995 Coll. introduced external convertibility by virtue of Article VIII of the International Monetary Fund Agreement and the Czech crown became a convertible currency. Beyond the bounds of the full liberalization of operations connected with the current account of balance of payment, a considerable number of capital operations had been liberalised. Since February 1st 1999, the existing regulated items of the capital account of balance of payment had been liberalised apart from small exceptions.

In the year 1996, Czech National Bank replaced management of quantitative monetary quantities in the role of the operational criterion of transmission mechanism of monetary policy by controlling short-term interest rate at the inter-bank market – weekly PRIBOR rates. It acceded to policy that was more restrictive since the middle of the year, what resulted in a decrease in the rate growth of monetary aggregate M2 (see Table 1). In the year 1997, the central bank realized still monetary targeting in its monetary policy. It used M2 as the intermediate criterion and operations at the free market became a crucial instrument in the form of REPO operations. The negative development of the current account of balance of payments and speculative runs on the Czech crown, on the other side, resulted in abandoning the fixed exchange rate regime in the transition to the controlled floating in May 1997[21]. In the second half of the year, the stabilization of interest rates and exchange rate took place. Czech National Bank did not set the official objective of the growth of money stock though, and it went over to inflation targeting.

Figure 1: Price level and money stock in the Czech Republic (CPI, M2, 1993:01 – 2001:07)



As it was stated above, the familiarity and relative stability of the links between the development of the selected monetary aggregate and the development of the price level or nominal HDP are a necessary condition for the efficiency of monetary transmission mechanism. Furthermore, the stability of monetary multiplier or knowledge of its possible changes is presupposed. The absolute stability of the relation is not strictly required in both cases; it suffices if this relation is at least predictable from the side of the central bank. The ability of the central bank to influence the development of monetary base or its selected components as the operational criterion of monetary policy by its instruments is absolutely obvious for a successful application of monetary

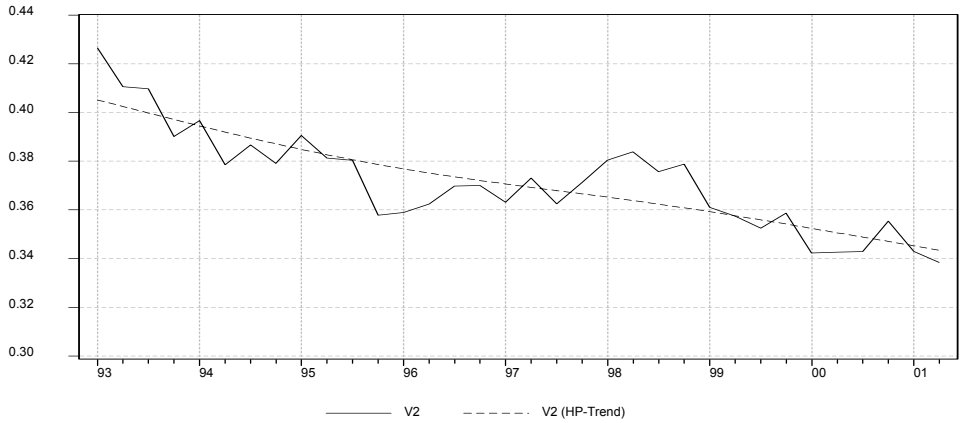
[21]Fluctuating zone of +/- 7,5 % was lifted from base parity; the method of basket was abolished in deriving the exchange rate and introduction of control floating during the observation of the exchange rate towards DM.

transmission mechanism. In the course of M2 money stock targeting, credibility of Czech National Bank in the stability of the relation between money stock M2 and inflation gradually subsided in the Czech Republic. Czech National Bank used this reality as one of reasons for the transition to inflation targeting from monetary policy. In our opinion, this argument is at least controversial. The existing analyses confirm the significance of the relation between M2 and inflation in the Czech Republic, even though this relation is not entirely proportional according to the statement of monetarist theory.

The development of price level measured by a monthly index of consumer price (CPI) and the development of average monthly monetary stock M2 from December 1992 to July 2001 depicts Figure 1 (left part). Monthly inter-annual rates of growth of monetary stock M2 and consumer price index are shown in Figure 1 – right part. The graph indicates a considerable decrease in the inter-annual increase in M2 in the observed period, and from an initial, relatively high level of 15% - 25%[22] to noticeably lower rates of growth of M2 at the level of 6% - 8 % from the middle of the year 1996 to the beginning of the year 1999, or to the level of 7% -11% from the beginning of the year 1999 to the present. If we compare monetary development with the development of gross domestic product, one can state that seasonally adjusted money stock M2 had increased 2,7 times in the Czech Republic since the year 1993, and nominal gross domestic product had increased 2,1 times[23].

A significant, and at the same time often discussed issue in connection with the application of monetary transmission mechanism is often the statement concerning the instability of the velocity of money V2 in the Czech Republic.

Figure 2: Velocity of money income V2



[22] In the case of quarter data, inter-annual data reached a growth of 14-23% to the year 1996.
[23] In calculating seasonally non-adjusted data, nominal HDP increased even 2,3 times.

Velocity of money is clearly not constant in the Czech Republic. Its development is portrayed in Figure 2 in the particular quarters of the observed period. As it is obvious from the graph that in the development of velocity of money income V2 in the Czech Republic one can observe a continuing trend of a relatively slight decrease in velocity. The trend was interrupted only at the turn of the years 1997-98 and in the year 1998 velocity V2 slightly rose interannually in the range of 2%-4,6 %. Since the year 1999, the drop of velocity V2 renewed in the Czech Republic and it even accelerated to a rate of inter-annual decrease by 5%-7% [24] in the particular quarters.

With Czech National Bank's transition to inflation targeting, one can note in the Czech Republic that monetary aggregates are relatively absent both in the models applied by commentators of monetary policy, and in contemporary discussions concerning monetary policy. Monetary aggregate M2 lost its role of the intermediate criterion of monetary policy[25] and as the operational criterion of monetary policy are still used by Czech National Bank – as it is the case of most of central banks in the world – short-term interest rates.

5. Conclusion

Different quantities have appeared in the role of monetary targets in a relatively short history of monetary policy in the Czech Republic. The changes in the role of the operational criterion, which had been noted since 1993, follow a more general contemporary trend of transferring central banks' attention from applying quantitative quantities (indicators of monetary base and monetary aggregate) to price quantities (shirt-term interest rates, first of all repo rates).

The analysis of applying medium-term intermediate target confirms that Czech National Bank, together with many other central banks had given up the strategy of money stock targeting and had introduced direct inflation targeting. Within this strategy, intermediate targets are not used any longer. In Europe for instance, Bank of England had applied a similar procedure. European Central Bank, to the contrary, had used a strategy in its monetary policy, which rests on two pillars. The first pillar is represented by elements of monetary targeting, including the inter-annual fixation of the medium-term intermediate goal of the growth of monetary aggregate M3. It is completed by another pillar, which contains elements of inflation targeting too and policy-decision making on the basis of broad sets of indicators.

The regime of inflation targeting has been constantly further developed by Czech National Bank since 1998 and its particular essential elements have been partially modified. These modifications are particularly oriented on the problems of setting the

[24] In detail see KULHÁNEK, L. Velocity income of money circulation in the Czech Republic: A survey of the development 1993-2001. *Acta Academica Karviniensia*, 2001, no. 2, p. 151-155.

[25] A paradox is the fact that in this connection, after the transition to floating in the year 1997, the prerequisites for monetary targeting without objectively given limits of the regime of the fix exchange rate had been created, the strategy was not applied by the central bank until the year 1998, and it had been replaced then by the regime of inflation targeting.

explicit inflation goal (giving up net inflation indicator and its replacement by CPI-inflation) and on the elaboration of conditioned inflation forecasts, which have a fully exceptional position in the regime of monetary policy.

Abstract

Příspěvek posuzuje využití měnových kritérií v různých transmisních mechanismech monetární politiky. Analýza vychází z rozlišení operativních kritérií a střednědobých zprostředkujících kritérií (intermediate targets) a jejich místa v schématu transmisních mechanismů monetární politiky. Následně jsou představeny a posouzeny změny v uplatnění jednotlivých monetárních kritérií v měnové politice České národní banky od jejího vzniku v roce 1993 do současnosti, včetně etapizace monetární politiky podle tohoto hlediska.

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COMPARISON OF MONEY IN CIRCULATION BETWEEN THE CZECH REPUBLIC AND OTHER EUROPEAN COUNTRIES

Ilja Skaunic

Key words

money in circulation, notes and coins, credit institutions, EU members, candidates of memership

1. Introduction

People sometimes think that nowadays the use of cash is limited to minor expenditures. Through the innovations in kinds of money availability the traditional ways of using cash are gradually eliminated; 90 % transactions in advanced economies are carried out by using the bank money , only the rest in cash. This does not mean that using the paper money and handling it to be abolished completely therefore we needn't to deal with this issue at all. Opposite is proved by an increase in money in circulation volume. If in the year 1961 in this country (then ČSSR) was less than CZK 10 milliard money in circulation, by the year 1972 this sum doubled. Under the new economic conditions after the monetary separation the amount of CZK approx. 20 milliard was put into circulation. In the year 2001 for the first time the magic limit of CZK 200 milliard was surpassed.

2. Money as an economy category

Many definitions for the money as a term are available. One of them appears in Economy, the textbook by Samuelson and Nordhaus and it says: „Money is anything that serves as a commonly accepted way of exchange or payment". It is to remind of the certain differences in understanding the money in circulation as a term . In aggregate M1 money in circulation is included which is defined as cash held in business and domestic sectors excl. the cash at the bank counters (so called „monetary money in circulation" or "notes and coins in circulation outside credit institutions"). The reason is that cash deposited by the client in bank will become deposits at sight or quasi money. Then it would be included in monetary aggregates twice. In a wider understanding if we need to calculate the total value of cash money issued in circulation by central bank, then also money at the banks´ cash counters is included in money in circulation (so called „balance money in circulation"). This way of understanding money in circulation is used if we value its development isolated from other components

of monetary aggregates when valuing the issued cash, its circulation and factors influencing it. It is also used in CNB balance.

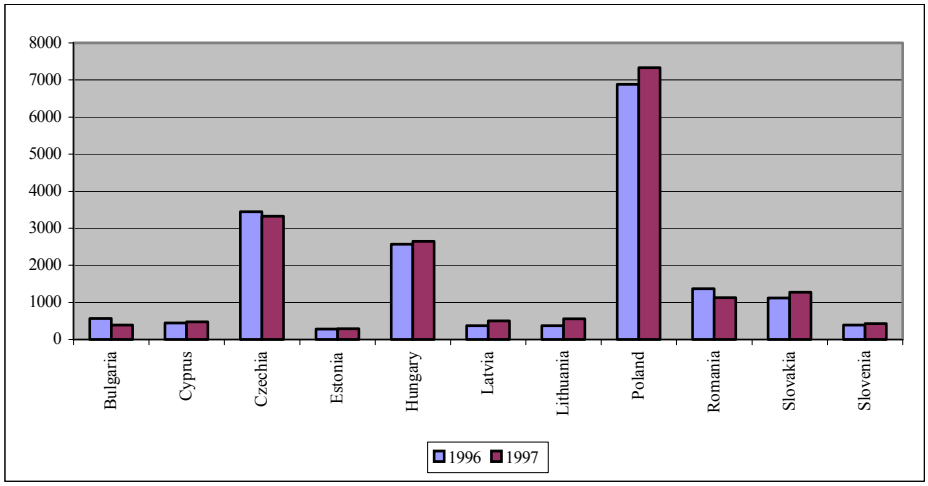
Absolutely majority of all authors, either of microeconomic or macroeconomic textbooks look at money in its abstract, cashless form. This standpoint is logical and fully understandable if we look at money with economists´ eyes investigating the microeconomic or macroeconomic problems in their entirety. Cash money in its physical form as the banknotes and coins are mostly mentioned at the beginning of a chapter called Money to be abandoned later and mentioned just as the first line in a balance sheet. The overall economic theory works with other expressions like credits, deposits, money aggregates M,L etc. in which cash money is integrated but is not the most important component. But on other way it should be sometime interesting to look at money in its cash form and compare its development in some countries.

3. Comparison of level of money in some european countries

The discussions on the issues like optimal way of running money circulation are frequently joining. Comparison between condition in the Czech economy (and other EU candidates) and highly developed economies in the EU members is really very interesting.

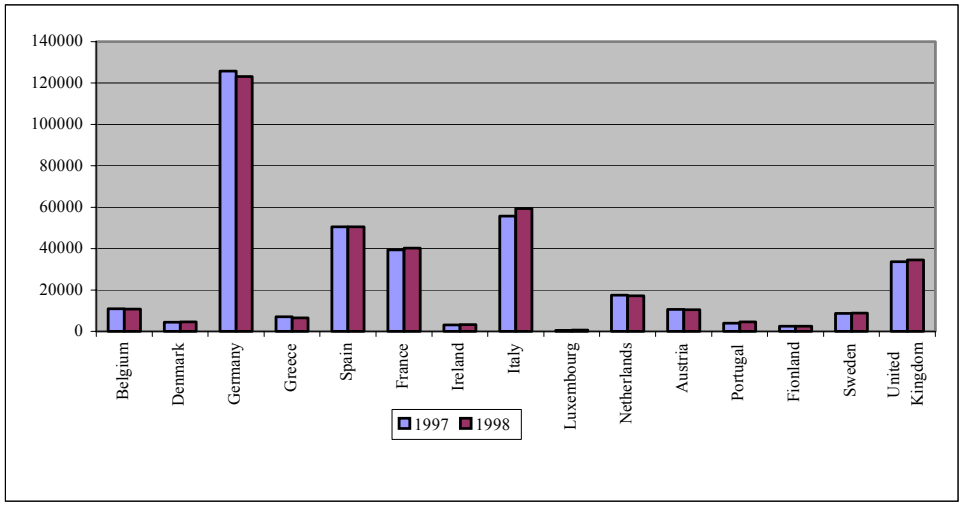
Next two Figures show different level of money circulations in european countries. Figure 1 shows money in circulation in countries that have applied for membership of the European Union (recounted to EUR), Figure 2 shows the same data in countries – members of the European Union.

Figure 1 - Notes and coins in circulation outside credit institutions (ECU milions)



Source: ECB Blue Books. Frankfurt am Main: European Central Bank, 1999 – 2002.

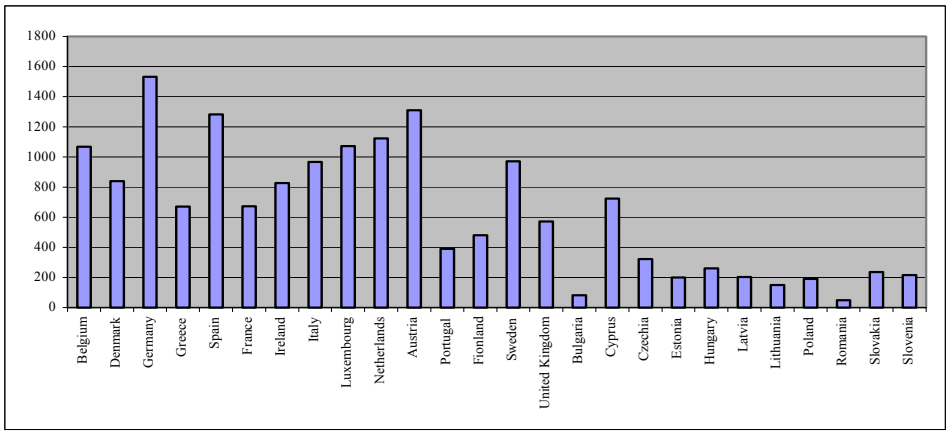
Figure 2 - Notes and coins in circulation outside credit institutions (ECU milions)



Sources: ECB Blue Books. Frankfurt am Main: European Central Bank, 1999 – 2002.

Comparison of data in these Figures is problematic. Data are influenced by different price level in individual countries and by different size of individual economies. That is reason of using next two Figures. First of them show value of notes and coins outside bank institutions per inhabitant, last one use value of notes and coins outside credit institutions as a percentage of narrow money.

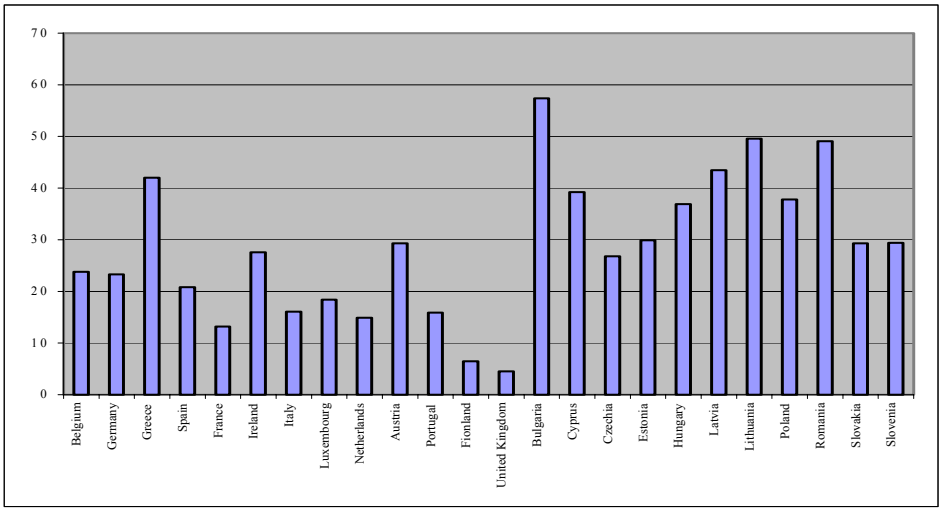
Figure 3 - Notes and coins in circulations outside credit institutions (value per inhabitan in ECU, 1997)



Sources: ECB Blue Books. Frankfurt am Main: European Central Bank, 1999 – 2002.

Czech authors use to said that value of money in circulation in the Czech republic is too high. Figures in Figure show us (at the opposite) that in comparison with the EU members the value of money in circulation is relatively low. This fact is influenced especially by lower level of prices than in states – memberships of the European Union.

Figure 4 - Notes and coins in circulation outside credite institutions (as a percentage of narowmoney, 1997)



Source: ECB Blue Books. Frankfurt am Main: European Central Bank, 1999 – 2002.

Figure 4, which shows percentage of narrow money, can focus our thinking to next problem. In economies in transition countries circulate relatively much more cash money than in countries with developed economy. Causes of this situation could be different. One from the most probably reasons is big share of grey economy in economy life.

4. Conclusion

Two basic inferments we can make from comparison of money in circulation between countries that have applied for membership of the European Union and countries, which are actually members of the European Union.

The first of them is, that volume of money in circulation is higher in the EU members, which is caused by higher price level in these states.

The second one is that using of cash in canditaes states is more frequent and more intensive than in memberships of the EU. It depends on lower level of economies in candidate states .

It is not very probably, that differencies between these two groups of countries will change in short time – more probably is, that process of approchement will be long and different as whole process of applying for membership in the EU.

Abstract

Příspěvek ukazuje na to, že hotové peníze stále ještě neztratily svou úlohu v ekonomickém životě taranzitivních ani rozvinutých ekonomik. Rozdíly v úrovni oběživa v členských státech EU a přistupujících státech jsou značné a ještě delší dobu potrvají.

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THE CENTRAL BANK INDEPENDENCE IN TRANSITION COUNTRIES[1]

Monika Bialonczyková

Key words

central bank independence, indices of CBI

1. Introduction

Since the end of the 1980s, numerous countries in different parts of the world have substantially upgraded the legal independence of their central banks. The changes in legislation make the central bank (CB) more autonomous from government and direct it to focus mainly on the objective of the price stability even at the cost of disregarding other real objectives.

Central bank independence (CBI) has become one of the main concepts in monetary theory and policy.

The continuing process of transition from a planned to market economy in the former socialist countries of Central and Eastern Europe involves fundamental changes in the structure of those economies too. These include significant changes in their banking systems. First, the transition countries had to move to a two-tier banking system by breaking the Monobank into a CB and a large number of competitive commercial banks. Second, the banking system had to be restructured. Specialized state-owned banks were commercialised and governments assigned them new tasks. In addition, a number of new private banks could emerge. Third, further elements of this transformation process were the creation of a Western-type central bank and new CB laws.

A new legislation on central banks came relatively early in the Czech Republic, Hungary and Poland and it has been modified several times.

[1] The paper is published with the support of the Czech Grant Agency (grant GAČR No. 402/00/0312 „Comparison of the Banking Sector Development in the World and in the Czech Republic in the 1990s“).

2. The Theoretical Case for the Central Bank Independence

The intellectual case for the central bank independence (CBI) rests on two pillars – one theoretical and the other empirical.

The first one is based on the view that policy-makers are subject to an inflationary bias[2]. Monetary policy enables them to achieve various real objectives. Nevertheless, the success of the monetary expansion is only temporary. It is true that money is neutral. However, this is true only in the long run. And if the monetary policy is frequently misused to achieve a real objective, the long run becomes shorter and the public will rationally expect the inflation rate in advance and will embed it in the nominal wage and capital market contracts (Cukierman, 1996).

Grilli/Masciandaro/Tabellini (1991) discuss the political and economic independence of the CB. We can understand the economic independence as the ability of the central bank to determine the use and the choice of its monetary policy instrument without influence from the government. Nevertheless, this independence may be adversely affected by CB's obligations to finance the government budget, to supervise commercial banks and by a lack of freedom to set interest rates. On the other hand, the political independence is defined as the ability of CB to choose the monetary policy goals autonomously. That means the personal independence, the government's right to give instructions to the CB, the government's right to veto, to suspend or to defer the central bank's decisions, its right to be present on the central bank board and the formal responsibilities of the CB. Following works deal with the meaning of these institutional details.

Two possible ways to deal the government's inflationary bias consists in removing all its discretionary power to an independent authority (Kissmer/Wagner, 1998).

First, Rogoff (1995) discusses delegating the monetary policy to an independent central banker in the framework of a Barro/Gordon model with the stochastic supply shocks (Barro/Gordon, 1983)[3]. He argues that the CB should be "conservative". The "conservative" CB agrees with the social preferences[4] regarding the target values of inflation and output, but places a greater weight to the inflation target than the government. Rogoff's approach has been dealt in many others works (for example, Persson/Tabellini, 1997, Cukierman, 1992, Lohmann, 1992).

Another approach of delegating the monetary policy to an independent banker is, for example, in Walsch (1995), and Persson/Tabellini (1993). It is called "the targeting or contracting approach". The government transfers its control over the monetary policy instruments to an independent CB, but it should also provide the central

[2] Cukierman (1992) refers to three reasons for the inflation bias: employment motive, revenue motive and balance of payment motive.
[3] This article is the seminal article for the literature on CBI (Hayo/Hefeke, 2001).
[4] Rogoff deals with the employment motive of the inflation bias.

bank with incentives to optimise the social welfare function. This can be done in the form of a contract between the government (as the principal) and the CB (as the agent).

3. The Measurement of the Central Bank Independence

The empirical substantiation of the CBI is based on works, which see a "free lunch" in the existence of an independent CB (Grilli/Masciandaro/Tabellini, 1991). It means, on average, that countries with a more independent CB realise comparatively low inflation rates without real economic costs in terms of the lower economic growth or the higher output volatility. In fact, numerous empirical studies on the relationship between CBI[5] and inflation confirm a negative correlation between inflation and the CBI (Kissmer/Wagner, 1998).

Authors of the empirical studies use a number of different legal attributes. The pioneering attempt to codify a legal CBI for a subset of the industrial economies is attributed to Bade/Parkin (1988), who differentiate between an index for the political independence and an index for the financial independence. Their political index has covered twelve industrial countries with the regard to the three criteria. First, is the central bank the final policy authority? Second, are more than half of the policy-board appointments made independently of the government? Third, is there a government official (with or without voting power) on the policy board?

Alesina (1988, 1989) has extended the Bade/Parkin index within additional industrial countries, while Eijffinger/Schaling (1993) place a greater emphasis on the significance of policy independence by modifying the first Bade/Parkin criteria.

Grilli/Masciandaro/Tabellini (1991) developed legal indices which[6] permit a more extensive consideration of details and cover most of the industrial countries. The CBI is divided into two components. First, the political independence, which is defined by three elements (the relationship between the government and the bank in the formulation of the monetary policy, the procedure for appointing the board and the formal goal of the bank with respect to the monetary policy). Second, the economic independence, which is affected by legal constraints on the central bank's lending to the government and the location of the banking supervision.

The index for measuring the legal independence developed by Cukierman (1992) or Cukierman/Webb/Neyapti (1992) covers all the industrial countries and it is the most detailed index of the legal independence. It is aggregated from sixteen basic legal characteristics of the CB charters that pertain to the allocation of authority over the monetary policy, procedures for the resolution of conflicts between the CB and the government, the relative importance of the price stability in the CB objectives as stated in the law, the seriousness of limitations on lending by the CB to the government, and procedures for the appointment and dismissal of the governor of the CB. Cukierman/Webb/Neyapti (1992) present a weighted (LVAW) and an underweighted

[5] In particular, legal indices which are based on the interpretation of CB laws.
[6] In comparison to Bade/Parkin index.

(LVAU) index of those sixteen characteristics.

Further measures of the CBI, for instance, are developed mainly by Cukierman (Cukierman, 1996, Kissmer/Wagner, 1998) and pertain to the group of the indicators based on the actual behaviour. First, the questionnaire based index (Cukierman, 1992, Cukierman/Webb/Neyapti, 1992) is particularly useful for identifying substantial discrepancies between the actual practise and the letter of the law. This is based on the assumption that a higher frequency of the change of the CB governors indicates a lower level of the CBI. Second, Cukierman/Webb (1995) develop an indicator of the political vulnerability, defined as the fraction of the political transitions that is followed within six months (or within one month) by a replacement of the CB governor.

4. The Empirical Studies for Transition Countries

Central and Eastern European countries have undergone the transformation process and this is accompanied by reforms of their CB. Previous cross-sectional studies (for example, Wagner, 1999). are less suitable for recording the short-term macroeconomic effects of a change of the CBI in these countries. Therefore, there have hardly been any empirical studies on the relationship between the CBI and inflation.

Early attempts to explore the question of the CBI in the post-communist countries have been in the descriptive studies by Hinton/Braaten (1994), Hochreiter (1994) and Hochreiter/Riesinger (1995).

Siklos (1994) is the author of the first index of the legal independence for some transition countries. His index is based on the Cukierman´s (1992) and the Cukierman/Webb/Neyapti´s (1992) methodology, but Siklos introduces some additional elements specific to the transition economies, such as a choice of the exchange rate system, enterprise arrears, the maturity of the financial system, foreign debt burden, the absence of the deposit insurance system, the structure of the CB board and the degree of the monetary overhang.

The new CB laws of some post-communist countries are investigated by Eijffinger/Van Keulen (1995), who present several indices of the political independence for a group of eleven countries. Authors find no significant relationship between the CBI and inflation for a total sample of eleven countries. On the other hand, they show that there is a negative relationship between the CBI and inflation for those six countries, where the CB law has been in force for more than five years.

Loungani/Sheets (1997) examine the CBI in twelve post-communist countries. These authors derive two indices of the CBI. The first covers goal, the economic and the political independence and the second assesses similarly between the analysed law and the Bundesbank statute. Authors come to the conclusion that there is highly negative correlation between CBI and inflation, even after controlling for other

factors[7].

Finally, Cukierman (2000) presents the most comprehensive index of the legal CBI is in Cukierman/Webb/Neyapti (1992) or in Cukierman (1992)[8]. Cukierman´s study (2000) covers twenty-six post-communist economies and it is based on the data from 1989 through 1998.

4.1 The Application of some Indices of the Central Bank Independence for the Czech Republic, Hungary and Poland

Ratfai (1999) characterizes, quantifies and compares the degree of the legal independence of these three countries. His main finding is that the legal status of the three central banks is similar to each other and can be characterized as independent. Indeed, there appears to be a slight difference between their legal status and that of the Bundesbank.

Table 1 - The indices of the CBI (based on Siklos (1994)

	Germany	Czech Republic 92	Hungary 97	Poland 98
CEO – terms of office	1	0,75	0,75	0,75
Appointment of CEO	0,75	0,75	0,75	0,5
Dismissal of CEO	1	0,83	0,83	0,83
Policy formulations - who conducts it	1	1	1	1
Government directives and resolution of conflict	1	0,8	0,8	0,8
Central bank objectives - single, multiple?	1	0,8	0,6	0,6
Limitations on lending, limitations on advances	0,67	0,67	0,67	0,67
Maturity of loans	1	0,67	1	0,67
Interest rate restrictions	0,25	0,25	0,75	0,25
INDEX SCORE	7,66	6,5	6,9	5,83

Source:RATFAI, A. A Note on the Independence of Central Banks in the Czech Republic, Hungary and Poland. Discussion Paper. University of Southampton, 1999.

Maliszewski (2000) examines the legal independence of central banks and its influence on inflation in Central and East European countries and the former Soviet republics. His study is based on Grilli/Masciandaro/Tabellini's methodology (1991) and

[7] For example, fiscal balance, reform index and the average tenure of CB chairman (Loungani/Sheets 1997).
[8] LVAW, LVAU.

also discusses the changes in the laws and proposes some explanations for recent amendments of the CBI.

Table 2 - Elements of the political and economic CBI

	g1	g2	g3	b4	b5	r6	r7	c8	c9	**PI**	d10	d11	d12	d13	d14	d15	m16	m17	**EI**	**CBI**
Czech Republic 92	*	*	*	*	*		*	*	*	**8**	*		*	*			*	*	**5**	***13***
Hungary 91		*	*					*		**3**	*	*	*	*			*	*	**6**	***9***
Hungary 97		*	*					*		**3**	*	*	*	*	*		*	*	**7**	***10***
Poland 89	*			*		*		*		**4**	*			*		*	*		**4**	***8***
Poland 92	*	*	*	*		*		*		**6**	*			*		*	*		**4**	***10***
Poland 97	*	*	*	*	*		*	*		**7**	*	*	*	*	*	*	*		**7**	***14***

Source:MALISZEWSKI, WS. Central Bank Independence in Transition Economies. Discussion Paper. Centre for Social and Economic Research, 2000.

Notes:

g1: a governor not appointed by the government
g2: a governor appointed for more than 5 years
g3: a provisions for the governor's dismissal non-political only
b4: none of the board appointed by the government
b5: board appointed for more than 5 years
r6: no mandatory government representative in the board
r7: government approval of monetary policy is not required
c8: statutory responsibility to pursue the monetary stability
c9: presence of the legal provision supporting the bank in conflicts with the government
d10: direct credit facility is not automatic
d11: direct credit facility is at the market interest rate
d12: direct credit facility is temporary
d13: direct credit facility is of the limited amount
d14: CB does not participate in the primary market
d15: all direct credit is securitised
m16: discount rate is set by the central bank
m17: supervision of the commercial banks is not entrusted to the central bank (**) or not entrusted to the central bank alone (*)

Maliszewski indicates that in the Czech Republic and Poland[9], there is a high political independence. Moreover, the overall CBI in Poland is higher than in Germany[10]

[9] In Poland after 1997.
[10] The Bundesbank has 13 points in the original Grilli/Masciandaro/Tabellini index.

5. Conclusion

The central bank independence has become one of the main concepts in the modern monetary theory and policy. Many economists are certain of the importance of the central bank independence and try to achieve that the central bank independence is possible and an efficient way to the price stability. Numerous countries in the world (developed, developing and transition, too) accept this theory and make their central banks more independent.

The vast majority of empirical studies dealing with the relationship between the central bank independence and the macroeconomic performance confirms a negative correlation between the indices of the central bank independence and inflation, but they do not support the view that the increasing central bank independence influences the long-run harmful growth effects or the higher output volatility.

Abstract

Nezávislost centrální banky je jednou z významných ekonomických koncepcí. Během posledních let došlo na mnoha různých místech světa ke strukturálním změnám v bankovnictví. Řada zemí také novelizovala nebo vytvořila zcela nové zákony v této oblasti, které ve většině případů zahrnovaly zvýšení nezávislosti centrálních bank. Příspěvek předkládá přehled vybrané literatury vztahující se k této problematice se zvláštním důrazem na 3 tranzitivní ekonomiky: Česká republika, Maďarsko a Polsko.

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BANKING SECTOR AND CAPITAL MARKET

THE SLOVAK FOREIGN EXCHANGE MARKET IN COMPARISON WITH THE TRENDS ON THE INTERNATIONAL FOREIGN EXCHANGE MARKETS

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Key words

foreign exchange market, spots, forwards, swaps, OTC markets, derivates, segments of the foreign exchange market, the Slovak foreign exchange market

1. Introduction

There have been changes taking place in international OTC foreign exchange markets recently and certain trends are being put through both in the area in traditional business in foreign exchange, and in the area of the derivate business.[1] The Bank for International Settlements in Basel deals with a more complex evaluating of the development trends in international OTC foreign exchange markets, and it has processed three-annual reports on the basis of data since 1989, which it is provided by central banks and other monetary institutions. We are about to apply the data in the paper for assessing certain trends and changes on these markets.

2. Trends on the international foreign exchange markets

A considerable change on the global foreign exchange market is a decline in the total average daily turnover in traditional kinds of the businesses in foreign exchange and the changes in the particular segments of the foreign exchange market. The average daily turnover of the traditional business on the OTC market dropped from 1,490 milliard USD in 1998 to 1,200 milliard USD in 2001. This decrease was not equal in all kinds of the traditional businesses in foreign exchange. There was a rapid slump in spots, a slight decrease in the currency swaps and a certain increase in forwards, as table no. 1 describes it.

[1] On the basis of data, which was provided by 48 central banks, the Bank for International Settlements in Basel has already worked out the fifth three-year report on the spots and the derivate businesses on the OTC foreign exchange markets since the year 1989. The report provides data on the total turnover on the OTC foreign exchange markets and its structure. At the same time, it has been the third three-year report since March 1995, which contains data on the derivate businesses on the foreign exchange markets.

Table 1 - The total turnover of the traditional businesses in foreign exchange on the OTC market (the average daily turnover towards the end of April, in milliard USD)

Kinds of business	1989	1992	1995	1998	2001
Spots	317	394	494	568	387
Currency forwards	27	58	97	128	131
Currency swaps	190	324	546	734	656
Estimated other businesses	56	44	53	60	26
Along with traditional business [1]	590	820	1 190	1 490	1 200
Along with the exchange rate of the USD towards 30. 4.2001	570	750	990	1 400	1 200

Source: Trennial Central Bank Survey. Foreign exchange and derivatives market activities in 2001, BIS, Switzerland, p. 5.

1) The data applied in the common foreign exchange. There has been a decrease by 19% in the last three years at the common exchange rate of the USD and by 14% at the stable exchange rate of the USD.

The slump tendency of the average daily turnover in global business in exchange from 1,490 milliard to 1,200 milliard USD, i.e. by 19 % was influenced by the structure of the currency couples in business in exchange, by the volatility of their exchange rates and by other factors. The illustration of currencies in the monetary businesses and their volatility is portrayed in table no. 2.

Table 2 - The volume and the monetary structure of the traditional foreign exchange market (in milliard USD, towards 30. 4. of the corresponding year)

Currency couples	1992		1995		1998		2001	
	volume	volati-lity	volume	volati-lity	volume	volati-lity	volume	volati-lity
USD/EUR [1]	192	10,00	254	10,45	290	5,27	354	15,61
USD/JPY	155	8,12	242	17,05	256	11,75	231	10,82
USD/GBP	77	9,66	78	5,65	117	5,31	125	9,08
USD/CHF	49	11,47	61	12,71	79	7,90	57	14,94
EUR/JPY [2]	18	8,73	24	16,76	24	10,99	30	19,97
EUR/GBP [2]	23	5,84	21	8,47	31	6,04	24	8,65
EUR/CHF [2]	13	4,57	18	3,62	18	3,88	12	3,05

1) Volatility has been calculated by standard variance from anu Bank for International Settlements 2002, March 2002, of the daily changes calculated for the calendar month.
2) Until 1999 DEM.

Source: Trennial Central Bank Survey. Foreign exchange and derivatives market activity in 2001, BIS, Switzerland, p. 5.

Among other factors effecting the decrease in the average daily turnovers can be particularly ranked the introduction of the Euro, the growth of the proportion of the electronic intermediation in the spot inter-banking market, the concentration in the banking industry and the international concentration of the corporate sector. The turbulences on the financial markets in the autumn of 1998 lead banks to the reduction of the limit of credit and to the reduction of business participants, which made it easier to conclude businesses in foreign exchange.

3. The changes in the particular segments of the foreign exchange markets

a) From a perspective of the share of the particular traditional kinds of the businesses in foreign exchange in the total average daily turnover in businesses in foreign exchange**,** the current foreign exchange market has the following structu*re:*

- the biggest share in the business in foreign exchange have monetary swaps, i.e. 54,67%,
- in the second place there are swaps – 32,25%,
- forwards follow then – 10,92% ,

- the last are other business (which do not reach at least 3%).

Certain development tendencies are being put through here. The decrease in the daily turnover in business in foreign exchange markets in the last period was both brought about by the decrease in the turnover in swaps from 568 milliard USD to 387 milliard USD, and by the drop in the monetary swaps from 737 milliard USD to 656 milliard USD. On the other hand, there was a slight increase in the forwards from 128 milliard USD to 131 milliard USD. These changes correspond to the share of spots and to the growth of the share of swaps in the total daily turnover, which has been manifested since 1992.

b) From the point of view of the proportion of the participants in the businesses in foreign exchange on the foreign exchange market the current foreign exchange market has the following structure, which is represented in table 3.

Table 3 - The structure of the businesses in foreign exchange from the point of view of the participants of the businesses (the daily average turnover toward the end of April, in milliard USD)

Participants	1992	1995	1998[2]	2001
Joint business	776	1 137	1 429	1 173
- dealers	540	729	908	689
- other financial institutions	97	230	279	329
- non-financial institutions	137	178	242	156
Domestic	317	526	657	499
Cross-border[3]	392	611	772	674

1) The arrangement for the domestic and the cross-border double-entry bookkeeping. The latest estimated businesses are left out. (Estimated gaps in reporting).
2) The revised data from the previous report.
3) Cross-border businesses – business with foreign banks and other institutes.

Source: Trennial Central Bank Survey. Foreign exchange and derivates market activity in 2001, BIS, 2002, Switzerland, p. 7.

From the given structure of the participants in table.3 one can identify the changes reflecting the tendencies on the foreign exchange markets:

- the fall of the businesses, which have been carried out by dealers and by a broader use of the electronic brokers – the drop from 64% to 59%,

- the increase in the average daily businesses with other financial institutes from 20% to 28%,

- the drop of the businesses with non-financial customers from 17% to 13%,

- the decrease in the domestic businesses in foreign exchange,

- the growth of the cross-border businesses.

The daily turnover on the foreign exchange markets, which has been carried out by dealers, has noticeably declined recently, i.e. from 908 milliard USD to 689 milliard USD. It may be a result of the growing role of the electronic brokers on the spot market. The application of the electronic brokers means that the foreign currency dealers do not have to demonstrate only activities among themselves. The businesses in foreign exchange reflect also the mounting concentration in the banking industry and the following decline in trading posts.

The daily decline in the businesses in foreign exchange among banks and non-financial institutes from 242 milliard USD to 156 milliard USD may be related to the concentration tendency in the corporate sector and the subsequent enlargement of the foreign corporate flows, which leads to the growth of the cross-border businesses in foreign exchange.

To the contrary, the rising volume of the businesses among banks and other financial clients reflects the increasing role of the assets management. There has been a decline in the hedge funds in the businesses in foreign exchange as against the preceding period.

c) From the point of view of the currency structure there have been significant changes on the foreign exchange markets too, which the following table portrays:

Table 4 - The currency distribution of the business in foreign exchange in the total daily Turnover[1] (the percentage share in the average daily turnover toward the end of April)

Currency	1989	1992	1995	1998	2001
USD	90,0	82	83,3	87,3	90,4
Euro	-	-	-	-	37,6
DEM	27,0	39,6	36,1	30,1	-
FRF	2,0	3,8	7,9	5,1	-
ECU + EMS	4,0	11,8	15,7	17,3	-
JPY	27,0	23,4	24,1	20,2	22,7
GBP	15,0	13,6	9,4	11,0	13,2
CHF	10,0	8,4	7,3	7,1	6,1
CAD	1,0	3,3	3,4	3,6	4,5
AUD	2,0	2,5	2,7	3,1	4,2
SEK	-	1,3	0,6	0,4	2,6
Hong Kong D	-	1,1	0,9	1,3	2,3
Singapore D	-	0,3	0,3	1,2	1,1
Emerging	-	0,5	0,4	3,0	5,2
markets	22,0	8,5	7,9	9,3	
Currencies together	200,0	200,0	200,0	200,0	200,0

1) Each foreign exchange transaction includes two currencies, that is why the share of each currency in the total daily turnover is expressed from 200% not from 100%.

2) Emerging markets include currencies: South African rand (1992-1995), in the years 1998 – 2001 Brazilian real, Chilean peso, Czech crown, Indian rupee, Korean won, Malaysian riggit, Mexican peso, Polish zloty, Russian rouble, Saudi riyal, South African rand, Taiwan dollar and Thai baht.

Source: Trennial Central Bank Survey 2001. Foreign exchange and derivatives market activity in 2001, BIS, Switzerland 2002, p. 9.

By introducing the euro, there was a decline in the total daily turnover in businesses in foreign exchange, which was mainly due to the termination of the national currencies in the EMU. The chart illustrates that more than 30% of all businesses in foreign exchange are executed in the euro. This share is higher than the share in the DEM in the year 1998 but lower than the share of all currencies, which the euro has replaced. Some operations are no longer carried out and these are carried out as the domestic ones in the euro or a part of them has ceased to exist.

Another tendency, which is being put through here, is the growth of the American dollar in the total turnover in businesses in foreign exchange – from 87,3% in the year 1998 to 90,4% in the year 2001. In the stated period, there was a growth of the Japanese yen (by 2,5%), the pound (2,2%), the Canadian (by 0,9%) and the Australian dollar (by 1,1%), the Swedish crown (o 2,2%), the Hong-Kong dollar (by 1,1%) and

currencies on the emerging markets (by 2,2%). There was a reduction in the use of the Swiss frank in the businesses in foreign exchange. Other changes were not that relevant.

d) The concentration of the foreign exchange market is demonstrated in the decrease in the number of the dealing banks on the foreign exchange market and the increase in the share in their businesses on the total foreign exchange market. Table 5 documents it.

Table 5 - Concentration in the banking industry

Country	1992 The total number of the participants	1995 The total number of the participants	1995 Banks covering 75% of the turnover	1998 The total number of the participants	1998 Banks covering 75% of the turnover	2001 The total number of the participants	2001 Banks covering 75% of the turnover
Great Britain	352	313	20[1]	293	24	257	17
USA	180	130	20	93	20	79	13
Japan	330	345	24	356	19	342	17
Singapore	208	218	25	206	23	192	18
Germany	81	80	10	57	9	33	5
Switzerland	105	114	5	64	7	42	6
Hong Kong	375	376	13-22[3]	366	26	272	14
Australia	72	75	10[2]	66	9	54	10
France	50	75	7-12[3]	84	7	113	6
Canada	45	38	6-7[3]	36	5-7[3]	28	4-6[3]

1) 68%,
2) 70%,
3) It depends on the market segments.

Source: Trennial Central Bank Survey 2001, BIS, Switzerland, 2002, p. 11.

There was a decline in the number of the participants of the businesses in foreign exchange from 1,798 in the year 1992 to 1,412 in the year 2001 (by 22%) in the studied countries in the observed period. There was a decrease in the number of banks, which cover more than 75% of the foreign exchange turnover, i.e. from 140 in the year 1998 to 110 in the year 2001 (a reduction by 22%). There were for instance 2,530 banks in the 48 screening countries in the year 2001, whereas there were 3,087 banks in 43 countries in the year 1998.

3. The geographical deployment of the foreign exchange markets

The geographical deployment of the foreign exchange markets has not changed in essence. The total average daily turnover dropped in most of the countries except for some exclusions. For instance in Japan, the turnover increased because of the inflow of the cross-border currency swaps. The foreign exchange activities grew due to the liberalization of the restrictions of the institutional investors in Sweden and Canada. The turnover in Australia increased in consequence of the number of the global players concentrated in the Asian time zone. The tendency of shifting the businesses in foreign exchange to London is being put through among commercial banks in some countries in Europe, while in others the business concentrates on the domestic markets. These two tendencies induce the fact that the share of London in the total daily turnover has slightly altered in comparison with the year 1998. The following table no. 6 documents it.

Table 6 - The geographical deployment of the foreign exchange markets – the selected countries[1] (the average daily turnover toward April, in milliard USD and %)

	1992		1995		1998		2001	
Country	Turn over	% share	Turn over	% share	Turn over	% share	Turn over	% share
Australia	29	2,7	40	2,5	47	2,4	52	3,2
Canada	22	2,0	30	1,9	37	1,9	42	2,6
Czech Rep.					**5**	**0,3**	**2**	**0,1**
France	33	3,1	58	3,7	72	3,7	48	3,0
Germany	55	5,1	76	4,8	94	4,8	88	5,4
Hong Kong	60	5,6	90	5,7	79	4,0	67	4,1
Japan	120	11,2	161	10,2	136	6,9	147	9,1
Singapore	74	6,9	105	6,7	139	7,1	101	6,2
Slovakia							**1**	0,0
Switzerland	66	6,1	87	5,5	82	4,2	71	4,4
Great Britain	291	27,0	464	29,5	637	32,5	504	31,1
USA	167	15,5	244	15,5	351	17,9	254	15,7
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.								

1) Careful need to be completed

Source: Trennial Central Bank Survey 2001, p. 12.

The most common existing currency couples in the total average daily turnover are:

- USD/euro - 30%,
- USD/JPY – 20%,

- USD/GBP – 11%,
- USD/CHF – 5%,
- USD/AUD – 4%,
- USD/CAD – 4%,
- USD/other currencies – 17%,
- EUR/JPY – 3%,
- EUR/GBP – 2%,
- EUR/CHF – 1%,
- EUR/other currencies – 2%,
- other currency couples – 2%.

5. The scope and the structure of derivates on the international OTC markets

The estimated global market value of the derivate business on the OTC markets reached in the year 2001 the amount of 3,042 milliard USD, what, as against the year 1998, when the volume of the derivate businesses was 2,580 milliard USD, presents an increase by 17,9%. It is the net value of the contracts. The stated (basic) value of the derivate contracts amounts almost to 100 billions USD and as against the year 1998 it shows an increase by 38,14%.

The structure of the derivate market from the view of the kinds of basic assets and the character of risk articulates that:

- the highest sum is represented by interest rate derivates – 1 748 milliard USD, i.e. 57,4%,
- then, foreign currency derivates follow – 967 milliard USD, i.e. 31,8%,
- property derivates – 218 milliard USD, 7,2%,
- goods – 88 milliard USD, 2,9%,
- lines of credit and other contracts 21 milliard, i.e. 0,7%.

From the point of view of the business nature, the structure of the businesses is various in particular kinds of the stated contracts. For instance, forwards and currency

swaps - 65% prevail in contracts out of the total volume, then, currency swaps - 21%, options –13% and other derivates 0,2%. Swaps – 75,5%, options - 14,4%, FRAs -10,1%[2] predominate in interest rate contracts.

6. The current Slovak foreign exchange market

The Slovak foreign exchange market is considered stable and it is an effectively functioning market. It has a reasonable liquidity for a country, whose national currency – the Slovak crown was created not until the separation of ČSFR in the year 1993. By a continuing enlargement of the convertibility of the Slovak crown and by shaping the appropriate system of the currency exchange rate for the Slovak crown, the Slovak foreign exchange market was formed (FOREX). The businesses in foreign exchange predominated among the central bank and commercial banks at the beginning, on the so-called foreign exchange fixing, but the businesses on the inter-bank market prevail currently and in particular among domestic commercial banks and foreign banks.

The expansion of the convertibility of the Slovak crown has contributed to the development of the Slovak foreign exchange market, which has now an external convertibility for current account and capital but also capital foreign exchange transactions. Gradually up to the year 1995, when the Slovak crown acquired the external convertibility for current payments in the current account of the balance of payments, the release of the movement of the Slovak crown took place even in the area of the financial and capital accounts. The liberalization process of the capital movement accelerated the membership of Slovak Republic in OECD and in the preparation for the EU membership. Slovak Republic proceeded from the liberalization of the long-term capital to the liberalization of the short-term capital, from the liberalization of the direct foreign investments to the indirect investments. The following liberalization steps are now to be taken:

- to release the portfolio investments abroad,
- to release direct investments apart from the OECD countries,
- to release the rest of operations with securities (purchase of securities outside the scope of the amendment 388/99 Col. as amended),
- to release operations with financial derivates,
- to cancel the transfer liability,
- to release the opening and the operation of accounts in foreign banks,
- to release the purchase of a real estate to the natives of the country outside the OECD countries,

[2] We will not deal in detail with the derivate businesses on the OTC markets in this paper.

- to release the purchase of a real estate and agricultural lands to the foreigners in the inland.

The development of the foreign exchange market along with the Slovak crown was supported by introducing a freer system of the exchange rate since 1.10.1998 – management floating. The exchange rate of the crown was effected by demand and supply of the Slovak crown on the domestic and the foreign exchange markets.

Swaps, spots and forwards are mostly carried out on the inter-banking market. As for the number of operations, spots predominate for bank clients but with reference to the volume of the businesses executed currency swaps have a dominant position.

Even though the major volume of spots is principally formed in the world by speculation for rise or fall of the exchange rates, the speculative businesses are relatively limited on the foreign exchange markets. The investment positions prevail in businesses, which concern portfolio investments and businesses for clients. Speculative, open positions, take place in smaller extend. Therefore, particular dealers have strictly determined maximal volumes of the open positions of the foreign currencies, which they can keep overnight or long-term ones, and the maximally allowed amount of the open position in the given currency.

The domestic commercial banks, foreign commercial banks, dealer departments of bigger insurances and the central bank participate in the foreign exchange market. Among major market makers can be ranked the following commercial banks: Slovenská poisťovňa (Allianz), Všeobecná úverová banka (Intesa BCI) Tatrabanka, ING Barings, Citibank and Československá obchodná banka.

The greatest number of the businesses is currently done in the USD currency. Typical spots are done in the volumes of 0,5 mil to 5 mil EUR. Apart from the currency couple USD/SKK, it corresponds mainly to the couples EUR/SKK, GBP/SKK and currency couples to the foreign currency couples, i.e. EUR/USD and EUR/GBP. The special position on the foreign exchange market has the currency couple CZK/SKK, since the market with the Czech crown is liquid and the exchange rate is determined by demand and supply of the given currencies. The Slovak crown can be traded apart from Slovakia also in London, Austria and Germany. Foreign banks, such as ING BARINGS, MORGAN STANLEY, CHASE MANHATTAN, ERSTE BANK and Deutche Bank, quote the Slovak crown too.

The total Slovak foreign exchange market reached in the year 2001 the volume of 113 427,3 mil. USD and in comparison with the year 2000 increased by 55% (73 035,2 mil USD in the year 2000). The Slovak inter-banking market (without interventions of NBS) reached the volume of 113 387,9 mil USD, what as compared with the previous year meant an increase by 56,8% (72 329,80 mil USD in the year 2000).

The businesses in the USD predominated, and these formed 80,9% (70,4% in the year 2000), then the businesses in the EUR followed 18,3% (26,4% in the year 2000) and in other currencies 0,7% (1,2 % in the year 2000).

The National bank bought from commercial banks 333 mil EUR in the year 2001. The exchange rate of the Slovak crown devaluated against the EUR by 3,76%, and against the USD by 12,56% in the course of the year 2001.

The survey of the structure and the development of the foreign exchange rate of the Slovak crown are illustrated in table 7.

Table 7 - The main characteristics of the Slovak foreign exchange market in the year 2001

Participants of the businesses	NBS	Businesses of the Slovak banks without the foreign banks' participation	Inter-bank foreign exchange market[1]	Businesses of the Slovak banks with foreign banks	Foreign exchange market together
USD Volume million USD	-	24 858,0	24 858,0	66 909,5	91 767,5
%	-	73,8	73,7	83,9	80,9
number	-	4 658	4 656	10 479	15 135
EUR Volume million USD	39,4	8 622,5	8 661,8	12 165,2	20 827,0
%	-	25,6	25,7	15,3	18,4
number	33	6 416	6 449	7 470	13, 919
Other currencies Volume million USD	-	193,1	193,1	639,7	823,8
%	-	0,6	0,6	0,8	0,7
number	-	457	457	274	731
together volume million USD	39,4	33 673,6	33 712,9	70 714,4	113 427,3
number	33	11 529	11 562	18 223	29 785

1) Inter-banking market includes: NBS and Slovak commercial banks reciprocally.

Source: Annual report NBS 2001, Bratislava, 2001, p. 75.

4. Conclusion

The paper explains the current tendencies in international OTC foreign exchange markets. It deals with the development of the total average daily turnover on the foreign exchange markets and the developmental tendencies in the particular segments. It emphasizes the traditional kinds of the businesses in foreign exchange, i.e. the spots, swaps and forwads. It lists briefly also the overall volume of the derivate businesses on the OTC markets and its structure. In the last part, it assesses the

development of the Slovak foreign exchange market against the background of the worldwide tendencies.

Abstract

Príspevok vysvetľuje súčasné tendencie na medzinárodných OTC devízových trhoch. Zaoberá sa vývojom celkového priemerného denného obratu na devízových trhoch a vývojovými tendenciami na jednotlivých segmentoch. Dôraz kladie na tradičné druhy devízových obchodov, a to na spotové obchody, swapové obchody a forwardové obchody. Stručne uvádza aj celkový objem derívátových obchodov na OTC trhoch a jeho štruktúru. V poslednej časti hodnotí vývoj slovenského devízového trhu na pozadí celosvetových tendencií.

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COMPARISON OF THE CZECH REPUBLIC'S ECONOMY WITH THE PX50 INDEX[1]

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Marek Dohnal

Key words

czech capital market, PX50 index, gross national product, Prague stock exchange

1. Introduction

In the developed countries, a very narrow structure exists between an economical cycle (measured e.g. by the GDP's growth or by the industrial production's growth) and by the stock rates' evolution. This is the reason why the stock rates (measured e.g. by the stock exchange markets' index) are considered as a very good instrument for the prediction of changes in the real economy.[2]

The Czech capital market was founded in contrast to the western European markets in an atypical way and its modern history is quite short. There is a question whether the Prague stock exchange's PX50 index accomplishes to predict the evolution of the Czech economy.

The objective of this paper is an analysis of the ability to state the particulars of the Prague stock exchange's PX50 stock index from the point of view the Czech Republic's economy.

2. The Czech Republic's industry structure

For the analysis of the Czech biggest companies, the revenues' criterion was applied for the year 2001 published in the Czech Top 100 survey. (Table 1)

[1] The paper is published with the support of the Czech Grant Agency (grant GAČR No. 402/02/1408 „Comparing Financial Markets Development in the Czech Republic and EU-countries").

[2] For more details see MUSÍLEK, P.: *Financial markets and investment banking*, p. 200 - 205.

Table 1 - The biggest Czech companies

		Revenues 2001 (CZK billion)
1.	ŠKODA AUTO a.s.	146 041
2.	UNIPETROL, a.s.	80 864
3.	ČEZ, a.s.	52 284
4.	ČESKÁ RAFINÉRSKÁ, a.s.	47 010
5.	ČESKÝ TELECOM, a.s.	40 788
6.	Transgas, a.s.	38 342
7.	Siemens Group Česká Republika	37 935
8.	MORAVIA STEEL a.s.	35 159
9.	AGROFERT a.s.	32 914
10.	Eurotel Praha, spol. s r. o.	28 933

Source: Czech Top 100 survey, Euro, 2002, no. 27. ISBN 1212-3129.

In Table 1, there is a list of the Czech ten biggest companies with the highest revenues for the year 2001. Those ten companies take part in the GDP's production by seven percent with the revenues' volume of 539 CZK billion.

The biggest company in the Czech Republic is ŠKODA AUTO, a.s., a subsidiary company of the German company VOLKSWAGEN, AG., which already has dominated the Czech producers and exporters' statistics for a couple of years. ŠKODA AUTO does not have registered stocks on the public market in the Czech Republic. The situation between the majority of the Czech companies is similar.

Only three companies out of ten biggest Czech companies have stocks traded on the Prague stock exchange. These are: UNIPETROL, a.s., ČEZ, a.s. and ČESKÝ TELEKOM, a.s. Those three companies reached revenues in the amount of CZK 173 billion, and participate in the GDP's production only by 2,25 %.

3. PX50 index structure

The PX50 index is an official Prague stock exchange's stock index. This is a price index, which is compiled from the point of view of the IFC methodology. At present, it contains twenty-nine stock's issues traded on the main, secondary or free stock exchange market.

The issues are included into the index by the market capitalization, the issue's liquidity and by the sector's representation. The individual issues' weight is based on their market capitalization. (Table 2)

The issue with the biggest weight in the index is ČESKÝ TELEKOM's issue (more than 27% weight). The next three issues share more than 10%: ČEZ, Česká spořitelna[3] and Komerční banka.

Table 2 - Stocks' issue with the biggest weight in the PX50 index base (31st December 2001)

	Issuer	Weight	Market capitalization (CZK billion)
1.	ČESKÝ TELECOM	27,65%	85 233
2.	ČEZ	14,89%	45 911
3.	Česká spořitelna	13,54%	41 744
4.	Komerční banka	12,77%	39 378
5.	PHILIP MORRIS ČR	5,14%	15 851
6.	České radiokomunikace	3,49%	10771
7.	UNIPETROL	2,65%	8 167
8.	Česká pojišťovna	1,91%	5 883
9.	Jihomoravská energetika	1,35%	4 148
10.	Pražská energetika	1,27%	3 918

Source: Prague stock exchange, http://www.pse.cz, own calculations

The second biggest Czech company's issue, petrochemical company UNIPETROL, has low a market capitalization and this arranged it to 7th place with 2,65% of the weight in the PX50 index.

From the comparison of Tables 1 and 2, further interesting facts arise: ČEZ's market capitalization (CZK 46 billion) corresponds to the amount of the annual revenues (CZK 52 billion). However, Český Telekom's market capitalization has more than doubled revenues. An opposite situation is with the last analysed company, Unipetrol. With the revenues in the amount of CZK 80 billion, market capitalization reaches only CZK 8 billion, i.e. approximately 10%!

The analysis of the causes of this condition goes beyond the scope of this paper but the attention to this problem will be paid in the further research.

4. The comparison of the Czech economy with the PX50 index

For the answer to the question asked in the introduction of the paper, it is necessary to include individual issues contained in the PX50 index to the individual

[3] This issue was withdrawn from the Prague stock exchange's trading and was replaced by the Erste Bank´s issue, majority ČS's stockholder during the year 2002.

branches (by the ČSÚ's methodology). The ČSÚ's statistical report introduces individual branches' shares on the GDP's production. (Table 3)

Table 3 - Comparison PX50 with the branches' share on the GDP's production

		Weight in the PX50	Share on GDP
A	Agriculture, forestry	0%	4,5%
B	Fishing	0%	0%
C	Mineral sources mining	0,92%	2,5%
D	Processing industry	6,84%	37,7%
E	Production and electricity, gas and water mining	23,04%	5,6%
F	Building industry	0,77%	9,7%
G	Trade, reparation industry	0%	10,9%
H	Hospitality, accommodation	0,75%	2,1%
I	Traffic, warehousing, posts, telecommunication	42,83%	6,3%
J	Banking, insurance industry	19,80%	2,9%
K	Real estate leasing, companies' services, science and research	0%	8,6%
L	Others	0,57%	9,1%

Source: ČSÚ's statistical report

The branch with the highest weight in the PX50 index is the Traffic, warehousing, posts and telecommunication branch. This branch influences the index more than 40%. With the share about 23% is the Production and electricity, gas and water mining, the second most important branch. Only the branch of the banking and insurance industry has a little bit lower share (app. 20%).

The issues have lower weight than seven percent in the PX50 index on the GDP's production shares and processing industry. However, it takes place in GDP by more than 37%. In addition, the second and third most important branch by the share on the GDP (Trade, reparation industry and building industry) is represented in the PX50 only marginally. The branch Real estate industry, companies' services, science, research, and others are situated similar.

From the perspective of the PX50 index's weight the most important branch (Traffic, warehousing, posts and telecommunication) participates in the GDP's production by only 6,3%.

5. Conclusion

The structure of the Czech Republic's economy is very different from the PX50 index's structure. The PX50 index replies by its composite rather to the "new economy's " branches but it could not be assumed about the Czech Republic economy's structure.

From the micro-economical point of view, only the stocks of three companies from ten biggest Czech companies are traded on the public markets in the Czech Republic. With reference to the economical importance, the PX50 index contains almost less important companies (as for revenues).

The macro-economical (branching) point of view confirms that the economy's structure (by the share on the GDP's structure) does not correspond to the PX50 index weight composition.

The PX50 index could not be considered from this point of view as a reliable indicator of the Czech Republic economy's evolution.

Abstract:

Článek hledá odpověď na otázku, zda dokáže akciový index pražské burzy PX 50 předvídat vývoj české ekonomiky. Porovnává největší české firmy podle tržeb s emisemi firem s největší vahou v indexu PX 50. Dále porovnává odvětvové složení indexu PX 50 s odvětvovým složením ekonomiky ČR dle podílu na HDP.
Autoři docházejí k závěru, že index PX 50 nelze považovat za spolehlivý indikátor vývoje ekonomiky ČR.

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BANKS AND CAPITAL MARKETS FROM THE PERSPECTIVE OF THEIR RELATIONSHIP TO THE THEORY OF EXPECTATIONS

Zdeněk Raška

Drahomíra Pavelková

Key words

theory of expectations, banks, trade, capital market, financial market, Czech Republic

What is going on with the world's economy? Why does it appear that uncritically received notions of dogma are disturbing developments on the world's capital markets? Or is it simply a case of a reflex reaction to invisible connections in the developments of economies? Can financial institutions and regulators influence the state-of-affairs and developments in capital markets today in any positive manner?

The words of many analysts belonging to world-renowned financial institutions, who had succumbed to the whimsical wiles of the economic boom seen at the end of the nineties, and whose profligate prognoses bubbling over with optimism and price recommendations for investment opportunities still remain vivid in one's memory. It is clear that these still remain open, especially ethical questions needing to be answered, as to whether or not these recommendations were strategic objectives, or patently speculative with the aim of amassing or erasing the portfolios of those institutions, for whose benefit those recommendations had been intended.

One must be aware that in connection with movements on the financial, ergo the capital markets, we are talking about a not great number of "players" who might be able to decisively influence capital flows, and ensuing to these, even national economies. The answer is as clear as the nose on one's face as to whether banks in these circumstances adopted positions as bit-part players, intermediaries, or as active players.

Milton Friedman's, and subsequently Lucas´ Theory of Expectations are once again becoming the epicentre of developments in present-day economic doings on capital markets. In the application of these theories, it is however necessary to retrospectively evaluate from the perspective of a national economist, how the determinant vectors of the relationship between financial markets and their institutions evolved in the preceding period, such that one would be able to base one's reflections on a fixed point from which one could reasonably deduce or infer concrete conclusions valid for the theories and practices of a financial operator of today.

In the course of such a minor look back on the past, we surprisingly discover a relative seclusion of national economies – and therefore their financial systems and institutions was a characteristic of the nineteen-eighties.

Despite the transposition and re-dislocation of capital of a supranational significance being a relatively given, the bi-polar or even tri-polar division of the world was a limiting factor that impeded the movement of capital between differing economic systems and networks. Understandably, not even the banking sector was able to avoid the above-mentioned difficulties, being always predetermined to serve as a transport and intermediary factor in the financial operations of capital markets.

After the collapse of the old dispositions and conceptions of the world as a system of isolated, competing sub-systems, the beginning of the nineteen-nineties began to see the progressive interconnection of financial systems – including from an institutional perspective, and individual regulatory elements began to exert their effects above their originally intended limits thanks to the growing economic surges in the economies of the USA, Japan, and the countries of the EU. Indeed, it is for this very reason that we may with justice pose ourselves the question as to just what transformation processes did financial institutions undergo in relation to their regulatory bodies and even the worldwide capital markets?

Massive capital flows accompanied by economic development, globalisation, and the internationalising of national economies placed national and commercial banks in the position of having to defend their national interests, their clients´ interests, and their own interests, which need not always be in accord. The impairment of the previously mentioned balances sooner or later cause discredit to fall in the first instance on the elements of the system, and in the second instance, on the system as a whole.

Understandably, what interests us the most is the question of the banking system in relation to the movement of capital in countries with transforming economies, e.g. the Czech Republic.

Right from the very initial phases of the transformation processes, the banking sector stood before the question of how to reconcile the absorption of an increased flow of private, foreign capital, while the ratio of speculative and strategic capital were, under the conditions prevailing in a newly opening market, manifest. Under such economic conditions, where banking and financial institutions create the preconditions for the allocation of foreign capital investments especially through the intermediary of high interest rates, it is almost a certainty that capital of a speculative nature will predominate, and which – for the national economy, have only a short-term and more likely political significance. It is simply not possible to deduce objective conclusions predicating positive development basing oneself on capital and financial flows of such character.

Functionaries representing Czech banking interests in the initial transformational phases must certainly have been aware of the consequences of the so-called “Mexican Crisis”, whose aspects are still being progressively echoed in other countries of the Latin-American sub-continent, especially in Argentina and Brazil. For this reason today, even if with reservations, one may acknowledge their efforts to create macro-economic constants and subsequently regulatory mechanisms too, which on the

whole, plausibly created an exchange rate and institutional framework to face down the occasional turbulences in our financial markets.

The failures, which have occurred in the banking and oversight systems over the recent past, have admittedly been of a partial character, however, as regards their consequences not insignificant effect. They have caused not only low levels in the functionality and adaptability of the regulatory organs, but especially the human factor has shown itself to be the weakest link in the system. Despite this, the enduring macro-economic stability in the Czech Republic creates the preconditions for a functionally well-developed market economy, and from this point of view, of the capital market too.

The legislative and institutional preparations put in hand by the Czech Republic prior to its accession into the EU demonstrate the reality, that the substantive role of a successful mastering of the systematic framework for the movement of capital and the functioning of commercial banks here is their competitive abilities and adaptability to newly emerging, but equally expiring realities.

Thus, an important factor in this issue has shown itself to be the question of the rapid privatisation of the banking sector. Experiences drawn from France and Italy showed how faulty was the presumption that government may in some substantial way use the state banking sector for the stimulation of economic growth, or for the support of employment initiatives, of small and medium-sized enterprises, or for attempts to prevent capital flight abroad. It has equally been shown that an exaggerated expectation of the activities of commercial banks leads in its final consequences to a loss of effectiveness of the economy as a whole.

The now completed privatisation process of the banking sector created the first preconditions for the fulfilment of the basis predetermining the completion of the basis for predetermining the above-mentioned sector's systematic engagement in the globalized capital markets and improved capital stability.

Despite the above, or perhaps even due to the above, even at the current time, we are able to register the import of absorbing an influx of capital into our economy with a view to preventing the valorisation of the currency and movements of unallocated capital, which might, among other issues, cause pressure to fall on the loan policies of commercial banks, the consequent destabilisation of their portfolios, and in its final outcome, even a worsening in the state of the Current account of the Balance of Payments.

Commercial banks, but also other financial institutions today already have sufficient conditions to implement and to realise their predestination. The transactional services of commercial banking, which are oriented on the creation of financial documents and their movements such that other subjects are able to realise payments, today offer a whole range of services which attempt to satisfy the needs of a wide spectrum of clients.

The introduction and implementation of suitable transaction services is an inseparable component of any increases in the competitive abilities of banks – not only on the domestic market, but also on an international level. In this connection, it is

however necessary to mention the interest rate strategies of banks, which in their efforts to attract a new clientele frequently proved unable to resist the offering of "above-standard" interest rates. The short-term duration of such policies was not the consequence only of economic growth and decreasing inflation, but also caused by the division of the world's and our own domestic financial markets.

Today, a range of commercial banks in the Czech Republic are re-orienting themselves once again on the provision of small-scale client services, that is to say, on the retail banking sector, since it is easily demonstrable that capital movements in relation to physical entities is a lot easier to control from a point of view of the instruments designed for their provision, and taken together with further services provided, which go to create a not insignificant renown of the said financial institutions.

The ever-expanding introduction and implementation of new technologies has opened up new opportunities for transactions of a capital services nature. A not-insignificant effect in the respect is decreases in the intermediary and transactional costs as well as the performance of commercial activities involving financial instruments in real time.

This aspect is important, especially in today's world, where the offer of classical deposit accounts does not provide clients, from the perspective of the levels of interest rates, with much room for decision-making.

Despite the above, so-called indirect securities still form part of the significant resource capacities of commercial banks and financial institutions. Commercial banks make use of these resources very frequently for the purchase of direct securities and for profit realisation. In such cases, Banks can count upon making double profits, whereby profit are realised upon the commercial manipulation of these resources, and further profits from the charges and fees arise for the provision of such services.

It is worth noting that the risks are clear, that these financial institutions take upon themselves a range of obligations, which are associated with the activities of an intermediary in capital movements. In a standard, functioning market economy, the risks for their clients are very small, since the liquidity of the given financial institutions is a very closely tracked area from the side of the banking oversight organisations. As to the level and effectiveness of the above-mentioned complicated system, we have been able to convince ourselves – so-to-say en route, from the very beginnings of the transformational process and right up to the realisation of the privatisation process prepared for the sale of the semi-state owned Komerční banka a.s.

The role of the state as a regulator was to find through the means of licensing policies, an acceptable number of banking subjects, such that the movement of capital be able to take on a realistic likeness and not simply be an instrument of speculative movements and of mergers, often preformed in the form of transfers and movements of shares and other financial trading instruments taking place off the floors of the stock exchange.

Banks, especially from the point-of-view of their investments into shares and other financial trading instruments, currently have every precondition for reductions in

costs of an informational or time nature. This is an indubitable advantage over small-scale investors. Analytic and informational costs above all represent reductions in the risks involved in the trading of shares and other financial trading instruments. This is also certainly due to the amounts of capital that banks are able to invest and their access to information directly from those who take the decisions.

When mentioning information on the capital markets, the question whether or not all the informational sources used are in conformity with business ethics remains understandably the question. It is clear that, under the conditions prevailing in a market economy, with the greatest degree of certainty that one cannot avoid certain suspicions. However, the institution the Stocks and Shares Commission has certain instruments at its disposal for verifying the cleanliness and ethicality of realised capital trades.

In this context, an exemplar of unclear information flows decidedly worth mentioning involves the case of the privatisation decision-making process associated with the Unipetrol organisation, whereby all those participating in the SPAD segment of the stock exchange held onto their shares as a consequence of an understandable deficit of information, with the exception of one single dealer, who began to sell-off his portfolio holdings in advance of the final decision taken by the government. Despite the fact that in the commercial trading activities of financial institutions such phenomena do not occur frequently, it is necessary to admit, that such things do occur, and that not only in the Czech Republic. Banking institutions have also to resolve questions linked to deposits and the diversification of their risks in such capital trades cases.

The ways and means of performing trades and the extent of the capital market also have an influence upon these facts. Banking and financial institutions realise their commercial trading activities either through so-called “Their Own Books”, or through the intermediary of companies with investment co-participations. In the second case, the conduct and course of the capital trade is managed outside the banking entity, since the advantage is in the freer legislative framework suitable for the realisation of such capital transformations. Capital trades in the form of shares and other financial trading instruments represent above all the achievement of rapid liquidity for such investments, and the freeing up of assets for these banking entities.

In the current world, the ability to realise trades on the better-developed capital markets of the USA and Western Europe - especially that of the London Stock Exchange, are a matter of course for commercial banks and financial institutions. We must bear clearly in mind the fact that over 50% of all trades realised from the perspective of capital investments take place in the USA and London.

This does not mean only advantages for our own capital market however. Apart from the realisation of unallocated capital, the global intertwining of information and macro-economic indicators also play their roles. Traders on the capital markets are not only Portfolio Managers for investment funds, their life’s central tenet is the maintenance of a healthy portfolio, but some especially well-known financial players often also represent financial institutions and even powerful speculators from the so-called Third World. In such instances, the aim of these players is no longer the reasonable long-term administration of a portfolio composed of healthy assets, but the

achievement of the highest levels of profit-taking in the shortest possible time. To achieve this, they exploit the previously-mentioned information instruments.

In spite of the fact that the capital market in the Czech Republic does not afford banking institutions with a wealth of opportunities to allocate unallocated capital, world trends in the recent past have paradoxically showed up its relative stability, and so many investors, disappointed by developments on the capital markets of Western Europe and the USA are turning to those countries with transforming economies e.g. Poland, Hungary and also to the Czech Republic, where they sense a greater degree of certainty for their investments and the strength of their own capital.

Whereas the economies of the countries of Central Europe have been showing stable growth with smaller fluctuations in the recent past, the macro-economic indicators of the USA as economic world-leader have not been giving potential investors much reason for optimism. Not even repeated reductions in interest rates in the USA by the Federal Reserve have not been able to attract the faith of these potential investors. The DOW Jones and NASDAQ Indexes have lost roughly half of their values as against those in 2000, and capital is seeking new allocation quotas in long-term obligation instruments.

This situation is a prototype and at the same time, confirmation of the previously-mentioned Friedman's Theory of Expectation. The warning system for enterprises and financial institutions reacted too slowly, and thereby created negative expectations on the global capital markets, which in many instances at first grew out of losses of faith and at certain moments exploded into unsubstantiated panic. To this phenomena were added information about the over-valuation of certain companies (inflated) financial results, which originally had been intended as creating significant investment opportunities for the world's leading players on these financial markets as well as for small-scale investors. Other unforeseeable negative events of worldwide implications landed investors´ confidence further blows, and which had a share in fuelling these negative expectations. We have been able to follow and register the se outcomes of the above-mentioned aspects on the economic results of investment funds, banks and even on the dealers on the capital markets themselves.

Similar circumstances were not exceptions on the capital markets of Central European countries, even if their reactions were not as striking. This could be due to realistic expectations for the ending of privatisation processes in progress and even the banks themselves, which form part of the key investors and intermediaries of investments on our capital markets.

The limited extent of the capital market in the Czech Republic helped to contribute to the fact that the market often sought a way to valorise its investments. Thereby the Theory of Realistic Expectations proved itself, in which participants in the capital market made good and in abundant time of analyses conducted by the company BLUE CHIPS, on whose basis it has proven possible to predict the results margins of the activities of these companies.

Despite the fact that the area of crisis phenomena cannot be foreseen with certainty, it is possible to include a set of indices of the macro-economic propensity to

crisis in one's prognostic evaluations of future developments on capital markets, since macro-economic indices, where while it is also true that they demonstrate delayed or even inertial effects, may within definite time horizons establish a framework for investment opportunities from a regional, but also global perspective.

From the case in point it is clear that financial institutions trading on capital markets as co-authors of the practices of economic policies are aware of the threats posed by potential crisis phenomena at the present-day, and they attempt to build this awareness into their expectations or else at least to comprehend them and differentiate them and permanently shift them into the future. It is necessary to remind one that capital markets cannot be understood as the cause of crisis phenomena, but only as their accelerator. Central banks undergoing transformation are clearly aware of these issues, and therefore their policies seek other ways than the restriction of capital flows.

Conclusion

Experiences taken from past and current developments on capital markets show one essential fact, which is that apart from an essentially economic and technocratic conception of capital markets, it is evermore necessary to take the psychological and inter-disciplinary influences accompanying economic and financial operations into account. Among these belong the following, the credibility of information flows, knowledge of investors´ psychological reactions and prognostic preparation from the point-of-view of the tracking of social and natural phenomena. These are the factors that might influence our expectations and the outcomes of our financial operations on capital markets.

Abstract

Tento příspěvek pojednává o vývoji ve světovém a domácím bankovnictví, o kapitálových trzích a to z pohledu použití teorie očekávání. S odvoláním na výše zmíněnou teorii se článek pokouší identifikovat skutečné a virtuální znázornění jak kapitálového trhu, tak jeho nástrojů a regulačních opatření. V tomto spojení příspěvek bere v úvahu tyto informace a etické faktory, které ovlivňují jak náš, tak mezinárodní peněžní trh.

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INVESTMENT CONSTRAINTS OF POLISH COMMERCIAL BANKS ON THE MARKET OF SECURITIES

Tomasz Dębowski

Key words

payment fluidity, bank's own funds, solvency co-efficient, mandatory reserve, market risk, derivative transactions

1. Introduction

Polish commercial banks have undergone radical ownership changes in the last 12 years, which have been caused by system transformation, leading also to a change in the attitude to conducting banking activities. Traditional banking activities, which are based on the general understanding of accepting deposits and granting loans on their basis, have been supplemented by the possibility of engaging in such actions as investment undertakings, including investments on the securities market. A well developed market economy accepts such approach to the functioning of banks, seeing it as fully justified as it creates possibilities to generate profits in areas other than traditional banking. However, at the same time there are certain legal constraints, the role of which is to make sure that the bank does not halt its basic activities and turn from a deposit-crediting institution to an investment organisation, which would be a breach of the basic function of such entity.

2. Legal constraints

The functioning of Polish commercial banks in Poland has been regulated by means of the act of 29 August 1997 – the "Bank Law", last updated this year. Pursuant to the provisions of art 5, items 1 and 2 of the act, banking activities (performed by banks) are:[1]

- accepting cash deposits paid out on request or upon the expiry of a defined date, as well as keeping accounts of these deposits,
- keeping other bank accounts,
- granting credits,

[1] "Bank Law" act – Journal of Laws, 2002, no. 72, item 665.

- granting and confirming bank guarantees, as well as opening letters of credit,
- issuing bank securities,
- conducting bank cash settlements,
- issuing, settling and amortising electronic monies,
- performing numerous activities assumed for the bank only by means of separate acts,
- granting cash loans, as well as consumer loans and credits in the understanding of the provisions of a separate act,
- cheque and bill of exchange operations, as well as operations, the subject of which are warrants,
- issuing bank cards and performing operations with their use,
- fixed date financial operations,
- purchasing and selling cash debts,
- storing valuables and securities, as well as providing access to vaults,
- performing currency trade operations,
- granting and confirming guarantees,
- performing ordered operations in connection with issue of securities.

The scope of banking activities is also broadened by art 6 of the "Bank Law", in line with the provisions of which banks are entitled to: [2]

- acquire or purchase stock and rights resulting from shares, shares of other corporate entities or a participation unit in investment funds,
- undertake liabilities in connection with the issue of securities,
- engage in trade of securities,
- perform, on terms agreed on with the debtor, a transfer of debts to the assets of the debtor, where the bank is, however, obliged to sell them within a period not longer than 3 years upon the date of purchase,

[2] "Bank Law" act – Journal of Laws, 2002, no. 72, item 665.

- procure and sell real estate,
- provide consultations and advisory services related to financial issues,
- provide certification services in the understanding of the provision on electronic signature, except for the issue of qualified certificates used by banks with regard to activities in which they are a party,
- provide other financial services,
- perform other operations, provided that provisions of separate acts entitle them to do so.

The aforementioned activities include those which relate directly to investment activities of banks on the securities market. It is these operations that are the subject of present deliberations and they include:

- cheque and bill of exchange operations, as well as operations, the subject of which are warrants,
- fixed date financial operations,
- acquisition or purchase of stock and rights resulting from that, shares of other corporate entities or participation units in investment funds,
- engage in trade of securities.

In relation to the above four banking operations, which are characteristic to investment in the securities market, the "Bank Law" does not provide for any direct limitations. Upon amending the law in 2002, the limitations present in the previous text of the act in the form of diligence norms expressed in percentage values (the norms related only to some of the banking activities), were replaced by new provisions. Thus banks received a certain freedom with regard to investing on the securities market. The freedom is indicated by the transfer of risk present on this market more in the direction of own responsibility. The elimination of risk by means of the provisions of the legislator has, therefore, been minimised. It is not, however, the same as saying that the investment activities of banks on the securities market can be conducted in an unlimited scale.

Art 8 of the "Bank Law" states that a bank is obliged to maintain payment fluidity adapted to the size and type of the activity conducted. The provision, despite the fact that it is very general, contains an indication for diligence in performing any banking operations so that the fluidity of the bank is not distorted. It is especially understood from the perspective of investment activities in the area of securities as this sphere is "naturally" encumbered by an increased level of risk.

More precise limitations are included in art 128, pursuant to which commercial banks are obliged to maintain own funds at the level not lower than the PLN

equivalent of 5 mln EUR, calculated according to mean currency exchange rate announced by the National Bank of Poland on the reporting day. However, the non-cash deposits cannot exceed 15% of the bank's basic funds.[3] The primary function of basic funds is to finance operations, however the elementary function is to absorb possible losses of the bank. The capital collected as part of own funds should be, therefore, the first line of defence in case of there arising a risk of activities. It is also to be used for financing operations, however – as the provision of the act state – not in the full amount.

The same art 128 observes that the sum of own funds and additional items on the balance sheet defined by the Commission of Banking Supervision, reduced by the amount exceeding the capital concentration[4] shall be maintained at a level lower than the sum of capital requirements resulting from the particular types of risk of the activities conducted. [5]. The text of the present provision, which is at first glance somewhat complicated, results again from the concern of the legislator about he level of own funds and other items on the balance sheet, as the level should be constrained within certain value boundaries, calculated in a specific manner, in line with the provisions of the act.

Another legal constraint contained in the "Bank Law" is a provision (also resulting from art 128) relating to the level of the solvency co-efficient. Commercial banks are obliged to maintain the solvency co-efficient at a level of at least 8%, and start-up banks, beginning their operations, at a level of at least 15% for the first 12 months of their activities, and then, throughout the following 12 months – at least 12%. The solvency co-efficient is undoubtedly the best known international measurement parameter of the banking system, the significance of which is based on the fact that[6]:

- it indicates to what extent the bank's funds absorb the risk undertaken by the bank, defined by means of the risk weights,

[3] The amended version of the act of 2002 states that own funds of banks are the following:
- *elementary funds,* which include basic funds, additional items (such as fund for general risk for unidentified risk of banking operations and retained profits from previous years), as well as items reducing elementary funds,
- *supplementary funds,* in the amount not exceeding elementary funds and which include the capital resulting from depreciation of fixed assets and - upon the consent of the Commission of Banking Supervision (Komisja Nadzoru Bankowego – KNB) – subordinate liabilities,
- *items reducing bank's own funds,* which constitute: lacking amount of provisions for risk connected with the bank's operations and other reduction defined by KNB.

[4] The exceeding of the capital concentration threshold is constituted by a greater number of figures defined as:
- sum of amounts by which the particular (individual – *from the author*) significant share or stock portfolios exceed 15% of the bank's own funds,
- amount, by which the sum of significant portfolios of stock or shares exceeds 60% of bank's own funds. There are certain exceptions with regard to the aforementioned method of calculating the exceeding of the threshold of capital concentration – see art 128 item 3 of "Bank Law".

[5] The scope and detailed principles of establishing capital requirements as a result of the particular types of risk are defined by KNB.

[6] See: CAPIGA, M. *Solvency and capital adequacy*. Bank, 2002, no. 7-8, p. 69.

- the construction of its calculation forces banks to maximise their own funds and allows to assess the structure of assets due to the scale of the risk,

- constitutes an indication to make decisions in connection with the structure of assets, therefore to make choices between investing in credits which are associated with high risk weights or investing in securities.

The method of calculating the solvency co-efficient is as follows:

$$Solvency\ co-efficent = \frac{Own\ \ funds}{Outside\ the\ balance\ sheet\ assets\ and\ liabilities\ weighed\ with\ risk}$$

Having the solvency co-efficient maintained at a level provided for by the law does not allow commercial banks to excessively engage funds in overly risky undertakings. The requirements to maintain the solvency co-efficient is a deciding criterion according to which the financial standing of a bank is assessed, i.e. its solvency or threat of non-solvency. In recent years, commercial banks in Poland have experienced a significant improvement with regard to maintaining the solvency co-efficient at a level provided for by the law. In 2001, only 3 of them were able to satisfy the requirement.

Table 1 - Structure of commercial banks acc. to the solvency co-efficient in the years 1993 – 2001

No	Solvency co-efficient	Number of banks								
		1993	1994	1995	1996	1997	1998	1999	2000	2001
1	8 and over	69	64	68	73	73	75	68	66	66
2	Less than 8	18	18	13	8	8	8	9	7	3
3	Total	87	82	81	81	81	83	77	73	69

Source: own elaboration on he basis of data provided by National Bank of Poland – www. nbp.pl

Another constraint limiting investment activities of banks is the mandatory reserve paid to the interest-free account in NBP. As of 1 January 2002, the level of the mandatory reserve is set at 4.5%. The obligation to maintain the resources results in the loss of potential profits that should arise in case the reserve was left at the disposal of banks. If the funds collected at the NBP account were subject to interest at the level of interest rates obtained as a result of purchasing e.g. 28-day money bonds, than the banks would generate a significant profit. In the period of the first nine months of 2001 it would amount to 1 381 mln PLN. The sum is equivalent to 26.7% of gross income of the banking sector generated in the period of the first three Q's of 2001[7]. The mandatory

[7] The rate of the mandatory reserve relates to:

- PLN deposits paid on any demand,
- PLN deposits with fixed maturity dates,

reserve limits, therefore, to a great extent the investment activities of banks, causing the obligation to incur costs of the profits lost. The system of mandatory reserve is more rigorous in Poland than solutions in the EURO-land. Such rigid home approach refers to both the rate of the reserve (in EUR countries it is significantly lower, as a level of 0% or 2%), a well as to the interest on funds collected on the reserve account which does not exist in Poland.

Another constraint of investment activities of banks, of a quasi-fiscal character are payments made for the Bank Guarantee Fund (Bankowy Fundusz Gwarancyjny – BFG). The payments are of two kinds:

- payments for the fund of protecting guaranteed funds,
- annual fee to BFG.

Payments made to the guaranteed funds protection fund (which is to ensure the return of guaranteed deposits) does not lead to serious financial consequences, as the means are collected on the so called "sleeping" accounts in banks and maintained in the form of securities characterised by high solvency. Income from the securities is the bank's income. As of 2002, banks are obligated to create guarantee funds protection funds in the amount of 0.4% of the sum of bank deposits.

An encumbrance which is much more burdensome is the annual fee to BFG due to the fact that it is non-returnable. Funds paid to BFG as a result of the annual fee are to grant assistance to banks of bad economic standing or those which plan to take over a bank in bad situations. The annual fee, as of 1998, is subject to gradual reduction and in 2002 its level is at 0.08% of assets weighed by risk.

4. Constraints resulting from situation and their influence on the banks' securities portfolio

Investment activities of commercial banks on the securities market is to a great extent determined by the current situation (tendencies) on the market. It can be said that in favourable times, e.g. in times of upmarket, banks are more courageous and willing to engage in trade of securities than in times of stagnation or downmarket trends. Such behaviour is only natural, resulting from a rational approach to the problems of market risk – despite the fact that it can be eliminates by using such instruments as: short sale of securities, short items in fixed-date contracts, etc. – making it possible to generate profits in times of downmarket.

The situation in the exchange securities markets has not been favourable in recent years, both on the Polish market as well as most foreign markets. The WIG index, which just at the end of 1999 oscillated in the vicinity of over 22000 points, is now at the level of approximately 13000 points, which means a drop in the price of securities traded

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- Foreign currency deposits paid on any demand,
- Foreign currency deposits with fixed maturity dates.

on the stock exchange by about 40%. Indexes of the biggest European stock exchanges behaved in a similar manner: CAC, DAX, FTSE, as well as the American DJIA, S&P500 and NASDAQ. Drops in the value of stock exchange securities have become a natural constraint of banks' investment activities and made the institutions of this sector to allocate funds – from securities encumbered by a great degree of risk towards safe papers. In the years 1999 – 2001, the total value of engagement of Polish commercial banks in securities was characterised by a rising tendency, however with regard to the total amount of net assets, the share of securities was sliding by the year. This means that in the period under analysis, there was in fact a higher pace of increase of other items of assets than securities. The increased tendency is presented in table 2.

Table 2 - Net assets, securities and share of securities in net assets of commercial banks

State at the end	Net assets (in mln PLN)	Securities (in mln PLN)	Share of securities in net assets (%)
1999	348 033,1	85 280,0	24,5
2000	410 445,3	93 655,3	22,8
2001	455 862,5	94 825,7	20,8

Source: own elaboration on he basis of data provided by National Bank of Poland – www. nbp.pl

The increasing tendency on both international and domestic stock exchanges, caused by a number of elements of economic and non-economic nature, has become an important determining factor shaping the structure of securities portfolios of commercial banks in Poland. A characteristic trait of such structure is the very high share of over 95% of debt securities, i.e. the so called safe securities issued by state domestic entities: State Treasury and NBP. The structure results from the very low tendency to undertake excessive investment risk by commercial banks in the years 1999 –2001.

In the period under analysis, the share of securities entitled to capital, as well as other securities, was at the total level of 2.0% - 2.6%. Securities of increased level of risk constituted, therefore, a marginal part of the entire securities portfolio. A similar tendency can be expected in current year. With a securities portfolio structure as such, which proves a diligent and limited approach towards risky investment, the incomes from securities operations did not constitute a significant part of the total income of commercial banks. According to NBP information, incomes from stock, shares and other securities in the years 1999- 2001, were, correspondingly, at the level of 893.7 mln PLN in 1999, 441.7 mln PLN in 2000, and 806.9 mln in 2001. The percentage proportion of the share in incomes from stock, shares and other securities in the total incomes of commercial banks was also marginal at the levels of: 1,17 % in 1999, 0.37% in 2000, and 0.36 in 2001. The structure of securities portfolio of commercial banks, as well as the value of share of incomes from stock, shares and other securities in total incomes are presented in tables 3 and 4.

Table 3 - Structure of the portfolio of securities of commercial banks in the years 1999 - 2001

No	Descroption	Value (in mln PLN)			Structure (%)		
		1999	2000	2001	1999	2000	2001
1	Securities with right to capital, issued by	1 497,7	1 709,0	1 855,0	1,8	1,8	1,9
	■ domestic entities	1 412,2	1 580,3	1 562,5	1,7	1,7	1,6
	■ foreign entities	85,5	128,6	292,5	0,1	0,1	0,3
2	Debt securities issued by:	83 920,5	91 522,5	92 949,9	98,1	97,4	97,6
	■ domestic entities	81 885,6	88 956,3	90 672,0	95,7	94,7	95,2
	∗ State Treasury:	54 351,7	51 534,3	60 868,6	63,5	54,9	63,9
	• *treasury bonds*	15 584,7	10 863,7	18 204,9	18,2	11,6	19,1
	• *bonds*	38 766,9	40 670,6	42 663,7	45,3	43,3	44,8
	∗ NBP:	24 357,4	33 119,5	23 838,8	28,5	35,3	25,0
	• *money bonds*	10 975,8	19 897,2	13 958,1	12,8	21,2	14,7
	• *bonds*	13 381,6	13 222,4	9 880,6	15,6	14,1	10,4
	∗ other domestic entities	3 176,6	4 302,4	5 964,6	3,7	4,6	6,3
	■ foreign entities	2 034,8	2 566,2	2 277,9	2,4	2,7	2,4
3	Other securities	148,4	707,5	417,6	0,2	0,8	0,4
4	Total securities (gross)	85 566,5	93 938,9	95 222,5	100	100	100

Source: own elaboration on the basis of the data provided by National Bank of Poland for the years 1999 – 2001 – www.nbp.pl

Table 4 - Value and share of income from stock, shares and other securities in the total incomes of commercial banks in the years 1999 – 2001

No	Description	Value (mln PLN)			Share (%)		
		1999	2000	2001	1999	2000	2001
1	Incomes form shares, stock and securities	983,7	441,7	806,9	1,17	0,37	0,36
2	Total incomes	76 517,4	119 386,2	224 776,7	100	100	100

Source: own elaboration on the basis of the data provided by National Bank of Poland for the years 1999 – 2001 – www.nbp.pl

The limited income generated from the trade of securities indicated in the financial statements of commercial banks and shown in table 4 indicate that investment activities on the market of these financial instruments has not as yet become an important area of generating profit and its marginal character – expressed by very low income – should force to deliberate the possibilities of making more intensive use of the indicated segment of banks' activities. The lack of high profits from investments made in securities leads, as if automatically, to an inhibition of activities in this area which, in turn, becomes an automatic and natural investment limitation. A change in such a state requires a deep observation of the market and a precise and reasonable analysis and, most of all, correct decisions. The potential of investments in securities is not, therefore - apart from there being many legal constraints – fully used. It can be supposed with a great deal of probability, that the situation can be changed along with invigorating the economy and a return of growth at the stock exchange.

Despite the very limited incomes from securities operations, the constraints resulting from the situation seem to have a minor affect on the activities of commercial banks in the area of transactions of derivative instruments. The value of derivative transactions is systematically growing, and that means that they have become the object of much greater interest on the part of banks than operations on cash market. Particularly transactions based on interest rates, as well as fixed date transactions have become popular. A much lesser "popularity" is observe among fixed date transactions in connection to securities, options, as well as other stock exchange instruments and other instruments. An especially low value of fixed date transactions in connection with securities, as well as stock exchange options is noted, and in case of other stock exchange instruments (e.g. warrants) the value is equal 0. We can therefore observe a repeated lack of investment activity in the area of instruments associated with securities, particularly the ones which are present on the market of securities. The value of derivative transactions of commercial banks is presented in table 5.

Table 5 - Derivative transactions of commercial banks

No.	Description	Value of derivative transaction (mln PLN)		
		1999	2000	2001
1	Total derivative transactions, including:	120 709,8	386 817,3	849 647,9
2	Fixed sate transaction, including:	112 356,8	339 616,3	811 818,4
	■ interest rate	49 196,6	157 773,0	294 757,4
	■ currency	63 130,1	181 282,7	515 965,6
	■ connected with securities	30,1	560,6	1 095,4
3	Options, including:	8 353,0	42 945,0	35 780,6
	■ stock exchange options	184,0	20,6	169,2
	■ options outside of the stock exchange	8 169,0	42 924,5	35 611,4
4	Other instruments, including:	0,0	4 256,0	2 048,9
	■ stock exchange	0,0	0,0	0,0
	■ outside of the stock exchange	0,0	4 256,0	2 048,9

Source: own elaboration on the basis of the data provided by National Bank of Poland – www.nbp.pl

In light of the observations presented thus far, a conclusion can be drawn that the activity of commercial banks in the area of securities and derivative instruments which are based on the above are strongly margined not as much by the legal constraints described above but by the direct (and, as it can rationally be seen) by the bankers' decisions, made in conditions of a bad economic situation and directed at the possibly biggest elimination of excessive market risk.

4. Conclusion

The present article undertakes an effort to precisely present the two main investment constraints of Polish commercial banks on the securities market. The constraints result from the law and market situation.

The legal constraints result first of all from the "Bank Law" and relate to three main aspects: maintenance of payments fluidity of banks, maintenance of the proper level of own funds, as well as maintenance of the level of solvency co-efficient defined by the law. A significant constraint which has a direct affect on the level of funds used for investing in securities is the mandatory reserve, as well as fees paid for the Bank Guarantee Fund.

Constraints resulting from the situation are mobile constraints. They become stronger and lead to inhibition of investment activity in the area of publicly traded securities in downward periods and vice versa. Therefore, they decide on the shape of the portfolio of securities of commercial banks and influence the size of incomes

generated in the area. The limitations resulting from the situation directly transpose on the investment decision of bankers and determine their level of willingness to undertake risk.

Abstract

Navzdory rostoucím omezením v oblasti investičních operací komerčních bank, které vyplývají ze zákonných opatření, stejně tak jako z ekonomické situace, jsou investiční možnosti bank plně využity. Zdá se, že investiční omezení dosahují vysokého stupně, zvláště pak v období poklesu ekonomiky, podobně jako v případě upadajících výsledků při obchodování s cennými papíry, jsou nicméně nezbytnou podmínkou pro správné a bezpečné fungování bank.

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THE POSITION OF A TRADER IN SECURITIES ON THE CAPITAL MARKET IN SLOVAKIA

Božena Chovancová

Key words

trader in securities, capital adequacy, market risks, consolidated unit, guarantee fund, client's property

1. Introduction

The Securities and Investment Services Act (566/2001 Coll. as amended), which came into force in Slovakia at the beginning of this year, has brought many changes in the position and in the mechanism of functioning of the important subject of the capital market – the trader in securities. The creators of the new act were not concerned about a higher transparency of this subject, but also about the harmonization of his activities with the legislative and the guidelines of the European Union in the area of the capital market.

From the point of view of the activity of the trader in securities on the capital market, one can see that these subjects encounter many problems when gaining the license or when operating, and these can be summed up in the following points:

1. the size of owned capital and the problems of capital adequacy,
2. the operation within the consolidated units and the non-transparency of supervision over the trader in securities,
3. the formation of the guarantee fund.

2. Equity and capital adequacy

The law introduced the categorization of traders in securities, to which a corresponding capitalization should correspond.

Type of the trader in securities	Sort of the services provided	Fixed assets (mil SK)
Trader in securities I.	➢ Main investment services ➢ Secondary investment services	35
Trader in securities II.	➢ Selected main investment services 1. Acceptance of the client's instruction to the purchase and sale of securities or other disposing of securities and a subsequent delegation of the client's instruction to the purpose of its execution, 2. Acceptance of the client's instruction for obtaining or selling securities not into one's own account, 3. Portfolio management of securities for the client on the basis of the contract separately from other securities ➢ Secondary investment services	6
Trader in securities III	➢ Selected main investment services as with the trader in securities II, he is not entitled though to dispose of monetary means of the intermediary and the client's securities ➢ Does not provide secondary investment services	2,5

Why was such a categorization with a different amount of fixed assets introduced? The activities of the trader in securities are currently connected with (similarly as with other financial institutes including commercial banks) different kinds of risks. These are in particular specific risks (mainly credit risks) and market risks (a risk of the exchange rate's fluctuation, inflation risks, risks of the changes of exchange rates and so on). The first step is the fact that the more extensive activity, businesses related to a higher risk the trader carries out, the higher level of fixed assets is required from him. The new act introduces (similarly as one encounters it in commercial banks) a concept of **capital adequacy**, which should be 8%. Capital adequacy does not refer to the trader in securities of the third category, who cannot even dispose of the clients' means, and thus he does not carry risks in his activity.

Whereas the activity of banks and investment firms (investment firms, securities firms) differentiated distinctively in the past, for banks oriented mainly on granting credits and they profited from the interest rate spreads between credits and deposits. On the other hand, the activity of the traders in securities was mainly focused on organizing the issue of securities and on dealing on the secondary market, and their main incomes were charges and business margins. Today, the activity of both subjects becomes to overlap largely, and in many ways, they compete or they have the same character. The creators of capital adequacy approached it from that aspect for banks and other financial institutes.

The primary feature is the so-called *capital accord*, which is known under the name **BASLE I. (1988).** This is the first document, which specifies criteria for assessing credit risks of banks. The document specifies that the ratio of capital and the so-called weighed and credit assets (capital adequacy) should be 8% (capital – asset ratio or Cooke-Ratio).

For calculating capital adequacy, capital is divided into *core capital and supplementary capital.*

Core capital (**Tier 1** – core capital) is represented by the following items:

- fixed assets, which represent the product of face values of stocks and their number,
- agio funds from the paid off stocks,
- reserve funds (the so-called announced funds).

Supplementary capital (**Tier 2 –** supplementary capital):

- general contingency reserves (non-released reserves, revaluating reserves, general reserves),
- hybrid debt capital instruments,
- paid-off and subordinated term debt.

Certain *limits and restrictions* apply to Tier 1 and Tier 2 too. These can be summarized in the following points:

- tier2 is maximally specified to 100% of components of tier 1 (tier $2 \leq$ tier1),
- subordinated debt can be max. 50% of tier 1,
- if general reserves contain a lower assessment of assets and non-identifiable losses are in even, then these reserves are set to 1,25% of weighted risk assets,
- revaluating reserves, which have a character of latent profits from non-realized securities, are subject to a discount of 55%.

Deductible items from Tier 1 are goodwill and from Tier 1 and Tier 2 (total capital) investments into the non-consolidated banking and subsidiary companies (capital agreement on the consolidated basis) and investments into the capital of the other banks and financial institutes (a national supervisory body specifies it).

It holds true that a certain risk weight is assigned to each assets in a sense of a credit risk. Proceeding from z BASEL I. the following holds true for capital adequacy:

$$RVA = \sum_{i=1}^{n} (A_i . W_i) \quad for \quad non - balance\ sheet - items - too$$

$$KP = \frac{K}{RVA} = \frac{Tier\ 1 + Tier\ 2 - O}{RVA} . 100$$

$$KP \geq 8\ \%$$

A – face value of assets, W – ration weight, RVA – weighted risk assets,
KP – capital adequacy, K- capital, O – deductible items.

Various approaches of national supervisories, differences in bookkeeping, different legal regulations have projected into the differences also in the reserve creation, on the other hand the risk weight of some assets lead to the fact that banks often replaced trade credits with state debt, which was reflected in the lack of sources of private sector. The risk weight of 100% has become discussable too, where distinctive qualitative differences may be evident between particular subjects (it can be a case of subjects, which are assessed in the A or B rating, or new companies).

BASLE I assesses namely credit risk (insolvency risk) and gradually the work process on improving capital adequacy, of which part would be **market risk**. The whole process of elaborating new conditions was accelerated in consequence of the collapse of many financial institutes, among which the collapse of the British bank Barings was familiar. In the year 1995, the Basel committee issued a new planned supplement to the capital accord to incorporate market risk. This document did away with deficiencies in using options. In the year, the **Amendment to the capital accord to incorporate market risk** was published, which is briefly named BASLE II. Under the market risks is meant: *credit risk, stock risk, monetary risk and commodity risk*.

BASLE II. specifies in more detail a concept of *trading book and banking book* (it is sometimes denoted as investment portfolio). Traditional banking activities, such as credits for clients, deposits and long-term investments (also long-term securities, which keep the given subject up to the maturity date) are part of the business portfolio. BASIL II completes already capital adequacy also for investment business.

The contribution of BASIL II is also the fact that in the business portfolio, the selected bonds and stocks and their primary requirements of the weighted risk assets, are replaced by a capital requirement to a specific interest and stock market. The new capital requirements with reference to the interest and stock risks, are applied only to the business portfolio and the new requirements to the face and commodity risks, are applied to the both portfolios.

The capital requirement to the market risk was marked **Tier 3.** It consists of the short-term subordinated debt and the net profit of the business portfolio. Then, capital adequacy according to BASIL II can be stated as follows:

$$KP = \frac{Tier1 + Tier2 - O + Tier3}{A + B}_{využitý}.8\%$$

$$KP \geq 8\%$$

A - capital requirement to the credit risk (0.08xRVA)
B – capital requirement to the market risk

Capital appropriates is always to be observed at the end of the working day. In case of the non-used capital, Tier 3, the following relation holds true:

$$KP\ non-used\ Tier3 = \frac{Tier3}{A + B}_{non-used}.8\%$$

BASIL II gives an opportunity, when assessing the market risk, to apply the standard methods, which banks use; in the case of the non-banking investment businesses it enables national supervisories to conform those standards of capital adequacy to the conditions of these companies, with the of achieving a competitive equality among banks and non-banking institutes.

The EU guidelines responded to the Basel capital adequacy, whose effort was to create capital adequacy in a broader context for other financial institutions, which are part of the today's large investment zone, which is the EU. These are primarily:

- Own Fund Directive (Council Directive 89/299/EEC from 17 April 1989 on the own funds of credit institutions), an abbreviation **OFD** is used,

- Solvency Ratio Directive (Council Directive 89/647/EEC from 18 December 1989 on a solvency ratio for credit institutions) is marked as **SRD.**

To the contrary, it is about the solvency ratio, but from content's view, it is about capital adequacy too. Both directives correspond to BASLE I, and similarly solve the question of capital adequacy and credit risk. These two directives concerned even less the banking sector.

- Capital Adequacy Directive (Council Directive 93/6/EEC from 15 March 1993 on the Capital Adequacy of Investments Firma and Credit Institutions), introduced a concept of capital adequacy and it is known under **CAD.**

CAD I relates then to the investment business. CAD I prefers liquidity to solvency (it proceeds from the assumption that investment business have high liquid assets) and illiquid assets are deducted from capital. CAD concerns mainly business activities and SRD deals only with traditional banking activities. Investment Services Directive is linked to CAD I (Council directive 93/22/EEC from 10 May 1993 on investment services in the securities field – **ISD),** whose objective is to create the sole capital market for the investment intermediaries including the portfolio managers.

CAD I specifies in the particular articles:

1. measuring and monitoring of the market risks,

2. credit involvement mode in the market risks,

3. minimal capital requirements.

In the case of the investment businesses (including traders in securities), the guideline distinguishes too between business and non-business portfolios. The capital requirement to the market risk is mainly determined for business portfolio. In the case of the currency risk, it is determined for the non-business portfolio too. The daily revaluation is required in the business portfolio.

CAD I solves the problem of capital adequacy already on the consolidated basis, while it proceeds from the possibility too that within the group there is no bank. It specifies too how to assess the market risk of the group and it determines kinds of own sources. It emphasizes the bookkeeping and the harmonization of the report system within the EU.

In the area of risk, CAD I shows only currency risk, commodity risk, settlement risk and risk of the credit involvement. The market risk of the interest and stock instruments of the business portfolio replaces the credit risk, the original capital adequacy. CADI does not contain the market risk of the interest and stock instruments of the banking portfolio. The capital requirement is calculated separately for each kind of the market risk. Moreover, it is divided then to *specific* and *general* at the interest and stock risk.

The reaction to BASLE II was an amendment CAD denoted as **CAD II.** It focuses form content's view on the inner models of banks (different models at assessing the market risk, such as historical simulations, method Monte Carlo, variations and co-variations and so on.[1]) and commodity risks. In comparison with BASLE II, more attention is paid to the so-called settlement risk and the credit involvement risk.

3. OCP –the consolidated and non-consolidated units

By course of legislative, what is meant under *the consolidated unit* is a group of legal entities, in which the legal entity controls other legal entities and who is not controlled by any other legal entity. Within the framework of the consolidated unit, OCP can function in many positions:

- it has a leading position in the consolidated unit, while other OCP or other financial institutes can be a part of this unit,

- it can be also integrated into the consolidated unit of the central depositor, of whose part are also other financial institutes apart from OCP,

[1] each of the stated methods and its analysis requires broader space for the course though

- it can be a part of the consolidated unit, which is controlled by the financial institute.

By the *sub-consolidated unit* is meant a group of legal entities, in which one legal entity controls other legal entities, at the same time he is controlled by another legal entity. Similarly as in the previous course, the trader in securities can be in the lead of this unit or its part.

From that aspect, the problems of the supervision harmony over the consolidated and sub-consolidated units seem unclear; of whose part are the traders in securities too.

Provided that a part of each consolidated and sub-consolidated unit are commercial banks, the common legislative does not ban double supervision. On one hand, there are requirements of the bank supervision of the central bank, which from the currency view in the case of a small bank within the consolidated and sun-consolidated unit, does not exclude it from its influence, and on the other hand there are requirements of the revenue authority, whose is under the law entitled to supervise these units.

It is necessary to take into account that within the EU there is still uniformity in the particular countries as for the problems of the bank supervision or the supervision over the capital market. Therefore, the law formulation is vague in terms of cooperation of the revenue authority with the supervision bodies within the EU, in particular in issues of the supervision over the units, which legal entities will form in the territory of Slovak Republic, or these will become a part of these units.

4. The protection of the client – guarantee fund

A new element in the legislative is also the compulsory formation of the guarantee fund, which functions in the client's interest in case his property becomes uncollectible. OCP is liable to cover the following contributions:

a) the entry contribution,

b) the annual contribution,

c) the special contribution.

The entry contribution, which is a non-recurring contribution, is differentiated according to the type of the trader. Its amount is about from 5000 Sk up to 70000 Sk and it is dependable on the fact, whether the trader executes transactions also with the client's money, or whether he trades on his own accord, or according to the types of the services provided.

The annual contribution is a regular and a recurring payment, which is used for disbursing the costs. Its amount is about form 0,5% up to 3% of the charge sum, which are charged by traders in securities for their clients. There is a valid rule here that the higher the risk is, the higher the percentage sum is. The lowest contribution refers

again to the trader, who only trades on his own accord; he does not have then a chance to handle the client's money.

Special contributions are settled by traders only then, when the fund has a lack of resources for reimbursing the client's unobtainable property or when the fund has to pay off the credit, which it was granted for paying off the unobtainable property of clients, and it does not have sufficient resources to reimburse it. The amount of the contribution is similar for all traders (it can exceed 30% of the level of clients' charges in exceptional circumstances).

The fund provides a compensation for the client's protected property in the amount of 90% off the property, however in a conversion up to the amount of 20 000 EUR.

Similarly, as in the bank sector, where there is a protection deposit law valid, the banks have a liability to contribute to the deposit protection fund, and a mechanism is being formed on the capital market, which protects clients from the property loss and it contributes to a greater transparency in the trader's activity in securities. Then again, this mechanism (as examples from the bank sector show) creates from traders' side a certain injustice, i.e. much stronger, more flexible ones will create by their contributions a substantial part of this fund and will provide the largest payoffs of the clients' unobtainable property, while the weak ones, in contrast, will contribute noticeably less to that fund, and in the case of bankruptcy, they will take away considerable resources of that fund.

In this case, a more cautious role will be inevitable, and a signal function of the guarantee fund, which will warn in advance also the revenue authority for the financial market of these subjects on the market.

5. Conclusion

Concluding, one can state unequivocally that more severe rules for the traders in securities lead to a more distinct selection on our market. It is obvious today that their numbers will be far from the double-figure. I am of the opinion that in respects to the spatially limited Slovak capital market, the higher number is not necessary. On the contrary, a lower number and a higher transparency and respectability towards clients will definitely contribute to the revitalization of the capital market in Slovakia.

Abstract

Problémy kapitálového trhu na Slovensku sa často bezprostredne spájajú s činnosťou obchodníkov s cennými papiermi, najmä s ich netrasparentnou činnosťou a mnohými nekalými praktikami, ktoré vyplývali aj zo značných medzier v legislatíve kapitálového trhu. Nová legislatívna norma a to zákon o cenných papieroch a investičných službách, ktorá vstúpila do platnosti v tomto roku a bola vypracovaná v súlade s legislatívou

Európskej únie, priniesla podstatné zmeny v mechanizme fungovania obchodníkov s cennými papiermi ale aj v ich postavení na kapitálovom trhu. Vyvolala rozsiahlu diskusiu v radoch obchodníkov s cennými papiermi, ale i u odbornej verejnosti. Tvrdé pravidlá pri získavaní licencie tohto druhu podnikania sa dotýkajú najmä problému vlastného kapitálu a kapitálovej primeranosti. Vzhľadom na to, že činnosť obchodníka s cennými papiermi, ale i činnosť bánk a iných finančných inštitúcií nadobúda mnoho spoločných rysov, je nevyhnutné, aby sa aj obchodná činnosť poriadila kritériu kapitálovej primeranosť 8% aj u obchodníka s cennými papiermi. Nevyhnutným predpokladom je zvládnuť nielen meranie úverových rizík, ale i trhových rizík. Problematickou oblasťou sa stáva aj tvorba konsolidovaných s subkonsolidovaných celkov v rámci ktorých budú pôsobiť aj obchodníci s cennými papiermi. Z toho vyplýva aj vyriešenie dvojitého dohľadu nielen v národnom, ale i medzinárodnom priestore EU. Na kapitálovom trhu SR sa praktizuje tiež ochrana klienta a to systémom tvorby garančného fondu, z ktorého sa bude hradiť nedostupný klientsky majetok. Uvedená problematika je v súčasnosti značne široká a je predmetom stálej diskusie. Pozitívny je tu ten fakt, že prispieva k zefektívneniu kapitálového trhu a vyššej transparentnosti činnosti obchodníka s cennými papiermi.

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ROLE OF BANKS IN SECURITIZATION OF THE ENTERPRISE FINANCIAL ASSETS

Maria Sierpińska

Key words

securitization, investment banking, securitization in Europe

1. Introduction

The growth of new informatics and telecommunication technologies conducive to the quicker information flow and to new markets of global nature arising results in new financial products appearing. This is furthered by the deregulation of financial markets as well. Important regulations on the freedom of capital flow and on the banks operation range having been abolished. The banks extended their operation by new areas, their products have been diversified in order to dissipate the operation risk. Many banks in Poland suffered substantial losses caused by their excess and careless credit actions. Therefore, they started to pay more attention to use their own funds as effectively as possible, with less emphasize to the balance – sheet sum increase. Under such circumstances, securitization has appeared.

The solutions covered by the structure of this refined technique are fringed upon the credit and the capital pecuniary performance. As a process of raising resources to maintain the financial liquidity, securitization can be understood as company financing by a bank credit or by a loan from financial brokers being substituted by the issue of debentures which are secured by financial assets. In narrower understanding, securitization means a process consisting in the issue of bond type securities or of other short-term debentures secured on the cash streams generated by various assets.

2. Securitization procedure

A model securitization consists in the business subject which intends to raise its capital (arranger) first carving out a package of uniform financial assets in its possession. Most often, such assets comprise the accounts receivable already existing which are to be repaid in future, usually within a period longer than the balance – sheep year (e.g. instalments for the cars sold, leasing instalments). Sometimes, the receivables which will become due only in future are securitized as well; like – for – example – receivables on credit cards. The assets thus carved out are then sold to a corporation set up for this purpose, a fund or other subject which is a legally separated unit (Special

Purpose Vehicle – SPV, Special Purpose Corporation _ SPC). As a rule, the sales is thought so that the risk originating from the debtors is separated from the one related to the arranger's business operation. SPV (special purpose vehicle, issuer) in its turn – in order to raise the capital to repay the receivables purchased – issues the securities and sells them on the capital market. Since the main source to settle the investors' claims are the proceeds related to the securitized assets, the securities issued are called the asset backed securities (ABS).

The principal step in each securitization deal is to transfer the assets from primary owner (transaction arranger) to another subject – the special purpose corporation. In Poland, there are principally two methods of such transfer; through:

- renewing the contracts,
- transferring the receivables (assignment).

The first way consists in the liability contracts between the arrangers and their debtors being substituted by new contracts between SPC and the debtors, on the same or on similar conditions. Actually, however, using this method bears some difficulties, specially with a large number of debtors (e.g. who purchased their cars on instalments). Apart from many formal difficulties (completing the documents, setting up the collaterals again), it would require every debtor's consent. The arranger is not always willing to engage his clients in the securitization deal in order not to raise their anxiety about the whole process. With a number of debtors being limited, the contract renewing procedure can be considered realistic.

The most practical method to transfer the receivables is their assignment between the arranger (assigner) and the special purpose corporation (assignee), (art. 509 and the subsequent ones of the Civil Code). The advantage of such transfer is no need to get the debtors' approval or to notify then about the change of the legal status. The arranger is not to fear his clients' negative response. Also, it would be easier to manage the proceeds from the receivables, which would be the arranger's – instead of SPC's – responsibility. From the practical point of view, it would be necessary to notify every debtor about the assignment. In the same time, the debtors could be instructed on the need to transfer the resources to the arranger who would manage the proceeds from the receivables under an agency contract signed with the SPC. Unless the debtors are notified, until the sales came to be known by them, any deeds between them and the arranger would be legally effective towards the SPC. Thus, for example, SPC would have to abide by any contract variation re interest rates and payment terms or downright a discharge from debt, while exacting claims from the arranger might be difficult. It has to be emphasized that the transfer institution is ruled by the principle under which the debtor's situation must not undergo deterioration as a result of transfer. The inconveniences of an assignment contract which would be important from the assets securitization viewpoint could be partially eliminated through proper wording of the arranger/SPC sales contract.

The issue of securities by SPC can take place in:

- public offer – when the proposal to buy them is directed either to more than 300 persons or to a non-designated referee,
- non-public offer.

Such issue can be based either on the law on bills of exchange, or on the law on bonds or on the civil code. The act "law on public circulation of securities" is not applicable here.

3. Role of banks in securitization

The brokers in the sales of asset-backed instruments are most frequently the investment banks. When the issue is a public offer, then the investment bank is a guarantor (underwriter), purchasing the total issue and then re-selling the instruments to small investors. With a non-public offer, the investment bank's role is to look for proper buyers. A non-public offer bears a lower risk for the underwriter, and – naturally - his commission is lower too. Usually, a non-public issue is less liquid, which means the interest rate related to the instruments thus offered will be higher than with the more liquid public issue. The investment bank together with the issuer adjusts the offer structure and ensures its compliance with the formal/legal, accounting and regulation requirements.

After an issue in non-public offer is competed, the banks actively participating in its preparation now take care of the secondary market arrangement. Specially important here is to provide the investors with an opportunity to circulate the instruments they have bought, and – additionally – to produce the solutions supporting and maintaining liquidity on such market.

The participants in the securitization process are also rating agencies, their job being to evaluate the investment risk and thus the safety of capital investing in the given financial instrument. With high rating, the investor's risk is reduced and the specific instrument attraction on the market improved.

An important stage of the securitization process is the post-issue service. Within this stage, following jobs are performed:

- transferring funds to the investors; the transfer terms resulting from the contracts,
- buyout of the issued instruments on the appointed time,
- supplying any information which might be important for the assets securitization plan. It means both the information duties resulting from the contract previously signed and those imposed by legal regulations, like – for example – with the issue of bonds, the issuer is obliged to make available to the bond owners his annual

financial reports, along with the auditor's opinion, for the period since the issue until the bonds are totally bought out.

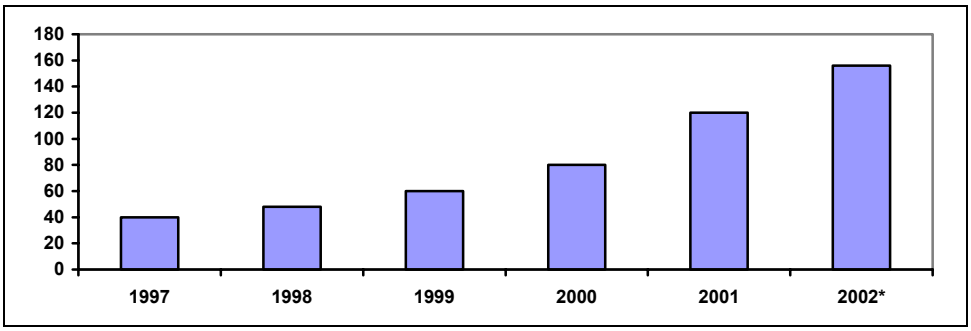
The role of banks in securitization deals may either be a passive one, consisting in including the instruments issued in their own portfolios as deposits, or services may be rendered by them, i.e. the banks deal as brokers between the issuers and the investors. Banks being the transaction participants invest their free capital in the securities. Sometimes, however, purchase of securities by the banks happens to be indispensable when – due to the issuer's standing deterioration – their sales is barred by the market liquidity. Under such circumstances, a credit line for the issuer is made available by the banks, such line being used to buy the securities out.

Sometimes, banks – like enterprises – are the arrangers of the whole transaction. Having active debts in their portfolios, they securitize them in the same way like enterprises do. They set up special companies to issue securities on the debts bought from the bank, and thus they are advantageously re-financing themselves on the international markets.

4. Securitization range in Europe

Securitization became popular due to the banks becoming very careful with lending funds under the difficult situation on the capital markets. In 2001, there was 52 per cent growth in the European market of securitization deals, while the value of securities issued reached as much as 117 billion USD. According to Deutsche Bank estimation, in 2002 the value of issues will be over 155 billion USD. In the previous years securitization was the sphere of banks exclusively; they thus securitized the debts from mortgage credits and from credit cards. Now, it is used by enterprises from various sectors, including – but not only – telecommunication, power and commerce. The securitization levels within the period of 1997-2002 are shown in figure 1.

Figure 1- Value of securitization deals in Europe (in bln USD)



** forecast by Dresdner Kleinwort Wasserstein*

Source: Morgan Stanley Dean Witter & Co.

In Europe, the securitization market will be growing dynamically. For the companies and for the national governments having assets at their disposal which will give specific revenues, securitization is an effective strategy in long-term financing. In practice, the bigger and bigger group of debts can be securitized. For Telecom Italia, these are the future receipts from the telephone fee payments; for Madame Tussaud museum – income from tickets; for FIFA – revenues obtained from the soccer championship sponsor. However, most of the securitization deals are by telecommunication companies. Their indebtedness being so high, they have troubles with conventional raising the resources to fund their operation. In 2001 British Telecom securitized their proceeds from renting their commercial real estates, thus getting 2,5 billion USD. In 2002, also France Telecom, Deutsche Telecom, Telecom Italia provide for a securitization plan to be carried out.

The governments of EU nations can enter this market as well. Thus, for example, the Italian government was in 2001 a participant in the three transactions, securitizing their future incomes from the lottery, receipts from real estate renting and from social security. It is the investment banks' forecast that the East Europe countries – aiming at meeting the conditions of joining EU – will make use of securitization in order to reduce their debt level. In Poland, within the recent period, only several securitization plans were carried out. The most renowned one is securitization of pharmacies' debt to the medicine wholesalers. It is provided that no company or government is to securitize more than 20 per cent of the assets in their possession. The rating agencies watch the market closely so that the securitization "fever" does not evade control. It seems, securitization will enjoy more and more popularity. In Poland, a barrier to the securitization market to grow are the ambiguous legal regulations, but a lack of bankers' creativity and imagination as well.

5. Conclusion

The financial instruments presented here may be useful both for enterprises on their commercial receivables and for leasing companies having claims on their lease contracts. Securitization will enable them to substitute credits with an off balance sheet financing source. This will speed the company growth up, since the credits could thus be used for the growth, while the resources raised from securitization will be used to fund the operation mainly. The cost of capital raised from securitization will be lower than with bank credits. The issue arrangers can be banks as well. Through securitization of the receivables from credits, the structure of their balance – sheet is changed and in the same time resources are raised enabling them to extend credit activities for business subjects. Securitization may be also made use of in restructuring the financial sector and in the line improvement plans.

Abstract

Tento příspěvek popisuje sekuritizaci – jednu z možných technik obnovení finanční rovnováhy. Společnosti ve finanční tísni by měly sekuritizovat svá finanční aktiva

namísto dalšího zadlužování. Role bankovního sektoru je v celém procesu rozhodující. Teoretické aspekty sekuritizačního procesu jsou popisovány detailněji. Stupeň sekuritizace aktiv v Evropě, podrobně rozebírán v další části, slouží jako důkaz rostoucí popularity této techniky. Nižší kapitálové náklady vyplývající ze sekuritizace aktiv, alternativa k bankovnímu úvěru, činí tuto techniku v pojetí obnovení finanční rovnovány velice atraktivní.

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TESTING STATIONARITY OF SELECTED ECONOMIC AND FINANCIAL VARIABLES AFFECTING CAPITAL MARKETS[1]

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Milan Třaskalík

Key words

weak (covariance) stationarity, trend and difference stationarity, unit root, Dickey-Fuller´s test, Phillips-Perron´s test

1. Introduction

Attempts to measure and model economic or financial variables and analyse the relationships between such variables have involved virtually all principal econometric methodologies. These problems that have arisen and were resolved have been extremely important in development of econometrics.

The traditional way, the large models with many variables, was not very dynamic (e.g. this approach involved only seldom lagged values of variables). The large simultaneous models were limited by some well-formulated, very often generally accepted economic or financial theories. Very often the models were (or they are) almost fully specified in basic theory and the only task remaining had been estimation of the parameters.

The main alternative approach, time series analysis, concentrated on dynamics and characteristics of time series. This approach paid little or no attention to economic or financial theories, and built models involving only a few variables.

Over the years these two dominant approaches have influenced and interacted with each other. Thus the large models became more dynamic and involved unit roots (stationary or non-stationary series) and cointegration. And the time series models considered number of variables (not only univariate models) and paid more attention to the use of theories.

In our opinion the current real state of econometric models consists of small (vector) autoregressions or error-correction models on the hand and very large models

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for commercial or government agencies considering hundreds of equations on the other hand. We believe that the future should lie somewhere between these two extremes.

The question for our research is: How to put these two approaches in the multifactor asset pricing models.

We try to reconcile both approaches. ***Our key assumption is that, while economic theory can explain the long-run trend of the markets, short-run movements are deriven by variables that are not exactly specified and do not enter into the theory and thus have to be fitted empirically. We can identify our modeling approach as a short-run adjustment around long-run equilibrium.***

Developments in modeling tools (cointegration analysis and error-correction models) provide us with methods that are powerful and relevant for the analysis of stock market returns. Clive W. J. Granger (1986) describes the intuition behind this concept:

"At the least sophisticated level of economic theory lies the belief that certain pairs of economic variables should not diverge from each other by too great an extent, at least in the long run. Thus, such variables may drift apart in the short run or according to seasonal factor, but if they continue to be too far apart in the long run, then economic forces, such as market mechanisms or government intervention, will begin to bring them together again."

According to Granger, economic or financial theory is adequate to describe a long run equilibrium, but in the short run the shocks or specific factors may push variables away from their equilibrium values. It then takes some time to move back to the long run state. The key idea is that there is "reversion force" that ensures the return to equilibrium.

Financial theory suggests that the following economic and financial variables should systematically affect stock markets ***in the long run*** (see e.g. Chen, Roll, Ross – 1986): industrial production (another approach supposes GDP, GNP), expected and unexpected inflation, the spread between long and short interest rates (the term structure of interest rates), the spread between low- and high-grade bonds (the risk premium), consumption, oil prices and so on. We add also efficiency indicators of allocated capital in the firms (average ROE, ROA or ROS). ***In the medium time*** we assume that capital markets are influenced by ratios comparing economic (fundamental) and market evaluation (such as dividend yield, P/BV, P/E, P/S). By our opinion behavioral or psychological factors are also very important ***in the short time***. The real problem is how can be identified and defined these short run shocks (behavioral impuls). We suggest to apply "technical indicators"(e.g. from technical analysis).

This paper is our entering study of the principal time series characteristics of selected variables, namely it is concentrated on ***testing of stationarity***. These tests are necessary and very important condition for the choice of adequate model.

2. Theoretical aspects of stationarity[2]

Consider simple autoregressive model of the AR (1)[3] type:

$$y_t = \beta_0 + \beta_1 y_{t-1} + u_t$$

Parameters (coefficients) of the model can be estimated by the simple method of the least squares (LS). If we denote the estimated coefficients by b_0 and b_1, the result of Mann and Wald (1943) establish, that $\sqrt{n}\,(b_0-\beta_0)$ and $\sqrt{n}\,(b_1-\beta_1)$ have a bivariate normal limiting distribution with zero mean and finite variance and covariance. As far as this assumption is fulfilled then the estimates of parameters through LS method are consistent both for β_0 and β_1. The Mann-Wald´s result depends on two crucial assumptions:

(a) nonsystematic elements (errors) of model are independently and identically distributed with zero mean a finite variance, denoted as IID $(0, \sigma_u^2)$,[4]

(b) time series is stationary.

Let us analyze the model mentioned above and suppose that at the beginning of the process there existed certain value y_0. Then we can write down

$$y_1 = \beta_0 + \beta_1 y_0 + u_1$$
$$y_2 = \beta_0 + \beta_1\left(\beta_0 + \beta_1 y_0 + u_1\right) + u_2 = \beta_0\left(1 + \beta_1\right) + \beta_1^2 y_0 + \left(u_2 + \beta_1 u_1\right)$$

General formula for an autoregressive process of order zero is then: (Equation 1)

$$y_t = \beta_0\left(1 + \beta_1 + \beta_1^2 + \beta_1^3 + ... + \beta_1^{t-1}\right) + \beta^t y_0 + \left(u_t + \beta_1 u_{t-1} + \beta_1^2 u_{t-2} + ... + \beta_1^{t-1} u_1\right)$$

Also another relation will be valid:

$$E\left(y_t u_t\right) = \sigma_u^2$$
$$E\left(y_t u_{t-1}\right) = \beta_1 \sigma_u^2$$
$$E\left(y_t u_{t-2}\right) = \beta_1^2 \sigma_u^2$$

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[2] This theoretical part of our paper is based on following publications:.Arlt (1999), Box and Jenkins (1970, 1976), Fuller (1976, 1979), Granger (1986, 1991), Engle and Granger (1987), Johnson and DiNardo (1997), MacKinnon (1991), Mann and Wald (1943), Phillips (1986, 1987), Phillips and Perron (1988), Said and Dickey (1984).

[3] This is called a first-order autoregressive scheme. The order indicates the lag in the equation.

[4] There is no assumption of normality for the disturbances.

We can see y_t that time series is correlated with current and previous errors, but it is not correlated with future stochastic elements. It follows from general formula (Eq.1) unequivocally that stochastic pattern is caused by stochastic series *u*.

If we determine the expected value of the right side of equation 1, then

$$E(y_t) = \beta_0 \left(1 + \beta_1 + \beta_1^2 + ...\right)$$

So the expected value exists only provided that the infinite time series at the right side of the equation has a limit. Necessary, and also sufficient condition is the following

$$|\beta| < 1$$

then the expected value will be

$$E(y_t) = \mu = \frac{\beta_0}{1 - \beta_1}$$

and the time series y_t has ***a final, a constant unconditional mean*** μ..

Elicitation of the condition for variance is simple, because holds:

$$(y_t - \mu) = u_t + \beta_1 u_{t-1} + \beta_1^2 u_{t-2} + ...$$

we bring to a square both side of the equations and introduce the expected value

$$\text{var}(y_t) = \sigma_y^2 = E\left[(y_t - \mu)^2\right] = E\left[u_t^2 + \beta_1^2 u_{t-1}^2 + \beta_1^4 u_{t-2}^2 + ...\right]$$

provided that $E(u_t^2) = \sigma_u^2$ it will hold

$$\text{var}(y_t) = \sigma_y^2 = \frac{\sigma_u^2}{1 - \beta_1^2} = \gamma_0$$

An autocovariance is covariance of time series *y* with lag values of this series. Autocovariance of the first order is then:

$$\gamma_1 = E\left[(y_t - \mu)(y_{t-1} - \mu)\right] = \beta_1 \sigma_y^2$$

by analogy with autocovariance of the second order is:

$$\gamma_2 = E\left[\left(y_t - \mu\right)\left(y_{t-2} - \mu\right)\right] = \beta_1^2 \sigma_y^2$$

general formula for autocovariance of the *s* order is

$$\gamma_S = \beta_1^S \sigma_y^2 \quad \text{for s = 0, 1, 2, …}$$

It results from the general formula that autocovariance depends only on the length of lag (s) and that autocovariance does not depend on time.

It also holds:

$$\gamma_S = \beta_1^S \sigma_y^2 \quad \text{(for s = 0)} \quad = \sigma_y^2$$

Autocorrelation coefficient can be determined by the formula:

$$\rho_S = \frac{\gamma_S}{\gamma_0} \quad \text{for s = 0, 1, 2, …}$$

In the case $|\beta_1| < 1$, the graph of autocorrelation coefficients converges very quickly (in exponential way) to zero along with increasing length of lag.

We can state that provided $|\beta_1| < 1$ ***mean value, variance and covariance of time series y are finite, constant, and do not depend on time. That type of time series is denoted as stationary in a weak form, or covariance stationary.***

Provided that in the model AR (1), $\beta_1 = 1$, then the model can be described as:

$$y_t = \beta_0 + y_{t-1} + u_t$$

That type of time series is denoted as ***random walk with drift***. If $\beta_0 = 0$, then this type of time series is denoted as ***simple random walk***.

For this type of autoregressive model can be a condition for expected value determined as follows:

$$E\left(y_t \mid y_0\right) = \beta_0 t + y_0$$

It means that a time series increases or decreases in time without limitation. In this case we speak about so called conditional variance.

$$\text{var}\left(y_t \mid y_0\right) = E\left\{\left[y_t - E\left(y_t \mid y_0\right)\right]^2\right\} = E\left[\left(u_t + u_{t-1} + u_{t-2} + ... + u_1\right)^2\right] = t\sigma_u^2$$

It follows that variance increases without limitation in time. ***If*** $\beta_1 = 1$, ***then an unconditional, finite expected value and covariance do not exist. Such time series is denoted as nonstationary.***[5]

In the older literature on time series (Box and Jenkins – 1976) the type of series labeled as nonstationary was called ***homogeneous nonstationary***. In the more recent literature the series is said to be ***integrated***. The ***order of integration*** is minimum number of times the series needs to be differenced to yield a stationary series. A stationary series is then said to be integrated of order zero, *I(0).* Very often economic and financial time series are integrated of order one, *I(1).*

Another problem is a difference from ***trend stationary*** and ***difference stationary*** series. A simple example of a trend stationary series may be written as

$$y_t = \beta_0 + \beta_1 t + u_t$$

$$u_t = \alpha u_{t-1} + e_t$$

or

$$y_t = \left[\beta_0 (1-\alpha) + \alpha \beta_1\right] + \beta_1 (1-\alpha) t + \alpha y_{t-1} + e_t$$

where e_t is Gaussian white noise series, $|\alpha| < 1$

The steady increase in the mean level renders the series nonstationary. Its first difference *(d),* however, is stationary.

Equation 2:

$$dy_t = \beta_1 + du_t$$

du_t is stationary since u_t is stationary

If the $\alpha = 1$, then the autoregressive part of the relation has a unit root. The first difference takes the form

Equation 3:

$$dy_t = \beta_1 + e_t$$

Thus *dy* is stationary and has a constant plus a white noise series. The *y* variable is now said to be difference stationary.

At first sight equations 2 and 3 seem to be practically identical, but in fact there is a crucial distinction between them. ***If we labeled*** e_t ***the innovations (or shocks)***

[5] *If* $|\beta_1| > 1$, *the y series will exhibit explosive behavior.*

to the system, the innovations have diminishing effect on y in the trend stationary case, and a permanent effect in the difference stationary situation.

3. Unit Root Tests

Consider the following process y_t

$$y_t = \beta_0 + \beta_1 t + u_t$$
$$u_t = \alpha u_{t-1} + e_t$$

Null hypothesis is: H_0: $\alpha = 1$[6]

Comparing the two above mention equations gives

$$y_t = \left[\beta_0(1-\alpha) + \alpha\beta_1\right] + \beta_1(1-\alpha)t + \alpha y_{t-1} + e_t$$

Subtracting y_{t-1} from each side gives a more conventional expression:

Equation 4:

$$d y_t = \left[\beta_0(1-\alpha) + \alpha\beta_1\right] + \beta_1(1-\alpha)t + \gamma y_{t-1} + e_t$$

where $\gamma = \alpha - 1$

The null hypothesis is now H_0: $\gamma = 0$

Thus γ will be zero if there is a ***unit root***. When the null hypothesis is true, time series y_t is a random walk with drift and thus nonstationary. Difficult problem is a distribution of the ratio *est.γ / standard error (est.γ)*[7], that does not follow the standard t distribution, nor it is asymptotically N (0, 1). The reason is that stationarity was required in the derivation of the standard distributions. This problem was solved by Wayne A. Fuller (1976) and he obtained limiting distributions of this ratio. These distributions were approximated empirically by D. A. Dickey (1975). The tests are thus known as Dickey-Fuller (DF) tests. In the present time econometricians use ***MacKinnon asymptotic critical values*** for unit root tests because they represent a much larger set of replications.

We can modify the Equation 4 on situation there is no linear trend (and thus $\beta_1 t = 0$). In this case we get

[6] In contrast, the KPSS (Kwiatkowski-Phillips-Schmidt-Shin) test evaluates the null hypothesis as stationary time series (H_0: $\alpha < 1$).

[7] Est. = estimated

$$dy_t = \left[\beta_0\left(1-\alpha\right)\right] + \gamma\, y_{t-1} + e_t$$

Under the null hypothesis (H_0: $\gamma = 0$, and $\gamma = \alpha - 1$) this equation reduces to

Equation 5:

$$dy_t = e_t$$

So that y_t is a random walk without drift and nonstationary.

For processes with zero constant ($\beta_0 = 0$) the adequate test regression is

$$dy_t = \gamma\, y_{t-1} + e_t$$

Under null hypothesis this also leads to Equation 5.

We have now three possible test regression (see Table 2/1) and each has *dy* as the dependent variable (regressand).

Table 2/ 1

Unit root tests	
Assumption	***Equation***
Trend and Constant (Intercept)	$dy_t = \left[\beta_0\left(1-\alpha\right) + \alpha\,\beta_1\right] + \beta_1\left(1-\alpha\right)t + \gamma\, y_{t-1} + e_t$
Constant (Intercept)	$dy_t = \left[\beta_0\left(1-\alpha\right)\right] + \gamma\, y_{t-1} + e_t$
No Constant or Trend	$dy_t = \gamma\, y_{t-1} + e_t$

The main idea of the ADF (Augmented Dickey Fuller) tests is to include lagged difference terms so as to analyses of the dynamics in time series better. Thus the ADF approach is applied for higher-order correlation by adding lagged difference of the dependent variable *y* to the right-hand side of the regressions. To instance the following process with constant:

$$dy_t = \beta_0 + \gamma\, y_{t-1} + \beta_1 dy_{t-1} + \beta_2 dy_{t-2} + \beta_3 dy_{t-3} + ... + \beta_p dy_{t-p} + e_t$$

This argumented specification is then used for test:

$$H_0: \gamma = 0$$
$$H_1: \gamma < 0$$

In this concept an important result (Fuller – 1979, Said and Dickey – 1984) is that the asymptotic distribution of the *t-statistic* on γ is independent of the number of

lagged first differences included in the ADF regression. Said and Dickey (1984) demonstrated that the ADF test remain valid even when the time series has a MA (moving average) component, provided that enough lagged difference terms are added to the regression. The only difference between DF and ADF test is that DF test has not lagged first difference terms (zero lagged differences) and ADF has numbers greater than zero. [8]

A practical problem in application ADF test is:

(a) how many lagged difference terms we have to include in the test regression, and

(b) specification if in the equation is included an intercept (constant), an intercept and a trend or the time series has no intercept and no trend.

In our opinion:

(a) because DF and ADF tests are parametric tests, the best method is to analyze whether parameters of regressors have statistical significance,[9]

(b) we can run the DF or ADF test with an intercept and a linear trend first, since the other two cases are just special cases of this specification. Then we must determine whether regressors are relevant or not.

Very simple method represents a visual inspection of time series and decision if the series seems to contain a constant and a trend (whether deterministic or stochastic). If the series does not exhibit any trend and has a nonzero mean, we should only include an intercept in the regression. If the series seems to be fluctuating around a zero mean, we should include no constant and no trend in the test regression.

Another approach to solution at this problem, if the series is correlated at higher order lags, is the Philips-Perron (PP) test[10]. ***This is nonparametric method of controlling for higher-order serial correlation in a series***. The basic test regression is AR (1) process:

Equation 6:

$$d\,y_t = \alpha + \beta\, y_{t-1} + e_t$$

Like the ADF test the PP test is also the test of the hypothesis $\beta = 1$ in Equation 6. The main difference of ADF test is that the PP test makes a correction to the t-statistic of the coefficient for the serial correlation in *e*. The correction is non-parametric since we use an estimate of the spectrum of e at frequency zero that is robust to heteroskedasticity and autocorrelation of unknown form. Very often econometric

[8] To investigate the higher-order process see e.g. Arlt (1999)

[9] Modern econometric programs (e. g. Eviews, PcGive etc) allow us manual or automatic information criteria based selection of lag length for parametric tests and Newey-West or Andrews bandwidth selection for kernel based estimators.

[10] Phillips and Perron (1988)

programs use the ***Newey-West procedure*** for adjusting the standard errors. The Newey-West heteroscedasticity autocorrelation consistent estimate is:

$$(est.\omega)^2 = \gamma_0 + 2\sum_{v=1}^{q}\left(1 - \frac{v}{q+1}\right)\gamma_j$$

$$\gamma_j = \left(\sum_{t=j+1}^{T} e_t e_{t-j}\right)/T$$

where q is truncation lag

The PP t-statistic is computed:

$$t_{pp} = \frac{\gamma_0^{1/2}\, t_b}{est.\omega} - \frac{\left[(est.\omega)^2 - \gamma_0\right] T\, s_b}{2\,(est.\omega)\, s}$$

where t_b, s_b are t-statistic and standard error of β and s is the standard error of the test regression

The asymptotic distribution of the PP t-statistic is the same as the ADF t-statistic and we can use MacKinnon critical values. As in the ADF test, we have to specify whether to include an intercept, an intercept and a linear trend, or neither of these in the test regression.

Very often the truncation lag q (for the Newey-West correction) is computed as

$$q = floor\left[4\left(\frac{T}{100}\right)^{2/9}\right]$$

where *floor* is the largest integer number

The DF, ADF and PP tests can be understood as common conventional tests of stationarity. We mean that they represent elementary test procedures in an analysis of stationarity. It is recommended to carry out additional modern tests. The newest generation of unit root tests includes the ***GLS-detrended DF test*** (Elliot, Rothenberg, and Stock – 1996), the ***ERS-Point Optimal test*** (Elliot, Rothenberg, and Stock – 1996), the ***NP test*** (Ng and Perron – 2001), and the ***KPSS test*** (Kwiatkowski, Phillips, Echmidt, and Shin – 1992). We think that using these all tests we can obtain more objective conclusion about stationarity or nonstationarity of analyzed time series.

4. Empirical analysis, definitions of variables and results of tests

In our research we are trying to develop a multi-factor dynamic model for short-run prediction on stock market. This model should accept standard economic and financial theory (in long-run equilibrium) and involve empirical and technical short-run evidence.

We suppose that the US-capital markets influence other world markets and so our first studies are concentrated on this market. By our opinion there are several different types of factors affecting development (evolution) of stock markets.

They are following factors:[11]

- systematic (they affect stock market in the long-run and form an equilibrium space),
- comparing markets and fundamental valuations (e.g. div. yield, P/BV, P/E etc),
- fundamental (economical or pure financial) variables,
- behavioural impuls (investor sentiment, strength of noise trading and trending, risk aversion fluctuation and so on).

Tests of stationarity are a matter of concern in very important areas. In our study it is one of the crucial test for entering to cointegration analysis and analysis of equilibrium space (multi-factor equilibrium). In the following empirical part of our paper we present the results of testing of time series of selected economic and financial variables which, in our opinion, affected asset markets. Table 3/1 shows our selected factors (systematic, financial and comparative).

Table 3/ 1

Variable	glossary and definitions of variables
LNSP500	natural logarithm of Standard & Poor´s 500 index
LNIP	natural logarithm of industrial production index
LNCPI_NSA	natural logarithm of CPI index (non-seasonal adjusted)
RP	risk premium = LTCB_BAA – LTGB (= yield of long term corporate bond rated BAA – yield of long term government bond)
TS	term structure = LTGB – TB (3M) (= yield of long term government bond – tresury bill rate for 3 month
ROE	return on equity (average of firms in index)
ROA	return on assets (average of firms in index)
DIV_Y	dividend yield (average of firms in index)
P_BV	price / book value ratio(average of firms in index)
PE_EX	price earning ratio excluding negative values (average of firms in index)
PE_INC	price earning ratio including negative values (average of firms in index)

[11] Of course it is possible consider and add further variables to each group.

Table 3/ 2

Original time series (data: 1990:01 – 2002:06)											
variable	test statistic ADF		critical values on significance level			test statistic PP		critical values on significance level			Evaluation
			1%	5%	10%			1%	5%	10%	
LNSP500	I	**-1,521**	-3,476	-2,881	-2,577	I	**-1,215**	-3,476	-2,881	-2,577	non-stationary
	I+T	**0,435**	-4,023	-3,441	-3,145	I+T	**-0,059**	-4,023	-3,441	-3,145	
	0	**2,574**	-2,580	-1,942	-1,617	0	**2,575**	-2,580	-1,942	-1,617	
LNIP	I	**-0,656**	-3,476	-2,881	-2,577	I	**-0,466**	-3,476	-2,881	-2,577	non-stationary
	I+T	**-1,805**	-4,023	-3,441	-3,145	I+T	**-1,122**	-4,023	-3,441	-3,145	
	0	**2,258**	-2,580	-1,942	-1,617	0	**3,713**	-2,580	-1,942	-1,617	
LNCPI _NSA	I	**-2,487**	-3,476	-2,881	-2,577	I	**-3,219**	-3,476	-2,881	-2,577	non-stationary (rem. 1., 2.)
	I+T	**-3,807**	-4,023	-3,441	-3,145	I+T	**-4,450**	-4,023	-3,441	-3,145	
	0	**4,998**	-2,580	-1,942	-1,617	0	**10,953**	-2,580	-1,942	-1,617	
RP	I	**-0,724**	-3,476	-2,881	-2,577	I	**-1,274**	-3,476	-2,881	-2,577	non-stationary
	I+T	**-1,656**	-4,023	-3,441	-3,145	I+T	**-2,387**	-4,023	-3,441	-3,145	
	0	**0,453**	-2,580	-1,942	-1,617	0	**-0,072**	-2,580	-1,942	-1,617	
TS	I	**-1,822**	-3,476	-2,881	-2,577	I	**-1,470**	-3,476	-2,881	-2,577	non-stationary
	I+T	**-1,870**	-4,023	-3,441	-3,145	I+T	**-1,545**	-4,023	-3,441	-3,145	
	0	**-0,535**	-2,580	-1,942	-1,617	0	**0,011**	-2,580	-1,942	-1,617	
ROE	I	**-1,322**	-3,476	-2,881	-2,577	I	**-1,543**	-3,476	-2,881	-2,577	non-stationary
	I+T	**-0,543**	-4,023	-3,441	-3,145	I+T	**-1,215**	-4,023	-3,441	-3,145	
	0	**-0,203**	-2,580	-1,942	-1,617	0	**-0,258**	-2,580	-1,942	-1,617	
ROA	I	**-1,230**	-3,476	-2,881	-2,577	I	**-1,129**	-3,476	-2,881	-2,577	non-stationary
	I+T	**-0,672**	-4,023	-3,441	-3,145	I+T	**-0,663**	-4,023	-3,441	-3,145	
	0	**-0,532**	-2,580	-1,942	-1,617	0	**-0,611**	-2,580	-1,942	-1,617	
DIV_Y	I	**-1,696**	-3,476	-2,881	-2,577	I	**-1,191**	-3,476	-2,881	-2,577	non-stationary
	I+T	**-0,315**	-4,023	-3,441	-3,145	I+T	**-1,141**	-4,023	-3,441	-3,145	
	0	**-2,272**	-2,580	-1,942	-1,617	0	**-1,584**	-2,580	-1,942	-1,617	
P_BV	I	**-1,355**	-3,476	-2,881	-2,577	I	**-1,230**	-3,476	-2,881	-2,577	non-stationary
	I+T	**-0,319**	-4,023	-3,441	-3,145	I+T	**-0,708**	-4,023	-3,441	-3,145	
	0	**0,156**	-2,580	-1,942	-1,617	0	**0,027**	-2,580	-1,942	-1,617	
PE_EX	I	**-1,504**	-3,476	-2,881	-2,577	I	**-1,672**	-3,476	-2,881	-2,577	non-stationary
	I+T	**-1,560**	-4,023	-3,441	-3,145	I+T	**-2,231**	-4,023	-3,441	-3,145	
	0	**0,619**	-2,580	-1,942	-1,617	0	**0,319**	-2,580	-1,942	-1,617	
PE_INC	I	**-2,733**	-3,476	-2,881	-2,577	I	**-1,299**	-3,476	-2,881	-2,577	non-stationary
	I+T	**-4,009**	-4,023	-3,441	-3,145	I+T	**-2,651**	-4,023	-3,441	-3,145	
	0	**-0,298**	-2,580	-1,942	-1,617	0	**0,266**	-2,580	-1,942	-1,617	

Abbreviations: *I – intercept, T – trend, 0 – no intercept or trend, critical values – MacKinnon´s asymptotic critical values*

Remarks:

(a) we decided to accept hypothesis H_0 (time series has a unit root) only if ADF and PP test give the same results,

(b) for our study of stationarity is decisive 1% significance level,

(c) in these tests were used 4 lags. The results were the same if we used 2 or 3 lags.

In our analysis we use monthly data in sample period from 1990:01 to 2002:06. The monthly economic and financial data are obtained from following Internet pages: www. *federalreserve.gov*, www.nber.org, http://gsbwww.uchicago.edu/*research/ crsp* and from internal sources of Department of Finance at OPF SU in Karviná.

In Appendix 1 they are shown figures of original time series and first differences of selected variables. Tables 3/2 and 3/3 present results of testing stationarity of time series of selected variables and their first differences by common tests (ADF and PP). Tables 3/4 and 3/5 (Appendix 2) contain valuations by additional tests.

Table 3/ 3

First differences (data: 1990:01 – 2002:06)											
variable	test statistic ADF		critical values on significance level			test statistic PP		critical values on significance level			Evaluation
			1%	5%	10%			1%	5%	10%	
dLNSP500	I	**-5,248**	-3,477	-2,881	-2,577	I	**-12,869**	-3,475	-2,881	-2,577	Stationary
	I+T	**-5,434**	-4,024	-3,441	-3,145	I+T	**-13,024**	-4,022	-3,441	-3,145	
	0	**-4,625**	-2,580	-1,942	-1,617	0	**-12,288**	-2,580	-1,942	-1,617	
dLNIP	I	**-3,342**	-3,477	-2,881	-2,577	I	**-9,352**	-3,475	-2,881	-2,577	Stationary
	I+T	**-3,335**	-4,024	-3,441	-3,145	I+T	**-9,335**	-4,022	-3,441	-3,145	
	0	**-2,642**	-2,580	-1,942	-1,617	0	**-8,141**	-2,580	-1,942	-1,617	
DLNCPI _NSA	I	**-4,717**	-3,477	-2,881	-2,577	I	**-9,534**	-3,475	-2,881	-2,577	Stationary
	I+T	**-5,088**	-4,024	-3,441	-3,145	I+T	**-9,799**	-4,022	-3,441	-3,145	
	0	**-2,056**	-2,580	-1,942	-1,617	0	**-5,847**	-2,580	-1,942	-1,617	
dRP	I	**-6,601**	-3,477	-2,881	-2,577	I	**-8,157**	-3,475	-2,881	-2,577	Stationary
	I+T	**-6,717**	-4,024	-3,441	-3,145	I+T	**-8,132**	-4,022	-3,441	-3,145	
	0	**-6,597**	-2,580	-1,942	-1,617	0	**-8,176**	-2,580	-1,942	-1,617	
dTS	I	**-3,490**	-3,477	-2,881	-2,577	I	**-8,920**	-3,475	-2,881	-2,577	Stationary
	I+T	**-3,485**	-4,024	-3,441	-3,145	I+T	**-8,893**	-4,022	-3,441	-3,145	
	0	**-3,472**	-2,580	-1,942	-1,617	0	**-8,899**	-2,580	-1,942	-1,617	
dROE	I	**-4,714**	-3,477	-2,881	-2,577	I	**-14,567**	-3,475	-2,881	-2,577	Stationary
	I+T	**-4,853**	-4,024	-3,441	-3,145	I+T	**-14,667**	-4,022	-3,441	-3,145	
	0	**-4,732**	-2,580	-1,942	-1,617	0	**-14,620**	-2,580	-1,942	-1,617	

dROA	I	**-4,125**	-3,477	-2,881	-2,577	I	**-13,983**	-3,475	-2,881	-2,577	**Stationary**
	I+T	**-4,241**	-4,024	-3,441	-3,145	I+T	**-14,059**	-4,022	-3,441	-3,145	
	0	**-4,123**	-2,580	-1,942	-1,617	0	**-14,008**	-2,580	-1,942	-1,617	
dDIV_Y	I	**-5,491**	-3,477	-2,881	-2,577	I	**-13,101**	-3,475	-2,881	-2,577	**Stationary**
	I+T	**-6,076**	-4,024	-3,441	-3,145	I+T	**-13,224**	-4,022	-3,441	-3,145	
	0	**-5,690**	-2,580	-1,942	-1,617	0	**-12,924**	-2,580	-1,942	-1,617	
dP_BV	I	**-6,258**	-3,477	-2,881	-2,577	I	**-11,811**	-3,475	-2,881	-2,577	**Stationary**
	I+T	**-6,425**	-4,024	-3,441	-3,145	I+T	**-11,892**	-4,022	-3,441	-3,145	
	0	**-6,242**	-2,580	-1,942	-1,617	0	**-11,832**	-2,580	-1,942	-1,617	
dPE_EX	I	**-7,211**	-3,477	-2,881	-2,577	I	**-12,114**	-3,475	-2,881	-2,577	**Stationary**
	I+T	**-7,229**	-4,024	-3,441	-3,145	I+T	**-12,108**	-4,022	-3,441	-3,145	
	0	**-7,140**	-2,580	-1,942	-1,617	0	**-12,104**	-2,580	-1,942	-1,617	
dPE_INC	I	**-4,739**	-3,477	-2,881	-2,577	I	**-8,393**	-3,475	-2,881	-2,577	**Stationary**
	I+T	**-4,611**	-4,024	-3,441	-3,145	I+T	**-8,321**	-4,022	-3,441	-3,145	
	0	**-4,751**	-2,580	-1,942	-1,617	0	**-8,403**	-2,580	-1,942	-1,617	

Abbreviations: *d…. – the first differences of time series, I – intercept, T – trend,*
0 – intercept or trend,
critical values – MacKinnon´s asymptotic critical values

5. Conclusion

In this article we present basis, evidence and evaluation tests of stationarity of selected variables. In our opinion these variables affect stock markets. The results show that time series of variables have a unit root and so we can accept that they are non-stationary on various significance level. The conventional test ADF and PP embracing all cases (intercept, intercept and trend, no trend or intercept) and four lags do not reject the unit root hypothesis. The additional tests in Appendix 2 this results (more or less) confirm. The hypothesis of a unit root in the first differences of selected variables is rejected for all series. We can conclude that the original time series are all I (1).

This result enables us to look for the possible existence of cointegrating relationships in original time series. Our next study will refer to long-run equilibrium among selected variables.

Abstract

Příspěvek obsahuje vysvětlení koncepce více-faktorového modelu s kointegrační vazbou (typ Error Corection), teoretické aspekty problematiky stacionarity (resp. nestacionarity) časových řad a empirické výsledky testů stacionarity. V analytické části jsou představeny vybrané proměnné, u nichž se předpokládá, že ovlivňují vývoj na akciových trzích v dlouhodobém horizontu. Časové řady těchto vybraných proměnných jsou testovány na přítomnost jednotkového kořene pomocí testů ADF a PP. Dodatečně jsou

testovány pomocí testů nové generace, tj. DF-GLS, ERS, NP a KPSS. Výsledky testů znamenají, že všechny původní časové řady (ve vybraných případech logaritmované) mají statisticky signifikantní jednotkový kořen. Na tomto základě je možné konstatovat, že původní časové řady jsou nestacionární (viz Tab. 3/2 a 3/4). První diference těchto časových řad již neobsahují jednotkový kořen a můžeme předpokládat s velkou pravděpodobností, že tyto řady jsou stacionární (viz Tab. 3/3 a 3/5). Zjištění, že původní časové řady jsou I(1) a jejich první diference jsou stacionární umožňuje analyzovat kombinace proměnných z hlediska kointegračních vazeb. Za tímto účelem budou různé kombinace časových řad vybraných proměnných analyzovány pomocí Johansenových kointegračních testů.

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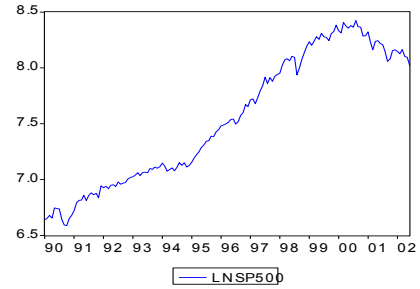
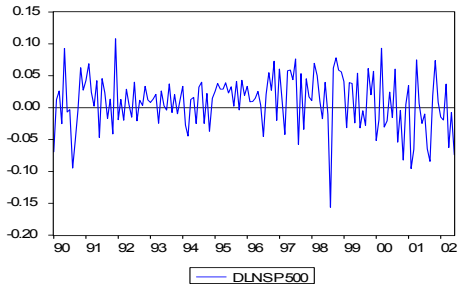
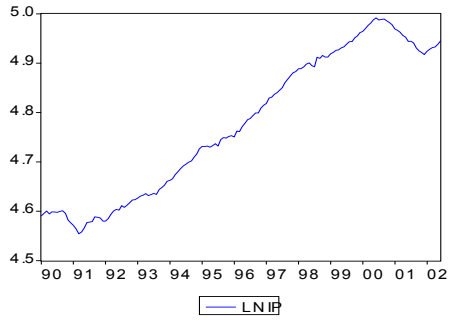
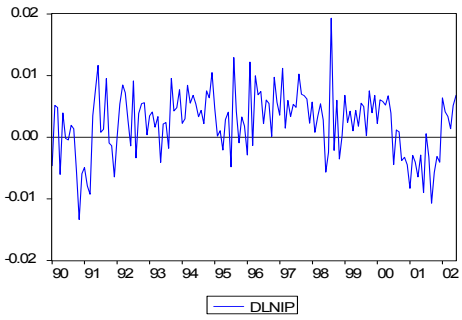
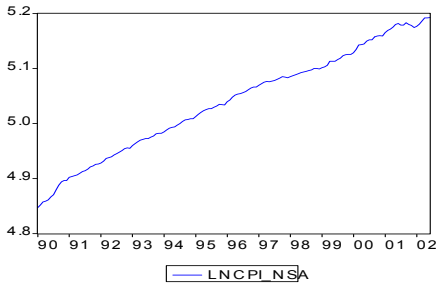
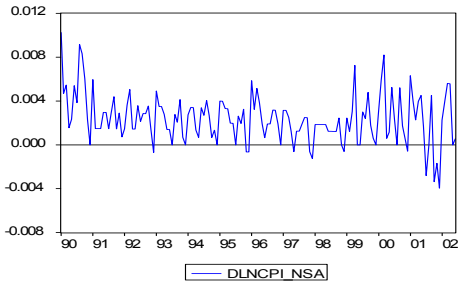
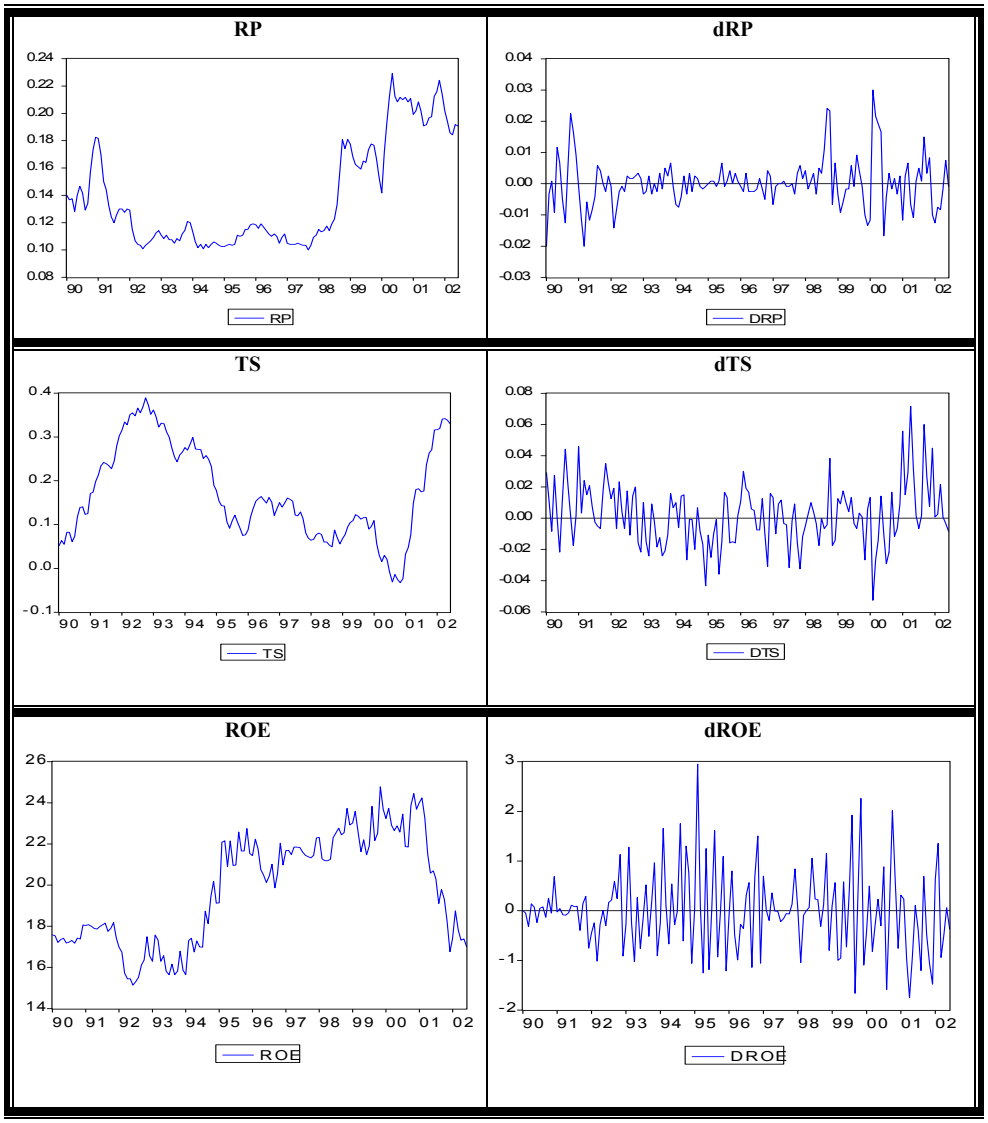
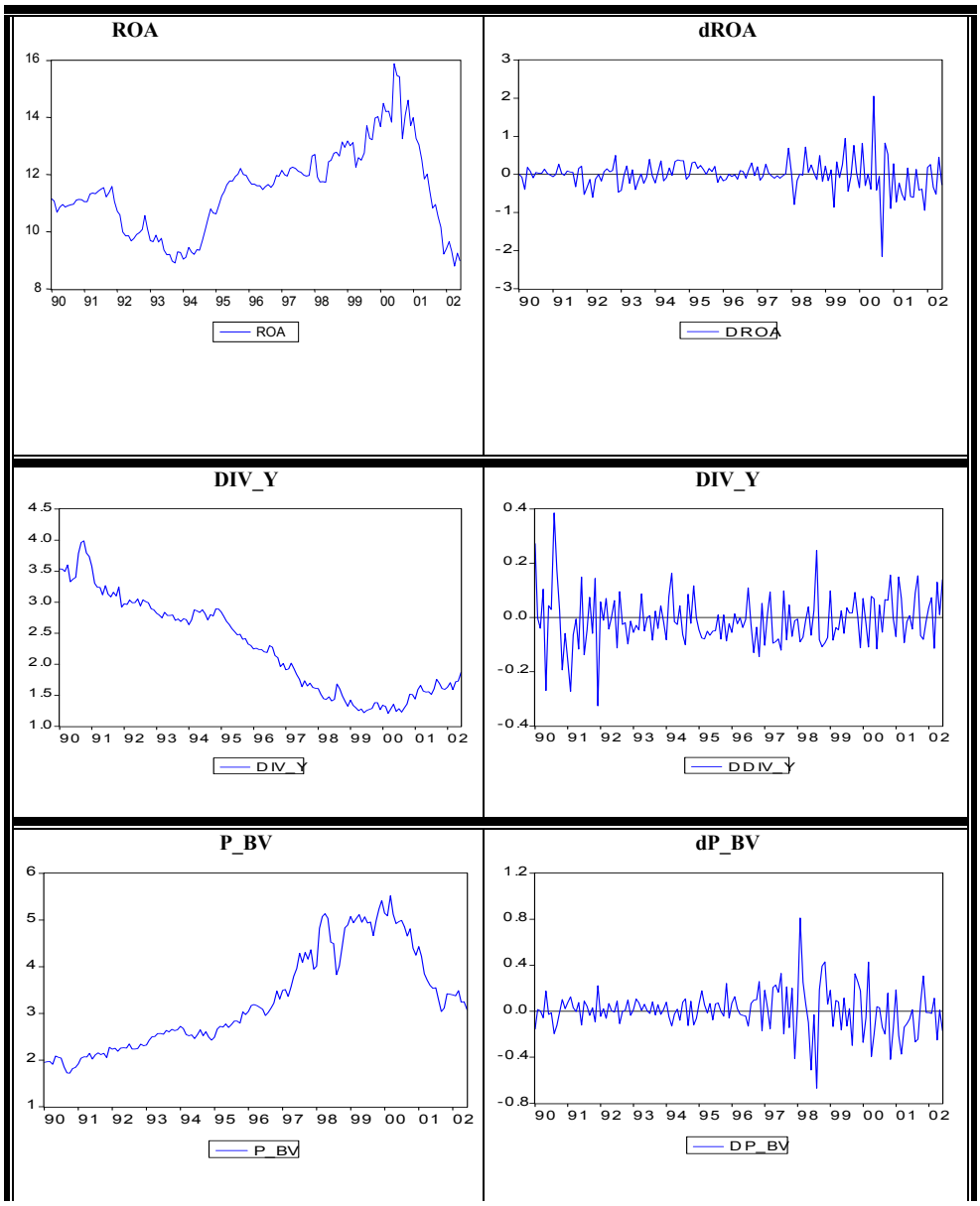
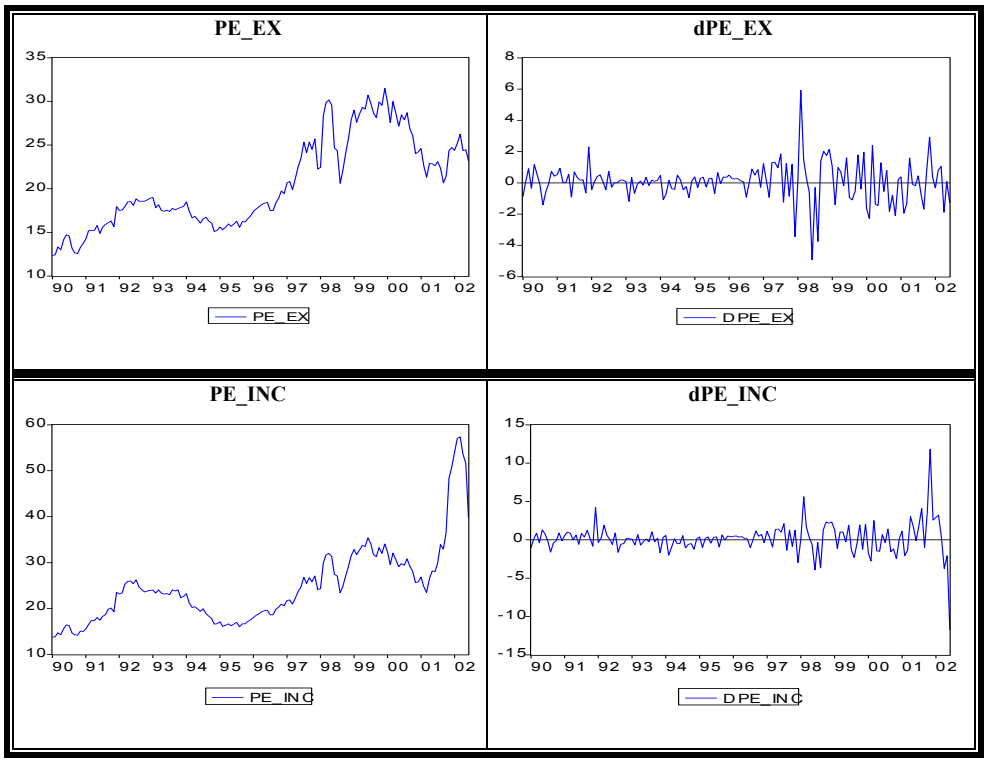
Appendix 1: Figures of time series

Original time series	First differences
LNSP500	**dLNSP500**
	
LNIP	**dLNIP**
	
LNCPI_NSA	**dLNCPI_NSA**
	


RP
0.24
0.22
0.20
0.18
0.16
0.14
0.12
0.10
0.08
90 91 92 93 94 95 96 97 98 99 00 01 02
RP
dRP
0.04
0.03
0.02
0.01
0.00
-0.01
-0.02
-0.03
90 91 92 93 94 95 96 97 98 99 00 01 02
DRP
TS
0.4
0.3
0.2
0.1
0.0
-0.1
90 91 92 93 94 95 96 97 98 99 00 01 02
TS
dTS
0.08
0.06
0.04
0.02
0.00
-0.02
-0.04
-0.06
90 91 92 93 94 95 96 97 98 99 00 01 02
DTS
ROE
26
24
22
20
18
16
14
90 91 92 93 94 95 96 97 98 99 00 01 02
ROE
dROE
3
2
1
0
-1
-2
90 91 92 93 94 95 96 97 98 99 00 01 02
DROE


ROA
16
14
12
10
8
90 91 92 93 94 95 96 97 98 99 00 01 02
ROA
dROA
3
2
1
0
-1
-2
-3
90 91 92 93 94 95 96 97 98 99 00 01 02
DROA
DIV_Y
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
90 91 92 93 94 95 96 97 98 99 00 01 02
DIV_Y
DIV_Y
0.4
0.2
0.0
-0.2
-0.4
90 91 92 93 94 95 96 97 98 99 00 01 02
DDIV_Y
P_BV
6
5
4
3
2
1
90 91 92 93 94 95 96 97 98 99 00 01 02
P_BV
dP_BV
1.2
0.8
0.4
0.0
-0.4
-0.8
90 91 92 93 94 95 96 97 98 99 00 01 02
DP_BV


PE_EX
35
30
25
20
15
10
90 91 92 93 94 95 96 97 98 99 00 01 02
PE_EX
dPE_EX
8
6
4
2
0
-2
-4
-6
90 91 92 93 94 95 96 97 98 99 00 01 02
DPE_EX
PE_INC
60
50
40
30
20
10
90 91 92 93 94 95 96 97 98 99 00 01 02
PE_INC
dPE_INC
15
10
5
0
-5
-10
-15
90 91 92 93 94 95 96 97 98 99 00 01 02
DPE_INC

Appendix 2: Table 3/ 4 - Evaluations of time series by additional tests

Original time series of selected variables (data: 1990:01 – 2002:06)					
variable	Evaluation by the tests				Total evaluation
	DF-GLS	ERS	NP	KPSS	
LNSP500	nonstationary	nonstationary	nonstationary	nonstationary	**nonstationary**
LNIP	nonstationary	nonstationary	nonstationary	nonstationary	**nonstationary**
LNCPI_NSA	nonstationary	nonstationary	nonstationary	stationary	**nonstationary**
RP	nonstationary	nonstationary	nonstationary	stationary	**nonstationary**
TS	nonstationary	nonstationary	nonstationary	nonstationary	**nonstationary**
ROE	nonstationary	nonstationary	nonstationary	nonstationary	**nonstationary**
ROA	nonstationary	nonstationary	nonstationary	nonstationary	**nonstationary**
DIV_Y	nonstationary	nonstationary	nonstationary	nonstationary	**nonstationary**
P_BV	nonstationary	nonstationary	nonstationary	nonstationary	**nonstationary**
PE_EX	nonstationary	nonstationary	nonstationary	nonstationary	**nonstationary**
PE_INC	stationary	stationary	nonstationary	nonstationary	**nonstationary**

Table 3/ 5

First differences of time series					
variable	Evaluation by tests				Total evaluation
	DF-GLS	ERS	NP	KPSS	
dLNSP500	nonstationary	stationary	stationary	stationary	**stationary**
dLNIP	nonstationary	stationary	stationary	stationary	**stationary**
dLNCPI_NSA	nonstationary	stationary	stationary	nonstationary	**stationary**
dRP	stationary	stationary	stationary	nonstationary	**stationary**
dTS	stationary	stationary	stationary	stationary	**stationary**
dROE	stationary	stationary	stationary	nonstationary	**stationary**
dROA	stationary	stationary	stationary	nonstationary	**stationary**
dDIV_Y	nonstationary	stationary	stationary	nonstationary	**stationary**
dP_BV	stationary	stationary	stationary	stationary	**stationary**
dPE_EX	stationary	stationary	stationary	nonstationary	**stationary**
dPE_INC	stationary	stationary	stationary	nonstationary	**stationary**

Remarks:In these tests was used automatic selection of bandwidth and lag length.

ELIMINATION OF FINANCIAL RISK IN ELECTORAL TERM IN CONDITIONS OF THE SLOVAK REPUBLIC

Jaroslav Slepecký

Key words

financial risk, hedging tools, optimisation of financial risk, market and currency risk, derivatives, forwards

1. Introduction

Experience of the countries transforming into standard market environment shows that in the electoral term the governments overspend beyond reasonable possibilities of the State in the interest of increasing the preferences of their parent political parties, and subsequently the investors hesitate in putting the financial means being afraid of instability and of the election results. That was for example the problem of Mexico in 1990´s and Brazil in 2002.

Financial risk is in general defined as a potential loss of the subject, that is to say a loss in the future resulting from the given financial tool or portfolio. An effort to eliminate, to reduce the financial risk belongs among essential problems of the financial management so as to prevent potential big losses, in cases of currency market and interest rate fluctuation in particular.

Pre-election expectations in Slovakia in May and June in particular have caused relatively big volatility of the Slovak currency in dependency on published preferences in interaction with the movements of the exchange rate of the Czech crown and Euro.

2. Financial Risks

The financial risks may be divided in different ways and according to different criteria. Fig. 1.1 shows a survey of financial risks by Josef Jílek [3] .

Figure 1 - Financial risks

Financial risks

credit risk	market risk	liquidity risk	operational risk	trade risk
direct credit risk	interest risk	risk of financing	transaction risk	legal risk
risk of credit equivalents	stock risk	risk of market liquidity	risk of operating management	risk of change of rating
settlement risk	commodity risk		risk of systems	reputation risk
risk of credit engagement	currency risk			tax risk
	correlation risk			risk of currency convetibility
	risk of credit spread			risk of disaster
				regulation risk

The paper deals in particular with the solution of the currency risk, which is a part of the market risk. **The market risk** is a risk of loss from the market price changes as a consequence of unfavourable development of interest rate (interest risk), exchange rate (currency risk), security and commodity prices. **The currency risk** is a result of big volatility of the rates of exchange from the short-term as well as from the long-term point of view. The situation on the Slovak financial market in the period from February 2002 to June 2002 fully proves the danger of the currency risk.

Hedging means minimisation of the financial risk resulting from the changes of commodity prices, exchange rates, interest rates and the like. The main objective of hedging is optimisation of the financial risk for the purpose of stabilisation of the future cash flow. In this case risk is irrelevant. The main principle of hedging is elimination of the financial risk with the aid of instruments offered by the financial market.

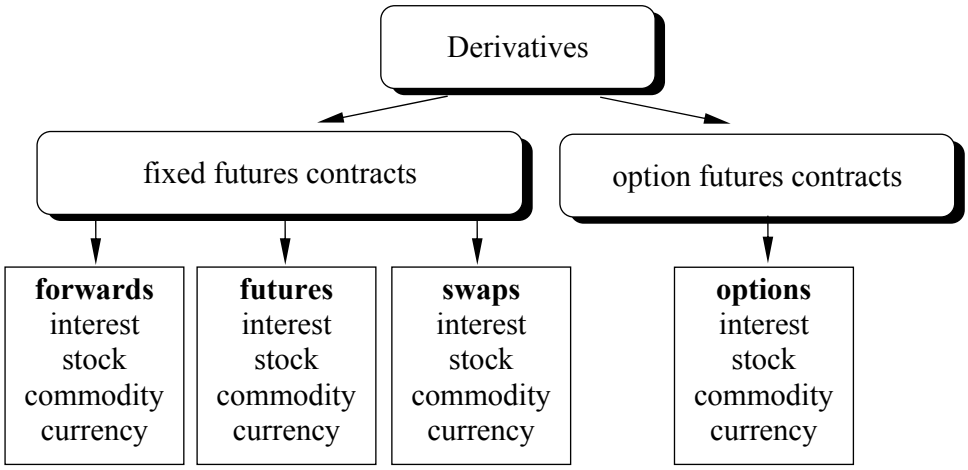
In June 2002, after a longer period of time, also the Forward Rate Agreement (FRA) market, which indicates a stable interest curve up to the end of the year on the level of 8.2 % - 8.4 %, revitalized. It allows the investors to open speculative positions on three and six month maturities in particular. It is true that in August 2002 the businessmen expected a drop in interest rates, which reflected also in FRA contracts that began to be traded under the psychological limit of 8.0 %.

3. Financial Futures Contracts

The use of financial futures contracts (financial derivatives) in business transactions of different kinds has lived a rapid development in the recent 25 years. The futures exchanges have become ones of the biggest markets in the world and there is a strong competition kept among them. In the Slovak Republic the use of the derivatives develops only very diffidently out of the stock market.

The derivatives are instruments derived (dependent) from the market value of the underlying asset of, e.g. security, commodity, currency, index and the like. A simplified classification of the derivatives is shown in the Figure 2.

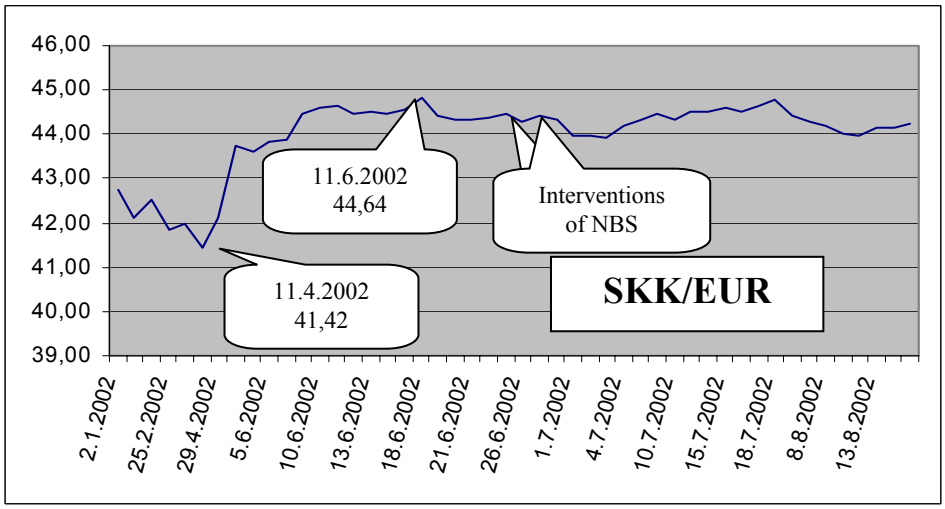
Figure 2 – Classification of the Derivates



The futures contracts are characterised by a time difference of the period of making the deal from its realisation and are a current component of the world trade. **Forwards and options** are the most used in our country as a defence against exchange rate losses.

The forwards are traded in a non-organised, the so-called OTC market. Its advantage is a certain liberty in negotiations of both of the partners, the buyer and the seller, without other mediators. The risk is represented by possible not serious behaviour of either of the partners, which is a relatively rare case in practice. In the Slovak Republic the **currency forwards** are the most common types. Purchasing a forward, the company may ensure foreign currency for a beforehand agreed price and thereby protect itself against future unfavourable changes of the Slovak crown exchange rate. The relevance of the use of futures contracts is obvious regarding the development of the mutual exchange rate of Slovak crown and Euro in the first half of the year 2002 (Figure 3).

Figure 3 - Development of SKK / EUR rate of exchange in the first half of the year 2002



Source: author's archives

The banks quote the forward exchange rates of purchase and sale of the Slovak crown per 1 day, 1, 2 and 3 months. The calculation of the forward exchange rate is relatively simple:

$$FW_K = S \cdot \frac{1 + r_1 \cdot \frac{n}{360}}{1 + r_2 \cdot \frac{n}{360}} \qquad (2.1)$$

where:

FW_K	- forward exchange rate,
S	- spot exchange rate,
r_1	- interest rate of one currency in **n** days,
r_2	- interest rate of the other currency in **n** days,
n	- number of days.

It means that the forward exchange rate depends on the spot exchange rate, time of contract and risk-free exchange rates of both of the currencies.

The necessity of using the forward contracts in practice may be proven in concrete market conditions in Slovakia in the first half of the year 2002.

A the beginning of April 2002 company XY orders with its German business partner a supply of technological equipment in a value of 1.5 mil. EUR with the term of payment on 13th June 2002. For simplification, the rates of exchange declared by the central bank shall be considered relevant without taking into account the charges.

The forward exchange rate on 11th April 2002, quoted for 2 months, calculated according to the relation 2.1 is 41.72 SKK. It means that the company XY could ensure a purchase of the required quantity of EUR on 11th April 2002 for a forward exchange rate of 41.72 SKK with a delivery in two months.

On 11th June 2002 the rate of exchange according to the central bank was 44.639 SKK/EUR (Figure 2.2). Provided that the company XY had not concluded a forward contract and had purchased 1.5 mil. EUR in the spot market, it would have paid more by Skk 4.38 mil. and that is certainly worth consideration.

The currency options began to be traded in the world as standardised contracts in 1982 and are included in the offer of the Slovak banks even though their use from part of the entrepreneurial subjects is negligible.

Contrary to forward, the option is **a right** to purchase or sell the agreed quantity, e.g. of a currency, at a beforehand stipulated price and in an exactly determined time. It means that an eventual risk of loss is limited by the amount of the option money paid (price of option), which is a question of agreement and for a calculation of which the Garman-Kohlhagen model is used.

The options belong among more complicated hedging instruments and the Slovak market just expects them in the future.

4. Conclusion

The behaviour of companies depends on their experience in the past period. If they have not had any problems or their losses have been minimal, the financial managers do not use derivative operations also due to their low motivation. The companies that have assessed the situation in the financial market incorrectly begin to consider at least the use of forwards. Železiarne Podbrezová, a.s., which suffered high exchange rate losses two years ago, belongs among such companies. On the other hand, such companies as Slovakofarma, a.s., Slovalco, a.s., Slovnaft, a.s. use suitable futures contracts on a standard basis. The percentage of companies that the exchange rate risk refers to and which use the derivatives is low in Slovakia in comparison with the neighbouring countries and moves around 5 to 10 %. For the time being the companies are not forced to use modern financial instruments. They reflect all their exchange rate losses into their expenses and the product prices. The change of the competitive environment after Slovakia entering into the European Union will probably change this situation rapidly.

Abstract

Příspěvek se zabývá možnostmi eliminace finančního rizika v období zvýšené volatility kurzu SKK v roce 2002 . Na konkrétním případě jsou prezentované důsledky použití forwardu na zabezpečení proti poklesu slovenské koruny vůči euru.

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SME – FINANCIAL SUPPORT IN THE OLD INDUSTRIAL REGIONS

Ivo Veselý

Keywords

old industrial region, SME (Small and Medium Enterprises), state and regional support

1. Introduction

This paper presents problems of old industrial regions. At the beginning it shortly describes them and later it offers possible problem solving, for example reconversion of the region. There are many examples from the North Rhine Vestfalia, where the process of reconversion was started in the 60´s, from the Moravian – Silesian region and Upper Silesia region. In the third part of the speech, the paper shortly introduces some institutions for supporting the SME (Small and Medium Enterprises).

2. Theoretic approach for the description of old industrial regions

Old industrial regions are characterized by several traits:

- an above-average density of population, size of centers, provision of infrastructure (in contrast to rural / peripheral regions),
- an above-average existence of industry (compared to other regions of similar size),
- early industrialization (compared to other regions in that country),
- the regional economy is dominated by specific sectors (usually heavy industry), situated at the end of the production cycle),
- economy is often dominated by big enterprises,
- little ability to regenerate out of own power.

Old industrialized regions have experienced a development that can be described by the model of Gunnar Myrdal. Starting point for a circular development is the establishment of new industrial enterprises (e.g. coal mines, iron and steel industry). This leads to a growth of local employment and population. This again attracts capital

and enterprises because they want to profit by the demand of locally produced goods and services. Therefore, the service sector working for the local market grows and the general prosperity of the region increases. An increase in the spending power of public institutions results from higher inland revenues that make better infrastructure for the population and the businesses possible.

If further enterprises join the existing ones, the cycle begins anew. In addition to the outside circular development, there is a circular development in the inside, as mentioned with the growth of the local reservoir of the qualified industrial workforce or the development of supplying industries.

In this way, other enterprises join the existing ones, adding a supply of services that are necessary for further development. A network of businesses evolves.

However, in the process of economical changes is also possible that the local economy looses its ability to function properly and people are forced to emigrate; the loss of human resources shows negative effects in the long run.

Key sectors close down first in a collapsing economic formation, which results in declining qualities of the region for connected businesses and specialized services. In this phase, there is a circular development, too. It is referred to as the "vicious cycle" of a declining economic formation.

At the end of the regional life cycle of an economic formation – or rather in the phase of decline – measures are generally undertaken to build up a new economic formation. It is different in the way that new paths for development are taken.

3. Program for Reconversion of the Region

Solutions of the problems of reconversion are not able without the massive state support. This support is oriented to the programs for regional development.

North Rhine Vestfalia

The process of reconversion was started in the 60´s. The most important program for regional development is following:

- „Entwicklungsprogramm Ruhr" (1968),
- „Nordrhein- Westffalen-Programm" (1975),
- „Arbeitmarktspolitisches Programm der Bundesregierung" (1979),
- „Aktionsprogramm Ruhr 1980-1984",

- „Zukunftsinitiative Montagregion“ (1987),
- „Zukunftsinitiative für die Region Nordrhein-Westfalens“,
- „Handlungsrahmen für die Kohlgebiete“ (1991),
- „Programm für Industrieregionen im Strukturwandel“ (1993),
- „Zukunfts- und Aktionsprogramm Ruhr 2000+“.

Only one of this programs was prepared as a national-wide, others as a regional one and were supporting by regional government. The state support was oriented on the areas of the technical development and counseling. A specific was a number of programs for foreign employees. Regional development, which is based on individual plans of towns and municipalities, was used (for example) in the project of:

- „Kommunalverband Ruhrgebiet“,
- „Initiativekreis Ruhrgebiet“,
- „Witrschaftsforderungsgesselschaften“,
- „Haus der Technik“,
- „Business Angels Agentur Ruhr“,
- „Gründer Support Ruhr“,
- „Ruhr Networker“,
- „Emscher-Lippe-Agentur“,
- „Technologieberatungsstelle Ruhr“ und Technologiezentren.

Although we are dealing here with a survey of the activities, which have been realized in the region, it manifests the seeking various solutions and optimal ways towards the revitalization of the area. It is interesting to notice that only two programs were applied with the EU’s support at the beginning, namely:

- „Eurpäischer Ausrichtungs- und Garantiefond für die Landwirtschaft“ (EAFLG),
- „Europäischer Fonds für Regionale Entwicklung“ (EFRE).

Moravian-Silesian Region

The process of reconversion started in the Czech Republic in the early 90´s. Strategic documents on the level of the district constitute:

- „REGVIS 2005“ (Regional Vision), which puts further development of the region for a specified period of time,

- „Program of the development of the territorial area of the Ostrava´s district“ as a tactical document which specified aims and development activities in the form of concrete measures and projects; determinate their supporters and specifies a way of financing and implementing,

- Regional Operating Program (ROP) as a document which is put together on the level of the region of NUTS 2 and elaborates those problematic strategy units, for which a co-financing from the EU sources will be requested,

- „Regional Development Program“, which was approved at the end of the last year. We are dealing here with the first material approved by the regional councils after the change of the territorial arrangement in the Czech Republic. It refers to the previous documents and it defines its objective in the change of the NMR into a region with a modern production and service structure by 2010.

The EU support resources have played a significant role in forming the concept of the transformation of the NMR.

The most significant role has played the resources of the Phare program. For example:

- 12 MEUR were allocated for region in 1992 as a support for regional projects. The above amount was the split to cover the establishment costs and project for „The Regional Development Agency“ in Ostrava or „The Regional Enterprise Fund“,

- CBC Phare (Fund of small projects) – is a part of the cross border cooperation program. Sources from this program were used in the region of Ostrava, Praděd (the Jeseníky mountains) and Silesia,

- Credits that are more convenient combine financial means of the Phare program with sources of Czech-Moravian Guarantee and Development Bank.

Another program to be used in region were ECOS/OUVERTURE or PSO (program of the Dutch government).

Upper Silesia Region

Region on the Czech-Polish border. Since 1.1.1999 part of the Silesian Voivodeship (former mostly Voivodship of Katowice).

Restructuring plans for coal-mining region:

- „Program for the Prevention of Bankruptcy in Coal Mining“ (1993),
- „The Restructuring Program“ (1994),
- „The Regional Contract“ (1995),
- „The Re-structuring and Development Program“ (1998),
- „The Development Strategy of the Silesian Voivodeship 2000 – 2015“.

In addition, in Poland sources from EU were used often. The most important financing programs were Phare –Struder and Phare – Rapid. The Phare –Struder program paid:

- 13 MEUR, which were distributed in the Voivodeship of Katowice for the SME support, vocational training and social care, support of regional structures and activities,
- The Phare – Rapid program paid,
- 1,5 MEUR mostly for financing the infrastructure.

4. The SME Support as a Part of Solution

In this part of my speech, I would like to introduce you very shortly some institutions for supporting the SME.

North Rhine Vestfalia

The Emscher-Lippe-Agency, Ltd.

It was founded in 1990 as a public-private partnership company for improvement of the structure in the northern Ruhr district by 36 companies. ELA was intended as a regional development company of general utility, which shall contribute to the economic support in the connection with the municipal institutes for economic support.

The agency consist of 12 towns, two chambers for commerce and trade, 3 district chambers of trade as well the „Westdeutschen Landesbank“ with its seven savings banks. Besides them, the agency is supported by 31 regional responsible enterprises.

Technology Centers

Technology Centers were established in many locations in the Ruhr District since the middle of the 1980s. Their main aim is to support the economic diversification by advising and supporting newly founded small and medium enterprises (SMEs).

According to the definition of the government of NRW, their responsibility lies in providing encouragement, support and advice for innovative technology-oriented founders. This includes the provision of infrastructure such as offices, technical infrastructure (computers, telephones, fax, etc.) at attractive prices and to help with the transfer of technology.

The Technology Centers observe the economic success of their customers and support research and development of new products and services in the enterprises. They are centers for communication between people who are interested in new technologies and they distribute new cooperation plans with practical news for all participants.

The Regional Secretariats

In order to solve the regional problems on the labor market, the NRW government has initiated regional advisory boards and regional secretariats.

The regional secretariats have important tasks in transferring the labor market political program for the Ministry for Labor, Social Affairs, Qualification and Technology NRV.

Investment Support

The examples of supporting the investments are presented here with reference to the fact that these investment incentives create a higher demand in the co-operations from the side of the small and medium local entrepreneurs.

The EU-Programs RECHAR and RESIDER

The Ruhr District belongs to the objective-2 areas of the EU structure policy. Because the Ruhr District was hit hard by the declining, development the EU pays subsidies from the European fund for regional development (EFRE) and from the European social fund (ESF). In the period from 1988 to 1997, there were common institutions, which were to contribute to the restructuring of the iron and steel industry regions. The common initiative RECHAR II was a program for economic change in coal-mining areas, and RESIDER II for the economic change of the steel areas. Both programs however did not comprise the complete Ruhr District.

Moravian-Silesian Region

Českomoravská záruční a rozvojová banka (Czech and Moravian Guarantee and Development Bank)

The Bank was established by the state in co-operation with the biggest commercial banks (which were at that time mostly a property of the state). It was established with the purpose of supporting the establishment and confirming the position of small and middle entrepreneurs. This bank is still the main provider of state support with the exception of agriculture and forestry.

Programmes of the Guarantee and Development Bank are drawn either as nation-wide or regional – usually for the structurally-handicapped or economically weak areas.

Areal programmes are the following:

GUARANTEE	guarantee of credits from other banks
CREDIT	credits themselves for enterprises up to 50 persons
MARKET	support of certification systems: ISO 9000, ISO 14000 or Programme EMAS
CAPITAL	guarantee of capital input into small and middle enterprises
CO-OPERATION	support of creation of co-operative associations of small and middle enterprises

Regional programmes are represented by:

GUARANTEE	favouring of nation-wide conditions
REGION	contribution for refund of interests to those entrepreneurs who realize their plan in problematic regions
VILLAGE	support of entrepreneurs in municipalities with up to 2,000 inhabitants
PREFERENCE	favoured nation-wide programme CREDIT for handicaped areas
OPERATION	crediting of expanding activities when creating new jobs
BORDERS	programme of co-operation over the borders
REGENARATION	enterprises in monumental reservations and zones

Additional programme:

SPECIAL	employment of people form problematic groups of population

RPIC (Regional Advisory and Information Center)

Regional consultative and information centers provide free of charge initiative consultation and price-favored services of business consultancy. They help the enterprises with elaboration of business plans and feasibility studies, they intermediate when dealing with banks about granting the credits, help to create new jobs, provide information about further possible programs of SME and regional support, organize education, seminars for entrepreneurs, etc.

Regional Development Agency

One of the most important regional development agencies with major experiences on the field of elaboration of development plans, creation and realization business project which can apply for subsidies from EU development funds (such as Phare, Leonardo, etc). Cooperate with regional government authorities. Also, cooperate with similar agencies with experiences from restructuralization from abroad (e.g. Ireland, France, etc.).

The Association for the Development of North Moravia and Silesia

Association of corporate bodies founded and registered as amended by § 20 Civic Law Act in its valid wording. The Association was founded at the beginning of 1995 by the merge of North-Moravian Economic Union and Economic and Social Council of Ostrava-Karviná agglomeration.

Services: The mission of Association is the activation of North Moravian and Silesian region and its transformation into modern European industrial, trade, and educational and cultural area. It should like to facilitate difficult restructuralization of this industrial area by the way of the support of strategic development projects on the regional as well as national level.

BIC Ostrava

The Business and Innovation Center (BIC) in Ostrava is a basic service provided to help entrepreneurs by offering production and office location at reasonable prices to start-up firms. In seven objects of incubator Vitkovice it offers 9600 m^2:

- 3080 m^2 of office space,
- 5200 m^2 of production space,
- 1200 m^2 of storeroom,
- 120 $m^2$of conference rooms.

BIC incubator is a place for innovative activities of nearly 50 firms. The main advantages of the BIC are given below:

The BIC offers a variety of services to entrepreneurs:

- introductory consultation,
- professional consultation,
- processing of business plans,
- training, seminars,
- help with administrative issues of setting up a firm or employment,
- advertisement and presentation.

The Incubators

New enterprises can use the help in the incubators. During first years they can work there and make use special conditions for the tenure of land and support and advice services.

The entrepreneurial incubator Karvina (hereafter EIK) was established for the purpose of supporting the starting entrepreneurs in the form of granting non-residential premises for doing business under preferential conditions for the period of four years. The starting traders have the business premises at their disposal under preferential conditions in comparison with the market prices of rent and service. The price increases in the course of four years in such a way so that the starting entrepreneurs could easily cope with the circumstances of the commercial environment and after four years they could rent the non-residential premises at the market prices. EIK started its activity in the year of 1997. Its average occupancy rate was 92% in the years of 1997-2000, the average number of entrepreneurs ranged from 7-8. It is fully occupied now; there are twelve entrepreneurial subjects, who rented 576 square meters and employ 35 people.

Investment Support

Industrial Zones – present a specific form of the investment incentives, which lies in securing the land intended for the future industrial use. They can alternatively include the construction of premises. They are usually combined with the tax concessions.

Industrial Zone Nová pole Karviná
It came into being on the surface of 40 hectares; there were originally two shop floors at disposal with an extent of 1000 square meters. Now, the following subjects are doing business or are preparing to do so:

- GRADDO, a. s., the assembly of the cable bundles for the auto industry. The number of employees towards 31.12.2001 is 359,

- DEXON – ing. Stanislav Raszyk, the production & sales of the products in the field of electro-acoustics, the number of direct jobs 48,

- Shimano Czech Republic, s. r. o., the production of bicycles, invalid chairs, and other means of transport, 800 of direct jobs,

- Czech Klinipro, s. r. o., the production of medical instruments and medical means, 400 of direct jobs,

- Belfort International N.V, the printmaking of plastic bags, the number of jobs is yet unknown.

According to the state agency for foreign Investments CzechInvest the industrial zone of Nová pole Karviná has the greatest social benefit in the Czech Republic.

Upper Silesia

Upper Silesian Agency for Regional Development, Ltd. (Gornoslaska Agencja Rozwoju Regionalnego S.A. Katowice)

The Voivod of Katowice created the Upper Silesian Agency for Regional Development in November 1992. From the start, it was taking part in all measures concerning the economic development and the social and economic restructuring of the Region of Silesia.

It is in their responsibility to make sure that support programs are used wherever possible and applicable and to attract investors.

The Agency also took part in preparing the Regional Contract. It now cooperates with the government, the administration, regional and local authorities, the business sector and foreign investors. One of its specific features is the borrowing fund, established in 1998 as a step against unemployment and for new jobs. Loans are given with priority for investments that will create new jobs in the Voivodship of Katowice and for investments in SME.

In January 2000, it started a project within the EU program PHARE INITIATIVE. Loans of 4.4 MEUR were given to help people who wanted to set up their own business.

The Incubators

As example is, present the local development company of Gliwice.

The EU who paid 70 % within the framework of the PHARE-STRUDER program opened the incubator in September 1997 with support. The Town of Gliwice paid the remaining 30%.

By the end of 1998, the area of the incubator was 2,800 m². 35 % of it (1000 m²) was used for common activities (secretariat, copy room etc.) and 1.800 m² could be rented. The incubator offers favorable rents and services like secretariat services, reception services, telephone and internet connections, computers and rooms for further education and conferences.

The firms of the incubator Gliwice came from different sectors. Many of them worked in the high-tech-branch. In 1998, 24 firms with 80 employees worked in the incubator of Gliwice.

Investment Support

The Special Economic Zone in the Voivodship of Katowice. In January 1996, the Upper Silesian, Development Company signed an application for the project "Special Economic Zone in the Voivodship of Katowice".

On April 6, 1996, an institution was founded (Katowice SSE.S.A.) with the aim administrating the "Special Economic Zone" in the voivodship.

After a meeting of the cabinet, the Special Economic Zone (KSSE) Katowice was finally founded on June 18, 1996. Its area comprises 827 ha and consists of 4 subzones in different locations: Gliwice, Jastrzebie-Zory, Sosnowiec-Dabrowa and Tychy.

The main aim of the KSSE is the support of the re-structuring process in the region. The zone offers tax releases for several years and other advantages in order to support the investment process and the labor market.

5. Conclusion

It has been manifested that the chance of applying successful approaches and the EU's support are unquestionable in the transforming regions. On the other hand, a tiny economic strength of the regional institutes presents a weakness and it is unlikely to expect the long-termed economic growth, which took place in the German economy.

One can assume from the development, which took place in Germany, that the increase in the regional relations of entrepreneurs (the formation of more interest associations) and in particular the increase in the regional organs' role, which have been set up only recently, are expected to take place[*].

[*] More information you can see on web sites http://www.opf.slu.cz/tc (Czech and English version).

Abstract

Ukázalo se, že možnost aplikovat úspěšné přístupy a podporu EU je nepochybně v transformujících se regionech. Na druhou stranu malá ekonomická síla regionálních institucí představuje slabou stránku a je nepravděpodobné očekávat dlouhodobý ekonomický růst, ke kterému došlo například v německé ekonomice. Od vlády, která působí v Německu, lze předpokládat, že bude pokračovat v podpoře, čímž bude pokračovat růst u místních podnikatelů a také částečně růst rolí regionálních orgánů, které byly sestaveny teprve nedávno.

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BILL OF EXCHANGE IN THE 21ST CENTURY

Hana Šedová

Petra Brázdilová

Key words

bill of exchange, payment instruments, creditor, transfer, rediscount, debt

1. Introduction

Bill of exchange has nearly disapeared from the system of payment at the end of the 20th century. The reason were new payment instruments. The former medieval function of bill of exchange was to replace the uncomfortable and risk cash payment. In the 19th century it became more wider. Bill of exchange was the main form of the short-term credit. It was also one of the most favourite payment instruments and even it permited the creditor getting easily his money back. The other use was buying of drafts by another banks and with the worthier drafts it was even the rediscount at the central bank. All these facts were the former mission of the bill of exchange.

The conclusive priority in using the bill of exchange was its possibility of transfer by endosement to another holder. It was used for fulfilment of payment obligations. Anotherwords as a payment instrument. For creditors they were secure notes receivables. The recovery of debts was effective. If the bill of exchange was not paid off, the holder could protest by two days.

After the world war the 1st the business and payment conditions changed quite rapidly. They were more and more used cheques, continued accounts, current account credits. All settlements were provided by bank transfer – without using cash, cheques and even bill of exchange. Recently we can use electronic money and also transfers via internet.

Bill of exchanges, respectively their rediscount was one of the most favourite instruments of the central banks of issue. It was because of selfliquidating princip of the issue credit. For example in 1935 they were 278 698 bills discounted in amount of 3,7mld CZK at the National Czechoslovak Bank.

One of the recent uses of bills of exchange is one of the possibilities in hedging against risks with credits. We can divide the security of loans (since 1.1.2001) in following groups:

- lien,
- treaty transfer lien,
- assignment of debt,
- guarantee adjustment,
- bill of exchange.

Except that bill of exchange is used:

- for direct payment – we need the invoice. The price is paid by bill of exchange. Obligation is paid and goes under. There stays only bill of exhange,
- for payment by means of bill of exchange – we do not need the invoice. The payment instrument is the invoice but in this situation the bill of exchange is instead of the invoice. Unfortunately it is not clear in praxis. The accountants do not believe in this replacement.

2. Research

There has been provided the research between 97 companies in Zlín and its area in March 2002. They were mostly small size companies with less than 10 employees (94%). All respondents answered questions about their system of payment. They all prefer first payment orders and cash more then all other instruments of payment.

Table 1 – Payment instruments

Payment instrument	frequency of use
Payment order	90
Cash	76
Payment collection	25
Foreign payment (clean, documantary)	15
Cheque	11
bill of exchange	6

Source: Author´s calculations

6 companies (from 97) use the bill of exchange as a payment instrument. It is only 6%. See the chart above. 11 companies already and also use cheques, 15 companies foreign payment. This little number can give the explanation, that only 15 companies

provide from 97 respondents foreign trade. Quite usual is payment collection and the most favourite still stays cash and payment orders.

Table 2 – Bill of exchange and the size of the respondent companies

Company size	companies using the bill of exch.
less than 10 employees	1
10 – 49 employees	2
50 – 250 employees	1
more than 250 employees	2

Source: Author´s calculations

6 companies using in their business the bill of exchange are shown in the table No. 2 above. This small number cannot very clearly explain some business strategies or points.

Table 3 – discount and the size of the company

company size	companies using discount
less than 10 employees	1
10 – 49 employees	1
50 – 250 employees	0
more than 250 employees	0

Source: Author´s calculations

2 companies use in their business discount – it is only 2% of all respondents.

3. Results

The results show that recent businessmen still do not believe in new world trends. Some bank branches in the 90th discounted a few tens bills of exchange per a month. Rediscount of bills exchange was nearly stopped by the Czech National Bank in 1997. And in 2002 banks provide usually 2 discounts per a month. But other new uses of them found out in the 21st century. As forfaiting (it is purchase of debt without recourse) or aval.

4. Conclusion

Businessmen surprisingly prefer cash then all other instruments of payment as shown in the research . It can be confusing in the 21st century but the possible reason are the business payment problems. Some businessmen are not fond of electronic funds transfer. Maybe eBank and all other commercial banks with their new strategies of system of payment could convince them about possible advantages.

Abstract

Na počátku 21. století můžeme být téměř každý den svědky nových bankovních produktů a služeb, produkovaných bankami po celém světě. Směnka je jedním z nejstarších platebních nástrojů, které byly používány nejen ve 20. století, ale již stovky let dříve. Příspěvek pojednává o nedávném využití směnky a také o některých možnostech využití tohoto nástroje ve 21. století.

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INDICES OF THE CAPITAL MARKET[1]

David Fuchs

Key words

index, capital market, stock exchange, share, base of index, market capitalization

1. Introduction

The principal purpose of share indices is to briefly inform about the development and yield of a particular share market. The indices indicate the change of average prices of selected securities over a certain period of time and thus allow for their comparison in time. Indices inform about the stock exchange market as a whole or about its segments.

Indices of the capital market concentrate price fluctuations of many securities into a single figure and therefore indicate market development trends. They record both increasing and decreasing trends of the market. Capital market indices are not only the indicator of the capital market development, but also an important economic macroindicator.

Hundreds of indices are used at capital markets. They are differentiated by the method of their calculation and size of the market. An index can be weighted (also reflects a relative size of the market with given shares) or unweighted (considers only share prices), arithmetic (adds prices of individual shares and their sum is divided by the number of shares) or geometric (multiplies individual share prices and the product is raised to the power of 1/n). Indices in the form of arithmetic or geometric average of share prices monitor the price development of selected constituents included in the average.

A capital market index should represent either the capital market as a whole or some of its segments. Representative character of indexes is provided by an appropriate selection of titles incorporated in the calculation of an index (index base).

According to the titles incorporated into the base, it is possible to divide indices into global (the base consists of all or only selected titles, representing all sectors) or sector indices (the base contains titles of the corresponding sector).

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Furthermore, indices can be divided according to the construction of the base (with a constant or variable base), according to weighting systems (on the basis of market capitalization, trading volume, number of all issued securities and on the basis of the market price of securities).

Index calculation should be comprehensible and clear with a precisely determined algorithm. Indices may be calculated using different methods, e.g. the geometric average method, von Paasch method or the IFC (International Finance Corporation) method.

2. Prague Stock Exchange

The Exchange introduced its official index PX-50 on the occasion of the first anniversary of opening its trading. A standard method of calculation has been chosen for the index in accordance with the IFC (International Finance Corporation) methodology recommended for the creation of indices in emerging markets. The base of the index PX-50 includes fifty share issues, which are traded at Prague Stock Exchange. The index base does not incorporate any issues of investment funds and holding companies established from transformation of investment funds because their price quotations already reflect the price movements occurring in the base issues. The starting exchange day was 5 April 1994 and the opening value of the index PX-50 was fixed at 1000 points.

The calculation formula for the index PX 50 is as follows:

$$PX(t) = K(t) * \frac{M(t)}{M(0)} * 1000$$

where:

- M(t) is market capitalization of the base at time t,
- M(0) is market capitalization in the basic (starting) period,
- K(t) is chaining factor at time t (considers changes made in the index base).

The calculation formula can be rewritten in the form:

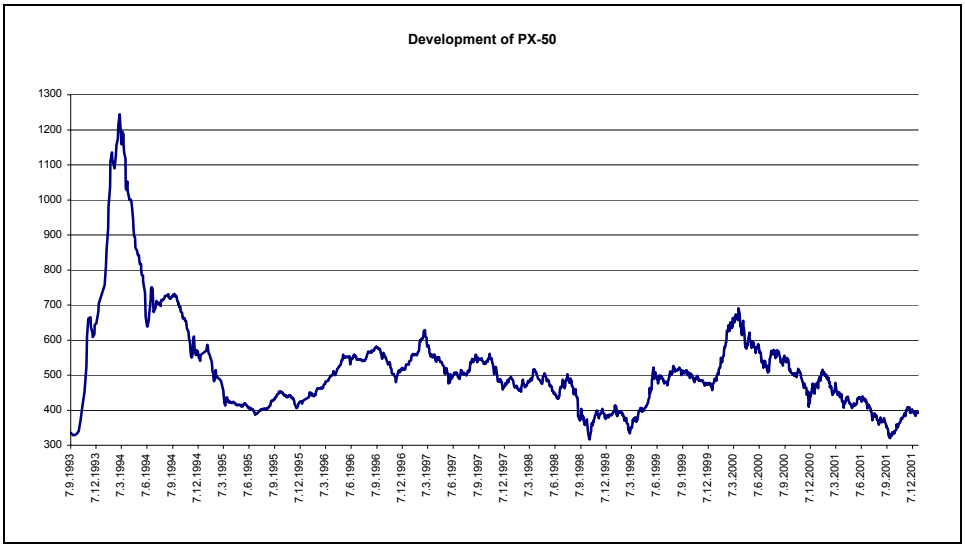
$$PX(t) = \frac{ba\,\mathrm{sec}\,apitalisationattime\,t}{basevalueattime\,t} * 1000$$

From comparison of the above formulas it is apparent that the value of the base at time t (shown in the denominator in the preceding fraction) equals to the expression M(0)/K(t), i.e. the rectified market capitalization for the base in the starting period.

The market capitalization of an issue is the product of number of securities registered in the issue and the respective market price. Thus the market capitalization of the base equals the product of market capitalization of issues incorporated in the index base.

The following chart indicates the index PX-50 over the period from 07.09.1993 to 31.12.2001.

Figure 1 – Development of PX-50



Another Prague Stock Exchange index is the index PX-D, which is a price index (does not consider any dividend yields). The index was designed to be used as the underlying asset for trading with financial derivatives at Prague Stock Exchange, which should begin soon.

The index base may incorporate non-fund issues traded under SPAD (System for Support of Share and Bond Market) – the "blue-chip" issues on the Czech capital market are traded under SPAD, at the moment it incorporates 7 issues). The number of base issues is variable. Issue's weighting is given by its share in market capitalization of the base. Market capitalization allowed for one issue in the total market capitalization may not exceed 35% on the so-called decisive day. The decisive days are 31 May and 30 November, or immediately preceding those two days. In case of exceeding this limit, reduction in the number of securities in the respective issue is made.

The starting day is 4 January 1999 but the index was computed retroactively back to 1 September 1997. Its opening value equals 1000 points.

Index calculation is carried out using the following relation:

$$I(t) = I(t-1) * \frac{TK(t)}{TK^{NB}(t-1)}$$

where:

- I(t) is the index value at time t,
- I(t-1) is the index value at the time before t (t-1),
- TK(t) is reduced market capitalization for the base at time t,
- TK^{NB}(t-1) is reduced market capitalization for the new base at time t-1, considering changes in the index base and special events.

The Prague Stock Exchange also uses the global index PX-GLOB, which is calculated after each session. The base of this index incorporates all issues and unit issues for which valid official price was set no later than the preceding exchange day. The starting day was set on 30 September 1994 and the index has been officially published since 6 April 1995.

Sector indices are also designed at Prague Stock Exchange. At present there are 15 sector indices at Prague Stock Exchange:

- production of beverages and tobacco,
- extraction and processing of minerals and ores,
- textiles, wearing apparel and leather,
- chemicals, pharmaceuticals and rubber industry,
- building and building materials,
- metallurgy and metal products,
- engineering,
- electrical engineering and electronics,
- power generation,
- transport and communication,
- trade,
- finance and banking,
- services,

- jewellery, pottery and glass,
- investment funds,
- other.

Sector indices are a very good indicator, which is frequently used for share analyses of fundamental analyses.

3. RM-System

RM-System has its index PK 30 as well, which concentrates share price fluctuations of 30 important firms (including investment funds) traded at the off-exchange market. The index calculation is based on the IFC method, it is weighted by the number of pieces of shares. Its opening value as at 3 May 1994 equals 1000 points.

When looking for any possible relation between the indices PX-50 and PK-30, we can come to the conclusion that PK-30 is principally dependant on the development of the index PX-50. It is evident from monitoring their development, the index PK-30 lags behind the index PX-50 within the range from one to four days. This disposition can be explained by many facts. Certainly among the most significant is the fact that Prague Stock Exchange is the main (and the only stock exchange) market in the Czech Republic that reflects investor mood at the Czech capital market, while RM-System is an off-exchange market (to refer to it as to "secondary market" is a bit exaggerated.").

4. Bratislava Stock Exchange

The official share index of the BSSE is the Slovak share index SAX. It ranks among capital-weighted indices and compares the market capitalization of a selected set of shares with the market capitalization of the same set of shares as of a given reference date. It is the index that makes the overall change of assets connected with an investment in shares incorporated in the index more transparent. This means that besides fluctuations of prices, the index includes also dividend payments and revenues connected with changes of the share capital amount, i.e. the difference between current market price and subscribed price of new shares.

The initial value of the index was 100 points (refers to 14 September 1993). The index shows development only at the BSSE, while until 30 June 2001 it was based on average prices stated in the price lists. Effective from 1 July 2001, the official daily index value is calculated and published on the base of prices of base titles.

The calculation of the index is as follows:

$$SAX_{ACT} = \frac{\sum_i P_i^{ACT} * G_i}{\sum_i P_i^{r} * G_i * F_i} * 100$$

where:

- F_i is correction factor for i th share,
- P_i^{ACT} is closing price of i th share as of the given day,
- P_i^{r} is closing price of i th share as of the reference day (14 September 1993),
- G_i is the number of shares of i th company as of the given day.

The index formula is flexible and allows to change the participation of different companies in the index as well as to change the number of companies, proportional to changes in their negotiability, or when a new company enters the capital market. If the structure of the index changes, the correction factors are changed in such a way that the index with a new structure can continuously follow the development of the index with the previous structure. At present the SAX index has in its base 16 most liquid shares at the Slovak capital market.

5. Conclusion

On the basis of the above mentioned facts it is possible to conclude that the Czech capital market indices and the SAX index are well designed and for this reason they will serve in testing the forms of Czech and Slovak capital markets effectiveness within the framework of further work on the given grant task.

Abstract

Článek je výstupem v rámci grantu č. GA402/02/1408, resp. jeho části „Testování forem efektivnosti kapitálových trhů“. Jde o úvodní výstup, který si klade za cíl definování hlavních indexů kapitálového trhu v České republice a hlavního indexu Slovenské burzy - SAX.

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[2] http://www.bsse.sk/.

[3] http://www.portfolio.cz/.

[4] http://www.pse.cz/.

[5] http://www.rmsystem.cz/.

GOODWILL AND CONSOLIDATED BALANCE SHEET IN THE CZECH ACCOUNTING LEGISLATION[1]

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Helena Kolibová

Key words

consolidation, European guidelines, International accounting standards, methods of consolidation, goodwill

1. Introduction

The aim of this paper is to provide with a brief characterisation of consolidation and a basic international accounting directive, which determine the development of the Czech accounting legislation.

Consolidation in the Czech accounting is relatively a new process connected with providing information on the financial and overall economic situation of a *group of enterprises* which are viewed as an economic entity. It only appeared in year 1993 when a new Accounting Law was passed. A characteristic feature of the reform was simplicity, transparency and easiness, with the aim of a *gradual transition* to the market economy and *gradual adaptation* to the conditions of the European legislation.

In the paper we can observe present significant changes which relate to the integration of the Czech accounting concept of consolidation to the European accounting area.

2. Nature of consolidation

In general, we understand consolidation as stabilisation, unification, connection or creation of a bigger, organised, operating unit. In accounting, consolidation represents an aggregation of information from *individual accounting* statements of particular legally independent enterprises creating an economic unit into an overall accounting statements for the entire so-called *group of enterprises*.

[1] The paper is published with the support of the Czech Grant Agency (grant GAČR No. 402/00/0312 „Comparison of the Banking Sector Development in the World and in the Czech Republic in the 1990s“).

An obligation to set up a consolidated balance sheet for a consolidated unit belongs to an accounting unit which represents a trading company in accordance with the Commercial Code, and is either a manager, controlling person or has a considerable influence in another accounting unit (we talk about so-called consolidating accounting unit)

It is necessary to realise certain characteristic features of a consolidated balance sheet and these are the following:

- it serves as an *information resource* for shareholders and other users of a balance sheet concerned about financial position, performance, cash flows and economy of management with the allotted sources,

- *it does not replace an individual* balance sheet (as it is e.g. in the USA) and it is understood as supplementary information,

- *we do not account* in a consolidated balance sheet, statements are set up only on the basis of balance sheets of parent, daughter, affiliate and joint companies for a particular accounting period on the date of a regular balance sheet of a parent company,

- data concerning a consolidated balance sheet cannot represent *a background material for the solution of* relationships among business partners, it cannot serve for creditors when calling for their claims etc.,

- data does not represent a background material for the profit distribution and shareholders' claims,

- data is by no means used for *tax purposes* (a group of companies does not represent a taxpayer entity),

- there are the same rules for its verification and release as for an individual balance sheet (that is verification by an auditor and its release in a stated extent and manner).

In the Czech conditions the obligation to set up consolidated balance sheets appeared for the first time in year 1993. It was a completely new area of solution without practical historical experience. A characteristic feature of the reform was simplicity, transparency and easiness, with the aim of a *gradual* transition to the market economy and gradual adaptation to the conditions of the European legislation.

A need of setting up a balance sheet for a capital-bound grouping of companies emerged from the development of market relations in the conditions of our country, especially in connection with a distinctly changing property structure of enterprises, with the development of the capital market and an increasing volume of different types of enterprises.

Concretely, in our conditions the problem of consolidations is governed by the Accounting Law and concrete rules and procedures can be found in provisions of the Ministry of Finance of the Czech Republic concerning a consolidated balance sheet.

3. International accounting standards have influence on Czech legislation

The Czech legislation uses in the process of creation of the standards, in relation with the entry into the European Union, the following key international standards:

- the Guideline no. 7 on Consolidated Balance Sheet,
- (and in the area of International accounting standards),
- IAS 27 – Consolidated Financial Statements and Accounting for Investments in Subsidiaries,
- IAS 28 – Accounting for Investments in Associates,
- IAS 31 – Financial Reporting of Interests in Joint Ventures.

The Guideline no. 7 on Consolidated Balance Sheet (from 13 June 1983) deals in a similar way with *setting up consolidated* balance sheets and annual reports for capital-bound companies. It was formed from the necessity to solve the harmonisation of consolidated balance sheets in a global way, within the frame of the European Union with the help of acceptance of a particular guideline. This guideline leaves less space for the *right of volition,* as the consolidation very often relates to multinational companies having their branches all over the world. It assigned the membership countries to harmonise their legislation, regulation and administration provisions with this guideline by 1 January 1988 and the time period for the application of these principles was set for the consolidation of balance sheets for year 1990. This implies that harmonisation of the procedures for a consolidation of balance sheets represents a relatively new matter. Therefore, in this area, we can meet with a number of different approaches to the solution of concrete problems and also with a number of open questions.[2]

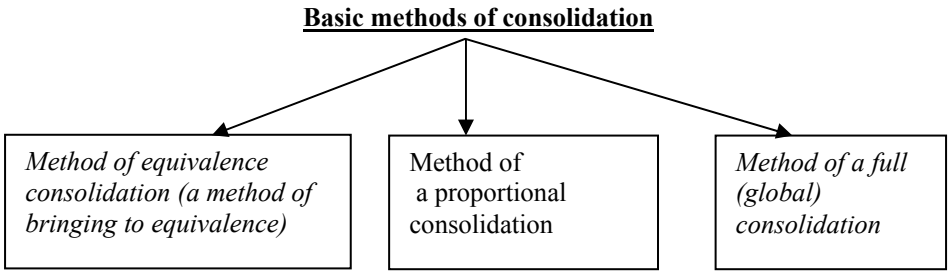
In this period, the Czech legislation regulations in connection with the gradual adaptation to the world development recorded a lot of significant changes. Among them we can mention mainly the possibility of setting up a consolidated balance sheet in

[2] During the formation of the legal regulations for a consolidation in the Czech accounting system we came out from this Guideline no. 7, above all, and then from the French concept and experience. This is connected with the accounting reform in the Czech Republic which is, to a considerable extent, based on the French system. Regarding the fact that the problem of a consolidation of balance sheets was a completely new area in our accounting system, and therefore, without experience, the total concept of our modifications represents a simpler form for the time being.

accordance with the International accounting standards and there is also no obligation of setting up a balance sheet according to the Czech standards from 1 January 2002.

A consolidated balance sheet is a balance sheet of a group of enterprises (economic group of accounting units), which unifies the state of property and liabilities (debts) and achieved economic results of a parent company with its share in other companies, which it governs or in which it has a major or considerable influence.

Aggregation of data from balance sheets of enterprises in a group and their assignment to a balance sheet of a parental company and setting of a consolidated balance sheet can be realised by *three basic methods,* when the method of a proportional consolidation is introduced newly, by the acceptance of an amendment of the Accounting Law with the efficiency from 1 January 2002 (it can be used for example in case of individuals acting in agreement within the frame of business enterprises, as the Commercial Code defines.)



A legal stipulation of a consolidation in the Czech Republic from 1 January 2002 determines an exemption from consolidation for a consolidating accounting unit, if at the end of a day of an accounting period, for which a consolidation balance sheet is set up, the mentioned accounting units, on the basis of their last three regular balance sheets, did not exceed or achieve at least two from the three stated criteria[3]:

- total amount of gross balance sheets more than 350m crowns (by the end of year 2001 the amount of 300m crowns was fixed)[4],
- net turnover exceeds amount of 700m crowns (by the end of year 2001 600m crowns was fixed), when the net turnover represents the yields reduced by the sales discounts, value added tax and other taxes directly connected with a turnover,
- an averaged recalculated state of employees, including the cases of a labour relation of a member to a co-operative, there are more than 500 during the accounting period.

[3] Accounting Law effective from 1.1.2002, Section 22

[4] the total amount of gross balance is taken as the total read from the balance sheet at the prices according to Section 26, Paragraph 3 of the Accounting Law

The above-mentioned exemptions will not apply in the case of accounting units which represent banks or insurance or security business in accordance with the special regulations.

4. Consolidation difference – Goodwill

Comprehension of a consolidation difference in the Czech standards after the Amendment of the Accounting Law *considerably approached to* the stipulation in the International accounting standards[5].

Consolidation difference (goodwill) **–** represents the difference between a purchase price of share securities and deposits of a consolidated enterprise and their evaluation according to the ***share*** of a parental company in the sum of own capital expressed ***by the face value*** which results as a difference of assets face values and liabilities face values on the day of acquisition or day of further increase of share (further purchase of securities or deposits).

We understand *the day of acquisition* the date from which a parental company efficiently starts to apply a particular influence over a consolidated enterprise. In a similar way, this date is fixed in the case of an affiliate company or joint enterprise.

A consolidation difference (goodwill) is ***depreciated*** in a new way within 20 years by a regular depreciation, if there are no reasons for a shorter period and it is charged as costs - charging a positive consolidated difference (or yield - clearing of a negative consolidation difference) in the profit and loss account.

5. An example of a consolidated difference (goodwill) according to an original and new legislation regulation[6]

On 30 June 2002 the company M gained 80% of the share in the company D for a purchase price of 25,000 crowns.

[5] Setting the consolidation difference is set in the Czech regulations by MF decree no. 281/113 411/2001 concerning consolidation of the final financial statement in Article VI, paragraph 2.5.

[6] Source: LOJA, R. *Přecenění: Konsolidovaná účetní závěrka*, ACCA 2002.

Table 1 – Balance sheet of company D in thousands crowns

	Accounting value on 30 June 2002	**Market value on 30 June 2002**
Lands	3 000	6 000
Buildings	9 000	12 000
Equipment and machinery	14 000	13 000
Total fixed assets	***26 000***	***31 000***
Stock	2 000	1 500
Receivables	3 000	2 000
Money	1 500	1 500
Total current assets	***6 500***	***5 000***
TOTAL ASSETS	**32 500**	**36 000**
Registered capital	-10 000	-10 000
Capital funds	-2 000	-2 000
Funds made of profits	-1 000	-1 000
Profit and loss of past period	-28 000	-31 500
Profit and loss of current period	- 3 000	-3 000
Total Equity	***-28 000***	***-31 500***
Payables	- 4 500	- 4500
TOTAL LIABILITIES	**-32 500**	**-36 000**

Comparison of a value of a consolidation difference[7] (CD) – goodwill according to an original regulation and a new legislation regulation:

Original regulation – calculation (it was not recalculated on a face value):

1) *it was calculated on 1 January of a particular period,*

2) *equity was not recalculated on a face value (28, 000),*

3) *we have to subtract 3,000 from the equity, that is the value of a profit/loss for the period from 1 January to 30 June 2002.*

25,000 –80% (28,000-3,000) =5,000
Depreciation for 5 years = 20%
20% from 5,000 = 1,000
We will transfer 1,000 to the profit/loss account

New regulation – calculation (we take into a consideration a face value):

1) *own capital enters into the calculation in a face value (31,500),*

2) *we calculate on the date of acquisition, that is 30 June 2002,*

[7] Writing off the consolidation difference does not have effects on tax base.

3) a period of depreciation of a consolidated difference also changes.

25,000 – 89% (31,500 – 3,000) = 200
Depreciation for 20 years and we have to consider only half of a year (the date of acquisition is 30 June 2002)
(200 : 20) : 2 = 5
We will transfer the value 5 into a profit and loss account

As the example shows, development of the changes in a solution in the area of a consolidation in the Czech accounting legislation has a considerable influence on showing the economic situation of a group of enterprises.

5. Conclusion

Solution of the questions on a consolidation in the conditions of both the Czech and international accounting law cannot be considered as final one. It is necessary to realise that all the procedures connected with the possibilities and ways of reporting goodwill are based on an active market with the possibilities of particular companies to enter into a barter transaction with a particular asset or debt in a given market context, with the aim to contribute to prosperity. This must be taken into consideration especially in the conditions of the Czech economy, when the capital market is only developing.

An accounting solution of all the aspects of a consolidation in the Czech Republic must be understood in relation with the process of globalisation of the world economy and with a necessary process of accounting harmonisation on the world scale. Concept questions of a solution are always the matters of an agreement, which will influence the formation and a final choice of an accounting concept[8].

We will also observe a disagreement between "microeconomic" concepts which are able to handle a particular problem both theoretically and economically in a sophisticated way, and concepts which will consistently insist on basic accounting attributes as a practical discipline, that is they will insist mainly on the fact that the accounting information be considerably reliable for the user at the adequate information potential and not lead to excess risks during decision-making.

Abstract

Konsolidace v českém účetnictví je poměrně mladým procesem související s poskytováním informací o finanční a celkové ekonomické situaci *skupiny podniků,* chápané jako jeden ekonomický celek. Objevila se až v r. 1993 s přijetím nového zákona

[8] In spite of the obvious qualities of the principles of reporting the intangible assets including goodwill according to the International Accounting Standards, a revision of the existing rules with inspiration by the American standards SFAS141 is anticipated – Enterprise combinations and SFAS142 – Intangible assets and goodwill from year 2001.

o účetnictví. Charakteristickým rysem reformy byla jednoduchost, transparentnost a nekomplikovatelnost, s cílem *postupného přechodu* na tržní hospodářství a *postupnou adaptaci* na podmínky evropské legislativy. V příspěvku jsou zachyceny současné významné změny související s integrací českého účetního pojetí konsolidace do evropského účetního prostoru.

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[1] LOJA, R. *Konsolidovaná účetní závěrka.* Praha:Bilance, 2002.ISBN 80-86731-30-1.

[2] Opatření č.j 282/113 410/2001 kterým se stanoví postupy pro provedení konsolidace účetních závěrek, uspořádání a obsahové vymezení položek konsolidované účetní závěrky a rozsah údajů ke zveřejnění pro banky a některé finanční instituce.

[3] Opatření č.j 281/113 411/2001 kterým se stanoví postupy pro provedení konsolidace účetní závěrky podnikatelů, kteří účtují v podvojné soustavě a jsou právnickými osobami.

[4] Zákon č. 563/1991 Sb., o účetnictví ve znění pozdějších předpisů s platností od 1.1. 2002.

[5] ZELENKA,V. Vykazování nehmotných aktiv podle IAS (část 2. – goodwill). *Účetnictví*, 2002, no. 7, p. 82-84. ISSN 0139-5661.

NATIONAL FOREIGN EXCHANGE RESERVES MANAGEMENT A NEW APPROACH

Pawel Mlodkowski

Key words

foreign exchange reserves management, central bank, balance sheet approach.

Introduction

The management of national foreign exchange reserves is a key duty of the authorities[1]. The legal framework and administrative arrangements for ownership of the reserves is different across all countries. In many cases, including Poland, foreign exchange reserves are formally on the balance sheet of the central bank (NBP in Poland). Some countries subordinated reserves to the government. However, despite of government ownership of the reserves, duty of managing the reserves is nearly everywhere entrusted to the monetary authorities[2].

The modern approach to asset management underlines risk control[3]. It is true also in case of central banks. Management of foreign exchange reserves portfolio risks should be conducted at the most aggregated level possible. The Bank of England experience shows that opposite approach causes control loss and synergy between numerous risks resulting in unacceptably high total risk. If the foreign exchange position is highly aggregated, total risk is measurable and possible to minimize[4]. What is more, management of national foreign exchange reserves in conjunction with a set of foreign public liabilities creates additional advantages[5]. Despite central banks face different circumstances, economic conditions and legal framework, ways of foreign exchange reserves management is tend to be similar.

A new approach to foreign assets management, described in this paper, should gain much interest in countries preparing for accession in monetary union. Every

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[1] *The New Palgrave Dictionary of Money & Finance*. II.vol. F-M. New York: Macmillan Press, 1992, p. 161 – 164.

[2] NUGEE, J. *Central Bank Reserves Management, Sovereign Assets and Liabilities Management.* Edited by CASSARD, M. and FOLKERTS – LANDAU, D. IMF and the Hong Kong Monetary Authority, Washington D.C., 2000, p. 175.

[3] SMITHON, CHW., SMITH, CW., WILFORD, DS. *Zarządzanie ryzykiem finansowym*. Krakow: DW ABC, 2000, p. 15.

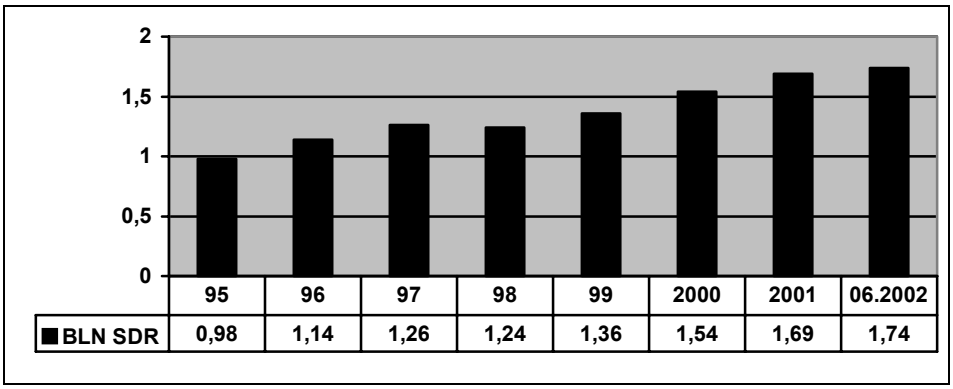
[4] *Bank of England Report and Accounts 1995 – 2002*. http://www.bankofengland.co.uk/.

[5] MLODKOWSKI, P. *Metody zarzadzania dlugiem publicznym.* Krakow: AE Krakow, 2000, p. 12 – 115.

candidate country for UE has to reconsider amount and structure of foreign reserves[6]. This is because they will no longer be responsible for national currency after joining the monetary union.

Several last years witness substantial total foreign exchange reserves growth (see Figure 1)

Figure 1 - World's foreign exchange reserves (excluding gold) in bln SDR (at the end of period)



Source: International Financial Statistics, IMF, September 2002

One can point out several main causes of this increase:

- increase in central bank foreign exchange reserves activity[7],
- increase in international trade[8],
- increase in capital flows[9],
- pure interest accumulation.

The last of the listed causes of the foreign exchange reserves growth becomes more and more important. Share of pure interest accumulation in the growth of reserve assets is significant. Figure 2 presents percentage share of accumulated interest in growth of total reserves.

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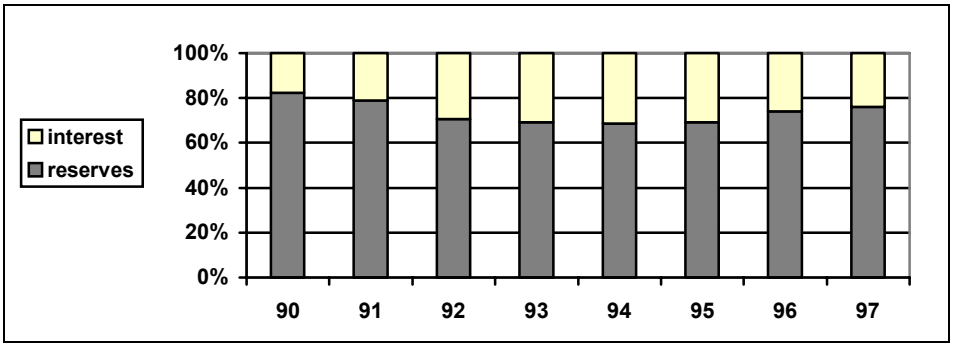
[6] WYZNIKIEWICZ, D. Problemy okreslenia optymalnego poziomu rezerw walutowych. *Bank i Kredyt*, 2001, no. 1-2, p. 24 – 31.
[7] MISHKIN, FS. *The Economics of Money, Banking and Financial Markets.* Fifth edition. Addison – Wesley, 1998, p. 624.
[8] Direction of Trade Statistics. *Quarterly*, IMF, June 2002.
[9] Balance of Payments Statistics. *Yearbook*, IMF, 2001.

Figure 2 - Share of the pure interest accumulation in the growth of total foreig exchange reserves



Source: Bank of International Settlements (BIS)

Transition period and opening economies of Czech Republic and Poland resulted in growth tendencies of foreign exchange reserves in both our countries. Demand stimulated by growing external trade and capital inflows doubled reserves during last eight years. Changes in foreign exchange reserves in Czech Republic and Poland presents Table 3.

Table 3 - National foreign exchange reserves in Czech Republic and Poland 1995 –2002 (in mil SDR)

	1995	1996	1997	1998	1999	2000	2001	2002.06
Czech Republic	9,31	8,59	7,21	8,9	9,33	9,99	11,41	16,00
Poland	9,93	12,4	15,12	19,4	19,2	20,38	20,4	20,36

Source: International Financial Statistics, IMF, September 2002

Similar responses in foreign exchange reserves management, mentioned above, are attributed to several factors. First, reserves are continuously used for the external trade, capital flows and as a tool of exchange or monetary policy. In consequence, the assets in the reserves must always be available on every request of an entity responsible for their management. A central bank has to be able to supply cash, up to the full amount of the reserves, whenever policy or legal commitments dictate that the reserves need to be used. Since central banks do not know when they are going to be asked to call upon reserves, and they do not know how much of these reserves are going to be call upon, they will always value liquidity extremely highly. If a central bank holds reserves but cannot liquefy them in a crisis, it negates the rational for holding those assets[10].

[10] NUGEE, J. *Central Bank Reserves...,* op.cit.: p. 177.

Second, a common feature is that foreign exchange reserves are public assets. Managers of reserves at a central bank are trustees of the whole society. Their responsibility incurs value protection principle. Safety of reserve assets is than the second important feature in national foreign exchange reserves management.

Third, in case of large foreign exchange reserves, they function as tezaurization device, despite of functioning as a monetary policy tool. This is why total rate of return from reserve assets becomes important. Foreign exchange reserves can be seen as central bank's portfolio investment, with some positive rate of return. Management of these assets has than another goal – total rate of return maximization. As J. Nugee (2000) points out, maximization of total rate of return from reserve assets portfolio is significant in countries with large foreign exchange reserves. He states, as example, some Asian countries with large reserves in relation to national economies. Total rate of return from these reserve assets portfolio is now a common goal, set by all central banks, despite of the size of the reserves.

Another main feature of reserves management is tendency to diversify their structure. But the structure of reserve assets is a subject of external trade pattern. One can see this especially in case of Poland. After introduction of Euro, polish foreign exchange reserves change toward Euro at the cost of USD share. External trade id directed mostly to countries of the EU, so this transformation is fully understandable.

One can point out the four common features in foreign exchange reserves management, that cause monetary authorities act in a similar way. Despite of different conditions, exchange regime, fiscal and monetary policy, administrative and legal framework, reserves managers tend to:

- maintain very high liquidity,
- assure security (preserve value),
- maximize total rate of return,
- diversify.

J. Nugee (2000) points out only three of, mentioned above, goals, with domination of security and liquidity. After assuring them, the third is considered – rate of return maximization. J. F. Rigaudy (2000) puts liquidity at the first place, not security[11].

The way foreign exchange reserves are managed depends on weather reserve assets are treated as a sole portfolio investment or in conjunction with real or contingent foreign public liabilities. Administrative and legal framework in Poland delegate foreign public liabilities management to the Ministry of Finance, That is why, balance sheet of NBP do not incur liabilities resulting from external public debt[12].

[11] RIGAUDY, JF. Trends in Central Bank Reserves Management. *Proceedings of a Conference held in Hong Kong SAR*, p. 214 – 215.
[12] *Information Bulletin*. NBP, 2002, no. 1 – 2.

If a central bank is responsible for foreign reserve assets and foreign public liabilities management, immunization of its balance sheet becomes important. A central bank, which is obliged to conduct these two functions, is The Bank of England[13]. It owns neither reserves nor foreign public liabilities, but is responsible for managing them. This framework allows an integrated approach that makes decisions in respect of financing reserves and servicing debt more adequate.

Incurring foreign exchange reserves and external public debt in the balance sheet of a central bank has several remarkable advantages[14]:

- foreign reserve assets have a natural benchmark (foreign public liabilities); hedging interest and currency risks is possible through creating adequate structure of assets and liabilities,

- after immunization of foreign public liabilities, management of foreign exchange reserves is focused on net reserves – this part of total reserves that exceeds foreign public liabilities; this is the part of that balance sheet where market movements can affect the overall position; this part is a subject of risk management,

- attention is focused on the need to make a realistic assessment of the cost of holding reserves, particularly net reserves; this is important because unless the cost of holding reserves is known, one cannot answer questions such as the optimum size of the net or gross reserves,

- allows active liabilities management to achieve a desired overall risk position in the markets; liabilities manipulation is impossible when external public debt management is conducted by another entity.

Despite continuous changes in the way foreign exchange reserves are managed. Many significant differences between private and public asset portfolio remain. Every central bank id committed to conducting a wide range of internal macroeconomic objectives[15]. It faces, during the process of reserves management, numerous constraints, that never have managers of private assets portfolios.

Monetary authorities in Poland should not avoid changes in foreign exchange reserves management practices. In the mid 90s there were suggestions of changes in public debt management by creating National Debt Office or delegating management of external public debt to the central bank. So far organizational and legal framework does not evolve, but new external conditions demand new solutions. Active foreign assets and liabilities management needs adopting some new approaches. One of them – incurring reserve assets and public liabilities in one balance sheet of a central bank is discussed in this paper. New challenges faced by UE candidate countries will make the changes

[13] http://www.bankofengland.co.uk/.
[14] NUGEE, J. *Central Bank Reserves...,* op.cit.: p. 185.
[15] CHRONG – HUEY WONG. *Adjustment and Internal – External Balance.* IMF Washington D.C., 2002, p. 10 – 37.

happen. Policy of every central bank should be future – oriented to foreseen new requirements and undertake adequate steps.

Abstract

V této práci dokazuji, že navzdory rozdílným institucionálním a zákonným strukturám, řízení devizových rezerv je podobné skoro ve všech zemích. To umožňuje uvedení nového přístupu, založeného na společné správě prostředků devizových rezerv a zahraničních veřejných závazků. Tento případ speciálně platí pro Polsko a Českou republiku, protože naše země se chystají vstoupit do měnové unie. Tím získají různé cíle pro orgány měnové politiky při správě devizových rezerv.

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AN ALTERNATIVE APPROACH TO FINANCIAL MARKETS DEVELOPMENT

Ivana Nepožitková

Dagmar Přidalová

Key words

financial institutions, bankinsurance, bank, insurance, services, effects, synergy, cooperation, examples, global market

1. Introduction

Financial institutions who want to succeed in the constantly developing and stronger competitive market must search new ways of how to win recognition and maintain their clients‘ interest. One of the trends that can be used to face the situation is financial services integration, at preset typically represented by bank and insurance company co-operation aiming at creating products that could be called bankinsurance.

One of possible definitions of bankinsurance says that it is "effective creating and distributing of bank and insurance products for a common group of clients". In other words, it could be described as a rational and highly efficient approach to creating and distributing products for a certain group of clients ensuring their maximum satisfaction with the service. Bankinsurance should aim at offering brand new services, especially of a long-term investment nature enabling long term cumulating of finances. Another aspect is that by combining bank and insurance services the companies can fight risks connected for example with extending credits. Thus bankinsurance can lower the risks.

2. Bankinsurance focused on the bank’s benefit.

As well as insurance companies, banks are subject to strong competitive pressures. Bankinsurance could be one of possible ways leading to decreased expenses and other effects.

Connecting bank and insurance services could have a positive impact on increasing the sales volume on both sides. Including insurance products in bank services portfolio contributes to more effective use of investment expenditures connected with building a branch office network, especially by better use of their capacities.

3. Bankinsurance focused on the client's benefit

Generally, it can be said that bankinsurance application and global offers lead to decreased prices and increased client's benefit. Operations and processes are concentrated into a single provider and new risk analyses need not be performed. Also in this way the clients may be provided with required products at more favourable prices, with higher comfort and speed. The clients sure will appreciate lower prices and better choice of products.

The distribution process is client-friendly and it offers perfect service on single spot. The services have been developed to meet the clients' needs as much as possible.

Connecting a bank with an insurance company makes the institution's own capital stronger which is closely linked with better safety of clients' deposits. Due to the acquired magnitude higher credit sums can be considered and larger extent deals can be made, also advantageous for the clients.

4. Financial synergy

Together with market and political synergy, financial synergy represents another stimulus of developing cooperation between banks and insurance companies. Financial synergy occurs when lower business risk can be reached. In bankinsurance, financial synergy is achieved if common financial assets serve for reducing risks of e.g. credit security.

Another effect occurs for example in case of distribution of a new financial product to already existent clients by using an already working distribution network. Markedly positive effects can be reached by connecting bank and insurance organization structures aiming at limiting the so called "organizational fossilization. Both banks and insurance companies are characterized by their own style of work, organizational structure, and sales culture. Their organic interconnection could serve as a basis for success and viability.

Market and political synergy is characterized by common use of intangible assets. Banks can significantly improve the image of insurance companies.

5. Examples of bankinsurance in the Czech Republic

Bankinsurance as such already exists in our republic, practically in all its forms excluding the case when a bank serves as a special insurer, i.e. it is the only distribution channel of the insurance company. The most progressive development can be probably observed within financial groups where insurance companies are subsidiary

companies of banks. Cooperation within the groups influences not only the sales strategy but also creating of products.

Most bankinsurance companies in our republic appeared at the beginning of the 1990s. For example Investiční a poštovní banka, a.s. founded its subsidiary Pojišťovna IPB in 1992 as the first one. In 1995, Česká spořitelna a.s. acquired 70% of the capital stock of Živnostenská pojišťovna, a.s., already an established and experienced company. In the same year, Komerční banka, a.s. founded its own insurance company, Komerční pojišťovna, a.s. At the first glance, it might seem that the activity is purely on the banks' side.

The largest insurance company in the Czech Republic, Česká pojišťovna, a.s., introduced another option. In 1991 it founded Pragobanka, a.s. and became its major owner. In 1999 it bought 50.1% of Expandia Banka, a.s. (now eBanka, a.s.) shares from Expandia group. Together they started developing activities leading to interconnecting of their activities, especially those concerning on-line services.

Table 1 – Obligatory preseribed annual insurance in millions of Czech crowns

	1996	1997	1998	1999	2000	2001
IPB Pojišťovna	1 561	2 253	3 225	5 975	6 119	5 513
Pojišťovna ČS	942	1 18	1 770	2 169	3 022	3 659
Komerční pojišťovna	23	20	140	462	1 923	2 256
Česká pojišťovna	25 966	28 762	32 509	33 076	26 900	31 028

Source: Česká asociace pojišťoven

6. Conclusions

At present, banks are influenced by a complex of various factors from many human life areas. An important role is played by markedly global market, technological and organizational influences. Changing situation in financial markets also makes clients' behaviour and requirements develop. The present-day bankinsurance clients are usually well-informed people with increasing demands on provided services quality.

Banks will provide their clients with higher values especially if they stretch their activities into areas required by their clients. What clients need is complete financial counselling and service. Banks must understand the situation, use it as a chance and in many case they must launch radical changes of their role in the market. Orientation towards clients seems to be the correct way. It belongs to basic success factors and is based on the orientation of not only sales structure but of the bank organization as a whole.

Abstract

Finanční instituce chtějící uspět na dnešním rozvíjejícím se trhu, musejí hledat nové cesty k udržení si zájmu klientů. Jednou z možných cest je spolupráce bank a pojišťoven, vytváření produktů, jež lze nazvat bankpojištěním. Tyto nové produkty s sebou přinášejí určité výhody pro všechny zúčastněné strany. Bankopojištění tak může být jednou z cest, jak lze dosáhnout lepšího využití investičních nákladů kvalitnějším využitím kapacit pobočkové sítě, snížení režijních nákladů a zvětšení objemu prodeje.Pro klienta bude určitě přínosem komfort a dokonalý servis na jednom místě, zvýšení produktové nabídky a s globálním rozvojem těchto služeb i pokles cen. Mezi bankami a pojišťovnami dochází k finanční synergii, která s sebou přináší příznivé efekty.Současní zákazníci požadují vysokou kvalitu služeb a kompletní finanční servis. Banky musejí tuto orientaci pochopit a přistoupit k realizaci radikálních změn své role na trhu.

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THE FUTURE TRENDS OF THE FINANCIAL SYSTEMS[1]

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Petr Červinek

Key Words

financial innovation, financial markets, financial system**,** securitization, deregulation, risk-management, securities dealers

1. Introduction

The system of financial markets and financial service is undergoing a period of change. New financial instruments and financial services are expanding rapidly in both volume and variety. Financial markets that have traditionally been predominantly local in character are expanding to become regional, national and even international in scope.

Asset securitizations and other new instruments and services are only the vanguard of a wave financial innovation.

A trend toward deregulation of the financial sector has unleashed the forces of competition and innovation. Banks and financial companies, securities dealers, funds and institutions are locked in an intense struggle for the customers business.

2. The changes now sweeping the financial system include the following

Increasing internationalisation of financial markets and services, with commercial, consumer and mortgage loans being traded in broader resale markets that provide new sources of liquidity .

Continuing deregulation of financial services, with the private marketplace playing a greater role with less government interference. Increasing cooperation among

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regulatory authorities in different countries in order to promote greater equity in financial services regulation worldwide.

A proliferation of new financial services offered to the public, with financial institutions today, stressing product development and marketing.

3. Growing competition in the production and distribution of all financial services in wider markets

The expanding competitive struggle in a deregulated financial marketplace has given rise not only to new services and new financial institutions. Also but to new types of financial multimarket and multiprodukt institutions. Traditional distinctions between one type of financial institutions and another are becoming blurred. More financial institutions are establishing interstate operations and expanding their programs to cover whole regions and the whole globe. More financial institutions are also becoming stockholder–owned corporations so as t be able to open up new sources of capital to fund their future expansion.

As new markets develop , more and governments will have less reason to borrow from traditional financial intermediaries and more reason to sell debt and equity securities directly to investors in the open market.

Moreover, the development of a market for securitized assets allows almost any large firm with a strong market reputation to package its loans and issue new securities against them, thereby generating more cash flow to make new investments.

Increasing tendency of many of the largest corporations and governments to go around traditional lenders, such as banks and insurance companies and borrow directly from the open market.

Furthermore the current emphasis in the financial sector on new product development and research, frequent technological updating, elaborate marketing programs to sell financial services and strategic planning is a carryover from manufacturing and industrial firms.

There is a growing awareness in the financial marketplace that the challenges and techniques of managing a financial institution are not fundamentally different from those of managing any other business firm. The products are different, but the methods of control and decision making are essentially the same.

Increasing risk of failure for individual financial institutions. More mergers and acquisitions among financial firms. Resulting in increasing consolidation of key financial industries- banking, security trading, and insurance.

4. Continuing technological innovation will allow financial service suppliers to reach more customers over increasingly wider market

Intensifying competition as more financial institutions come into direct conflict with one another. This market broadening reflects recent advances in communications technology and in the gathering and processing of information.

Increasing volatility of security prices, traceable to advances in communications and information technology and the growing integration of financial service markets.

Increasing attention by financial service firms on controlling operating costs and improving the productivity of labour and capital to produce financial services as efficiently as possible.

Rapid growth of new career opportunities in developing and marketing financial services and in information processing.

5. The challenges and opportunities financial institutions and markets

- Greater stability in security markets, such as the stock market,
- security markets discipline themselves, or will governments need to play a more active role in restoring investor confidence,
- assure the strength of major financial institutions and restore ailing ones to health in order to preserve public confidence in both financial institutions and markets,
- technology changes and methods of distributing financial services will be most effective and efficient,
- what role must the vestiges of regulation play in the future,
- can the nations of the world cooperate effectively in regulating the financial sector.

6. One of the most dramatic examples is the formation of the European Economic Community

The broader and faster dissemination of information today is contributing to the internationalisation of markets, which spurs competition and heightens the need for international cooperation. Banks, insurance companies and other financial firms licensed to operate leading to free and open marketing of financial services. These planned reforms have already set in motion a wave of mergers and joint ventures among leading

European banks, insurance companies and other firms in order to survive in a more open financial marketplace.

7. The trends of the financial system of the Czech Republic

The recent economic situation of the Czech Republic seems to be quite pleasant – economic growth is above the European Union average, inflation is low, the Czech currency stable, and investments are flowing into the country standing almost on the doorstep of the European Union. There are also negative aspects that can't be neglected, such as relatively high unemployment, worse relationships with neighbours, an increasingly unclear taxation and regulation system and in particular the increase of debts of the public sector with continuation of budgetary deficits even in a boom period.

The currency doesn't show any sharp fluctuations. Nevertheless the appreciation of the crown puts unpleasant pressure on domestic manufacturers. The development of financial sector is proceeding in the same direction as in the European Union – towards greater concentration, mergers across borders and further merging of the already merged.

Legislation is adopting European standards. Czech finance has been stabilised as regards shareholders, economics, technology and the sphere of human capital. It is true that the problems involved only some branches, but their influence, due to the interconnection of the financial sector, also showed in not directly affected branches.

The most noticeable change was the completion of the privatisation of the major Czech banks. Thanks to the management of these banks by powerful European banks the efficiency of the workforce in the whole sector has been raised. The diversity of the banking products on offers, as well as enhancing management and staff standards, and improving communication with foreign partners and clients has become better. The integration into international structures is being finished. The growing quality and reliability of banking has been also recognised by depositors – the volume of deposits is growing dynamically and constantly.

The consolidation and stabilisation of the Czech banking sector doesn't mean that it should stagnate. In the forthcoming time period a further reduction of the systematic risks is expected. For the third year now the banking sector has been making profit and even when cleared of the influence of inflation there are still visible positive trends in economy and in drawing closer to the advanced world in indices such as interest margins when we look at the general figures of Czech banking sector.

Capital adequacy has risen constantly, which provides also a scope for the growth of bank trading and there has been a marked improvement in the quality of newly provided loans. In relationship with these improved loans the safeguarding of loans with reserves is also improving.

Since the middle of the 90's there has been a visible process of concentrating of banks, and there have been many mergers or departures of banks from this branch,

which reached its climax for the present with the merger of Hypovereinsbank and Bank Austria Creditanstalt into HVB Czech Republic.

In connection with the onset of modern technology, the banks have reduced the number of their trading places and this was then balanced by the increase in the number of automatic cash-points. The majority of banks is growing at a relatively rapid rate in real terms also. Banks have begun to give more credits again; primary deposits have been also growing.

Since the beginning of 2001, the situation in the Czech capital market was influenced by extensive legislative changes. The reason was a higher level of compatibility with European directives, increase of the investors' protection and transparency of the market. However this hasn't supported a start up of a public subscription of shares via the capital market.

The new conditions for acceptance of securities for trading in the public market caused a mass efflux of illiquid stock items, which is positive due to an increase of transparency of the market. The main trouble of the Czech capital market is a lack of liquid securities suitable for institutional investors. In 2001, the brokers' sector continued in the consolidation process, followed by a strict decrease of the number of subjects and also serious troubles of several companies. From the macroeconomic point of view the Czech family savings will flow towards foreign companies investing almost solely at foreign markets into the foreign securities.

Future of the Czech stock market looks very uncertain. The reason is the mentioned small number of liquid titles that may drop still further in the future. In the Prague Stock Exchange so far there haven't been new issues of shares (IPO) and it isn't very probable that the situation will change this year. The opening of trading on the Prague Stock Exchange in derivates is awaited with both hopes and fears.

The Stock Exchange will continue negotiations on integration into European structures. There are several possible alternatives, from the establishment of some kind of Central European stock exchange to combination with one of the prominent exchanges such as the Frankfurt Exchange.

Trends towards specialisation of some auditors and firms and on concentration are also evident from the presented overviews in the sector of other financial institutions.

In last decades a general trend of strengthening of market forms of intercession and financial markets can be noticed at the detriment of bank sector. Regardless the nonbank sector is still in birth and can't compensate inadequate potential of intercession of the bank sector. The poor domestic financial intercession is substituted by direct foreign intercession. Relatively low rate of financial intercession and the outlook of economic growth will lead to the further expansion of the financial sector. The expansion will be concentrated on new products like loans to households and to small and intermediate firms.

Trends of the financial system of the Czech Republic are more or less concurring to the trends in the world. Only the capital market is an exception due to the low development of the Czech capital market.

8. ETFs (exchange-traded funds)

First introduced in 1993 in the US, exchange-traded funds have exploded onto the scene. In Europe, they have rapidly gained ground since trading commenced in 2000.

In their brief history, index-based exchange-traded funds (ETFs) have mushroomed around the globe, covering a variety of styles, sectors, countries, and regions. Because of their low cost, ease of trading, and utility as hedging tools, ETF assets have grown exponentially since 1993.

By the end of the second quarter 2001, they stood at over US$ 96 billion (Euro 109 billion), with US$ 14 billion (Euro16 billion) of that being traded on markets outside the US.

The unique structure of ETFs originated in the receipt-based commodities markets. Nate Most, current Chairman & President of the iShares Trust, called upon his background in commodities as well as his work in derivatives at the American Stock Exchange (AMEX) to develop the concept of exchange-traded funds. He reflect on what started as a simple goal and how it all evolved into ETFs, and the number of critical requirements that had to be met and overcome to make the ETFs possible.

By the early 1980s, it was increasingly common for institutional investors to own large baskets of stocks that tracked indexes and to trade index futures based on those indexes. This led to Index Participation Shares (IPS), which began trading on the Philadelphia Stock Exchange in 1989, and later on AMEX. While they could be bought on margin and loaned out like stocks, IPS essentially behaved like futures. They were settled on cash, and tracked the index very closely. The IPS gave way to the TIPS in 1989. Toronto Stock Exchange

Index Participations (TIPS) were warehouse receipt-based instruments designed in order to track the Toronto-35 index. Unlike other tradable instruments like IPS and futures, TIPS were not derivatives. Like today's ETFs, TIPS were units of a trust created by the Toronto Stock Exchange. The underlying assets of the trust were actual shares of the 35 constituent companies that made up the TSE 35 Index. These shares were held by the trust in the same proportion as they are reflected in the index and shares were priced at about 1/10 the value of the total index by market cap. Later Toronto 100 Index Participations (HIPS) were introduced.

The origin of the first true ETFs was caused in part by the financial distress faced by the American Stock Exchange (AMEX) in the 1980s.

Nate Most saw that his employer was faced with a chronic lack of financial resources, and came up with a product that he thought the AMEX could easily trade.

While working at the Pacific Commodities Exchange, Most became accustomed to warehouse receipts.

You store a commodity and you get a warehouse receipt and you can finance on that warehouse receipt. Because you don't want to be moving the merchandise back and forth all the time, you keep it in place and you simply transfer the warehouse receipt.

That was the mental spark that ultimately led to the ETF concept. If you could simply exchange large baskets of stocks for a sort of warehouse receipt that could then be divided into small pieces, these shares could then trade on the secondary market.

The first ETFs were set up as Unit Investment Trusts (UITs) – they were less expensive to run because they didn't require a board of directors. As more funds were released and other benefits of management investment company funds (like lack of dividend drag and ability to loan stocks) were factored in, this cost became insignificant.

Open-ended WEBS (from Morgan Stanley and Barclays Global Investors) and the now defunct Country Baskets (from Deutsche Bank) were introduced in 1996, allowing American investors to buy into foreign stock indices by purchasing shares on the American Stock Exchange. In 1998 came the "Diamonds", tied to the Dow Jones Industrial Average. The next year the Nasdaq 100 Trust ("Cubes") conquered the market. In Europe, Deutsche Börse has clearly led the charge. The market for exchange-traded funds in Germany has grown exponentially since the introduction of Deutsche Börse's XTF segment in April 2000.

Average monthly turnover is 2 billion Euro. As of June 30, 2001, the number of exchange-traded funds available globally had grown to 169, with 103 of those trading on US markets and the rest trading in nine different countries. With assets in Europe ballooning at a rate that exceeds ETF growth in the US, the European ETF market is set to match or exceed the explosive growth enjoyed by ETFs in the US. Most analysts project a huge rise in assets under management and number of funds, as ETFs enter many parts of the investment world.

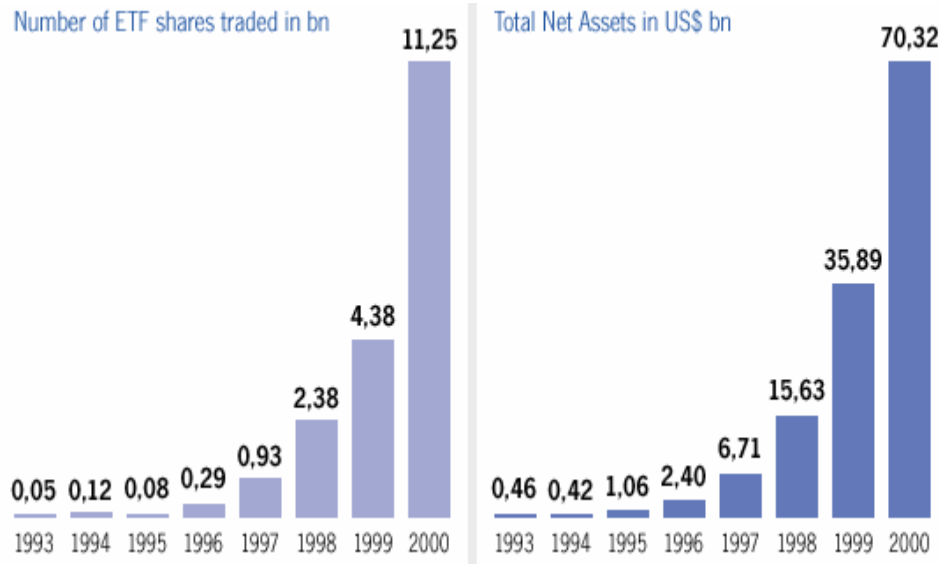
Financial products come and go, but I think exchange-traded funds will probably end up being considered the leading financial innovation of the last decade.

9. A chronology *of ETFs*

Early 1980s Program trading and futures allow institutional investors to buy and manage large baskets of stocks.
1987 Index Participation Shares (IPS) trade on AMEX.
1989 Toronto Index Participation Shares (TIPS) begin trading in Canada. First tradable instrument actually tied to underlying shares. TIPS were based on TSE-35 Index.
1993 SPDRs S&P 500 funds becomes first true ETFs.
1995 MidCap Spider launched.
1996 WEBS and Country Baskets become first ETFs based on single

country basket.
1998 Diamonds, HOLDRs and Select Sector SPDRs introduced.
1999 iUnits 60 Canadian fund and Hong Kong Tracker becomes first non-US ETFs; QQQ and additional HOLDRs launched.
2000 ETFs begin trading in Germany and the UK, Israel, Switzerland and Sweden; more than 90 new ETFs launched globally; first active ETFs launched in Germany; first fixed income ETFs launched in Canada.
2001 As of June 2001 the total number of ETFs worldwide reached 169 with global assets of over $95 billion (s 109 billion) and no end in sight. ETF market starts in France.

Figure 1



Abstract

Článek se zabývá budoucími trendy, které ovlivňují finanční trhy a služby poskytované finančními institucemi. Pozornost je věnována také inovacím na finančních trzích a jejich dopady. Článek se věnuje také popisu nového finančního instrumentu – podílovým fondům obchodovaných na veřejných trzích (exchange traded funds, ETF).

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LIFE ASSURANCE WITH REFERENCE TO THE MORTGAGE CREDITS

Jarmila Šlechtová

Key words

endowment insurance, whole life and endowment assurance, "the virtual" mortgage bank, financing the housing development, a promise to grant the mortgage credit

1. Introduction

Positive changes have taken place in the period of the last two years, which concern directly the life assurance.

One of them is the tax adjustment, which determines the deduction of the paid premium in the corresponding tax period from the base for calculating the income tax of the natural persons. There are strictly stipulated terms as for the application of the right. It should concern:

- **endowment insurance** or
- **whole life and endowment assurance.**

Or at least the period of sixty months with the pay of the premium at the age of sixty at the earliest or in the period of the old age pension, which is admitted to the insured on the basis of the pension insurance scheme.

These terms led not only to the arrangements of new life assurances but also in many cases:

- to the increase in the sum insured, which results in the increase in the premium in case of the endowment insurance,
- to the extension of the insured period while keeping the amount of the premium and from that ensuing the increase in the sum insured.

If the insured extended only the insurance period in case of lifetime to meet the age term for being entitled to the premium payment, i.e. the payment of the premium sum, it would mean the decrease in the premium, what was not the purpose of the change in most of the cases.

Another, very significant change, does not concern directly the assurance, but it is a consequence of a new marketing strategy of most of the banks in the Czech Republic, which commence to focus gradually on the small clients.

They are willing to grant both consumer credits and credits for purchasing real estates or credits for buying real estates for the purpose of creating a new flat under convenient conditions.

In the second example, we are talking here about the so-called mortgage credit, which has advantaged terms by the law, the same as life assurances, which are the following:

- the government subsidy in the form of deducting one percent of the granted credit,
- the deduction of the whole amount of the paid interests from the base for calculating the income tax of the natural persons.

So that the banks always have a guarantee of paying the mortgage credit, the do not only require liability:

- by a new real estate or
- by highly solvent guarantors (their number and solvency are governed by the amount of the granted credit) or
- by another real estate.

But also in case of a credit owner's death (debtor) in the period of paying the credit, the banks enable or rather condition the arrangement of the life assurance, where the bank plays a part of the entitled person, or the blockage of payment of the insurance benefit for the benefit of the bank is made, which granted the mortgage credit. In this case, the real estate is kept by heirs, and in case of the insured's death, who is the owner of the credit contract at the same time, the remaining non-paid part of the credit is paid off to the bank.

2. Actual situation and concretization

The banks, which grant mortgage credits enable even more advantageous practice, which is the arrangement of the whole life and endowment assurance with the blockage of payment of the insurance benefit for the bank.

In this case, the credit owner pays only the interests from the borrowed amount for the stipulated period for the same number of years as the period of insurance for the stated insurance and for the granted mortgage credit. At the end of the stipulated insurance period, the insurance company pays out the insured sum to the bank, since the blockage of payment of the insurance benefit was made. In case of the insured's and the credit owner's death (debtor) in one person, the remaining part of the credit is paid to the bank before the end of the insurance period.

Another practice, which enables to connect the life assurance and the repayment of the mortgage credit to the bank is for instance the possibility of paying off one fifth of the credit always after five years (provided the fact that this is stipulated to twenty five years), thus the outstanding item lowers for the bank, and the paid interests from the sum owning lower too after the first five years. In this case, the insurance is more expensive, because we are talking here about the partial insurance benefit and therefore the decrease in the insurance reserve from that type of insurance to null after five years.

It is necessary to mention that the bank does not coerce the debtor into arranging the insurance with only one insurance company, but mostly it gives tips, which banks are recognized.

Several banks offer these mortgage credits in the Czech Republic, such as Komerční banka, a.s., Česká spořitelna, a.s., Raiffeisenbank, GE Capital Bank, but above all Českomoravská hypoteční banka, a.s., of whose activities I would like to mention in detail.

Českomoravská hypoteční banka, a.s. (ČMHB) operates as the only one specialised mortgage bank in the Czech Republic with a nation-wide activity. The specialization creates a space for its flexible reaction to the individual needs of the broad spectrum of customers.

Českomoravská hypoteční banka, a.s. (ČMHB), has operated since 1994 as the only one specialised mortgage bank with a nation-wide activity. It gained a licence for operating mortgage businesses as the first bank on 14.9. 1995. On the basis of international experience, it introduced a very good progressive organisation of its own trade network and shortly afterwards it won unequivocally the leading position on the Czech mortgage market.

Owning to the membership in the group of ČSOB, the strongest financial group in the Czech Republic, complex services are provided in the area of housing. It is feasible thanks to the mutual offer of products of the selected companies in this group, for instance the insurance of the real estate, life assurance, and building society.

It is possible together with the mortgage credit to secure other services in all trading posts of ČMHB: an assistance with filling out the application form, arranging the government subsidy, the price estimation of the real estate, the insurance of the real estate, and the life (capital) assurance.

The trading net of ČMHB covers the whole territory of the Czech Republic and it is constituted by affiliated branches, mortgage offices and business managers. The mortgage credits are now granted also by means of the trading net of ČSOB.

ČMHB disposes of considerable experience in the area of financing the real estates, it offers a wide spectrum of services connected with housing, and it is therefore it is at home in housing.

Českomoravská hypoteční banka (ČMHB) prepared **"the virtual" mortgage bank** on the internet**,** where you can try what it takes to obtain and to pay off the mortgage credit, and at the same time, you can verify your preparedness for talks with the bank. The following pages are for those, who are considering an improvement of their housing (that is the mortgage credits for citizens to live).

Does it really seem complicated? It is not! Furthermore, the simplification of the valid procedures is incessantly being worked on. The growing number of the clients gives evidence of the advantage of financing the housing by the mortgage, who acquired a better housing thanks to ČMHB.

The experts of ČMHB will assist you if necessary in terms of finding the most optimal method of financing. You can believe there is nothing like living according to your own notions.

Českomoravská hypoteční banka (ČMHB) prepared therefore **a great number of products, from which everyone can choose.**

3. Credit - possibility for financing the housing development

The decisive area of ČMHB's activity is **financing the housing development.** In that area, the assistance is provided especially to the families, who create their own housing. By means of the mortgage credit, it is possible to buy a flat, to finance the reconstruction of the current housing, to realize the construction of the house or the flat or to pay out the owner's share in the real estate.

ČMHB provides also the mortgage credits for the municipalities, towns and housing cooperatives for their investments into the real estates included the investments classified into the programmes supported by the state. The support of the entrepreneurial activities in particular in the area of housing is not neglected. .

Apart from the standard products, the **combined products** are offered, which make use of advantages of more methods of separately granted financial products or services with the aim of attaining the maximal financial effect and the use of advantages, which the particular products bring. The great advantage lies in taking care of all necessary matters at one place.

Should you have a request, ČMHB will verify the possibility of gaining the mortgage credit and issue **a promise to grant the mortgage credit.** This can be especially used in case of construction, when not all necessary documents are at the disposal for concluding the contract to grant the mortgage credit. The promise represents the bank's readiness to grant the client necessary financial means in the form of the mortgage credit after submitting the remaining documents on condition that the data, according to which the client was verified, will not change.

„ Expres" can grant all mortgage credits. This service will be appreciated by those of you, who need to obtain quickly the financial means for financing their own

plan, or those who need to supplement the contract to grant the credit by the conditions of performance according to which they will be granted the credit.

As a consequence of the leading position on the mortgage market, Českomoravská hypoteční banka, a.s. has a number one position in the issues of the mortgage down payment requests as special bonds, which offer extraordinary advantageous and safe possibilities of depositing money. The mortgage down payment requests of ČMHB are publicly traded in the stock market.

Let me specify the examples of the interest rates from the credits at ČMHB.

Notification no. 5/2002 of the amount of the interest rates

Valid from: 16.9.2002

I. Interest rates from the credits

1. Base interest rate	
Base interest rate of ČMHB (ZS)	6,9 % p.a.

2. Mortgage credits			
Type of the credit	**Fixed rate**		**Rate P plus**
	for 5 years	for one year	for one year
Natural persons			
Mortgage credit for citizens*)	from 5,9 % p.a.	from 6,9 % p.a.	from PRIBOR 1R + 1,9 % p.a.
Mortgage credit PROGRES*)	6,6 % p.a.	---	---
Mortgage credit 100*)	from 7,5 % p.a	---	---
Mortgage credit with the capital life assurance	6,2 % p.a.	from 7,2 % p.a.	from PRIBOR 1R + 2,1 % p.a.
Mortgage credit with the building society	6,2 % p.a.	from 7,2 % p.a.	from PRIBOR 1R + 2,1 % p.a.
Mortgage credit for entrepreneurs	from 6,9 % p.a	from 7,9 % p.a.	From PRIBOR 1R + 2,4 % p.a.
Legal entities			
Mortgage credits for municipalities *) +)	from 5,9 % p.a.	from 6,9 % p.a.	from PRIBOR 1R + 1,4 % p.a.
Mortgage credits for housing cooperatives*)	from 5,9 % p.a.	from 6,9 % p.a.	from PRIBOR 1R + 1,9 % p.a.
Mortgage credit for natural persons	from 7,2 % p.a.	from 8,2% p.a.	from PRIBOR 1R + 2,7 % p.a.

**) the bonus of "-0,3 %" is included in the rate for new clients*
+) individual rates within the offer

II. Interest rates from deposits

1. Current accounts	
Type of the account	**Rate**
Current account	0,5 % p.a.
Current mortgage account	0,5 % p.a.
Current drawing account	0,1 % p.a.

Note: current accounts have not been not opened since 1.7.1997

2. Time deposits	
Type of the deposit	**Rate**
Deposits over 3 million CZK	Arranged individually

Note: other deposits are not accepted

Let me give you an example of the calculation of the mortgage credit for purchasing a real estate:

Estimated price of the real estate:	1 500 000 CZK
You can obtain the mortgage credit in the amount of 70% of the price at the stated price of the real estate, which is:	1 050 000 CZK
And moreover you need to have saved up your own sources in the minimal amount of:	450 000 CZK
If you have saved up more, state how much this amount will effect positively the amount of the credit and payments:	450 000 CZK
The amount of the credit can be then:	1 050 000 CZK
What housing do I plan to acquire?	House
Money from the credit will be used for creating a newly established housing unit:	Yes
What maturity of the credit do I require?	20 years

State the following for the calculation

Family members - age	A number of persons in the household	subsistence minimum
To 6 years	0	1690 for a person
To 10 years	0	1890 for a person
To 15 years	0	2230 for a person
To 26 years dependent	0	2450 for a person
adults	2	2320 for a person

Your minimal costs of living according to the Subsistence Minimum Act:	4100 CZK
Your other financial costs: 1. Payments of the credits and loans (i.e. leasing, housing society etc.):	0 CZK
2. Payments of the premium:	2600 CZK
3. Other costs (subsistence allowance etc...):	0 CZK
Minimal net income for attaining the mortgage credit:	15450 CZK

Monthly payment to the bank at the interest rate of Fixed 4,95% 6900 CZK

In case of providing one percent of the government subsidy the state adds 565 CZK
(you are entitled to the government subsidy in case of constructing a new housing unit):

How will the payment look like with the mortgage PROGRES, 6335

In addition, how much do I save monthly on taxes? 942 CZK

Gross monthly income: 32000 CZK

For being enabled to obtain the mortgage credit you can change the maturity date of the credit or to gain your own sources elsewhere.

If your monthly incomes do not exceed the amount of 14760 CZK, you do not meet requirements for obtaining the mortgage credit and you need to return to other parameters of the requested real estate, and thus you will affect the price.

4. Conclusion

Obtaining the new housing or the improvement of the current one belongs to the principal decisions in man's life with a long-term impact, and therefore it is necessary to pay a special attention to it. On the following pages, the whole sequence of events is analysed in the simplified form, which is connected to the acquirement of the mortgage credit and its paying off. You can let yourself be guided and go through the whole cycle or if you were already granted the mortgage credit, and you need to clarify certain procedures, you can select then directly the corresponding part of the life assurance of the mortgage credit.

Abstract

Z důvodu dostatečné záruky pro splacení úvěru v současné době banky poskytující hypoteční úvěr, umožňují nebo dokonce podmiňují jeho schválení sjednáním životního pojištění pro případ smrti majitele úvěru (dlužníka) v době splácení úvěru na pojistnou částku rovnající se výši schváleného hypotečního úvěru. V pojistné smlouvě pak figuruje banka jako oprávněná osoba, nebo je sjednána tzv. vinkulace pojistného plnění ve prospěch banky, která poskytla hypoteční úvěr. V takovém případě nemovitost, na niž byl úvěr poskytnut, zůstává dědicům a z pojistné částky je v případě smrti pojištěného, který je zároveň majitelem úvěrové smlouvy, doplacena zbývající nesplacená část úvěru bance, zbytek pojistné částky do plné její výše dědicům.

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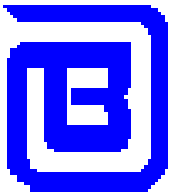

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