TOWARDS CONTEMPORARY ISSUES IN THE FINANCIAL SYSTEM
Towards contemporary issues in the financial system

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Warsaw 2014
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# Table of Contents

Introduction ......................................................... 4

**PART 1. Banking-related issues** ........................................... 7

The Analysis of Effectiveness of Consolidation Transactions in the Polish Banking Sector in the Phase of Financial Markets’ Globalization  
*Dariusz WIELGÓRKA* ...................................................... 8

A Resource-Based Approach to Mergers and Concentration of the Banking System in Mexico after the 1994 Crisis  
*José G. VARGAS-HERNÁNDEZ* ............................................ 31

Issues of Using the Public Contract Procedure by the Bank Gospodarstwa Krajowego in the Context of the Notion of “Body Governed by Public Law”. Current State and Authors’ Proposals of Changes  
*Sebastian SKUZA, Piotr LASECKI* ...................................... 63

**PART 2. Finance** .......................................................... 75

The Role of Market Makers in Liquidity Providing on Emerging OTC Markets  
*Piotr MIELUS* .............................................................. 76

The Role of Private Equity in Financing the Development of Polish Family Business  
*Alicja WINNICKA-POPCZYK* ........................................... 91

Resources and Competencies in the Field of Finance – Their Significance for Housing Cooperatives from Świętokrzyskie Province  
*Izabela KONIECZNA* .......................................................... 105

Empirical Analyses of CEE Country Attractiveness for Foreign Direct Investment  
*Matijaž RIHTARSIC, Tanja RIHTARSIC* ................................ 121
INTRODUCTION

Changes in the financial market and attempts at implementation of prudential regulation proposals after the recent financial crisis resulted in the scientific conference entitled International Conference on Management, Banking and Finance, held at the Faculty of Management, University of Warsaw, in June 2014. This monograph, the result of discussions and presentations delivered by participants, aims to present topics in the field of finance.

The essays included in this book cover a wide range of topics related to the functioning of financial markets. The research areas presented have been divided into two groups. The first part addresses subjects linked to the activities of the banking sector. The other focuses on broad problems of finance.

Part one deals with problems of consolidation and concentration in the banking sector (mergers and acquisitions, and market structure changes) as well as with troublesome provisions of the Public Procurement Act. In his analysis of effectiveness of consolidation transactions in the Polish banking sector during financial markets globalization, Wielgórka evaluates the effects of merger of two banks. In particular, referring to abnormal rates of return, the article asks whether the banking sector has been able to create value for stockholders. The analysis conducted in this paper leads to the conclusion that consolidation processes managed to positively influence the banks which operate in Poland.

The research on a resource-based approach to mergers and concentration in the banking system in Mexico following the 1994 crisis, by Vargas-Hernández, shows how the strength of banking companies depends on the own funds they possess. He suggests that internal resources may be considered a barrier to other banks’ entry into the banking market. The internal resources of national banks in Mexico had been adversely affected by the 1994 crisis, which resulted in the rapidly growing significance of foreign

— 4 —
banks. Those banks have acquired Mexican (national) banks, thus leading to relatively concentrated and consolidated banking sector.

In a case study on the application of the Act of 29th January 2004 on Public Procurement ("PPA") to operations undertaken by Bank Gospodarstwa Krajowego (BGK), Skuza and Lasecki aim to identify and present the issues relating to objective application of PPA with regard to an entity possessing the status of a national development bank, which the BGK undoubtedly is. The analysis included in this paper is targeted at verification of the thesis that, with regard to interpretative doubts about the Community Law and conducting banking activity on the basis of the Banking Law Act, some regulatory changes pertaining to application of PPA with regard to some public contracts awarded by the BGK are necessary. The paper recommends that negotiations without announcement, which are a procedure of awarding contracts in which the contracting authority negotiates the terms and conditions of the agreement pertaining to the public contract with the contractors selected by it, and then calls for tenders, should be considered an alternative to the current scope of implementation of PPA to the activities undertaken by BGK. This solution seems reasonable, as it does not release the BGK completely from the obligation to adhere to the PPA. The suggested solution should enable BGK to reduce a broad range of risks it is exposed to, just like any other bank (i.e. credit, market and operational risk).

Market makers play crucial role in emerging OTC markets as liquidity providers. Applying a questionnaires analysis, Mielus identifies factors which influence the bid-ask spread quoted by market makers on selected over-the-counter emerging markets. The research shows that spreads are generally lower when the market is characterized by both high volume and low volatility. However, significant diversity of market participants and competition between market makers favour compression of bid-ask spreads even if prices are volatile.

Private equity funds play an important role in development of family-run businesses. Winnicka-Popczyk analyses cases of two companies, Kruk and Eratech, which benefited from this support. As revealed by the case of Eratech S.A., the company which has to handle the utilization of dangerous wastes, it was only owing to the support of funds like private equity/venture capital that the business could actually start up its activity and remains in the family till now.

Resources and competencies in the area of finance constitute an important factor of competitive advantage of housing cooperatives (as well as companies in other industries). Konieczna analyzes the validity of resources and competencies in six housing cooperatives, with the use of direct
interviews conducted with application of the questionnaire. Results of the analysis show that each cooperative perceives the importance of resources used and of competencies in the field of finance in a different way. However, from the point of view of competitiveness, cooperatives give the highest rank to the level of fixed unit costs, to systems of managerial accounting applied, and the knowledge of and abilities in financial and accounting services.

In the last paper of part two, Rihtarsic and Rihtarsic analyze the attractiveness of foreign direct investment (FDI) in Bosnia and Herzegovina, compared to other countries of Central and Eastern Europe. They analyze individual factors in Bosnia and Herzegovina which influence the recipient country. As they find, the biggest obstacle for higher attractiveness and better competitive ability to attract FDI in Bosnia and Herzegovina results from an unfinished political process. Other barriers also include funding-related factors, because the access to these resources in Bosnia and Herzegovina is very limited and with this there are also difficulties in the movement of capital. The authors also suggest that high unemployment, the ease of labour laws and low prices of available sources all contribute to the set of factors making Bosnia and Herzegovina unattractive for FDI.

From Editors:

_P. Chodnicka, R. Karkowska and M. Olszak_
PART 1.

BANKING-RELATED ISSUES
THE ANALYSIS OF EFFECTIVENESS OF CONSOLIDATION TRANSACTIONS IN THE POLISH BANKING SECTOR IN THE PHASE OF FINANCIAL MARKETS’ GLOBALIZATION

Dariusz Wielgórka

Abstract

Since the time of an economic transformation which has taken place in Poland since 1989, the banking sector, suffering in the past from exaggerated dispersion of capital through consolidation processes, managed to amend the structure of capital. The evaluation of effects of a merger of two banks must be performed from different points of view. The main aims of the research is to analyze the effectiveness of consolidation transactions and concentration in the Polish banking sector in the phase of financial markets’ globalization. So, assuming the Polish capital market is informationally efficient to a medium extent at least, a hypothesis that mergers and acquisitions in the Polish banking sector have the ability to create value will be tested. The testing methodology is based on event studies. One of the areas of evaluation of the effectiveness of consolidation processes in the Polish banking sector is the analysis of market reaction, expressed as changes of stock price of merging banks. By evaluating above-normal rates of return for shareholders engaged in the transaction of banks’ merger, we can assess the increase in share value. This will enable us to determine whether mergers and takeovers in the Polish banking sector have an ability to create value. The recent decade was a time of rapid globalization process, especially apparent in developed economies. The global economy is particularly exposed to the crisis,

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which is perceptible in many countries since 2008, mainly on the financial market in the bank sector. The Polish bank sector during 1989-2013 underwent huge transformations connected with the privatization and consolidation processes. In effect of this evolution, the Polish bank sector better adopts the results of the present crisis which has the global character.

**JEL classification:** G00, G01, G210

**Keywords:** consolidations, concentration, banking sector, abnormal rate of return (CAR), single-index Sharp’s model, globalization, crisis

1. **Introduction – globalization on the financial market and origin of the rise and determinants of the global crisis**

   Over the last decade one could observe the sudden development of internalization and globalization processes (Zachorowska, Wielgórka, 2010). Globalization is the progressive integration of countries and people in the world, triggered by lifting of barriers in the flow of goods, services, capital and knowledge and by significant reduction of telecommunication and transportation-related costs (Milewski, Kwitkowski, 2005).

   Globalization (Borowiecki, Wysłocka, 2013) on the financial market is the most advanced process. Huge capital flows and the diversification of financial transactions as well as a large number of mediators contributed to the emergence of global financial markets. Modern electronic techniques make it possible to conclude complex financial transactions in short time. The global financial markets are very instable, because of rapid changes occurring in directions of the capital flow. These phenomena predominant in the present world are very often identified with each other and become particularly perceptible in the banking system. Many factors, both internal and external ones, contributed to the „growth of demand” for large, international bank institutions that could match customers’ growing expectations. In effect, the number of mergers and acquisitions in the bank sector increased, both in Poland and on international markets (Zachorowska, Wielgórka, 2004).

   The globalization of banking systems is defined as the activity on an international scale, as formation of products and services designed for the global financial markets and as creation of connections of the national banking systems (Wielgórka, 2008). The banking system was included in the process of globalization as the first one, fulfilling, at the same time, the
function of changes’ stimulus. The process of financial market globalization influenced the instant extension of crisis started in the USA in 2008 upon different countries.

The global economy is particularly exposed to the crisis (Ostraszewska, Wielgórka, 2010). This results from its structural weaknesses and complex macroeconomic profile. Susceptibility to crises has not necessarily be connected with the shape of the economies of individual countries. The destructive strength of the crisis is often supported with unfeasible investors’ expectations, desire of speculation, connections among different economies or the mechanisms of integration and globalization. The last reasons contribute to the broad nature of the analysis on the crisis phenomena in emerging countries. The experiences of developing countries, which also suffer from the crisis, are valuable not only because of some knowledge on the subject of transmission channels and the possibility of widening the crisis centres in the global economy (Piasecki, 2007). The following trends may be identified as phenomena preceding the critical situations:

– liberalization of capital flows with large capital influx,
– fragility of the banking system,
– debt of national economy expressed in the foreign currency and in short-term indebted obligations, which exposes the economy on the currency risk and enlarges the probability of crisis,
– changes in macroeconomic surrounding, e.g. rapid growth of the fiscal deficit, unsuccessful attempts at the capital inflows’ sterilization by monetary policies,
– bad institutional infrastructure, e.g. wrong state management, weak protection of investment activity, corruption and the lack of transparency in state structures,
– applying the currency rate regime – especially the acceptance of fixed rate or the establishment of monetary chambers.

The above-listed situations mesh together and may contribute to crisis.

The crisis on financial markets started with the nationalization of two companies funding mortgage credits: Freddie Mac and Fannie Mae, conducted by the American government. The trading value of their shares decreased by 90 per cent. Although the government took over these two companies, the destabilization of the financial sector proceeded. Fifteenth September 2008 became the “black day” on financial markets. Lehman Brothers (a bank with 158 years of tradition), fourth largest investment bank in the United States, announced its bankruptcy leaving more than 600 billion USD of liabilities. The reaction of the global finance world for
this bankruptcy was immediate – the most important West-European stock exchanges plunged. The London FEST index was discounted by 3.92%, the German DAX lost 2.73% and the Parisian CAC got smaller by 3.77%. Negative results were also observed in Prague where the PX index lost 9%. The horror surrounded the Moscow stock exchange too, where the MMWB index was discounted by more than 15% and some markets even suspended quotations under further notice. The large quotation falls were also recorded on Asian markets (the Hong Kong exchange noted 6.5% down at the opening and the Tokyo Nikkei 225 lost 2%). Of course, American events seriously affected the stock exchange in the United States, as well. The main Dow Jones index fell by above 4%. Investors began to be afraid of the next phase of the global financial crisis. Over the next days after the crisis explosion one could observe the enlarged sale of stocks on all world exchanges. It was the result of the realization of profits in order to limit the losses connected with the assets held in the bankrupt bank. The Polish WIG20 opened the “black Monday” with the fall of 1.7% in the relation to the Friday closing (Garbus, 2008). At present, in the majority of countries all over the world, one can observe the same crisis phenomena as in the United States of America: limitation of the credit action, consumers’ moderation and decrease of the production (Aleksandrowicz, 2008). The financial crisis, which until now was identified with the USA market only, has undeniably reached Europe already. Time will show whether it will occur as severe for Poland as it became for Western countries.

2. Capital consolidation in the banking sector

Along with the intensifying process of globalization of production (Dunning, 1999) and trade, the need for big, international banking institutions to emerge and be able to meet high requirements of customers becomes more and more evident. Accordingly, the trend toward concentration and consolidation of financial systems is an indisputable fact. An increased number of mergers and takeovers results from this process in banking sector, in the United States and in countries of the European Union, including Poland. The consolidation of the banking system in Poland started in 1993, and the main reason for this activity was the need to overcome the collapse of the country’s financial system. It was certainly not designed to be straight technical operation. Instead, the task was to initiate creation of new services, products, new qualities. The term consolidation appears in different
contexts. Consolidation of the banking system is determined as the process of improving the strategic potential of banks in which both credit institutions, and investment and insurance institutions can participate. Capital consolidation in the banking sector should also be interpreted as all activities associated with merger of two or several banks within one organizational entity or creation of a group of banks connected with each other, cooperating or implementing a common policy (Kosiński, 2000). Generally speaking, consolidation can be defined as a capital and organizational merger achieved in order to effectively use shared economic potentials and simultaneously keep the legal identity (Heffeman, 1996). In each case, the goal is to establish the bigger and financially stronger structure with enhanced operating potential. For the purpose of this framework we assume that consolidation in banking sector involves the processes of takeover and merger of commercial banks where a bank under analysis performs the role of entity acquiring, purchasing, incorporating other bank or initiating such merger or takeover. Consolidation of entities operating on similar markets (consolidation in the market) enables to combine conducted operations and joint use of owned branches and staff. The usual objective is to reduce costs through closure of some branches and reduction of employment. On the other hand, the motive for consolidation from different markets (Out – Of – Market Consolidation) (Molyneux, Altunbas, Gardener, 1996) is a desire to increase competitiveness by offering services on a broader market. Geographical diversification of activities plays a significant role in acquiring individual customers, who consider a bank’s location as a major criterion. In the case of consolidation known as “Market Extension”, merging banks are able to reduce costs by closing branches in the same geographical area and increase incomes by offering new products and attracting new customers. In the case of consolidation of complementary entities, however, the above-mentioned assets can be represented by well-educated and qualified personnel, market experience, customers and the brand of the institution (Johnson, 1995). Sale of foreign branches owned by foreign financial institution is the most rarely witnessed form of consolidation. It is mainly based upon strong competition (Porter, 1990). Therefore, there are a variety of motives behind a tendency for consolidation in modern banking. They can include: expected rise in the bank’s profitability and market share in credits, deposits and other services, the aspiration to open new markets and new sources of revenues, synergy benefits from combining many corporations, and lowering costs and increasing effectiveness at the same time. Geographical diversification in order to reduce the risk by supporting markets characterized by different economy profile and flows of income is a matter which should be highlighted.
An aspiration to extend activity and growth with less expensive method, a desire to achieve greater prestige and increase protection against competitors, as well as the ability to set higher prices for the services offered can also become reasons for consolidation. Better capitalized banks or capital banking groups are able to diversify their activities much easier. However, in most cases an aspiration to obtain benefits by increasing the size and the scope of activity makes the basic motive for consolidation operations (Kosiński, 2001). A list of theoretical arguments explaining the advantage of large banks over small ones is relatively long as they include:

- decentralization of management and participation of employees in profits in frames of centres of profit,
- asymmetry of information about the market situation (large banks have an advantage over small ones in constant monitoring of the economic situation on both global and local scale),
- benefits resulting from experience, positive practice and organizational culture associated with previous existence on the financial services market,
- avoidance, on the part of large corporations, of transaction costs which induces them to buy financial services from strong and reliable partners.

However, in the Polish banking system the wave of mergers is experienced for the very different reasons, which can be observed in many other market economies (Tylec, Majewska, Wielgórka, 2010). The reason to carry on a consolidation is the need to increase an entity’s assets and own funds. This is so because the sum of assets of Polish banks is far lower than the sum of assets of any single large bank from well-established European Union member states. Consolidation in the Polish banking sector is unavoidable, mainly because of internal reasons. Many motives for mergers have been indicated in the economic theory. Many of them can be applied in the banking sector. The most popular motives for banks’ mergers, apart from the fact that these operations are cheaper and faster than investing in the greenfields, are as follows:

- exploitation of economies of scale,
- rationalization of the network of branches,
- achieving a larger size, enabling an entity to effectively operate on the international market,
- enhancing the competitiveness to keep pace with foreign banks active on domestic market,
- adjusting the capabilities to the needs of large customers,
- more effective use of new technologies.
However, these reasons require some justification in practice. A very popular argument of scale becomes less obvious facing an empirical evidence which reveals the lack of such benefits as stated, such as the examples related to the banking system in the USA or Europe (Drake, 2005). Consolidation processes in the banking are usually associated with many positive effects, which concern, among other things, diversification of portfolios, possibilities of fast response to technological innovations, increase of competitiveness or extension of the market offer (Revell, 2004).

3. Concentration in Polish banking sector

The National Bank of Poland (NBP) along with four specialized state-owned banks (PKO BP, Pekao S.A., BGŻ, Bank Handlowy) played a dominant role in Polish banking system for over 40 years. Insufficiency of economic system in 1980s forced the government to undertake economic reforms, covering the banking system among other areas. The milestone in Polish banking sector development was 1989, when Polish parliament passed the new banking law. As a result, nine commercial banks were isolated from NBP, and were given the NBP’s branch offices and customers network. The new law also introduced bi-level banking system, which is typical of market economies. Newly established banks started to perform capital functions. In 1989-1993 NBP granted about 80 licences for new private banks, thus increasing competition. In 1991 nine state-owned banks isolated from NBP were transformed into state treasury companies. Privatization of the first bank (Bank Rozwoju Eksportu S.A.) took place in July 1992 through public issue of shares. Wielkopolski Bank Kredytowy S.A. and Bank Śląski S.A. were privatized one year later. Privatization went on over following years, by selling shares in other banks through offers for foreign strategic investors and for domestic investors. Creation of Pekao S.A. group in 1996 was the next step in strengthening the position of Polish banks. A decrease in number of banks that followed mainly resulted from consolidation initiated by Polish banks in order to strengthen their market position. The best example of using consolidation instruments is Kredyt Bank S.A., which successively brought the following entities into its structure: Bank Ziemski S.A., Powszechny Bank Handlowy Gecobank S.A., Bank Regionalny S.A. w Rybniku, Bank Depozytowo Powierniczy Glob S.A., and finally Polski Bank Inwestycyjny S.A. The year 1999 saw a consolidation of Pekao S.A. with Powszechny Bank Gospodarczy w Łodzi, Bank Depozytowo-Kredytowy w Lublinie, Pomorski
Bank Kredytowy w Szczecinie, the new structure being called Bank Polska Kasa Opieki S.A. In recent years the consolidation of banks also included mergers of Polish branches of foreign banks with their subsidiary companies in Poland. The examples were: merging of Bank Austria Creditanstalt Poland S.A. with Powszechny Bank Kredytowy S.A., Bank Handlowy w Warszawie with Citibank Poland S.A., HypoVereinsbank Polska S.A. with Bank Przemysłowo Handlowy S.A., ING Bank NV with ING Bank Śląski S.A.

An important event in 2007 (fourth quarter) was the acquisition of some BPH offices by Pekao bank which led to the increase of Pekao’s share capital. The merger of BPH and Pekao S.A. was the biggest in Polish banking sector history. Pekao took over 285 branches all over the country and also about 300 partnership offices with 1.7 million customers. The remaining 200 branches and 650 thousand customers constituted mini-BPH. In 2010 the acquisition of Getin Bank with Noble Bank followed and in 2013 subsequent mergers took place: of BZ WBK SA with Kredyt Bank SA, Raiffeisen Bank Polska SA with Polbank EFG SA, PKO BP with Nordea as well as the acquisition in progress of BNP Paribas with BGŻ. According to some analysts, the process is not over yet as they expect further concentration in the banking sector. This means that Polish banks will experience more mergers in the future as well. Herfindahl-Hirschman Index (HHI, H-Index) is one of the most popular tools for measuring concentration. The value of the index is the sum of squares of shares in market for all banks and it ranges from 0 to 10000. High value of HHI indicates high level of concentration and vice versa.

Generally, merging two business units is considered to negatively influence the market competition, when HHI rises by 200 points and when after the consolidation the HHI value exceeds 1800 points. H-Index for Polish banking sector was calculated according to deposits value in the largest banks. Banks holding insignificant share in deposits market in Poland were excluded from the study. In the starting period the H-Index level was high, because of the small number of large state-owned banks. The following decrease trend is a result of creation of Polish banking sector and state-owned banks losing their domination in favour of private banks. HHI level has been on the rise since 1997 which indicates the progress of concentration as a result of the group of banks winning the significant share in deposits market: Kredyt Bank PBI, PKO BP, Pekao S.A., Bank Handlowy, Bank Śląski. The key example of consolidation affecting the HHI value is the creation of Pekao S.A. group in 1999. Thus the consolidation reaches the medium size according to US standards. Polish banking sector underwent great changes in 1989-2012. In that period the number of state-owned banks decreased dramatically in favour of private banks, due to privatisation. This was accompanied by
a decrease of the number of banks with majority of Polish capital in favour of banks with majority of foreign capital (internationalisation of Polish banking sector). Another phenomenon observed was the decrease in the number of banks, with simultaneous increase of banking sector capital resulting from consolidation. This process is accompanied by the increase of concentration in commercial banks sector. Lower values of concentration, like in 2003, result from new banks entering Polish market. Generally, the years 1993-2012 witness an ascending trend in concentration, reaching, in 2012, the level of 1350. Despite this increase, measured with H-Index, the level of concentration remains low according to US standards, which indicates further development of consolidation processes.

4. The impact of consolidation processes in the banking sector upon increase of shares value

The effects of consolidation of banks should be assessed from different points of view, and the time perspective plays the key role here. Because some effects are noticeable and can be verified at the moment the process of consolidation is complete while for other one has to wait until they become visible – sometimes even more than ten months. The effect of change in the share price of banks engaged in the process of merger can be identified as one of the first tangible results. A flow of information which is not limited by any barriers enables the investors to immediately react to changes observed on the market. This results from the assumption on market efficiency, where prices fully reflect all information available to market participants i.e. investors. This is accompanied by an assumption on rational processing by the market of the information available, where none information is ignored, and no systemic mistakes are made (Beechey, Gruen, Vickery, 2000). Depending on the strength of market reaction, we can thus distinguish the following (Czekaj, Grotowski, Lipiec, 2008): weak market efficiency, semi-strong market efficiency, and strong market efficiency. So, assuming the Polish capital market is informationally efficient to at least medium extent, a hypothesis that mergers and acquisitions in the Polish banking sector have the ability to create value will be tested. The testing methodology is based on event studies (Rhoades, 1994) which are commonly applied in evaluation of market reaction to a determined event. This method is mainly used to analyze the influence changes within the market have upon the rate of return on particular financial instrument, usually shares of companies.
In addition, not one but several companies influenced by the same type of event are examined. It is assumed that an event, for each company under the analysis, can take place over a different time, but a specific date of an event appearance needs to be determined for every company, which constitutes identical moment of the event – a so-called zero moment. The profit the investors will achieve in relation to the event includes two components. The first one regards a normal (expected) rate of return on shares, determined on the basis of estimated model, however, a determination of the normal rate of return must be done basing on the data available before the event. The second component, on the other hand, is the abnormal (unexpected) rate of return, which results from some particular event. Therefore, it is possible to assume that the abnormal rate of return will be a direct indicator of changes in the shareholders wealth in relation to the event (Kothari, Warner, 2007).

This method allows one to estimate additional rates of return for shareholders, which in literature are called above-normal rates of return (Ziarko-Siwek, 2004), which reflect the change of share price of acquiring bank because of reaction of investors to information about finalizing the process of consolidation. The abnormal rate of return constitutes the difference between the rate of return achieved on a given day and theoretical (normal) rate of return which would be achieved should the event never occurred at all. It requires to make an assumption that rates of return of banks which participate in the process of consolidation accurately reflect the market value of these banks (Micek, 2007). The analysis of abnormal rates of return is performed in several stages and, depending on the goals of the study, the number of such stages may be different. For the purposes of this study the following outline of analysis was adopted (Jedrusiak, 2008):

Stage 1. identification of particular event
Stage 2. determining the time-frame of the event
Stage 3. choice of companies affected by the event
Stage 4. choice of methodology of the study
Stage 5. determining the criteria for selection of companies for the study
Stage 6. selection of the study sample
Stage 7. determining the exact moment of the event occurrence
Stage 8. determining the time frame for the estimation of model parameters
Stage 9. identification of event window for calculating cumulative abnormal rates of return
Stage 10. collecting data about rates of return on the financial instrument (share) analysed for the range of estimation and analysis window
Stage 11. collecting data about rates of return for an equity index, which reflects changes on the equity market of given companies in the range of estimation and the analysis window

Stage 12. estimation of parameters of the model for every individual company

Stage 13. calculation of the theoretical rate of return from shares of particular company based on the model in the window of observation

Stage 14. calculation of abnormal rate of return representing the difference between the real rate of return of the company’s share in particular window of analysis and theoretical rate of return estimated on the basis of the model

Stage 15. calculation of cumulative abnormal rates of return in the window of analysis

Stage 16. comparing the performance and their graphical presentation

Stage 17. analysis and interpretation of results.

During the stage 1 the event which caused the change on the market is identified, in the case under analysis this event is represented by dissemination of information about completing the process banks consolidation. The dissemination should be understood as the stock exchange announcement about finalizing merger of banks engaged in the process of consolidation.

Stage 2 includes determination of the time frame of the event. For the purpose of this analysis it is assumed that consolidation processes which took place in Poland between 2000-2013 would be analysed. In order to conduct an analysis of the influence of information on finalizing the consolidation process, it is necessary to obtain basic data about the process of merger and about the banks involved in the process. Therefore, before the sample for analysis was selected under stage 3, information about particular consolidation processes which took place in Poland within assumed time horizon had been gathered. The description presented below contains randomly selected elements of this information. Although, for the purposes of the analysis, it was necessary to collect the data, their full presentation is not required since they are easily accessible. Diversity and certain freedom of presented information are aimed to highlight the fact that every consolidation process lasts relatively long and generates large amount of market information. On the basis of data collected in Table 1 a synthetic summary of banks involved in consolidation processes within the time frame adopted has been presented.
### Table 1. Selected mergers and acquisitions in the Polish commercial banks sector

<table>
<thead>
<tr>
<th>The name of bank acquirer</th>
<th>The name of acquired bank</th>
<th>The year of merger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Powszechny Bank Kredytowy S.A.</td>
<td>Bank Austria Creditanstalt Poland S.A.</td>
<td>2000</td>
</tr>
<tr>
<td>BIG Bank Gdański S.A.</td>
<td>BIG Bank S.A.</td>
<td>2001</td>
</tr>
<tr>
<td>Bank Handlowy w Warszawie S.A.</td>
<td>Citibank Poland S.A.</td>
<td>2001</td>
</tr>
<tr>
<td>Bank Zachodni S.A.</td>
<td>Wielkopolski Bank Kredytowy S.A.</td>
<td>2001</td>
</tr>
<tr>
<td>ING Bank Śląski S.A.</td>
<td>ING Bank N.V.</td>
<td>2001</td>
</tr>
<tr>
<td>Powszechny Bank Kredytowy S.A.</td>
<td>Bank Przemyslowo Handlowy S.A.</td>
<td>2002</td>
</tr>
<tr>
<td>Bank Cukrownictwa Cukrobank S.A.</td>
<td>Bank Inicjatyw Społeczno-Ekonomicznych S.A.</td>
<td>2002</td>
</tr>
<tr>
<td>Bank Społem S.A.</td>
<td>Bank Wschodni S.A.</td>
<td>2003</td>
</tr>
<tr>
<td>BRE Bank S.A.</td>
<td>Bank Częstochowa S.A.</td>
<td>2003</td>
</tr>
<tr>
<td>GE Capital Bank S.A.</td>
<td>GE Bank Mieszkaniowy S.A.</td>
<td>2004</td>
</tr>
<tr>
<td>Pekao S.A.</td>
<td>BPH S.A.</td>
<td>2007</td>
</tr>
<tr>
<td>DnB NORD Polska S.A.</td>
<td>BISE S.A.</td>
<td>2008</td>
</tr>
<tr>
<td>GE Money Bank</td>
<td>Bank BPH</td>
<td>2009</td>
</tr>
<tr>
<td>Fortis Bank</td>
<td>Dominet Bank</td>
<td>2009</td>
</tr>
<tr>
<td>Getin Bank</td>
<td>Noble Bank</td>
<td>2010</td>
</tr>
<tr>
<td>Santander Consumer Bank</td>
<td>AIG Bank Polska</td>
<td>2011</td>
</tr>
<tr>
<td>Raiffeisen Bank Polska S.A.</td>
<td>Polbank EFG S.A.</td>
<td>2013</td>
</tr>
<tr>
<td>Bankiem Zachodnim WBK S.A.</td>
<td>Kredyt Banku S.A.</td>
<td>2013</td>
</tr>
<tr>
<td>PKO BP</td>
<td>Nordea</td>
<td>2013</td>
</tr>
</tbody>
</table>

Source: self elaboration on the basis of NBP data.

In stage 4 methodology of analysis has to be chosen. For the purpose of this study we adopt methodology of calculating abnormal rates of return on shares of acquiring banks which participate in the process of consolidation, based on single-index Sharp's model which will be discussed in details later. At this stage, one should make an assumption that information about banks merger only and indeed exclusively influences the stock price of banks.
involved in trade while prices of other banks’ shares are completely unrelated to this event. At stage 5 the criteria of selection for the research sample need to be determined. One criterion for selection is time interval from the moment of conducting research. Moreover, the acquiring bank had to be quoted on the Warsaw Stock Exchange during the period of estimation as well as afterwards. An additional criterion was that quotes of merging banks should not be suspended for the period of consolidation. As stage 6, selection of the research sample was made, basing upon the National Bank of Poland data about consolidation processes finalized in 2000-2013 in the Polish banking sector. The list of consolidation processes used as a base for the selection of research sample is presented in Table 1. The research sample was specified on the basis of time intervals between the moment of merger and the date of examination and availability of data. It means that in further analysis only banks which had their securities listed on the Warsaw exchange during the period of estimation can be considered. These consolidation processes where prices of merging banks were suspended for the time of merger process were excluded from the analysis. The suspension of quotes has clearly caused some delay in reaction of market to information about the consolidation, and as the first quote after the end of suspension period only constitutes an indirect reaction to information on the merger, it fails to meet the conditions of research. Consolidation processes where both banks or at least an acquiring bank were not listed, at that time of merger, on the stock exchange, have also been excluded. Determination of the exact moment of the event makes stage 7 of the analysis. The date taken into account in the analysis of consolidation processes in order to calculate abnormal rates of return in most cases is the date of announcing the merger or the date of legal registration of the banks’ merger. Apart from these dates, the moment of the event can be also represented by the date of announcement, by the Banking Supervision Authority, of permission to merge. For the purpose of this analysis the day of announcing legal registration of the merger is meant as the moment of consolidation, and therefore stock prices on that day as well as on days directly preceding and following that day have been analysed (so-called window of observation). According to M. Micek, the methodology of “events studies” is mainly applied with reference to acquiring banks; attempts at analyses of abnormal rates of return for acquired banks are rarely met. In this study the fact that an event is assumed to have occurred on the date of legal registration of the merger implies that analysis of abnormal rates of return will be conducted exclusively for the acquiring bank, which is anyway forced by the fact that the bank taken over after the moment of merger’s legal registration is not listed on the Warsaw Stock Exchange.
anymore. Estimation of parameters of the model which describe theoretical rates of return from the given security is performed during the period of analysis. Therefore, at stage 8, the period for estimating parameters of the model should be exactly determined. The period of estimation is most often consistent with the period preceding the appearance of an event. This period should meet some determined conditions, which depend on the goals of examination and on the methodology adopted. In this study the period of estimation, where model parameters are calculated in order to obtain theoretical rates of return on banks’ shares, is equivalent with period directly preceding the window of observation, and includes 240 stock exchange sessions. This period is approximately equal to one calendar year. On the other hand, the period of observation (stage 9), for which abnormal rates of return are calculated, is about 21 sessions i.e. 10 sessions before the day of announcing legal registration of banks merger, the day of announcement as a zero date and 10 sessions following the merger. Since reaction of investors to the information is examined, the accumulated rates of return are calculated in the window of analysis covering the period from 0 to 10 sessions after the merger. Narrowing the window of analysis around the day of announcing the legal merger of banks is supposed to favour better reflection on direct influence of this information upon rates of return and to enable to reduce the influence of other market factors on rates of return. Stages 10 and 11 include collection of data on changes of returns on bank shares and the index WIG Banks. Share indices are synthetic indicators reflecting changes on the equity market (Czekaj, Raganiewicz, 2008). The main index of the Warsaw Stock Exchange is the Warsaw Stock Exchange Index WIG, which – along with the index WIG-PL – is an income index covering the entire market. Apart from them, there are 10 sector income indices and 3 price indices published as well. Sector indices are as follows (www.gpw.pl): WIG-Banking, WIG-Construction, WIG-Chemical, WIG-Developers, WIG-energy, WIG-IT, WIG-Media, WIG-Oil&Gas, WIG-Food, WIG-Telecom. While the three price indices of WSE are: WIG20, mWIG40, sWIG80. During the analysis it is assumed that an index which reflects changes in the banking sector in a most appropriate way is WIG-Banks. WIG-Banks is a sector sub-index. Similarly to the composition of other indices of the Warsaw Stock Exchange, the composition of WIG-Banks changes regularly. Therefore, during a long-term analysis one should remember that the composition of the WIG-Banks index in particular moments of analysis could contain different banks. In order to estimate parameters of the model, and calculate abnormal rates of return, publicly available data about Stock Exchange quotations and rates of return of both shares of banks and the
WIG-Banks index published on websites in the so-called period of estimation were used. The WIG-Banks index is calculated by analogy to the WIG index which means that it also includes profits from dividends and subscription rights. Stage 12 includes estimation of parameters of the model for each bank selected for the analysis individually. Parameters of the model will be estimated using the method of least squares according to assumptions of the single-index Sharp’s model. It will allow to calculate the theoretical rate of return for acquiring bank shares in the event window (stage 13) which would be achieved if the information about the finalized consolidation process never appeared. After we obtain the data about real rates of return in the event window we can calculate abnormal rate of return of shares of the bank under analysis (stage 14) as a difference between the rate of return actually achieved and rate of return estimated according to the model. Then, for the window of observation, we will estimate cumulated abnormal rates of return (stage 15) which are a sum of subsequent rates of return from the zero day until tenth day after the information was announced; the average cumulated abnormal rate of return, as an arithmetic average of subsequent cumulated abnormal rates of return, will also be calculated. Two consecutive stages concern the summary of performance, their presentation and interpretation. These data are supposed to provide us with information whether processes of mergers in the Polish banking sector have an ability to create additional value for shareholders. If cumulated abnormal rates of return calculated according to accepted methodology will be positive, this will show that this is possible. Publication of information about consolidation in the banking sector, according to assumption of perfect information, should be immediately reflected in reaction of shareholders. This reaction can lead to a considerable rise or drop in the stock price of banks participating in the consolidation. According to the assumptions adopted in the analysis of influence of publication of information about completion of the process of banks consolidation on increase of value of shares owned by shareholders, the analysis of abnormal rates of return based on Single-index Sharp’s model will be used. Here we should pay attention to the concept of econometric (statistical) model which is a set of mathematical formulas and assumptions about real relations between variables. A model describing relations between variables consists of two elements – the systematic element and the random element (Aczel, 2000). Sharpe’s model is an example of single-index model based on the assumption that changes in rates of return on shares are determined by a particular market factor [(Sharpe, 1963), (Jajuga, Jajuga, 2008)] (so-called market model). In the case under analysis it was assumed that the rate of return on shares of banks is related to the rate of return of
the index of the banking sector (WIG-Banks) which reflects general situation on the banking market. Therefore, Sharpe’s model will enable us to identify relation between the rate of return on shares of i-bank and the rate of return on the WIG-Banks index. The relation of the rate of return on shares and the rate of return from the stock exchange index can be presented with the following equation (Beitel, Schiereck, 2001):

$$R_{it} = \alpha_i + \beta_i \cdot R_{Mt} + \epsilon_{it}$$

where:
- $R_{it}$ – rate of return on shares of i-bank in $t$ period
- $R_{Mt}$ – rate of return on stock exchange index in $t$ period
- $\alpha_i, \beta_i$ – equation coefficients
- $\epsilon_{it}$ – equation random error

The above-mentioned regression equation presents a linear relation between the rate of return on shares of i-entity and the rate of return of the market index. The term regression which is applied very extensively is used to describe the method of modelling the relation between the variables. A straight linear regression between two variables, a dependent variable and independent variable is one of types of regression. Parameters of the model of linear regression are obtained through estimation with the method of least squares MLS. This method, according to the Gauss-Markow theorem, delivers unbiased estimators with the smallest possible variance in the set of all estimators of regression parameters.

The Alpha Parameter is also called the regression constant, and the Beta Parameter is also known as parameter vector. It plays key role. While relating interpretation of the beta coefficient to consolidation processes it should be assumed that this parameter determines an average percentage of the change in stock price of i-bank when the market index WIG-Banks increases by 1%.

This way several potential situations can be analysed:

1. $0 < \text{Beta} < 1$ means that the rate of return of the i-bank changes to a lesser degree than changes of the rate of return on the WIG-Banks index,
2. $\text{Beta} > 1$ means that the rate of return of the i-bank reacts to a significant extent to changes of the rate of the return of WIG-Banks index,
3. $\text{Beta} < 0$ means the rate of return of the i-bank reacts to changes in an opposite way compared to the market; an increase of the rate of return from the WIG-Banks will cause a decline in the i-bank rate of return, and the other way round,
4. Beta = 1 means that shares rate of return changes in line with market rate of return,

5. Beta = 0 means that the rate of return for shares stays indifferent to changes of particular index, and so that a different market index should be analysed.

In the single-index Sharpe model the following relations occur:

\[ \tilde{R}_i = \alpha_i + \beta_i \tilde{R}_M \]

\[ S_i^2 = \beta_i^2 S_M^2 + S_{\alpha_i}^2 \]

where:

\( S_M^2 \) – variance of rate of return of market index

\( S_{\alpha_i}^2 \) – variance of random error.

Regression equations in the Sharp’s model divide the rate of return from the bank shares into two elements. The first element, called the systematic component, is linearly dependent on the return on the WIG-Banks index, and unsystematic \( \varepsilon_{it} \), element which depends on performance of the entire banking sector. Therefore, it may be assumed that the effect of publication of information about merger of two banks will be fully reflected in the unsystematic element. It requires to make an assumption that information about consolidation doesn’t influence the rate of return of the WIG-Banks index.

To summarize the above-presented methodology it should explained that the model is created on the basis of historical data which precede consolidation processes of i-bank. Parameters of the model estimated using the least squares method describe the influence of changes occurring in the broad market of banks upon stock exchange quotations of i-bank. Therefore, rates of return calculated with the model include only market changes of the sector, without including changes directly implied by the processes of consolidation. Using the stock exchange data, we are able to determine real rates of return of i-bank. This way, the difference between the rate of return obtained using Sharpe’s model and a real rate of return constitutes an extraordinary rate of return; otherwise this difference expresses the change of stock price triggered by the process of consolidation of i-bank. In the case when extraordinary rate of return equals zero, the information about the merger does not create additional income for shareholders which means that real rate of return achieved on the i-bank share in the event window is equal to the theoretical rate of return estimated based on the model. Only then, when the rate of return achieved in the event window is
higher than theoretical (estimated) rate of return, investors will reach the extra profit which is a direct result of publication of information about legal banks’ merger. On the other hand, negative abnormal rate of return indicates that investors are not going to receive extra profits, and moreover, that they will earn less than they would if the information about consolidation wasn’t published at all. In the next stage, for each bank, a cumulated abnormal rate of return for the period from \( j \) to day \( t \) can be calculated according to the following formula:

\[
CAR_{i,j-t} = \sum_{t=j}^{t} \epsilon_{it}
\]

The cumulated abnormal rate of return is a sum of subsequent rates of return from the \( i \)-bank share in the event window. Then, on the basis of cumulated abnormal rates of return on shares of \( i \)-bank, an average cumulated abnormal return (ACAR) will be calculated.

\[
ACAR_{t-j} = \frac{\sum_{i=1}^{n} CAR_{i,j-t}}{n}
\]

Based on the criteria adopted, the selection of sample for research starts from these consolidation processes which were finalized in the shortest time horizon since the moment of research. For each acquiring bank, an exact date of event was identified and then it was verified whether the bank involved was quoted on the Warsaw Stock Exchange during 240 sessions before the event window. Then it was also checked whether the quotes of banks were not suspended as a result of the merger process. After considering all the criteria for further analysis for 20 consolidation processes described, which took place in 2000-2013, 2 consolidation processes were chosen – the ones which matched the assumptions. For each of these two acquiring banks Alpha and Beta of the model describing the theoretical rate of return were estimated, on the basis of rates of return on shares of \( i \)-the bank achieved by investors and the rates of return on the WIG-Banks index from the period before the event window. Next, using the model obtained on the basis of real rates of return from the WIG-Banks index, theoretical rates of return in the event window were estimated. Knowing the real rates of return in the event window, abnormal rates of return for 10 sessions before the event and for 10 sessions after the event can be calculated. Then the event window
was narrowed to the day of event and to 10 sessions following the event and accumulated abnormal rates of return were calculated. On the basis of these return, an average accumulated return was obtained for banks under analysis. Until this moment of research each bank was analysed individually, but from this on the performance obtained is further compared jointly. Based on the model estimated for each selected bank, theoretical rates of return in the observation window were calculated. After deducting these rates from real rates of return on the market, abnormal rate of return in the period \( t \) was obtained. Next, beginning from the zero day \( i.e. \) the day of announcing the end of the consolidation process, accumulated rates of return were calculated up to 10 days after the zero time (Table 2).

**Table 2. Cumulated abnormal rates of return in the analysis window for selected acquiring banks**

<table>
<thead>
<tr>
<th>Subsequent sessions</th>
<th>CAR for Bank 1</th>
<th>CAR for Bank 2</th>
<th>ACAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>4.43</td>
<td>6.35</td>
<td>5.39</td>
</tr>
<tr>
<td>1</td>
<td>6.15</td>
<td>6.61</td>
<td>6.38</td>
</tr>
<tr>
<td>2</td>
<td>6.51</td>
<td>5.43</td>
<td>5.97</td>
</tr>
<tr>
<td>3</td>
<td>6.47</td>
<td>4.23</td>
<td>5.35</td>
</tr>
<tr>
<td>4</td>
<td>5.03</td>
<td>3.93</td>
<td>4.48</td>
</tr>
<tr>
<td>5</td>
<td>3.88</td>
<td>5.59</td>
<td>4.74</td>
</tr>
<tr>
<td>6</td>
<td>6.46</td>
<td>5.77</td>
<td>6.12</td>
</tr>
<tr>
<td>7</td>
<td>7.25</td>
<td>5.96</td>
<td>6.61</td>
</tr>
<tr>
<td>8</td>
<td>5.77</td>
<td>9.47</td>
<td>7.62</td>
</tr>
<tr>
<td>9</td>
<td>3.41</td>
<td>5.33</td>
<td>4.37</td>
</tr>
<tr>
<td>10</td>
<td>5.5</td>
<td>4.81</td>
<td>5.16</td>
</tr>
</tbody>
</table>

Source: self elaboration.

The analysis of abnormal rates of return in the period after the announcement, conducted on the basis of selected consolidation processes, indicates that the information about completion of the process of banks merger positively influences additional rates of return on securities. A narrowed window of analysis shows that the cumulated abnormal rate of return provides additional value for investors over the entire period. This means that, at the moment investors receive information about completion
of the consolidation process of banks, the market believes that the value of acquiring bank has increased, and at the moment of the announcement shares are undervalued so that their price are going to rise in the future. Investors increase their purchase of shares, which in consequence leads to increased trades in particular securities and implies their rising prices. The fact that an increase of value of acquiring bank results from contributing the assets of acquired bank is undeniable, however the signal for investors is represented by an opinion that there is a synergy benefit, which means that the value of acquiring bank is higher than just a simple sum of values of both banks before the consolidation took place.

5. Conclusions

Summing our research up, consolidation processes positively affect banks that operate in Poland. In terms of the volume and rate of increase in assets, Polish banks are even leaders compared to other banks in the Central and Eastern Europe region. Although the assets in all the banks in the region increased in 2012 by 4.7% and reached the threshold of 1 trillion euro, Polish banks increased their assets by nearly 13%, which means 331 billion euro. This results, first and foremost, from historical grounds. Since 1989, Polish banking system has undergone a number of consolidation processes. The present status of Polish banking was stimulated by new banking law introduced in 1997. In the beginning, Polish banking system was particularly conservative. Two causes of this condition should be pointed out. Firstly, the system neither had proper experiences nor models to follow. Secondly, the legislation imposed restrictive requirements concerning, in particular, capitals and specific purpose reserves that limited the scale of bank activities. Consequently, instruments applied and services offered were rather basic. There were no opportunities for high leverage and investments in highly speculative products. Derivatives were virtually non-existent. Share capital, reserve capital and supplementary capital, *i.e.* the first category capitals, represented in fact the entirety of capitals. Profits earned were low and profitability was unimpressive. Capital adequacy ratio usually reached high levels, with equities including almost entirely stable capitals. Therefore, the consecutive crises did not represent a serious threat to equity capital of the banks. Polish banking was soon dominated by foreign capitals, thus representing a group of big banks and developed cooperative banks. The banks present in Polish banking sector represent a strong and stable capital
base that allows for large-scale operations. Although Polish banking system is developing dynamically, the number of banks in Poland is decreasing, due in particular to the consolidation processes. The number of commercial banks in Poland was 87 in 1993, 73 in 2000, 54 in 2004 and 50 in 2013. Banks also experienced a series of acquisitions (Getin Holding acquired Allianz, Raiffeisen merged with Polbank, PKO Bank Polski acquired Nordea). On the one hand, there are no reasons to argue that the consolidation trend is now decreasing. On the other hand, one can observe that present mergers and acquisitions are manifestation of a strong repricing of the banks following the crisis. A closer look at capitalization of big banks of the Western Europe reveals that it often doubles the GDP of a particular country. PKO Bank Polski, the biggest bank in Poland, represents merely 11-12% of the country’s GDP. Therefore, there is still enough room for further consolidation in the banking sector. It should be emphasized that both the scale of resources collected in the banking guarantee system and the scale of equities in bank are large. The support is relatively easy for the state. This option is impossible in the case of more developed economies. Therefore, it can be expected that the consolidation process will continue spontaneously. It is impossible to maintain high return on equity (ROE) without increasing the scale of operation, meaning both the area of operation and diversification of services.

**References**

http://www.gpw.pl


A RESOURCE-BASED APPROACH TO MERGERS AND CONCENTRATION OF THE BANKING SYSTEM IN MEXICO AFTER THE 1994 CRISIS

José G. Vargas-Hernández

Abstract
The strength of company is sustained in the resources it owns – something that can be considered a barrier to the entry for other companies. In the banking sector, the case of such resources was affected by the crisis of 1994 as they were devastated with the anti-crisis measures and by the market entry of foreign competitors in late 1990s. It is under such circumstances and in such an environment that we analyse the acceleration of the process of concentration in the Mexican banking system, relying on the resource-based theory. To have competitive advantages in resources and a solid global expansion strategy, foreign banks were able to climb to significant status in the Mexican banking system, with the subsequent generation of market-entry barriers to others in order to maintain their leadership.

JEL classification: G21, G24, G34

Keywords: Resource based theory, concentration, Mexican crisis, strategic alliance

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1. Introduction

High levels of market concentration are endogenous to Mexico’s authoritarian political and economic institutions (Haber, 2006; Haber and Musacchio, 2006; Haber, Klein, Maurer, and Middlebrook, 2007). The Mexican banking market has been highly concentrated for the past 120 years where a small number of banks have dominated the banking system with the four-firm ratio hovering in the area of 60 to 70 percent (Haber, 2005, 2006). The analysis of the banking system concentration and interaction with the Bank of Mexico from 1910 to 2008 shows a concentration process which accelerated after the 1994 crisis and the bank expropriation.

Concentration in banking industry in an emerging economy plays a complex role (Mohanty, Schnabel and Garcia-Luna, 2006). Concentration of industry, and more specifically in the banking sector, is not necessarily a good indicator of a level of competitive behaviour (Claessens and Laeven, 2004). The true problem experienced by many emerging economies, rather than that of banking concentration, is the fragmentation of banking systems. Contrary to what some experts have argued (Sokoler, 2006), concerns of excessive banking concentration have already arisen in emerging market banking industries, resulting from foreign bank merging with local banks. Indeed, this phenomenon was enough to raise concern about healthy market competition.

Banking concentration in local markets is more of a pervasive weaknesses of the structure of financial system than a strategy, characterized by some dysfunctions of the legal, regulatory, institutional and economic environment. In some countries concerns about commercial banking concentration and concentration of non-bank financial services have emerged. There are fears that banking and financial concentration through multinational foreign banks may hamper the effectiveness and competition of banking and financial market, thus affecting economic development of the country involved.

The Mexican banking industry has experienced some important changes over the last two decades. In 1982 Mexico faced fiscal deficit making it hard to service its foreign debt, as well as serious difficulties in obtaining foreign financing. The option was to nationalize the local banking industry and to force the new nationalized banks to concentrate their business upon investing and lending money to the public sector. The expropriation of Mexican private banks in September 1982 was carried out on the grounds that they had excessive profits, concentrated banking operations, created monopolistic markets, applied monopolistic practices and facilitated capital flight (Unal
and Navarro, 1999). In the context of major macroeconomic and financial crisis, after a large period of relative stability and growth, the Mexican commercial banks were nationalized and subject to strict regulations and government controls.

Commercial banks were nationalized and subjected to strict state controls in 1982, in the context of a macroeconomic crisis. Nationalized banks concentrated on investments in the public sector.

58 out of 60 Mexican banks were nationalized and reorganized in 1982. Just 18 commercial state-owned banks emerged from the process of merging and concentrating the commercial banking system. This banking concentration was significant for the three largest Mexican banks accounting for nearly 60 percent of total assets (Gruben and McComb, 1997). Banking concentrations and returns were considered the evidence that competition had been abridged, although statistical delineation of competitive returns was difficult to estimate (Gilbert, 1984).

One of the problems that are faced by the Mexican economic development today is concentration of both banking and financial systems. According to antitrust laws, mergers leading to the formation of monopolies are forbidden by the Mexican Federal Constitution as instruments restricting fair competition. The Federal Competition Bureau (CFC) can object to mergers and acquisitions and impose restrictions and divestitures among banks and financial institutions when the level of concentration occurs potentially harmful to the economy. The CFC evaluates any merger and acquisition using the Herfindahl-Hirschman index (HHI).

Mergers and acquisitions have to be authorized by the Ministry of Economy after considering the opinions from the Banco de México (Banxico), the central bank and the Banking Commission (Yacamán, 2001). Some economic policies limit the concentration in the banking industry. Factors taken into account in evaluation of the potential impact of a merger or acquisition include institutional soundness, industrial structure and performance of authorities. Institutional soundness is related to solvency and economic viability of the merger. The identification of markets impaired by the merger and its potential impact on competitiveness is relevant to assess the structure of industry. Mergers may hinder the abilities of financial institutions which perform supervision of the financial system, conduct monetary policy and regulation of the payment system.

This paper is based on an index to obtain more precise information in order to determine the effects to the structure of banking sector after the process of mergers and acquisitions. Bank mergers are considered a vehicle for improving financial structure and efficiency of the banking industry.
2. Background of the problem

Empirical studies on foreign banks entry, mergers and acquisitions in the banking industry are more concentrated on the developed and emerging economies where that there has been an upsurge of this strategies. Results of cross-country studies conclude that foreign bank entry varies with the level of the host economic development (Lensink and Hermes, 2004).

Studies exploring foreign bank entry conclude that it increases competitiveness of markets, reduces administrative costs, and lowers net interest margins (Berger and Humphrey, 1997; Demirgüç-Kunt and Huizinga, 1998; Denizer, 1999; Clark, Cull, D’Amato, Molinari, 1999, 2003; Barth, Caprio, and Levine, 2000; Berger, DeYoung, Genay and Udell, 2000; Barajas, Steiner and Salazar, 2000; Berger, Klapper, and Udell, 2001; Claessens, Demirgüç-Kunt and Huizinga, 2001; Levine, 2002; Mian, 2003; Clark, Cull, Martinez Peria and Sánchez, 2000, 2003, 2004; Lensink and Hermes, 2004; Demirgüç-Kunt, Laeven and Levine, 2004; Martinez Peria and Mody, 2004; Sturm and Williams, 2004, Haber and Musacchio, 2005).

Bank mergers increase systemic risk and banking concentration. Subsidiaries of merged banks may end up with a greater concentration of systemic risks. Bank mergers have been refused in some countries such as Canada, on the grounds that they lead to an unacceptable concentration of economic power (Marcus, 2001). The state faces some difficulties in regulating, through specific mechanisms, larger bank mergers or acquisitions and in dealing with issues related to solvency of investors, market competition and concentration, etc. Registration of mergers and acquisitions in the banking and financial institutions is required by the State and monetary and financial authorities in order to, among other things, come up with some organization criteria to assess the impact on concentration and competition.

Higher bank concentration is reflected by greater penetration of foreign banks and stiffer competition in local market. Mergers between parent banks in developed countries may result in an increase in banking concentration in host countries. Several types of companies are concentrating on the banking business, the securities business and the insurance business, such as the bank holding or non-holding companies and the affiliated or individual companies.

Competition in banking and financial industries depends on such factors as regulatory framework, economic and financial openness and stability, degree of concentration, etc. Bank consolidation involving mergers between multinational large banks and local larger banks are associated with high bank concentration in local market. Bank consolidation is not necessarily associated with banking concentration when the mergers involve smaller
foreign banks and smaller local banks (CGFS, 2004, 2005 and Domanski, 2005). In effect of the process of increasing concentration, more efficient banks in local markets achieve larger market share and earn higher profits (Group of Ten 2001, Burdisso and D. Amato, 1999).

The increase in banking concentration has effects on higher systemic and transition risks, depending on its characteristics and monetary policy management. A higher degree of banking concentration is related to a higher degree of systemic risk – in other words, systemic risk increases with higher levels of concentration. Lower integration of the local market compared with international market is related to stronger effects of banking concentration on systemic risk. Banking concentration is also related to complexity and difficulties encountered in monetary policy management. Reducing the risks of banking concentration relates to the monetary policy’s ability to address the issues of the exchange rate, final market development and international integration. International economic and financial integration reduces the effects of banking concentration in the local market (Ahumada and Marshall, 2001).

High concentration ratios of the banking industry observed are encouraged by the incentives of diversification provided by market forces. The driving forces that increase concentration include the internal economic growth reflected in creation of competitive advantages and changes occurring in the external economic environment. Both forces have an impact on changes of bank ownership, such as mergers and acquisitions that create benefits through economies of scale. Stiroh and Poole (2000) assume that mergers and acquisitions driven by external financial forces, large-scale deregulation and technological innovation in distribution channels and networks explain the process of bank consolidation and concentration.

The relation between inefficient banking structures in developed and emerging economies and the potential for mergers has been a subject of studies. Bank mergers stem from various motivations, having different modalities and potential in emerging economies. Survival is one important motive encouraging banks to merge, in part because floating rates of inflation eliminate major source of revenue. In emerging economies bank mergers have mostly been considered as a state-led process, motivated by the need to recapitalize and provide financial viability, consolidation and rationalization for local banks.

Sometimes, foreign banks acquiring local banks expand their financial and banking activities as merged banks into other financial services, such as insurance, investments and portfolio management. Mergers involving overlapping banking activities and financial operations have been painful. However, other studies conducted by the Group of Ten (2001) conclude that
small banks become more efficient thanks to increased size, although not necessarily in effect of merger, while outsourcing some of their functions.

Local banks have been under pressure and states have endeavoured to provide some incentives and offer tax concessions to persuade larger banking and financial institutions to merge voluntarily. Local banks may be strengthening by mergers promoted by the state. Mergers between parent banks in wealthy and well-developed, as well as in emerging economies, are a factor behind bank mergers in developing and less developed countries. However, as reported in other studies, there have been cases of disputes ending in court proceedings or banks challenging the government efforts when promoting mergers, because it was believed the state had forced bank mergers. Governments end up in courts either in cases where they forced banks to merge or, in other countries, in cases where they disallowed mergers to be effected.

The high degree of concentration in the Mexican banking system is related to the oligopoly power in the provision of bank services and is indicative of anti-competitive market power (Gavito, Sánchez and Trigueros, 1992; Gavito and Trigueros, 1993; Mansell Carstens, 1993; Bazdresch and Elizondo, 1993; Gruben, Welch and Gunther, 1994; Lopez-de-Silanes and Zamarripa, 1995; Gruben and Welch, 1996; Del Angel Morarak, 2002; Del Angel-Mobarak, 2005; Del Angel Mobarak, Bazdresch Parada and Suárez Dávila, 2005; Del Angel-Mobarak, Haber and Musacchio, 2006). The very concentration of Mexico’s privatized banking does not imply uncompetitive behaviour as such, although potentially and under certain conditions this may attenuate competition. Banking concentration and non-competitive behaviour are positive and significantly related under regimes of high entry restrictiveness (Clark and Speaker, 1992).

3. Structural weaknesses of the Mexican banking system

This article analyzes the Mexican banking system under the resource-based theory. The aim of this paper is to understand the dynamics observable after the financial crisis weakened the national system and the anti-crisis policies aggravated the problem. In the period following the crisis there have been merger and takeover activities on considerable scale in the Mexican banking and financial sector.

In late 1980s and early 1990s, Mexican government promoted financial liberalization and deregulation process of the banking industry and passed
new laws to privatize nationalized banks and to facilitate creation and operation of new commercial banks and financial holding companies. However, foreign capital was allowed to participate after far-reaching economic structural reforms (Yacamán, 2001).

During the 1990s there was an upsurge of acquisitions and mergers of banks visible in emerging economies (Berger, Demetz and Strahan, 1999). The structural weaknesses of the Mexican banking system in 1990s resulted from destabilized economic and financial systems together with high costs and general inefficiencies. The evolution of the Mexican banking system went through processes of privatization of state-owned banks, market entry of multinational foreign banks, international integration through mergers and acquisitions, increase of foreign ownership, trends toward larger local market shares and higher concentration. Increased concentration of banking industry started already in late 1990s, following a trend in other Latin American countries like Chile (Ahumada and Marshall, 2001).

Both changes, privatization of state-owned banks together with mergers and acquisitions, increased the presence of foreign banks. Also, these factors provide motivations and incentives for privatization of state-owned banks. One of objectives behind privatization of bank is to avoid concentration of ownership within the banking system structure, to ensure it to be controlled by Mexicans and to include foreign involvement (Barnes, 1992; Hovey, 1994). Banking and financial holding companies intending to participate in the auctions to acquire the government’s equity interest in each bank (Ortíz Martínez, 1994) had to present a business plan including integration and participation of foreign institutions and banking activities to be concentrated, among other requirements. Privatization of Mexican banks intended transformation of the economic environment to concentrate upon other economic priorities.

Bank consolidation was driven by privatization of state-owned banks. However, bank privatizations led to concerns about excessive concentration of banks ownership because of misalignment of public interests and private economic incentives. It may be argued that local banking was already concentrated since there were three national large banks dominating in the banking market in México.

Privatization of the Mexican commercial banking system of 1991-1992 only replaced a government monopoly controlling 18 state owned banks by a private sector oligopoly owned by financial groups and organizations already operating in the securities industry (Hanson, 1994). Immediately after the privatization, banks widely applied a provision according to which any single person was only allowed to own less than 10 percent of total shares,
while foreign participation was limited to 30 percent. However, changes to the regulations in 1992 allowed for higher foreign participation. Schranz (1993) found that banks, in a country where takeover is less restricted, concentrate equity ownership and management ownership as corporate control mechanisms which influence profitability.

Mexican authorities decided to open the sector to foreign investment at levels above those negotiated in the Free Trade Agreement (NAFTA). The North American Free Trade Agreement was expected to bring greater competitive pressures in Mexico by decreasing restrictions on starting new banks (Gavito and Trigueros, 1993; Gruben, Koo and Moore, 1999; Gruben and McComb, 2003; Murillo, 2005). After the North American Free Trade Agreement (NAFTA), wholly owned foreign banking subsidiaries were allowed, limited to non-systemic banks with a limited aggregate share in the banking system to 8 percent.

The entry of international competitors from developed countries further weakened the system as well as the interaction between tangible and intangible resources and their status through the period under analysis. This period starts with the analysis of the 1994 economic crisis, while how it affected the banking structure was examined under five force models developed by Porter (1980).

In emerging economies where the role of the state and government is oriented at intervention in economic development, mergers have resulted from efforts aimed to restructure financial and banking systems that had become inefficient following the banking crisis. Participation of foreign banks in 1994 in Central Europe is a notorious fact and currently they really control the banking market. In Latin America, Brazil, Argentina and Chile are notable examples being the largest economies in the region. In the environment where Mexican banks are charged for doubtful accounts, de-capitalized, face the loss of trust, reputation in tatters and even some of them undergoing intervention, the situation favoured the entry of American, Canadian and Spanish banks which bought cheaply to rapidly expand their operating territories and profits.

The process of denationalization of Mexico is not isolated; it can be seen as an expansion strategy of large international banks. The de-nationalization process to the benefit of foreign ownership modified the structure of the banking system by 1999. The structure of the banking industry in Mexico after the crisis was considered inefficient, justifying merging with foreign banks and financial institutions. In 1999, under the free trade agreements, foreign ownership restrictions were lifted. Under the new Banking Law, there are no ownership restrictions for foreign or national individuals anymore.
The financial and banking crisis in Mexico has had some important consequences for changes in the structure of bank ownership. After the Mexican crisis, some restrictions for banking ownership were lifted in order to recapitalize banks, although foreign majority ownership was not allowed for the largest Mexican banks. Mexican banks were encouraged to merge because the crisis left them weak, including the deposit insurance system.

The economic performance of Mexico since the mid 1995 has been sluggish because of the lack of availability of credit – the problem related to the inefficiencies of bank concentration since then (González, 2003; Tornell, Westermann and Martínez 2004; Haber and Musacchio, 2005). In an economic context of high inflation and subsidized credit, the banking industry concentrated most of its voluntary credits, thus limiting long-term financing. As in any emerging economy, Mexican commercial banks retain a dominant role in providing credits (Mohanty, Schnabel and García-Luna, 2006). Banking concentration has some effects on competition, systemic risk, financial and economic growth and stability, and monetary policy management.

4. Analysis of Mexican banking system: a resource-based theoretical approach

Also considered in this paper are implications of resource-based theory of acceleration in the process of concentration and the hierarchy of the banking system in Mexico. In the context of this theory, it is understood that the resource is understood as a either strength or weakness of a company. Most mergers have taken place between foreign and local banks having complementary strengths. More formally, the resources of a company are defined as those tangible and intangible assets which are semi-permanently tied to that company (Wernerfelt, 1984).

The framework of the resource-based theory focuses on five competitive forces, developed in 1980 by Michael Porter, which form the backbone of the vision based on the industry. These five forces are: (1) intensity of the rivalry among competitors, (2) the threat of potential entry, (3) the competitors’ bargaining power, (4) the buyers’ bargaining power, and (5) the threat of substitutes. Performance of a company depends on a degree of competitiveness of these five forces. If these are highly competitive, the company in question is not going to enjoy above-the-average earnings (Peng, 2010).
Speaking of the five forces, one moves from theoretical approach to real context, addressing the analysis of the 1994 financial crisis in Mexico. Given the magnitude of the crisis, it is reckoned as destruction of the competition dynamics in the industry. Bank resources were limited because of bad loans granted; reputation of institutions and agents’ confidence also declined over that period.

Let us now analyse each of Porter’s five forces with respect to this situation. Firstly, the rivalry between competitors was limited to bankruptcies, the loss of liquidity due to bad debts, anti-crisis policies of federal government based on contraction of economic activity to generate surplus, strongly affected recovery of the banking sector. Secondly, the threat of potential entry into a broken market was inexistent at first, however there was a process of bank mergers and acquisitions made since 1995 to date. Haber and Musacchio (2005) recognize three stages of foreign banks’ entry into the Mexican market.

During the first one, before 1995, there were only subsidiaries and representations of foreign banks present in Mexico, coded by Martinez Peria and Mody (2004) as “Foreign de Novo” and mostly operating in corporate investments and lending. Economic instability and insolvency of Mexican banks in 1995 had increased debtor defaults. After 1995 many local banks merged or were acquired by other foreign financial groups and new institutions entered the market. In the case of Mexico, mergers allowed local banks to have supply of very needed capital after the 1995 banking crisis. Financial authorities have clearly considered mergers and the entry of foreign banks as something inevitable but also desirable to achieve economies of scale, cost benefits, risk management and diversification. After 1995, foreign banks purchased some local banks and continued to operate in the same local market.

However, there was a macroeconomic instability during 1995-96 and Mexican government had to intervene into some banks. Development banks were sharply curtailed and increasingly concentrated on the provision of funds to commercial banks after the bailout in 1996. Before December 1996, mergers between foreign banks and Mexican banks had a limited impact, such as a merger of a small foreign bank with a larger Mexican bank. The insolvency of some Mexican banks motivated the Mexican state to carry out reforms in bank accounting standards implemented in the second half of 1997 (Del Angel-Mobarak, Haber and Musacchio, 2004).

Mexican state provided large injections of capital from public funds to support operations of private banks and mergers were deemed to justify taking over of inefficient banks. Local banks were looking for faster and
cheaper expansion by takeovers of the weaker ones over the first wave of changes.

Later, during second wave of expansion, local banks including three largest ones were purchased or merged with larger multinational foreign banks. Facing the inability of domestic banks to improve their financial condition on their own, capitalization levels and efficiency due to policies were implemented by the government. Mexican government authorized the “strategic alliance” between domestic banks and foreign banks.

Before 1997, foreign ownership was prohibited and subject to strict restrictions and limits (Maurer, 2002; Del Angel Mobarak, 2002; Murillo, 2002). In 1997 multinational foreign banks were allowed unrestricted entry to the Mexican market to merge and acquire the larger Mexican banks. Changes in rules governing foreign entry and ownership after the Mexican bank system emerged from a taxpayer financed bailout, produced competitive pressures to achieve efficiency and become more profitable.

Mexican banks had been subject to mergers and acquisitions, both by other local and foreign banks. These mergers and acquisitions included Nova Scotia Bank with Inverlat, Union sold its Promex branches, and after that Inverlat was bought by Bancomer. Bank Confía merged with City Bank; Cremi sells branches to Banco Bilbao Vizcaya (BBV) and Banco Obrero did the same with Afirme, Santander acquired Banco Mexicano, Bital, Atlantic y Sureste Merged (Huerta, 1998).

In late 1998 the Mexican Congress approved the Law on Protection of Bank Savings (Ley de Protección al Ahorro Bancario) leading to the complete liberalization of the banking system and stock market to foreign capital, thereby eliminating the constraints for the three largest foreign banking groups (Santander, Citibank and BBVA) to merge completely. This type of mergers has been dubbed as “strategic alliances” to restore the functioning of Mexican banking sector. Mergers between foreign banks and local banks are not free of challenges to overcome poor management and unprofitable activities, and to find the right organizational structure because of the family ownership structure.

In 1998 there were 54 banks in Mexico, 49 of which had foreign ownership and controlled 70 percent of the market. Estimations made by Goldberg, Dages and Kinney (2000) calculated, in 1998, that foreign bank activity remained concentrated in 93.6 percent in the consumer, government and interbank market. Banks with no foreign participation were five in 1998: Banamex, Bancrecer (who in turn sought foreign partner), Banorte, and Interacciones e industrias (Industry interactions) (CNBV data) (Huerta, 1998, p. 73).
Citibank acquired Banco Confía in 1998. Banco de Bilbao Vizcaya (BBVA) acquired Bancomer and Scotiabank purchased Inverlat in 2000. The ownership concentration of the banking sector is lower where market-based corporate control mechanisms fail to operate effectively and become subject to intervention by regulators. Corporate governance determines objectives and decisions in banking and financial institutions, aligned with interest of shareholders, stakeholders, regulators, etc. In México, where bank ownership is highly concentrated, reforms in the Banking Law in 2001 centred on bank ownership and financial stability to ensure a proper operation of payment system.

Competitive and efficiency issues emerged in the Mexican banking system recently, during the merger of two largest financial groups. Grupo Financiero Bancomer preferred to merge with Spanish BBV rather than with Grupo Financiero Banamex-Accival. Before the merger, BBVA kept relative minor presence in Mexico, only to become the largest one then. HSBC acquired Banco Bital, while Banamex was purchased by Citibank in 2002. Few years later, only Banorte remained operating with local investors and without foreign investment (Martinez Peria and Mody, 2004).

During the period between 1997 to 2005 Mexican government carried out changes and reforms in banking regulations and bank accounting standards that allowed large foreign banks to enter Mexican market, merging and acquiring largest Mexican banks (Del Angel-Mobarak, Haber and Musacchio, 2004). The Mexican banking sector was concentrated in a small number of banks of moderate size available for mergers or acquisitions to multinational foreign banks. The Mexican government promoted foreign takeover using regulatory enforcement and debt guarantees.

Despite that, banks were losing money throughout 1997. Haber and Musacchio (2005) found an increase in profitability related to foreign bank entry. Mergers and sales of poorly performing Mexican banks to foreign banks spurred due to the new macroeconomic environment. Mexican banks have merged or been acquired by foreign banks and financial groups, following the implementation of Mexican governmental strategy targeted at either liquidating inefficient banks or facilitating their absorption by foreign solvent banks, depending of which was considered less costly.

Other incentives for banks to merge with other local and foreign financial institutions and banks include diversification of credit risks and economies of scales. However, banks becoming large and powerful through mergers generate morally hazardous behaviours and it is often quite difficult to keep them disciplined in this respect. Despite the fact that banking mergers may strengthen the capital base and improve the capacity to adopt new
technologies, the state may be reluctant to provide incentives, because further mergers may pose a threat to fair-competition-based economy.

The Mexican banking sector highly increased concentration between 1997 and 2004 through the process of FDI-driven consolidation (Schulz, 2006). This fact was proven to be related with increased bank administrative efficiency, improvements in screening borrowers, charging lower interest margins and producing welfare gains to consumers. Foreign banks investing in Mexican banking sector increased their share and target acquisitions in a few local banks. Multinational foreign banks dominated the Mexican market quickly and completely, increasing their share from 11 percent in 1997 to 83 percent in 2004 (Haber and Musacchio, 2005).

The third force is the bargaining power of competitors at the start of the crisis when the power was eroded by a concern to stabilize the situation and to minimise losses. Fourth, the bargaining power of buyers, was very poor due to the conditions of crisis and high interest rates, measures to control devaluation and soaring interest rates, or the support to cover the debts of short term dollar banking was enough to halt the growth of nonperforming loans and destabilization of the domestic banking system (Huerta, 1998).

Finally, the fifth force is the threat of substitutes. In this case there is no substitute for money, or the volatility of interest rates, inflation and devaluations. The agents simply could not meet their debt and preferred to go to loans.

This is where the problem focuses on the Resource-Based Theory to frame the analysis of a national banking environment in a deplorable situation in terms of tangible and intangible resources and the entry of international competitors eager to expand, with solid structures and abundant resources. Many of resources required to position a company are not sold or bought in the market, as is the case with corporate reputation, customer confidence, etc. (Barney, 1986; Dierickx and Cool, 1989). These resources should be developed by the company to generate conditions that result positioning as barriers to entry.

From this perspective of resource advantage, companies from developed economies which enter an emerging economy in a crisis situation, create an appetite for knowledge and competence in the new market. The challenge for multinationals is to develop a strategy which works (Wright, M. Filatotchey, Hoskisson and Peng, 2005). Under these assumptions, the strategy for foreign companies may be to enter a weak competitive environment to get great business opportunities for higher returns. The “strategic alliance” demanded a national banking strategy to face new competitors from developed countries. The implementation of a strategy requires assets that
were largely lost during the crisis, such as reputation, loyalty and confidence of consumers, brand positioning, among many others.

A company owning non-marketable assets which are necessary to implement the strategy of the product market is required to “build” the assets (Dierickx and Cool, 1989). However, the construction of these assets requires much time and the constant investment process. The national banking system was at a distinct disadvantage compared to powerful international institutions, which carried the flag of recent globalization, boasted success stories in their countries of origin, had good reputation and other assets that are difficult to imitate. The evolution of the banking structure in Mexico may well be conceived as Darwinian selection process in which the strongest layer survives, speaking of resources and expertise.

The six largest banks (Table 1) held 72.44 percent of the total assets of the Mexican banking system. As the Herfindal-Hirshman index is 0.11, this indicates low concentration. It is noteworthy that this year the banking situation was uncertain, the entry of powerful new competitors devolved the Mexican banking system.

In Table 1 Banamex, Bancomer and Serfin were at the top of the list of banks with higher relative market share with 49.92 percent of total banking assets. An important fact is how Santander and Bilbao Vizcaya banks were, respectively, at positions six and seven of the list, taking into account that these banks were part of the strategic partnership which had a significant participation by highlighting the fact that they were new in Mexico.

The effects on financial indicators are mixed up and confusing (Table 2), because of the recent process of denationalization, the output of the 1995 crisis and the losses and bailouts. Fobaproa indicators are unstable and not very useful for analysis. The following section will focus on strategies for mergers and the new structure of Mexican banking system for 2008, in order to ascertain the effects of the strategic partnership.
Table 1. Relative participation of Mexican banking System in 1999

<table>
<thead>
<tr>
<th>Banks</th>
<th>(Billions of pesos)</th>
<th>Percentage</th>
<th>Accumulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Banamex</td>
<td>19.35</td>
<td>19.35</td>
<td></td>
</tr>
<tr>
<td>2 Bancomer</td>
<td>19.31</td>
<td>38.66</td>
<td></td>
</tr>
<tr>
<td>3 Serfin</td>
<td>11.26</td>
<td>49.92</td>
<td></td>
</tr>
<tr>
<td>4 Bital</td>
<td>8.84</td>
<td>58.76</td>
<td></td>
</tr>
<tr>
<td>5 Mercantil del Norte</td>
<td>7.37</td>
<td>66.13</td>
<td></td>
</tr>
<tr>
<td>6 Bilbao Vizcaya</td>
<td>6.31</td>
<td>72.44</td>
<td></td>
</tr>
<tr>
<td>7 Santander Mexicano</td>
<td>5.09</td>
<td>77.53</td>
<td></td>
</tr>
<tr>
<td>8 Inbursa</td>
<td>3.13</td>
<td>80.66</td>
<td></td>
</tr>
<tr>
<td>9 Banpaís</td>
<td></td>
<td>80.66</td>
<td></td>
</tr>
<tr>
<td>10 Centro</td>
<td>1.73</td>
<td>82.39</td>
<td></td>
</tr>
<tr>
<td>11 Interacciones</td>
<td>0.62</td>
<td>83.01</td>
<td></td>
</tr>
<tr>
<td>12 Afirmé</td>
<td>0.44</td>
<td>83.45</td>
<td></td>
</tr>
<tr>
<td>13 Ixe</td>
<td>0.36</td>
<td>83.81</td>
<td></td>
</tr>
<tr>
<td>14 Del Bajio</td>
<td>0.27</td>
<td>84.08</td>
<td></td>
</tr>
<tr>
<td>15 Mifel</td>
<td>0.24</td>
<td>84.32</td>
<td></td>
</tr>
<tr>
<td>16 Quádrum</td>
<td>0.21</td>
<td>84.53</td>
<td></td>
</tr>
<tr>
<td>17 Banregio</td>
<td>0.18</td>
<td>84.71</td>
<td></td>
</tr>
<tr>
<td>18 Invex</td>
<td></td>
<td>84.71</td>
<td></td>
</tr>
<tr>
<td>19 Bansi</td>
<td>0.11</td>
<td>84.82</td>
<td></td>
</tr>
<tr>
<td>Total, 19 banks</td>
<td>85</td>
<td>85</td>
<td></td>
</tr>
<tr>
<td>Rest of the banks, 16</td>
<td>15</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Total System</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Source: Muller, 2006, p. 89.
Table 2. Relevant financial index for banking in 1999

<table>
<thead>
<tr>
<th>Banks</th>
<th>Capital equity*</th>
<th>Capital index**</th>
<th>Benefit/Asset***</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Banamex</td>
<td>20.80</td>
<td>14.40</td>
<td>3.00</td>
</tr>
<tr>
<td>2 Bancomer</td>
<td>11.20</td>
<td>9.00</td>
<td>1.00</td>
</tr>
<tr>
<td>3 Serfin</td>
<td>0.00</td>
<td>4.90</td>
<td>0.00</td>
</tr>
<tr>
<td>4 Bital</td>
<td>6.60</td>
<td>5.90</td>
<td>0.39</td>
</tr>
<tr>
<td>5 Mercantil del Norte</td>
<td>13.90</td>
<td>5.30</td>
<td>0.74</td>
</tr>
<tr>
<td>6 Bilbao Viscaya</td>
<td>7.90</td>
<td>6.70</td>
<td>0.54</td>
</tr>
<tr>
<td>7 Santander Mx</td>
<td>0.00</td>
<td>8.50</td>
<td>0.00</td>
</tr>
<tr>
<td>8 Inbursa</td>
<td>18.30</td>
<td>39.00</td>
<td>7.00</td>
</tr>
<tr>
<td>9 Banpaís</td>
<td>s.i.</td>
<td>s.i.</td>
<td>s.i.</td>
</tr>
<tr>
<td>10 Centro</td>
<td>s.i.</td>
<td>8.30</td>
<td>s.i.</td>
</tr>
<tr>
<td>11 Interacciones</td>
<td>7.30</td>
<td>8.00</td>
<td>0.56</td>
</tr>
<tr>
<td>12 Afirme</td>
<td>s.i.</td>
<td>10.80</td>
<td>s.i.</td>
</tr>
<tr>
<td>13 Ixe</td>
<td>0.00</td>
<td>12.50</td>
<td>0.00</td>
</tr>
<tr>
<td>14 Del Bajio</td>
<td>4.20</td>
<td>15.80</td>
<td>0.54</td>
</tr>
<tr>
<td>15 Mifel</td>
<td>2.00</td>
<td>12.80</td>
<td>0.25</td>
</tr>
<tr>
<td>16 Quádrum</td>
<td>0.00</td>
<td>17.20</td>
<td>0.00</td>
</tr>
<tr>
<td>17 Banregio</td>
<td>8.40</td>
<td>36.20</td>
<td>2.80</td>
</tr>
<tr>
<td>18 Invex</td>
<td>s.i.</td>
<td>s.i.</td>
<td>s.i.</td>
</tr>
<tr>
<td>19 Bansi</td>
<td>26.60</td>
<td>35.00</td>
<td>6.00</td>
</tr>
<tr>
<td>Total System</td>
<td>13.30</td>
<td>10.10</td>
<td>1.30</td>
</tr>
</tbody>
</table>

* Gross profit on stockholders’ equity
** Equity over total assets
*** Gross benefit

Source: Muller, 2006, p. 92.
5. Methods

A measure of concentration used is the Herfindahl-Hirschman index (HH). Herfindahl-Hirschman Index (HHI) is a statistical technique to measure the market concentration and, accordingly, the degree of monopoly power. This index measures market concentration in relation to relative size of companies (Parkin, 1995, p. 367).

Market concentration is an indicator of competition studied by industrial organization. The Herfindahl-Hirschman Index (HHI) is used to determine the competitive structure and market concentration of the local commercial banking industry as the result of favouring mergers and acquisitions. According to Yacamán (2001, p. 108), a merger or acquisition does “not alter the competition structure of a market where at least one of the following results is observed: the Herfindahl-Hirschman index (HHI) is less than 2,000 points; the increase in the HHI is less than 75 points; the Dominance index decreases or its value is less than 2,500 points.”

It is used by the government to assess monopoly situations, purchases and mergers. A concentrated market affects competition and market efficiency. The formulation HH index is the sum of the squares of the proportions that have the companies in the market:

\[ H = \sum_{i=1}^{k} p_i^2 \]

Where \( p_i \) is the market share of the company \( i \), and \( k \) is the number of companies (Rodríguez, 2009, p. 3).

The accepted interpretation for values is HH: <.10 indicates market de-concentration of .10-.18 indicates a moderate concentration, and >.18 shows high concentration approaching the monopoly.

The index HH has three theoretical drawbacks that focus on the following points:
A. Geographical extent of the market: The HH index measurement requires national approach; in the case of the Mexican Commercial Banking most competitors have a national participation.
B. Barriers to entry and rotation: The concentration ratio indicates no barriers to entry. In the case of the Mexican banking sector, the government imposed barriers to entry but there were changed in 2008. One of the main barriers is the concentration that hinders the entry of new competitors and restricts those already existing.
C. Market and industry: Basically, the classification concerns the Mexican banking sector (Parkin, 1995, p. 368).

6. Bank structure after concentration

This analysis delineates the two banks considered the largest due to their size, which in 1999 boasted 38.99 percent of total bank assets, and so had favourable structure compared to other banks. The analysis begins with Banamex which was bought by Citigroup in 2004 which was the largest financial group in the world. In the same year, Citigroup obtained a net income of 17 billion US dollars. This amount is equivalent to what the Mexican government receives annually on oil export (EFECOM, 2005). The two institutions’ joint assets amount to about 41,900 billion of US dollars, with almost 5 million bank accounts, 1549 branches and a staff of 31,404 employees.

It is important to observe that Citigroup retains the name of Banco Nacional de Mexico (Banamex) that was founded on June 2, 1884, because of the reputation and history of the institution as this is the oldest still existing bank in Mexico. This brand is an important intangible resource for the institution, expressing nationalism, confidence and solidity. The name change to Citibank would have implied the loss of some important resources for the development of the institution, because of the association of this mark with the United States.

Banks are under pressure to merge or build strategic alliances with other local or foreign-owned banks and technology firms in order to maintain access to information and share the costs to exploit new IT applications. On the ongoing emergence of digital banking technologies, Banamex, owned by Citigroup, has a joint venture with Commerce One to facilitate access to banking services and to develop a B2B project. Second is Bancomer which literally means trade bank. It was founded on October 15, 1932. Bancomer merged with Banco Bilbao Vizcaya Argentaria (BBVA). BBVA is one of the largest banks in Spain. From 1995, BBVA is developing and implementing a strategy of international expansion that leads it to build a great franchise in Latin America, making a significant investment in capital, technology and human resources (bbv.com, 2012).

In August 2000, the Group acquired Promex banking, a bank with strong presence in central and Western parts of Mexico. In June 2002, the financial group BBVA Bancomer became controlled society by the subsidiary company of Banco Bilbao Vizcaya Argentina, which came to hold more than 51% of
the shares of the Group. In February 2004, BBVA launched a tender offer for the remaining shareholding held by BBVA Bancomer minority investors, and managed to close at the 98.88% of total holdings (bancomer.com).

In this case, Bancomer maintains its name while it loses the yellow green colour which characterized the bank, replaced by the current blue and added the letters BBVA. The strategy here was to preserve the national identity of the Bank of Commerce in order not to influence or create ideas that the bank is Spanish-owned as this would create problems of identity issues prevailing in colonial Mexico.

These two cases are the evidences how the two largest banks weren’t really able to face the competition and competitive advantages, due to disadvantages and because of the situation. The most profitable option was to merge and then sell and integrate fully to foreign banks. This reinforces the resources of foreign institutions to acquire goods and the century-long reputation, national identity of these banks and the structure of branches and employees. At the same time, this reinforces the barriers to entry for access to the upper strata of the banking system.

Returning to the five competitive forces by Porter (1980), now in the context of the entry of foreign competitors:

• A. There is an intense rivalry among competitors. In this case we observe fierce rivalry with the entry of foreign institutions with expansive strategies, and a struggle of the weak against the stronger, so the rivalry resulted in the merger and acquisition of domestic banks.

• B. The threat of potential entry. This threat became a reality with the law reform of 1998 and the entry of foreign institutions with the freedom to expand.

• C. The bargaining power of competitors. It is clear that the bargaining power of competitors was so great that it generated the procurement process of the largest banks and the expansion thereof.

• D. The bargaining power of buyers. This feature is characterized by the accumulation of small capitals to form large aggregates in banking institutions in terms of consumers and their bargaining power. In much the same way, by knowing the current account, the credit bureau status among other information pertaining to the bank, this will generate an advantage to consumer. This way, banks concentrated monetary resources and collected economic information from the agents. These resources are essential and precious to the institutions as they enable them to reduce the risk of default. As for appearance of substitutes, the fifth force is suppressed because they are not considered substitutes for money and appropriations in this analysis.
To support the structure of the Mexican banking system and the effects of the strategic alliance in industry structure, the calculation of the Herfindahl-Hirschman index was performed. The sum of the squares of the participation of 39 banks for the first quarter of 2008 is 0.136 (Appendix Table 1). This result indicates a moderate concentration, but this index does not clarify the structure of the banking system.

The information from the National Banking and Securities was drawn in Table 3 which shows the six largest banks (taken from the Annex, Table 1).

Table 3. Relative participation of the banking system in 2008

<table>
<thead>
<tr>
<th>According to the amount of assets managed</th>
<th>Market penetration</th>
</tr>
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<tbody>
<tr>
<td>(Billions of pesos)</td>
<td></td>
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<tr>
<td>Banks</td>
<td>Percentage</td>
</tr>
<tr>
<td>BBVA Bancomer</td>
<td>23.712</td>
</tr>
<tr>
<td>Banamex</td>
<td>18.864</td>
</tr>
<tr>
<td>Santander</td>
<td>13.678</td>
</tr>
<tr>
<td>HSBC</td>
<td>11.373</td>
</tr>
<tr>
<td>Mercantil del Norte</td>
<td>8.734</td>
</tr>
<tr>
<td>Scotiabank Inverlat</td>
<td>4.432</td>
</tr>
</tbody>
</table>

Source: data from CNBV.

The list is headed by BBVA Bancomer with 23.71 percent of total assets, followed by Banamex with 18.86 percent. Another advantage in relation to resources by those who hold the banks is 42.57 percent of total bank assets, thereby creating a barrier to entry to the top of the banking sector.

In this case we don’t really speak about a commodity derived from production process; if the input of the bank is money issued by the Central Bank and the savings of the population among other liabilities, their product are assets that are issued by the bank in the form of loans, and profit of the bank is the financial margin as a net interest income plus the fees charged.

A critique of the accommodative monetary policy stance is the liquidity auction mechanism. This mechanism favours concentration to exert more power in the banking market. The six major banks have a competitive advantage over other banks in the auction mechanism. This provides resources to large banks to carry on their operations and increase their size.
Regarding the use of the window, as shown in Table 4, the six largest banks absorb 87.42 percent of total liquidity auctioned by the Central Bank through the window.

### Table 4. Distribution of the use of window

<table>
<thead>
<tr>
<th>Banks</th>
<th>%</th>
<th>Distribution of the use of window</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 banks</td>
<td>27.32</td>
<td>87.42%</td>
</tr>
<tr>
<td>Medium and small</td>
<td>2.184</td>
<td>6.99%</td>
</tr>
<tr>
<td>BARC</td>
<td>1.321</td>
<td>4.23%</td>
</tr>
<tr>
<td>Foreign subsidiaries</td>
<td>0.426</td>
<td>1.36%</td>
</tr>
<tr>
<td>Total</td>
<td>31.251</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Source: CNBV.

Medium and small banks have 6.99 percent of the distribution of the use of window; BARC (banks associated with retail chains) has 4.23 percent and small branches of foreign subsidiaries have 1.36 percent. In a concentrated structure, it generates a hierarchy in terms of market participants. This translates into bargaining power of competitors, which is diminished as there are two entities that control more than forty percent of bank assets. Under this information about liquidity auctions and the concentration of resources, if the production of a resource is controlled by a group (in this case, the appropriation of the resource by auction), returns available may decrease to the users of the resources, or if the resulting product comes from the use of a resource that can only be sold in concentrated markets. The existence of substitutes has to depress the returns of the holders of resources (Wernerfelt, 1984). In this case one can speak of substitute of money or credits which complicates the situation of clients.

The concentrated structure of the banking system can create barriers to entry between the same competitors, because of the position of its resources; it generated and established an advantage over a resource (money). The barriers of the resource position indicate a potential for high returns. It is possible to replace the traditional concept of resource base with a barrier to entry. What a company wants to generate is a situation where its resource position directly or indirectly makes it more difficult for others to achieve it (Wernerfelt, 1984). Table 5 shows how Bancomer gets a percentage value of benefits exceeding their percentage share in the market. It is noteworthy that the installed capacity including all branches, ATMs, etc. gives an advantage to the uptake of resources coming from people.
Table 5. Multiple bank

Market share

March 2008

(Millions of pesos and percentages)

<table>
<thead>
<tr>
<th>Banks</th>
<th>Asset</th>
<th>%</th>
<th>Total portfolio</th>
<th>%</th>
<th>Liabilities</th>
<th>%</th>
<th>Total uptake</th>
<th>%</th>
<th>Net profits</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total banking system</td>
<td>3,126,119.8</td>
<td>100.0</td>
<td>1,745,222.2</td>
<td>100.0</td>
<td>2,694,305.7</td>
<td>100.0</td>
<td>2,062,766.8</td>
<td>100.0</td>
<td>22,180.3</td>
<td>100.0</td>
</tr>
<tr>
<td>1 BBVA Bancomer</td>
<td>741,276.0</td>
<td>23.7</td>
<td>477,974.8</td>
<td>27.4</td>
<td>653,083.4</td>
<td>24.2</td>
<td>521,474.2</td>
<td>25.3</td>
<td>7,631.9</td>
<td>34.4</td>
</tr>
<tr>
<td>2 Banamex</td>
<td>589,718.5</td>
<td>18.9</td>
<td>264,855.4</td>
<td>15.2</td>
<td>481,521.5</td>
<td>17.9</td>
<td>339,170.9</td>
<td>16.4</td>
<td>3,931.9</td>
<td>17.7</td>
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<tr>
<td>3 Santander</td>
<td>427,597.7</td>
<td>13.7</td>
<td>232,060.4</td>
<td>13.3</td>
<td>361,111.6</td>
<td>13.4</td>
<td>261,803.7</td>
<td>12.7</td>
<td>4,528.9</td>
<td>20.4</td>
</tr>
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<td>4 HSBC</td>
<td>355,525.7</td>
<td>11.4</td>
<td>201,923.8</td>
<td>11.6</td>
<td>324,875.7</td>
<td>12.1</td>
<td>273,384.8</td>
<td>13.3</td>
<td>1,874.2</td>
<td>8.4</td>
</tr>
<tr>
<td>5 Mercantil del Norte</td>
<td>273,048.7</td>
<td>8.7</td>
<td>187,655.1</td>
<td>10.8</td>
<td>241,683.7</td>
<td>9.0</td>
<td>222,941.9</td>
<td>10.8</td>
<td>1,804.4</td>
<td>8.1</td>
</tr>
<tr>
<td>6 Scotiabank Inverlat</td>
<td>138,559.9</td>
<td>4.4</td>
<td>90,199.9</td>
<td>5.2</td>
<td>115,236.4</td>
<td>4.3</td>
<td>104,425.2</td>
<td>5.1</td>
<td>960.7</td>
<td>4.3</td>
</tr>
<tr>
<td>Total</td>
<td>2,525,726.4</td>
<td>80.8</td>
<td>1,454,669.5</td>
<td>83.4</td>
<td>2,177,512.3</td>
<td>80.8</td>
<td>1,723,200.7</td>
<td>83.5</td>
<td>20,732.1</td>
<td>93.5</td>
</tr>
</tbody>
</table>

Source: CNBV.
Bancomer and Banamex, being the largest banking institutions, have the highest uptake, reputation, customer loyalty, capacity, etc. – factors which generate economies of scale in the use of resources. These advantages are the first example of barriers to entry of the product because of the represented costs, in the case of tangible resources, and the difficulty of obtaining them, in the case of intangible attributes. These features move from a resource position barrier (Wernerfelt, 1984).

For the purpose of this paper, it is clear how important it is to maintain an advantage in the market. In this case, international institutions took advantage of weak position of the Mexican banking system to access and conquer it. This may be regarded as war strategy to expect that opponent becomes weak and then to attack and expect likely success. The process of expansion with the acquisition of the largest banks strengthens the barriers to entry to the upper strata of the banking system. This makes large institutions capture and hoard liquidity auctions and gives them “property right” on the key input of banking, the money. Therefore, institutions are strengthened in effect and maintain their leading position in the market.

6. The analysis of results

Banks operating in México are achieving more efficiency and higher rates of return by establishing relationships with corporate customers, lowering their operating costs and concentrating on their core activities. In this remarkable work it is the interaction of resources (tangible or intangible) in the positioning of companies, the opening to the entrance of foreign competition in a context of crisis and bank restructuring. In effect of this process, domestic banks compete with global institutions with superior advantages due to structural issues inherent in a developing economy and reinforced by the prevailing crisis.

The entry of global competitors from developed countries accelerated the process of concentration of banking assets. Excessive concentration of banking and financial operations may threaten economic growth and stability from the rising risks of exerting market power, higher interest margins and fees for services, etc. The increase in concentration due to mergers and acquisitions of multinational foreign parent banks is an issue related with a concern for the national economic development and growth. In the banking context, the ultimate resource for business is money. The public money uptaking and auctions of Central Bank liquidity are essentially raw material
for banking institutions. It becomes evident with larger institutions that have a “property right” over these resources to catch and handle them.

The dimensions they manage, the number of branches, staff, ATMs, etc., will generate economies of scale over competitors. This reinforces their position, the size of these banks strengthens their reputation and the loyalty of their customers, their bargaining power with customers, suppliers (customers and Central Bank) and competitors to create a bank hierarchy. Foreign bank lending to larger enterprises is concentrated through non-bank specialized institutions.

7. Conclusion and recommendations

A crisis can be understood as destruction of assets essential to maintain the position of a company. In the case of Mexico, destruction or weakening of intangible assets enabled international competitors to increase their power and expand quickly. This supports an idea that a company from a developed country has certain competitive advantages, especially if how its strategy is suited to enter a developing economy market. New entries have increased competition in the Mexican banking and financial sector.

A privileged position in a resource base of production strengthens the power of a company, as it is in the case of money, since big banks have more installed capacity to get the resources by capturing and auctions, which strengthens their position as leaders. Another advantages of foreign institutions are their experience in international markets, their ability to design strategies based on the globalization strategies (which did not exist in Mexican environment) in order to predict the effects of the entry of larger and stronger competitors.

From the point of view of Porter’s five forces, these are interpreted as weaknesses in the case of the 1994 crisis and the concept of weakness is reinforced by the entry of international competitors. One of the biggest mistakes by Mexican authorities was to open the entire banking sector to foreign investment. When considering the magnitude of changes over the last decades, banking concentration is one of the characteristics of banking industry restructuring in México, directly related to the international integration and expansion in the local market. Since 1997, concentration ratios of banking remain relatively high. Liberalization of foreign direct investment (FDI) in 1998 had an impact on the efficiency of the banking
industry related to the ownership concentration ratios, one of the highest among OECD countries.

The Mexican banking system is highly concentrated and operating in an oligopoly market. These ownership concentration ratios have increased from 75 percent in 1998 to 85 percent in September 2001 for the six largest banks operating in México. The top five banks operating in Mexico, which control around 80% of total banking assets, may continue forming and creating new strategic alliances, mergers and joint ventures to meet the domestic market. However, further mergers of banks may threaten competition and become a problem for the state and the society.

The economic power held by highly concentrated banking and financial industry may resist any economic policy dictated by the monetary, economic and regulatory authorities, and thus the effectiveness of moral suasion is reduced. In the case of Mexico it is considered that foreign large bank mergers with local banks increased market concentration but not enough to pose a threat to the overall competition levels because the market share remains dispersed.

The banking system is the core financial intermediary in the Mexican economy, but to be more competitive it requires diversification into other segments of the financial market to eliminate the risks of banking concentration.

References


http://www.nber.org/papers/w7714


## ANNEXES

### Annex A

**Index Herfindal-Hirshman, Multiple Banking first trimester 2008**

<table>
<thead>
<tr>
<th>Banking</th>
<th>Amount</th>
<th>%</th>
<th>Squares of %</th>
</tr>
</thead>
<tbody>
<tr>
<td>BBVA Bancomer</td>
<td>741,276.0</td>
<td>0.2371</td>
<td>0.05621641</td>
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<td>Banamex</td>
<td>589,718.5</td>
<td>0.1886</td>
<td>0.03556996</td>
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<td>Santander</td>
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<td>0.1368</td>
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<td>Interacciones</td>
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<td><strong>Total</strong></td>
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<td>0.1384</td>
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Sources: Data from CNBV first trimester figures 2008.
ISSUES OF USING THE PUBLIC CONTRACT PROCEDURE
BY THE BANK GOSPODARSTWA KRAJOWEGO
IN THE CONTEXT OF THE NOTION OF
“BODY GOVERNED BY PUBLIC LAW”.
CURRENT STATE AND AUTHORS’ PROPOSALS OF CHANGES

Sebastian Skuza¹
Piotr Lasecki²

Abstract

Entry into force of the Act of 29th January 2004 on Public Procurement (“PPA”) has in practice introduced the necessity of its application by the Bank Gospodarstwa Krajowego (“BGK”, “Bank”) from the moment of its entry into force. Fulfilling the provisions of the Act, the Bank encounters a number of barriers and difficulties related to the obligation to apply tender procedures while still being obliged, at the same time, to comply with the norms of the Act of 29th August 1997 on the Banking Law, and to care, through proficiency and effectiveness of operation for the safety and maximization of profit. The aim of this article is to present the issues in the area of objective application of the Public Procurement Act with regard to an entity possessing the status of a national development bank, which the BGK undoubtedly is.

JEL classification: K20, G21

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Introduction

Entry into force of the Act of 29th January 2004 on Public Procurement ("PPA") which substituted the Act of 10th June 1994 on Public Procurement, has in practice imposed the obligation on the Bank Gospodarstwa Krajowego ("BGK", "Bank") to apply the same. While meeting the provisions of the PPA, the Bank encounters a range of barriers and difficulties related to the duty to apply tender procedures, while at the same time it has to adhere to the norms of the Act of 29th August 1997 on the Banking Law and to care, through proficiency and effectiveness of its operation, for the safety and maximization of profit.

The specificity of the BGK’s activity, which, in addition to banking activities in scope of its own business, renders services related to means transferred by the State in the form of funds or the realization of government programs, results in a range of difficulties encountered as regards interpretation of the PPA in the scope of the obligation of its utilization encountering in determining a unified statement with regard to the full “subordination” of the Bank to the regulations of this Act [Letter of the Vice President of the public Procurement Office].

The aim of this article is to present the issues in the area of the objective use of the PPA with regard to an entity possessing the status of a national development bank, which the BGK undoubtedly is. The authors undertake to prove the thesis that, with regard to interpretative doubts of the Community Law, and conducting banking activity on the basis of the Banking Law, some regulatory changes concerning the application of the PPA with regard to some public contracts awarded by the BGK are necessary. The Authors apply the following research methods: descriptive, empirical material analysis and comparative analysis.
1. Criteria of the objective scope of application of the Public Procurement Act with regard to the Bank Gospodarstwa Krajowego

The objective scope of use or failure to use the PPA results from article 3 of the Act, which provides that the regulations of the PPA are applicable to legal entities, created in particular in order to satisfy needs of a public character, and not of industrial or commercial nature, if the entities specified in this regulation and in Article 3 section 2 items 1 and 2 of the Act (units of the public finance sector as understood by the act of 27th August 2009 on public finance and other national organizational units without legal personality), individually or mutually, directly or indirectly by means of other entities:
1) finance them in more than 50%;
2) possess more than half of the shares or stocks;
3) supervise the management body;
4) have the right to establish more than a half of the composition of the supervisory or management body.

In the case of the BGK, the most important thing, it seems, is to answer the question whether the BGK, on the basis of Article 3 of the PPA, may be deemed a “body governed by public law”. The provision of Article 3 section 1 item 3 of the PPA is an effect of implementation of the regulations of the Community Law.

Legal regulations of the Community Law implemented into the domestic law are as follows:

(2) Directive of the European Parliament and of the Council of 3rd March 2004 coordinating the public contract procedures of entities operating in the water, energy, transport and postal services sectors;
works contracts, supply contracts and service contracts by contracting authorities or entities in the fields of defence and security, and amending Directives 2004/17/EC and 2004/18/EC;


The regulations of the Community Law do not, however, include definition of services of a public character, without an industrial or commercial nature.

Pursuant to Article 8 section 3 of the Act of 14th March 2003 on the Bank Gospodarstwa Krajowego, the Chairman and Members of the Supervisory Board of the BGK are appointed by the minister appropriate for matters of financial institutions. As provided in Article 9 item 1 of the Act on Public Finance and in the standpoint of the financial law doctrine, bodies of the government administration are part of the sector of public finance [Kosikowski, 2003, p. 37]. The fundamental premise allowing to classify the BGK as part of the group of “bodies governed by public law” is the circumstance consisting in the Minister of Finance (as the entity appointing the Supervisory Board of the BGK) being an entity included in the finance sector as understood by the act on public finance.

With regard to the above, in order to specify whether the BGK is subject to the regulations of the PPA, it is necessary to determine what was the primary premise of its establishment, i.e. whether the BGK was established, in particular, in order to fulfil needs of public nature, without any industrial or commercial nature.

2. Analysis of the notion of “body governed by public law” in the context of the establishment and activity of the Bank Gospodarstwa Krajowego

Entities obliged to adhere to the regulations of the PPA are, in accordance with Article 3 section 1 item 3 thereof, those bodies which fulfil the conditions specified in this regulation, i.e. those which have been established in order to fulfil needs of public nature. In order to acknowledge the BGK as a contracting authority as understood by Article 3 section 1 item 3 of the PPA, it is not sufficient to prove that a public finance sector entity or a national organizational unit without legal personality finances its activity
as a legal entity in the prevailing part, supervises it or appoints its bodies. It is necessary, instead, to demonstrate that the BGK has been established in order to fulfil needs of public nature and that it may not be attributed with any industrial or commercial nature.

The answer to the question whether a given body may be included within the scope of the definition of a “body governed by public law” requires, first and foremost, determination of the aim for which it has been established – if it is not to fulfil needs of public nature, any further analysis becomes insubstantial. If, however, the aim of the activity of such an entity is the fulfilment of the aforementioned needs, it would be necessary to specify whether the needs for the fulfilment of which it has been established, do not have any industrial or commercial nature.

Marian Lemke formulates the definition of a “body governed by public law” as an institution [Lemke, 2001]:

(1) not aiming to acquire profit as part of its basic activity, most often not having any competition in the form of other entities on the free market, conducting activity in order to fulfil general needs, which are not fulfilled by commercial private enterprises, or such common needs, to the fulfilment of which the State wants to have exclusive rights or in relation to which it wants to exert special influence;

(2) possessing legal personality;

(3) remaining under the influence of the State or other contracting authorities, owing to it being financed in a prevailing part (above 50%) or managed or supervised by State or local government bodies.

The BGK has been established on the grounds of the ordinance of the President of the Republic of Poland of 30th May 1924 on the amalgamation (merger) of National Credit Institutions (Państwowe Instytucje Kredytowe) (“ordinance”). Article 5 of the ordinance specified the tasks of the BGK. Pursuant to this regulation, the tasks of the Bank included granting of long-term credit by means of issuing letters of lien, secured with a mortgage, general obligation bonds, railroad bonds, and for industrial and other needs – issuing bank bonds, supporting local government savings institutions, supporting construction initiatives and the reconstruction of the country and performance of all banking activities, with special consideration of the needs of the State and national and local government owned enterprises.

What follows from the aforementioned article is that during the establishment of the BGK, its tasks included activities of public nature, for the realization of which the influence was retained by the national authorities controlling the BGK, but also activities having no such nature,
i.e. performance of all banking activities. Thus, there is no doubt that the duties of the BGK at the time of its establishment did not exclusively include activities of public nature. The regulations of the ordinance did not exclude gainful activities. On the other hand, Article 13 of the ordinance pertained to the manner of distributing the profit of the BGK, so as early as at the moment of the Bank establishment the legislator admitted the possibility of acquiring profit.

In the case of an entity both realizing public tasks and conducting gainful activity, the argumentation pertaining to the definition of the notion of “body governed by public law” may mainly be based on the evaluation of the original aim of its establishment. It may thus be inferred that if an institution has been established in order to fulfil common needs, and it also has commenced conducting an economic activity for profit, it retains the status of “body governed by public law”, even if the activity conducted in public interest constitutes an insignificant part compared to its commercial activity. Therefore, a body governed by public law is an entity which has been established in order to fulfil public needs and the activity of which has not been aimed at acquiring profit at the moment of its establishment. What follows from the above considerations is that the BGK does not fulfil this condition. At the moment of establishment of the BGK, its tasks have been defined simultaneously as pertaining to the public sphere and the commercial sphere, aimed at acquiring profit.

Currently, while awarding the realization of an order for performance of a given service (e.g. construction works, renovations or IT equipment delivery) for its benefit, irrespective of the legal form of such order (PPA procedure or other regulations), the BGK follows strictly economic criteria, aiming at acquiring the highest quality of service, or delivery, for the most attractive price. This results from the principles of conducting banking and economic activity. There is no risk that, while awarding a contract, the BGK will follow other than economic criteria, automatically assuming that any possible financial issues of the Bank, originating from inefficient awarding of contracts, will be solved by the owner, which is the National Treasury. Taking the above into account, as well as the aim of establishment of the Bank specified in the regulations of the ordinance, there are – in the Authors’ opinion – premises to argue that the interpretation of the objectives of the PPA allows one to assume that the BGK is not a “body governed by public law”.

It is, however, not possible to fully exclude a contrary interpretation, i.e. one treating the BGK as a “body governed by public law”. One may, for example, consider examination of the interpretation of the definition
of a person of public law by the European Court of Justice in the case C-44/96 ("Mannesmann"). With regard to the issue of fulfilling needs of public nature, without any industrial or commercial character, the Court of Justice has noticed that if the institution to which the dispute pertained (state printing house transformed into a company) has been established in order to manufacture certain documents, which were strictly related to public contracts and the institutional activity of the State, it has been established in order to fulfil needs of public nature, without any industrial or commercial nature. Answering the remarks of the Austrian government, consisting in stating that the activity in question only constitutes an insignificant percentage of the printing house’s activity, the Court of Justice has decided that such an argument is insubstantial as long as the entity keeps fulfilling needs of public nature.

With regard to application of public contract procedures, Member States have not developed any uniform approach to national development banks. In Germany the Kredit für Wiederaufbau ("KfW") is treated as a contracting authority as understood by paragraph 97 item 2 of Gesetz gegen Wettbewerbsbeschränkungen ("GWB"), therefore it is obliged to adhere to the German law in the scope of public contracts. German regulations pertaining to public contracts are utilized only in case of contracts which achieve or exceed thresholds specified in the classic Directive. In the case of orders totalling in amounts below these thresholds, the KfW acts in accordance with internal standard operating procedures, which are very similar to the basic regulations of the German public contract law. The German legislation also acknowledges a range of departures included in paragraph 100 letter (f) of the GWB, which in principle reflect the classic Directive and other regulations of the Community Law. In Bulgaria, on the other hand, the activity of the Bulgarian Development Bank ("BDB") is treated as activity aiming at "fulfilling needs in the public interest". Such activity is understood as activity from which individuals benefit directly, e.g. postal services, delivery of electrical energy, public transport, healthcare, etc. The BDB is registered in the commercial register and possesses a form of a joint stock pursuant to the regulations of the Commercial Companies Code. It also possesses a banking license. In accordance with the public contract law, the BDB is not part of the group of “contracting authorities”. The BDB is, however, obliged to adhere to the national regulations implementing the classic Directive, as a participant of public tenders for financial services.
3. Summary and authors’ proposals of changes

The regulations of the PPA currently in force exclude application of the provisions of the Act for specific orders of the BGK related to its special position on the market. Pursuant to Article 4 item 2a of the PPA, the regulations of the Act do not apply to the BGK’s orders:

(1) related to the realization of tasks regarding the handling of funds created, entrusted or transferred to the BGK on the basis of separate acts, as well as to the realization of governmental programs in the part pertaining to:
   a) conducting bank accounts, performance of bank cash settlements and activity on the interbank market,
   b) acquisition of financial means for ensuring financial liquidity, financing the activity of handled funds and programs as well as refinancing lending;

(2) related to operations on the interbank market, regarding the management of the debt of the State Treasury and the liquidity of the national budget;

(3) related to performance of banking activity by the BGK, in the part regarding:
   a) opening and conducting bank accounts, performance of bank cash settlements and activity on the interbank market,
   b) acquisition of financial means for ensuring financial liquidity as well as refinancing lending.

The amendments of the PPA of 2009 and 2011 [Journal of Laws of 2009, No. 65, item 545 and Journal of Laws of 2011, No. 28, item 143] implementing the above negative catalogue (i.e. cases of non-utilization of the PPA by the Bank) seem to settle the issue of the necessity of adhering to full public contract procedures by the BGK and the inclusion of the Bank in the catalogue of entities specified in Article 3 section 1 point 3 item d, pursuant to the national law, even without settling the dispute on the level of the Community Law in scope of the notion of a “body governed by public law”.

The BGK is a national bank as understood by the Banking Law Act, which is not subject to exclusions in scope of adherence to prudential regulations and other obligations imposed by banking supervision. The necessity to conduct procedures specified by the PPA, in particular in the basic modes related to purchase of specific goods and services, makes the process
time-consuming, which may result in emergence of a number of risks, e.g. operational, credit or reputational risk.

In order to efficiently perform the tasks defined by the regulations of the Act on the Bank Gospodarstwa Krajowego, it is essential to recur to services of external consultants, among others legal, technical, financial, tax, insurance and marketing consultants with expert knowledge and experience at levels exceeding those of the BGK own staff. As regards nature of the tasks performed by the BGK, the necessity of awarding public contracts related to purchases of specialist consulting services (e.g. legal, technical or technological consulting which the BGK needs during participation in financing investments, e.g. in the project finance formula) is permanent, however the time between the acquisition of knowledge on a specific object of the contract and its scope, and the necessity of the Bank acquiring the required service is relatively short. Similar arguments are legitimate in event of deliveries – in order to efficiently and successfully perform the tasks entrusted to it, the Bank has to able to quickly react in order to carry out the necessary purchases [Statement of reasons to the draft].

With regard to the above, in the Authors’ opinion it seems justified to propose a negotiation procedure without announcement in the new draft act. This mode would, in principle, retain the rules of competition and the same time shorten the time of contracting. With regard to the above, the Authors propose addition of point 5 in Article 62 section 1 of the PPA, with the following wording:

“(5) the contract shall be awarded by the Bank Gospodarstwa Krajowego for deliveries or services, and its value shall not exceed the amount specified in the regulations issued pursuant to Article 11 section 8;”.

Negotiations without announcement are a procedure of awarding contracts in which the contracting authority negotiates the terms and conditions of the agreement pertaining to the public contract with the contractors selected by it, and then calls for tenders. The contracting authority organizes negotiations with no less than five contractors, which is a number ensuring competition, unless, due to the specialized character of the contract, the number of contractors able to perform it is lower, however never less than two. With regard to the above, the proposed amendment of the regulations would procedurally improve the public contract processes in the BGK, without excluding the assurance of coThe premises allowing to apply the procedure of negotiations without announcement have been included in the closed catalogue specified in Article 62 section 1 of the PPA. They should be interpreted strictly and used even in event of orders not
exceeding the Union thresholds, while the entity which invokes them has to be able to prove them.

In accordance with the indicated regulation, at present it is allowed to apply the procedure of negotiations without announcement exclusively in the following cases:

(1) if in the previous open tender or closed tender proceedings there were no tender bids, no applications for admission to tender procedure or all offers have been rejected on the basis of Article 89 section 1 point 2 of the PPA, i.e. the essence of the tender bids does not conform with the terms of reference on account of their incompatibility with the description of the subject matter of the contract, and the original terms of reference have not been amended in any significant manner;

(2) after prior performance of a contest, in which the prize is the call for negotiations of at least two authors of selected competition entries;

(3) the subject matter are goods manufactured exclusively for research, experiment or development purposes, and not for assurance of profit or coverage of incurred research or development expenses;

(4) occurrence of an urgent need of awarding a contract, not resulting from reasons attributable to the contracting authority, which could not be foreseen earlier, on account of which it is impossible to keep the dates specified for the open tender, closed tender or negotiations with announcement;

(5) unforeseeable circumstances causing the urgency of awarding a contract, not resulting from causes attributable to the contracting authority;

(6) lack of possibility to keep the dates specified for the open tender, closed tender or negotiations with announcement.

The solution proposed by the Authors does not completely exclude the BGK from the obligation to adhere to the PPA, however it enables the Bank to select service providers and suppliers in accordance with the procedure of negotiations without announcement provided in the PPA up to the contract value not exceeding EUR 207,000.00. Procedures pertaining to contracts of a higher value and contracts in scope of construction works would remain unchanged.

In the Authors’ opinion, this proposal is consistent with the Community Law. There is no doubt that the Community Law overrides the national law of the Member States. This results from the supremacy principle, which regards all Community legislative acts with a binding effect. Member States may not use the national regulations (as well as establish national laws) which are non-compliant with the Community Law. Article 7 of the Classic
Directive clearly states that “This Directive shall apply to public contracts which are not excluded in accordance with the exceptions provided for in Articles 10 and 11 and Articles 12 to 18 and which have a value exclusive of value-added tax (VAT) estimated to be equal to or greater than the following thresholds (…)”. Currently, with regard to contracts pertaining to deliveries and services, this threshold has been specified at the level of an amount equal to EUR 207,000.00. Thus it should be concluded that the classic Directive is not utilized with regard to contracts the subject matter of which are deliveries and services of lower values. Therefore, it should be accepted that Member States are in no way obliged to use solutions adopted in this Directive for proceedings totalling in “lower amounts”.

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PART 2.

FINANCE
THE ROLE OF MARKET MAKERS IN LIQUIDITY PROVIDING ON EMERGING OTC MARKETS

Piotr Mielus

Abstract

Market makers are key entities providing liquidity to the market. Their activity has influence on transaction costs that are expressed mainly by bid-ask spreads. On unregulated markets a research is quite often cumbersome due to lack of transparent data. The paper presents factors having influence on bid-ask spread quoted by market makers on selected over-the-counter emerging markets. The basis for the analysis are questionnaires provided by local market makers and reports regarding market structure published by market participants. The research encapsulates influence of price volatility, volumes, number and type of market makers on transaction costs. A dependence between these factors has been identified as well as determinants that motivate market makers to narrow the spreads. The spreads are lower in high volume and low volatility environment. Transaction costs are also dependent on a deal size and a current state of the market. Significant diversity of market participants and competition between market makers favour compression of bid-ask spreads even if prices are volatile and regard derivatives.

JEL classification: G14, G15, G19

Keywords: OTC market, transaction costs, market makers, market liquidity, emerging markets

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1. Introduction

Financial markets offer instruments which allow market participants to transfer risk or liquidity. Risk transfer is observed when one counterparty wants to get rid of the risk through hedging of the exposure and the other wants to purchase the risk in order to make money on price changes. Liquidity transfer is done through lending money by the party being overliquid to the entity borrowing cash in order to finance its exposure. The precondition to make a deal is a convergence of interest of the both sides of the transaction and a consent related to the price of the deal. However it is barely possible to match two sides of the deal having contradictory interests simultaneously, especially regarding more complicated instruments or large amounts. Hence, an intermediary is required which is eager to make a deal not connected with its current needs.

An ability to trade is dependent on the scope of market liquidity. Liquidity is created in majority by market makers. Market makers provide supply for the market and are obliged to quote prices of various financial instruments on request of market users that rise demand on particular trades. In fact market makers are an intermediary between two sides of the deal transferring risk or liquidity either way (Bernstein, 1987).

From market user perspective, transaction costs are mostly (but not exclusively) defined by bid-ask spread. Spread is created by market makers, who compete through its width, however also important are: quoting speed, quoting accessibility, variety of offered instruments and flexibility in meeting users’ specific needs. Bid-ask spread is dependent on the scope of competitiveness and risk level. Competitiveness measure is a number of market makers and an average size of the deal in comparison to the daily market turnover (Grossman and Miller, 1988). Risk measure is the price volatility and its distribution, especially divergence from normal (or lognormal) distribution (Mike and Farmer, 2008).

Spread can be modelled what was shown in research papers regarding exchange traded market. There is an evidence that transaction costs are shaped by an inefficient competition and a phenomenon of negative selection coming from information asymmetry between market participants (Bondarenko, 2001). Moreover, one should take into account constraints in position financing what was pointed out in the study of interdependence between market liquidity and liquidity exposure of market makers (Brunnermeier and Pedersen, 2009).

The issues of market depth, diversity of its users and price volatility patterns are important factors in the analysis of liquidity determinants and
transaction costs (Chordia et al., 2001). In this context it is significant to look at market liquidity changes due to publication of macroeconomic data or market sentiment revision. It is important to be aware of a conjugation between market makers and market users as far as liquidity is concerned. For instance, for investment products, spread is indirectly determined by liquidity premium, which has significant influence on market makers quotations (Amihud et al., 2005).

The paper examines the range of bid-ask spreads, average size and daily number of deals, quantity of market makers and a structure of liquidity sources in the unregulated emerging market. The author attempts to verify the thesis that there are tangible factors that determine the width of the spread in the given market. The most important factors analysed include: market size, price volatility and number of market makers and all were chosen on the basis of up-to-date literature (Scalia, 2008).

In order to point out factors that have direct and persistent influence on transaction costs, the author examined the following hypothesis:
- How size of the market and its level of instability impact prices quoted by market makers?
- How market makers shape quoted spreads for different deal sizes?
- What factors are perceived by liquidity providers as crucial for spread diversification in relation to product type?

The examination was performed on the basis of questionnaires and interviews with key local market makers on the Polish over-the-counter (OTC) market. The research was extended by the analysis of data published by global market player and a local central bank.

2. How market liquidity is created?

Market liquidity is defined as ability to buy or sell a given financial asset in a decent size without significant delay and at the current price. Liquidity of the market is determined by quantity of market makers and their scope of motivation to display good prices. The activity of makers depends on “pros and cons” balance (SWOT analysis). Bid-ask spread is an obvious advantage for liquidity providers as it guarantees cheap purchase and expensive sale of the given product. In practice, this theoretical assumption is far from reality as instant price changes may be bigger than a current spread. Market maker is endangered by asymmetry of information against some market users.
Hence, on volatile and competitive market bid-ask spread is not a key factor encouraging market maker to quote.

It is quite common that on very competitive markets the spread is not sufficient to cover price volatility risk. In such situation a motivation of market maker for providing liquidity for market users is in obtaining a significant share in daily volume. This way a market maker is collecting precious information about market flows. Such information may be helpful for profitable proprietary positioning what is popular on the OTC market. In longer term, profits on positioning can be higher than losses on market making caused by too narrow spreads in comparison to market volatility (Hasbrouck, 2006).

An additional factor advantageous for market makers is the ability to build an efficient client portfolio. Such portfolio consists of active counterparties having contradictory interests that can be matched by the market maker. Moreover, if a client trades in various market segments, low margin segments can be financed (subsidized) by high margin segments. Market makers active on extremely competitive markets (like foreign exchange) are using cross selling techniques to cover negative margin by sale of sophisticated (structured) products. Such products generate higher margin due to lower transparency and much wider bid-ask spreads which delivers positive net results for a liquidity provider.

A market maker is adversely affected by lack of liquidity and high variance of price returns. In such market conditions it might be doubtful to square the exposure at the reasonable cost. Other market makers are a source of price for all liquidity providers that quote to each other at reciprocal basis. Numerous market users are also helpful as they can neutralise current exposure by contradictory market flows (Stoll, 1989).

Therefore, market makers face a serious challenge to provide liquidity on a continuous basis and this reduces the number of makers eager to show prices for a particular asset or market segment. A key precondition to do so is a sufficient capital base, high enough for loss absorption and refinancing. For a big scale financial business, market making is a thin share of commercial activity, hence its impact on economic result should be insignificant. Both expected revenues and estimated risk are controlled by internal limits and should be described by an economic policy of the entity. It requires online risk monitoring and full access to current exposure and pricing data what is provided by appropriate know-how and IT infrastructure.

Moreover, the market making activity cannot be detached from the basic business profile of the entity. Market maker should have a natural client base and every day cash flows coming from its commercial activities. Clients
provide diversified cash flows and order flow which gives an opportunity to neutralize adverse exposure coming from a wholesale market. Clients’ deals are usually numerous and are priced with higher margins, thus generating stable income serving as “an airbag” for professional high volume market making activities.

The strict preconditions limit a number of entities which can provide liquidity to the market. Commercial banks only can meet these requirements if they have sufficient capital base, risk information systems and significant client flows that facilitate wholesale market making (Rösch and Kaserer, 2013).

For some financial assets (i.e. foreign exchange, interest rate) one can observe an advantage of OTC markets compared to exchange traded markets. Especially on emerging markets majority of trading is performed on the unregulated market. The rationale for that is a fact that exchange traded deals are anonymous and on the OTC market one trades on the bilateral basis. A market maker is reluctant to provide liquidity for exchange traded deals if the other side of the deal does not know who quotes the trade. Trading OTC, market user obtains a price from a particular market maker. The user appreciates a liquidity that was provided to him, therefore the market maker creates its own client portfolio. Makers quoting on direct basis are motivated to present narrow spreads in order to encourage users to trade with them. The more users decide to conclude the deal, the higher market share one can obtain, what has an important informational value for the maker. In consequence, competitiveness of the OTC market is high enough to shade higher risk of off-exchange versus exchange traded dealing (Galati, 2000).

It is worthwhile to add, that the OTC risk is mostly mitigated by legal documentation and financial collateral that covers pre-settlement risk. Nowadays these measures are extended by regulatory requirements regarding central counterparty trading.

3. Market data collection

Unregulated markets in contradiction to exchange traded markets do not provide transparent volume and price data. Therefore, data examined are constrained by their availability.²

² The author expresses his gratitude to the following Warsaw dealers who provided required market information and delivered valuable comments: Mrs Kamila Łukasik, Mr Mateusz Bieniek, Mr Andrzej Krzemiński and Mr Andrzej Walkowiak.
The data refers to the Polish zloty market regarding its various segments and were received through questionnaires and interviews. The market data were extended by some other currency emerging markets on the basis of the Deutsche Bank publication. Collected data can be divided in the following buckets:

• Bid-ask spread for cash and derivatives for a given currency (spread is normalized in percentage terms).
• Dependence of the spread on a deal size and market conditions (in order to grab price depth and sensitiveness to volatility).
• Number and geographical structure of market makers (which shows volume per maker and share of non-residents)
• Average daily turnover and average size of the deal (which implies an average quantity of deals within a working day)

Data expressed in PLN are most complete. It must be noted that time series for these data are not provided by public information services. The Appendix presents a choice of data collected for this paper.

4. Analysis of the chosen market parameters

The research is divided into three separate parts related to data sets obtained from market participants.

Firstly, factors having influence on emerging currencies’ spreads were examined. Secondly, a relation between a spread and a deal size or a state of the market was set. Thirdly, an analysis of spreads and a market structure for different PLN instruments was performed.

Collected cross-sectional data regarding 31 emerging currency markets are shown in the Table 4 in the Appendix. Data refer to the geographically widespread markets which ensures diversity of market makers coming from the key global financial centres (London, New York and Tokyo). The market localisation has influence on the determination of a key currency pair. The key pair minimizes a variance and provides the highest volume on the local market. The choice of the key pair was done on a basis of minimisation of standard deviation counted on daily returns recorded in 2013.

The following explanatory variables were applied to modelling: daily volume in millions of key currency (EUR or USD), average number of deals (a daily turnover divided by average size of the deal) and realized volatility (an annualized standard deviation of daily returns).
Both Pearson and Spearman correlations were calculated in order to estimate strength and a sign of the influence on dependent variable. The results are as follows:

Table 1. Correlation between bid-ask spread and variables observed on emerging currency markets in 2013

<table>
<thead>
<tr>
<th>Spread</th>
<th>Daily volume</th>
<th>Quantity of deals</th>
<th>Realised volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson correlation</td>
<td>-0.18</td>
<td>-0.11</td>
<td>0.33</td>
</tr>
<tr>
<td>Spearman rank correlation</td>
<td>-0.34</td>
<td>-0.07</td>
<td>0.29</td>
</tr>
</tbody>
</table>

Source: Author's calculation on the basis of EM Currency Handbook 2014, Deutsche Bank Securities, 19th December 2013 and NBP (Polish Central Bank) data.

The results suggest higher rank of volume than quantity of deals and contradictory influence of market size in comparison to a scope of instability. Having that in mind, a simple spread model is proposed as follows:

\[ S_i = \alpha + \beta_1 \cdot V_i + \beta_2 \cdot \sigma_i + \varepsilon_i \]

where:

- \( S_i \) – percentage spread for \( i \)-pair calculated as a quotient of difference between bid and ask price and an average price amounted in counter-currency
- \( V_i \) – turnover in millions of fore-currency for \( i \)-pair
- \( \sigma_i \) – standard deviation of daily returns of \( i \)-pair per annum

OLS estimation for 28 degrees of freedom brings the following results:

Table 2. OLS estimation results

<table>
<thead>
<tr>
<th>Estimator</th>
<th>Coefficient</th>
<th>Standard error</th>
<th>t-Student</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \alpha )</td>
<td>0.000279314</td>
<td>0.000281816</td>
<td>0.9911</td>
<td>0.33011</td>
</tr>
<tr>
<td>( \beta_1 )</td>
<td>-0.00016702</td>
<td>0.000057862</td>
<td>-2.8863</td>
<td>0.00742***</td>
</tr>
<tr>
<td>( \beta_2 )</td>
<td>0.0162423</td>
<td>0.00479646</td>
<td>3.3863</td>
<td>0.00212***</td>
</tr>
</tbody>
</table>

Source: ibidem.

The second examination was performed on the grounds of transaction costs range dependent on deal size preferable on PLN interbank FX market. Cost range is declared for key market users as a commitment “on best
efforts basis”. A lower range of costs defines a minimum spread commonly quoted on the calm market. A higher range is equal to a maximum spread for instable market. In consequence, we receive a spread range dependent on two parameters: the deal size and the market status.

Table 3. EUR/PLN range of the spread as a function of the deal size

<table>
<thead>
<tr>
<th>Deal size (mln EUR)</th>
<th>Min spread (bp)</th>
<th>Max spread (bp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>5</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>10</td>
<td>15</td>
<td>40</td>
</tr>
<tr>
<td>20</td>
<td>20</td>
<td>60</td>
</tr>
<tr>
<td>50</td>
<td>50</td>
<td>150</td>
</tr>
</tbody>
</table>

Source: market maker questionnaires.

The data presented comprise of deal sizes most popular on the interbank foreign exchange market. According to information received in the questionnaire, the spread is minimal for a common range of standard sizes. Higher sizes impose wider spread due to higher risk related to the process of exposure squaring. However, lower sizes are also related to wider spreads because of fixed costs connected with the deal ticket booking and settlement.

For calm market the spread is fixed in a range considered to be a standard size for the given market. The size increase brings non-linear broadening of the spread (the cost rises slower than the transaction amount). Meanwhile, spike in the market volatility brings parallel widening of the spread for all deal sizes.

Unfortunately, small sample prevents the described behaviour from modelling on the basis of empirical data.

The third study encapsulates various instruments quoted and dealt on the Zloty interbank market. The instruments are split into three groups regarding the underlying risk factors: foreign exchange (FX) deals, interest rate (IR) deals and liquidity derivatives. For FX and IR products both balance and off-balance instruments were taken into account. The results are an average of the figures revealed by local market makers in the questionnaire. Data comprise of a standard and maximum bid-ask spread, turnover volumes, an average deal size, a number of market makers, a share of non-residents and a typical source of trading. The market data are provided in Table 6 of the Appendix.
The data set enable us to draw the following conclusions:

• Bid-ask spreads are negatively correlated with the turnover volume and the quantity of market makers. Moreover a volume and a number of market makers are independently directly proportional. Actually, the crucial factor is a scope and a level of diversity of market makers what implies contradictory flows.

• Transaction costs decrease in line with the level of simplicity of the product and are smaller for short term maturities. The rationale for that is a transparency of pricing and a commonness of liquidity providing in a particular product. Definitely a level of competition in complex instruments is lower.

• Turnover dominates for cash (balance) products and diminishes for derivatives. Linear derivatives have lower spreads than options. The highest spreads are recorded for illiquid exotic options.

• Surprisingly, instruments with low turnover may have higher average size of the deal what means a high market concentration and a low quantity of deals.

• Share of non-residents (for PLN: mainly global banks trading out of London) is significant (75% on average). The highest local bank participation is recorded for cash products (FX spot and treasury bonds).

• The preferred way of matching is a brokered market. Brokers are intermediaries collecting the best offers from market makers and revealing them to the market. In contrary to market makers, brokers do not take a price risk. Market makers need brokers to retain anonymity till the moment the trade is concluded.

• E-trading on the OTC market refers to cash products only.

It is remarkable that liquidity for short term liquidity derivatives (FX Swap) is higher than for directional trades due to the fact that the risk of a change of the interest rate difference is much lower than the risk of a currency rate change. Moreover, volumes on the FX Swap market are sizeable as the instrument is utilized for a liquidity management. A liquidity risk is far more important than a market risk, especially after the Lehman Brothers collapse. FX Swaps are used not only for a position rollover but prevailing for financing balance exposures in various currencies. In an emerging market like Poland the role of this market is twofold: on a one hand it is needed for local banks to cover short liquidity positions in CHF coming from long term currency mortgage; on the other hand it is required for London banks as a source of the local currency for carry trades or investments in local bonds and equities that are immune from foreign exchange risk.
The attached table presents recalculated and standardized parameters of each market segment.

Table 4. Parameters of a turnover on the PLN market (daily average)

<table>
<thead>
<tr>
<th>Product</th>
<th>Minimal % spread</th>
<th>Turnover (millions PLN)</th>
<th>Number of deals</th>
<th>Number of makers</th>
<th>Volume per maker (millions PLN)</th>
<th>Deals per maker</th>
</tr>
</thead>
<tbody>
<tr>
<td>FX spot</td>
<td>0.02%</td>
<td>12 000</td>
<td>1 200</td>
<td>15</td>
<td>800</td>
<td>80</td>
</tr>
<tr>
<td>Vanilla option</td>
<td>7.5%</td>
<td>1 200</td>
<td>30</td>
<td>13</td>
<td>92</td>
<td>2</td>
</tr>
<tr>
<td>Barrier option</td>
<td>12%</td>
<td>200</td>
<td>10</td>
<td>10</td>
<td>20</td>
<td>1</td>
</tr>
<tr>
<td>T-Bond</td>
<td>1%</td>
<td>10 000</td>
<td>400</td>
<td>15</td>
<td>667</td>
<td>27</td>
</tr>
<tr>
<td>FRA</td>
<td>1%</td>
<td>4 000</td>
<td>27</td>
<td>11</td>
<td>364</td>
<td>2</td>
</tr>
<tr>
<td>IRS</td>
<td>1%</td>
<td>1 500</td>
<td>30</td>
<td>12</td>
<td>125</td>
<td>3</td>
</tr>
<tr>
<td>FX swap</td>
<td>n/a</td>
<td>20 000</td>
<td>100</td>
<td>10</td>
<td>2 000</td>
<td>10</td>
</tr>
<tr>
<td>Basis swap</td>
<td>n/a</td>
<td>1 200</td>
<td>12</td>
<td>8</td>
<td>150</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: market maker questionnaires.

The above table suggests that, for less liquid assets, only single deals can be traded by each market maker every working day. A huge number of deals is recorded for cash products only. Simultaneously, these products attract bulk of turnover in the clients’ market that is not an object of the interest in this research.

5. Conclusions

The above-presented diversity of market parameters indicating liquidity pattern of some segments of emerging financial markets, allows drawing the following conclusions.

First of all, the most liquid markets are those with a high number of market makers. A competition between liquidity providers compresses bid-ask spreads that are the basic indicator of transaction costs on the OTC market. Moreover, a significant turnover allows conclusion of high volume trades despite recorded instability of market prices (measured both by a realized variance and a volatility implied from option prices). Volumes are
proportional to the quantity of market makers that conclude the deal not only on proprietary basis but also on behalf of their clients. The liquidity can be augmented by diversity of market participants which increases a probability of contradictory flows. A higher diversity is possible if market makers are both local and foreign. Non-residents have different clients and market perception than resident banks. For example, Polish exporters being clients of local banks can create a flow contradictory to flows generated by global hedge funds being clients of market makers in London. It is a phenomenon helpful for the liquidity and market depth.

Secondly, the presence of the liquid cash market is a precondition for liquidity in derivatives. Off-balance products need a liquid and transparent underlying that ensures a reference price for correct pricing and risk hedging. One can observe a following conjugation: derivatives increase volumes on the cash market due to delta hedging and the cash market stimulates derivatives trading through underlying risk hedging or a speculation with leverage. Spreads on the off-balance market do not have to be wider as they depend on a structure of demand and supply on the particular market segment.

Last but not least, a dependence of a spread on a deal size is non-linear and non-monotonic and transaction costs are strictly connected with a current state of the market (its volatility). The dependence function is stable in a medium term due to the spread declarations of market makers stated to key market users. Non-linearity means that a spread is widening slower than a size of a deal. A parallel shift happens if a price instability rises. Eventually, non-monotonic function comes from a phenomenon of spread minimization related to standard (most common) deal amounts traded on the interbank market.

The study presented indicates a possibility of modelling a spread thanks to stable economic determinants observed on the market. It may help in estimation of transaction costs on new markets, for new instruments and in a different state of the market on a basis of long term dependences recorded by economic research. A forecasting of transaction costs can assist in taking decisions related to new trading activities and the prediction of potential benefits for liquidity providers.

Nowadays, transparency of unregulated market increases due to creation of trade repositories and coming obligation to clear some derivatives through certified central counterparties (in line with Dodd-Frank act in the US and EMIR regulation in the EU). Moreover, we can witness transfer of liquidity from the OTC to exchange traded markets due to higher costs of a traditional way of trading after the introduction of the new regulations. These phenomena may help in research studies of the market and increase
its stability and predictability what can bring a contraction of spreads in general.

References


Hasbrouck J. (2006), Empirical market microstructure: The institutions, economics, and econometrics of securities trading, Oxford University Press [DOI not available]


## APPENDIX

### Table 5. Chosen parameters for emerging market currencies

<table>
<thead>
<tr>
<th>Region</th>
<th>Local currency</th>
<th>Key currency</th>
<th>% spread</th>
<th>Daily volume (millions in key currency)</th>
<th>Number of deals</th>
<th>Realized volatility p.a. 2013</th>
<th>Spread / volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>London</td>
<td>PLN</td>
<td>EUR</td>
<td>0.02%</td>
<td>3000</td>
<td>600</td>
<td>6.34%</td>
<td>0.06</td>
</tr>
<tr>
<td>London</td>
<td>CZK</td>
<td>EUR</td>
<td>0.04%</td>
<td>1500</td>
<td>300</td>
<td>6.20%</td>
<td>0.10</td>
</tr>
<tr>
<td>London</td>
<td>HUF</td>
<td>EUR</td>
<td>0.09%</td>
<td>1500</td>
<td>300</td>
<td>8.42%</td>
<td>0.17</td>
</tr>
<tr>
<td>London</td>
<td>RON</td>
<td>EUR</td>
<td>0.11%</td>
<td>400</td>
<td>80</td>
<td>4.84%</td>
<td>0.36</td>
</tr>
<tr>
<td>London</td>
<td>HRK</td>
<td>EUR</td>
<td>0.13%</td>
<td>150</td>
<td>50</td>
<td>1.60%</td>
<td>1.29</td>
</tr>
<tr>
<td>London</td>
<td>LVL</td>
<td>EUR</td>
<td>0.21%</td>
<td>30</td>
<td>20</td>
<td>0.62%</td>
<td>5.46</td>
</tr>
<tr>
<td>London</td>
<td>KZT</td>
<td>USD</td>
<td>0.03%</td>
<td>250</td>
<td>25</td>
<td>2.27%</td>
<td>0.22</td>
</tr>
<tr>
<td>London</td>
<td>RUB</td>
<td>EUR</td>
<td>0.04%</td>
<td>8500</td>
<td>567</td>
<td>7.28%</td>
<td>0.09</td>
</tr>
<tr>
<td>London</td>
<td>TRY</td>
<td>USD</td>
<td>0.20%</td>
<td>7500</td>
<td>1500</td>
<td>9.22%</td>
<td>0.35</td>
</tr>
<tr>
<td>London</td>
<td>ILS</td>
<td>USD</td>
<td>0.04%</td>
<td>1350</td>
<td>90</td>
<td>6.56%</td>
<td>0.10</td>
</tr>
<tr>
<td>London</td>
<td>ZAR</td>
<td>USD</td>
<td>0.02%</td>
<td>6000</td>
<td>600</td>
<td>15.05%</td>
<td>0.03</td>
</tr>
<tr>
<td>London</td>
<td>KWD</td>
<td>USD</td>
<td>0.05%</td>
<td>150</td>
<td>20</td>
<td>2.24%</td>
<td>0.39</td>
</tr>
<tr>
<td>London</td>
<td>SAR</td>
<td>USD</td>
<td>0.00%</td>
<td>1500</td>
<td>24</td>
<td>1.32%</td>
<td>0.03</td>
</tr>
<tr>
<td>London</td>
<td>AED</td>
<td>USD</td>
<td>0.00%</td>
<td>1500</td>
<td>24</td>
<td>1.32%</td>
<td>0.03</td>
</tr>
<tr>
<td>London</td>
<td>QAR</td>
<td>USD</td>
<td>0.01%</td>
<td>500</td>
<td>13</td>
<td>1.58%</td>
<td>0.11</td>
</tr>
<tr>
<td>New York</td>
<td>ARS</td>
<td>USD</td>
<td>0.03%</td>
<td>250</td>
<td>250</td>
<td>2.79%</td>
<td>0.19</td>
</tr>
<tr>
<td>New York</td>
<td>BRL</td>
<td>USD</td>
<td>0.02%</td>
<td>13,000</td>
<td>4333</td>
<td>13.27%</td>
<td>0.03</td>
</tr>
<tr>
<td>New York</td>
<td>CLP</td>
<td>USD</td>
<td>0.10%</td>
<td>1500</td>
<td>300</td>
<td>7.84%</td>
<td>0.20</td>
</tr>
<tr>
<td>New York</td>
<td>COP</td>
<td>USD</td>
<td>0.28%</td>
<td>1200</td>
<td>60</td>
<td>6.45%</td>
<td>0.70</td>
</tr>
<tr>
<td>New York</td>
<td>MXN</td>
<td>USD</td>
<td>0.07%</td>
<td>11,000</td>
<td>1100</td>
<td>11.37%</td>
<td>0.10</td>
</tr>
<tr>
<td>New York</td>
<td>PEN</td>
<td>USD</td>
<td>0.07%</td>
<td>1000</td>
<td>67</td>
<td>5.18%</td>
<td>0.22</td>
</tr>
<tr>
<td>Tokyo</td>
<td>THB</td>
<td>USD</td>
<td>0.06%</td>
<td>650</td>
<td>163</td>
<td>5.99%</td>
<td>0.15</td>
</tr>
<tr>
<td>Tokyo</td>
<td>TWD</td>
<td>USD</td>
<td>0.06%</td>
<td>800</td>
<td>80</td>
<td>4.05%</td>
<td>0.23</td>
</tr>
</tbody>
</table>
The Role of Market Makers in Liquidity Providing on Emerging OTC Markets

<table>
<thead>
<tr>
<th>Tokyo</th>
<th>Currency</th>
<th>USD</th>
<th>Spread (%)</th>
<th>Quantity (Volume)</th>
<th>Bid</th>
<th>Ask</th>
<th>Bid Spread (%)</th>
<th>Ask Spread (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tokyo</td>
<td>KRW</td>
<td>USD</td>
<td>0.03%</td>
<td>8000</td>
<td>800</td>
<td>6.89%</td>
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<tr>
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<td>SGD</td>
<td>USD</td>
<td>0.02%</td>
<td>3500</td>
<td>467</td>
<td>4.66%</td>
<td>0.05%</td>
<td></td>
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<tr>
<td>Tokyo</td>
<td>PHP</td>
<td>USD</td>
<td>0.04%</td>
<td>800</td>
<td>400</td>
<td>5.54%</td>
<td>0.13%</td>
<td></td>
</tr>
<tr>
<td>Tokyo</td>
<td>MYR</td>
<td>USD</td>
<td>0.06%</td>
<td>3250</td>
<td>650</td>
<td>7.42%</td>
<td>0.13%</td>
<td></td>
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<tr>
<td>Tokyo</td>
<td>IDR</td>
<td>USD</td>
<td>0.50%</td>
<td>350</td>
<td>117</td>
<td>15.01%</td>
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<td></td>
</tr>
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<td>Tokyo</td>
<td>HKD</td>
<td>USD</td>
<td>0.00%</td>
<td>2000</td>
<td>100</td>
<td>0.84%</td>
<td>0.04%</td>
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<tr>
<td>Tokyo</td>
<td>CNH</td>
<td>USD</td>
<td>0.01%</td>
<td>2750</td>
<td>367</td>
<td>1.08%</td>
<td>0.20%</td>
<td></td>
</tr>
<tr>
<td>Tokyo</td>
<td>INR</td>
<td>USD</td>
<td>0.01%</td>
<td>4000</td>
<td>800</td>
<td>11.14%</td>
<td>0.01%</td>
<td></td>
</tr>
</tbody>
</table>

Table 5. Structure of the key segments of zloty OTC financial market

<table>
<thead>
<tr>
<th>PLN instrument</th>
<th>Bid-offer spread</th>
<th>Daily volume</th>
<th>Average deal</th>
<th>Number of makers</th>
<th>Non-residents share</th>
<th>Market place</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FX market</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FX spot</td>
<td>10bp (max 100bp)</td>
<td>EUR 3 bn</td>
<td>EUR 2.5 m</td>
<td>15</td>
<td>75%</td>
<td>eTrade, broker</td>
</tr>
<tr>
<td>Vanilla option (3M ATM vol)</td>
<td>0.75% (max 2%)</td>
<td>EUR 300 m</td>
<td>EUR 10 m</td>
<td>13</td>
<td>80%</td>
<td>broker, direct</td>
</tr>
<tr>
<td>Barrier option (3M KI/KO)</td>
<td>60bp (max 200bp)</td>
<td>EUR 50 m</td>
<td>EUR 5 m</td>
<td>10</td>
<td>85%</td>
<td>broker, direct</td>
</tr>
<tr>
<td><strong>Interest rate market</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRA</td>
<td>3bp (max 10bp)</td>
<td>PLN 4 bn</td>
<td>PLN 150 m</td>
<td>11</td>
<td>75%</td>
<td>broker</td>
</tr>
<tr>
<td>IRS (2-5Y)</td>
<td>3 bp (max 10bp)</td>
<td>PLN 1.5 bn</td>
<td>PLN 50 m</td>
<td>12</td>
<td>75%</td>
<td>broker</td>
</tr>
<tr>
<td>T-Bond (2-5Y)</td>
<td>3 bp (max 10bp)</td>
<td>PLN 10 bn</td>
<td>PLN 25 m</td>
<td>15</td>
<td>50%</td>
<td>eTrade, broker</td>
</tr>
<tr>
<td><strong>Liquidity derivatives</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FX swap (1Y points)</td>
<td>20bp (max 50bp)</td>
<td>EUR 5 bn</td>
<td>EUR 50 m</td>
<td>10</td>
<td>75%</td>
<td>broker</td>
</tr>
<tr>
<td>Basis swap (2-5Y)</td>
<td>25bp (max 50bp)</td>
<td>EUR 300 m</td>
<td>EUR 25 m</td>
<td>8</td>
<td>75%</td>
<td>broker, direct</td>
</tr>
</tbody>
</table>

Source: market maker questionnaires.
The role of private equity funds in financing
the development of Polish family businesses

Alicja Winnicka-Popczyk

Abstract
The article broaches the issue of private equity funds in financing the development of family businesses. The initial step was to prepare a definition and description of the fund, with particular focus on its advantages and drawbacks, scrutinised from the point of view of a family business partner. Further analysis concerned the appropriate preparation of a family business to co-operate with a fund, i.e. initial terms of transaction, the choice and due diligence of a fund, and the fundamental rules of collaboration within the investment period. The theoretical part of the article is illustrated with an example of a well-known jewellery company W. Kruk, which in 1993 was one of the first family businesses in Poland to commence a co-operation with a private equity fund. The financial and non-financial support offered by the fund dramatically accelerated the development of the company, strengthened its image and reputation, and contributed to the development of a strong brand, which in 2002 enabled the company to go public and enter the Warsaw Stock Exchange. In addition, the case of Eratech S.A. is presented, the company dealing with utilization of dangerous waste. Only owing to the support of funds like private equity/venture capital the business could start up its activity and remain in the family hands till now.

JEL classification: G24, G32, M10, M13

Keywords: family business, private equity, enterprise development financing

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1. Introduction

The optimization of the financing structure is one of the key factors in the development of family businesses, while other factors include: succession of power and ownership, professionalization of management, and conflict mitigation in the family circles to avoid negative influence upon the company’s operations. There are numerous ways to describe and classify financing sources in an enterprise, but any presentation must include the following: (a) the source of funds, (b) the entity in possession of the funds, (c) the application of the funds, and (d) the time allocated to the disposal of the capital (Skowronek-Mielczarek, 2007, p. 18). In the case of family businesses, which are – by nature – exposed to higher financial risk, the criterion regarding the ownership of the capitals amassed seems to be of utmost importance. In consequence, potential financing sources of a family business are divided into three categories: own capitals – the owners’ own contributions and company’s reinvested earnings, borrowed capitals, which most often take the form of credits and loans granted by financial institutions, but may also take some alternative forms (e.g. leasing, factoring, forfeiting, franchising, EU funds), investors’ capital contributions made as shares (private equity/venture capital, business angels, mezzanine financing), and the purchase of shares in a public or private offering (so called equity financing). There are a lot of business financing methods, yet not each of them is available to every economic activity or at each stage of operation. As Kurzawska has it, the size of business is the major barrier in raising funds. Large companies enjoy trust of financial institutions such as banks, which, before concluding an agreement, verify a candidate’s credibility. Small and medium sized companies mostly can’t prove their abilities to meet responsibilities resulting from crediting, due to their insufficient economies of scale. Private equity funds and venture capital in particular appear to be a real opportunity for spectacular development of such enterprises (Kurzawska, 2004, p. 3). According to Duda and Wolak-Tuzimek or Popczyk, the development of PE market has been greatly influenced by changes taking place in the world, namely by ongoing globalization, which makes business more open to new forms of cooperation (Duda, Wolak-Tuzimek, 2008, pp. 33-34; Popczyk, 2013, p. 8).

Over the last decade the Polish market has witnessed a constantly growing interest of private equity funds in family businesses (Fundusze..., 2008). At the same time, family businesses have been showing a noticeable change in their attitude towards this source of financing, which is confirmed by an increasing number of agreements signed with PE funds. The main purpose
of the article is an attempt to identify major benefits and threats in the process of financing a family business via private equity fund, and the analysis of the necessary preparatory steps which must be taken before collaboration with an investor begins, with particular focus on rules, regulations, terms and phases of such a co-operation. It is not the author’s intention, however, to scrutinise the operation of PE funds, since such knowledge is widely available in Poland. On the other hand, there are very few theoretical publications analysing the relationships between family businesses and funds, which makes at least partially bridging this gap the second aim of the article.

2. The development of private equity market in Poland

The European Private Equity and Venture Capital Association (EVCA) defines private equity (PE) as a form of equity investment into private companies not listed on the stock exchange, with the purpose of developing new products and technologies, increasing the company’s working capital, performing takeovers or strengthening the balance sheet structure, and solving ownership or management issues. Such investments are made in all sectors and at any stage of a company’s development, quite often with the intention of directly participating in the management of such a company. Venture capital, however, as a component part of private equity, is an investment in young companies at their start-up and then in their expansion phase (Private Equity Consulting, 2013, official website). Węclawski defines venture capital as “an equity put in on a limited period of time by external investors to small and medium sized businesses possessing innovative products, services or a unique production technology, which haven’t been verified by market yet and that’s why involve high risk of investment failure, but in case of success ensure substantial returns on the investment realized at the moment of selling the shares” (Węclawski, 1997, p. 17). To minimize the level of risk, the investor usually engages in management professionalizing it.

Private equity funds usually take the form of limited partnerships, with a lifecycle of between 7 and 10 years. The main objective is to exit the partnership with profit prior to its closure. A standard investment lasts 3 to 5 years, but occasionally it may be as long as 10 years. Refinancing allows the investors to close the fund prior to the maturity date of all the investments within. The fund-preferred stages of company development include the following stages: ‘seed’, start-up, expansion and further development (Official Journal of the European Union, 2010, pp. 59-61; Poutziouris, 2001, p. 279).
The development of the PE fund market in Poland started in the 1990’s, with foreign private equity funds as market pioneers. The available data concerning the early period and describing the beginnings of such investments are fragmentary, since Polish Private Equity and Venture Capital (PSIK), whose objective is to analyse the PE/VC market, was founded as late as in 2001, and regular research of companies that received PE funding have only been available since 2007 (Sobańska-Helman, Sieradzan, 2013). It is known, however, that 2011 was a record year in Poland when it comes to the value and number of PE investments and the value of partnerships exits. According to the EVCA, at that time funds invested over €680 million in 57 Polish companies. It is also worth emphasising that over 90% of the fund capitals originated from foreign institutional investors. PE investments constituted over 8% of foreign direct investments, with the majority of investments in mature partnerships – 72% of funds (€489 million). Dynamically developing partnerships received 24% of the invested funds (€163 million), while the youngest companies benefited from 4% (€27 million). The most popular
sectors were the consumer (32%) and telecommunications (31%) industries. In 2011 the funds exited 24 partnerships, selling the shares of initial value equalling €180 million, which meant the exit rate increased more than twice, compared to 2010. The majority of withdrawals were performed through the sale of shares to strategic investors (€125 million, 70% overall), and there was a substantial increase in the number of exits via the stock exchange – from €0.5 million in 2010 to €37 million in 2011 (Polish Private Equity and Venture Capital PSIK, 2013). In 2012, the Polish PE market also remained active, despite the contraction in M&A activities. Nevertheless, the indicators showed far worse relative values, as the overall investment value was 0.142% GDP, which put Poland in 13th place in Europe, and the PE/VC investments equalled 0.002% GDP, on an equal footing with Romania, and ahead of former Yugoslavia republics, Slovakia, Ukraine, Bulgaria and Greece (EVCA, 2013). In 2013, however, the number of transactions was expected to rise, as predicted by PE fund managers, due to the improvement of the global economic situation (the EVCA report will be available in May/June 2014).

2.1. The advantages of collaboration with a private equity fund

Offering a number of advantages (Private Equity Consulting, 2013), private equity investments contribute to growth in a company’s efficiency, providing an enterprise with financing opportunities at all stages of its development. A fund has a long-term prospect, focusing on the future, in contrast to banks which focus on the present, even when granting a long-term loan or credit. At the same time, as a co-owner of the enterprise with a position similar to the entrepreneur’s, the fund can afford to adopt a more flexible attitude to risk, to make decisions about the future of the enterprise, and to seek innovative and unconventional solutions, which is not possible with banks. No official collaterals are required, but in return PE investors demand more influence upon the enterprise and a higher equity risk premium. The entrepreneur maintains most control over management, and therefore, while choosing entrepreneurs, funds are looking for genuine leaders who – with the assistance of the funds – will be able to substantially increase the total corporate value of any given enterprise. The collaboration with a PE fund also increases a company’s trustworthiness, which translates into an improved brand image at home and abroad. Moreover, the capital that the company receives is followed by expertise in management, including international business contacts, whose acquisition could normally be very expensive and time-consuming. Another advantage is that a business remains a closed-type company, with very limited access to sensitive
information about the company, whereas raising capital via public offering obligates the entrepreneur to fulfil detailed procedural informative duties. This is a key aspect in the case of family businesses, which are extremely reluctant to reveal sensitive information, especially the data concerning family relationships and financial results. The company is also granted support in strategic management, with particular focus on constructing long-term development strategies and finance management. The company is not obliged to make any cash payments for the benefit of the fund (dividends, distributions, etc.), as it would have to do in the case of a bank loan or credit. Due to the ownership issue, participation of the PE fund does not diminish company’s creditworthiness, which allows it to acquire additional funds for its development, e.g. in the form of a bank loan, credit or lease. The presence of a PE fund also increases the effectiveness of the management in the company, e.g. in terms of the discipline of managerial staff – a private equity investor demands regular reporting, and thus it prevents ineffective undertakings and ensures the rationality of executed operations. The fund may also react instantly to situations overmatching the managerial staff, or predict future difficulties.

2.2. The threats resulting from an agreement with a PE fund

Entrepreneurs must be aware of potential threats and obligations resulting from collaboration with a PE fund (Private Equity Consulting, 2013), taking into consideration that the total cost of capital acquisition may be relatively high. A private equity fund may also restrict the entrepreneur’s freedom of operation, both in temporary management and in the preparation and implementation of development strategies. In exceptional circumstances, the entrepreneur might even lose his current position in his own company. It may also be necessary to get accustomed to new rules, regulations and additional duties such as regular organisation of board and supervisory committee meetings, preparation of interim reports, etc. The company is obliged to share the retained earnings with the fund, while banks only demand interest repayment, regardless of profit and gains. The fund provides relatively poor industry support, and, therefore, a strategic industry investor may have a more effective influence upon the growth and development of the company. A private equity fund is a temporary investment, since in several years the fund exits the partnership, which may have significant implications. Thus, the partners must develop a detailed exit strategy, which is such an important financial operation that it may often be performed only by making the company public. And the public offering scenario should be analysed
by the company prior to signing the PE fund agreement. Grzegorczyk emphasizes that the strategy of divestment should be a result of joint efforts of the business and the private equity fund (Grzegorczyk, 2012, p. 304).

3. The relationships between a family business and a private equity fund

Due to their financial stability, long-term planning and customer loyalty, family businesses are a good investment for private equity entities. On the other hand, however, as noticed by Budziak, they are not an easy partner and raise numerous doubts about such issues as low level of transparency, high percentage of informal connections, hidden non-business expenses, bringing family problems into the sphere of business, nepotism, different decision-making logic and dissimilar time horizons of operation (Budziak, 2013). In which circumstances should a family business consider concluding an agreement with a private equity fund? The right answer depends on the manner in which the company is planning to use financial means gained from its business operations. Does it hope to ensure financial liquidity through a partial withdrawal of financial means from the company? Would it like to sell the whole company due to succession or strategic reasons? Or maybe it wishes to take this opportunity to develop and expand?

In most cases, private equity investors are interested in the growth and development of family businesses. A PE fund should be treated as transitional capital, and thus, finding an attractive investor, negotiating terms, and planning his withdrawal at the end of the agreement period are the main issues related to the collaboration between a family business and a PE fund. A family business should, therefore, make appropriate preparations prior to the conclusion of an investment agreement (De Visscher, 2006, pp. 22-23; Cohen, 2006, p. 17).

3.1. Preliminary terms of cooperation with a PE fund

From the perspective of a family business the following preliminary stages are the prerequisites:

- **an appropriately developed concept of the company’s growth and the scheme of its implementation.** Prior to finding a PE investor, the company must develop a carefully thought out business plan, defining the way in which the capital will be distributed and how it will contribute to the
growth of the company. The current board ought to study, comprehend and support the scheme,

- **clearly defined liquidity needs of the owners** – when structuring a transaction with a PE partner, the company should identify the owners’ needs for liquidity. After joining a partnership, private equity investors will determine the possibilities to ensure liquidity for the family members. They will, however, demand to allocate most of their capital to be invested in the financial growth, and not in the liquidity of stock and shareholders,

- **an effective chain of command in the company** – prior to the introduction of PE investors, the family chain of command must be tested for functionality and efficiency. The board and/or the general meeting of stockholders/shareholders ought to assist in defining the family’s business objectives, and to counterweight the PE partners throughout the investment period (De Visscher, 2006, pp. 22-23, Cohen, 2006, p. 17).

3.2. Due diligence of the private equity fund

It is also imperative to perform due diligence of the potential fund, with regard to the following criteria as they are crucial for family businesses:

- **trust** – any relationships with PE funds must be developed with mutual trust and respect. It is highly advisable to perform a profound assessment of the PE managers, *i.e.* their career history, reputation and integrity,

- **job content skills** – the capital should not be the only asset the company receives from the PE partners. Their participation in the implementation of development schemes is equally important and, therefore, the company should search for a partner with a profound industry knowledge, who actively operates in the industry,

- **experience in collaboration with family businesses** – a PE partner must understand the unique character of a family business and, in an appropriate manner, address such needs and issues as: ownership liquidity and control, family board, organisational culture, family tradition and heritage, and attachment to the local community. It is also vital to analyse and assess any previous investments of the potential partner made in other family businesses,

- **background and reputation of the PE fund** – it is highly recommended to co-operate only with the funds that offer good standing with investments and collaboration with institutions from the economic and social environment. What makes a good partner is his readiness to support his investments even if they did not achieve the expected financial results (De Visscher, 2006, pp. 22-23; Cohen, 2006, p. 17).
3.3. A PE fund structure and the collaboration with a family business

The structure and operation of the fund should also be subject to analysis, with particular focus on:

- **the size** – the fund should be relatively small, because this guarantees the investment in the family business will be of great importance to the PE partner. In consequence, if the company needs 10 million zloty, a 500-million fund will not be appropriate. For larger funds such a relatively small amount of money will never be an important investment. Similarly, the fund must not be too small. Should the company need greater capital, the investor must be able to provide it. An investment in a family business should not account for less than 5% or more than 25% of the fund’s portfolio,

- **the management structure** – the majority of PE funds are formed by several professional investment partners and are managed by a general partner. A family company needs a fund which can draw senior management’s attention to the investment and maintain the continuity of dialogue with the family,

- **the type of fund investor** – not all PE funds are identical. Investment terms and flexibility are often determined by the type of investor within the fund. For instance, these PE funds whose investors are *multifamily offices* or *individuals* will by nature offer the highest level of flexibility regarding investment terms as well as best timing and exit strategies,

- **additional opportunities** – what kind of strategic management, board representation and business contacts can the PE partners offer? Sometimes a consulting company which provides counselling services for a family business undergoes a transformation into a PE fund and may upgrade its capital offer with a deeply strategic point of view (De Visscher, 2006, pp. 22-23; Cohen, 2006, p. 17).

3.4. Fundamental terms of co-operation between a fund and a family business

In order to build appropriate relationships a family business and a fund must address the following questions:

- **with regard to the investment structure** – what is the length of the investment? Do the investors plan to receive ordinary or preferred shares of the family business? What privileges do the investors expect? What percentage of ownership do they expect to receive in exchange for the invested capital? It is also worth remembering that the transitional
capital may be a minority or majority stake. Will the agreement include a takeover clause allowing the PE fund to take control over the company if it begins to fail to achieve specified results? And, finally, what rate of return do the fund owners expect?

– with regard to the board – how many seats in the board do the investors expect to receive and how actively are they planning to participate in the board’s operations? How many ‘outside people’ (e.g. managers, experts, advisors) would they like to employ? What resources and experience – e.g. new technologies, international contacts – will the ‘strangers’ bring into the company? (De Visscher, 2006, pp. 22-23; Cohen, 2006, p. 17).

In Poland, where many PE funds compete for a relatively small number of potential investment opportunities, a family business may be very fastidious about making its final choice. Therefore, it is worth looking for a partner who could offer something more than just money. After a carefully performed due diligence and planning process, the company should not encounter any difficulties in finding the right partner who will help it meet its business, family and liquidity objectives.

The well-known jeweller company W.Kruk is a good example of a family business which – as one of the first enterprises in Poland – established a very effective collaboration with a PE fund. Even though the company (and more precisely Wojciech Kruk) is now the shareholder of Vistula Group S.A. with 4.863% shares of the initial capital (Zawiadomienie…, 2013), the example still remains justifiable to illustrate an effective co-operation with outside institutional investors. The collaboration with the PAEF Fund (Polish-American Enterprise Fund) commenced in 1993, at an early stage of the company’s transformation triggered by the political changes and democratic transition in Poland in 1989. “It was when Polish capitalism was formed, so we all had to learn everything from scratch. The support and experience of an American fund helped us swiftly create a brand based on our family tradition. This was a factor that allowed us to become one of the most recognised, prestigious Polish brands” – says Wojciech Kruk (Najlepszy…, 2011). The development of a common strategy and the creation of good relationships between the family business and the investment fund was chosen as the most significant element of collaboration. In the case of W.Kruk, the fund allowed the family to keep full control over the company, and ensured its constant development – from a typical family business, later co-operating with the investment fund, to a public limited company. What is more, the fund also took a fresh look at the issues connected with the company’s fossilised corporate structure. And, last but not least, it did not impose any changes to
the identity, business features, brand logos or trademarks of the company. It was the collective interest to patiently build the company’s value, by jointly overcoming obstacles and mutual learning. The fund turned out to have been a counsellor who did not interfere without the need, but was always ready to offer advice and assistance in difficult times. The partnership with the fund facilitated the public offering of the company and resulted in its stock exchange debut. And all this because funds possess valuable experience in corporate governance, and are extremely effective in performing evolutionary, but not revolutionary transitions from ‘family business governance’ to the widely accepted ‘corporate governance’, which is greatly appreciated and appraised by stock exchange investors (Najlepszy…, 2011).

Another example of PE/VC investment in family business is Eratech S.A., established in 2000 by a group of specialists working for the utilization sector till then. They managed to identify a niche in that field. At the end of the nineties, majority of producers mainly focused on recycling insignificant wastes as paper, glass and plastic. Yet, there were no enterprises dealing with the utilization of dangerous substances as acids, emulsions, dissolvents and other chemicals. The new regulations on waste management came into force in 1996 and inspired the entrepreneurs to set up a business in the legal form of general partnership. Unfortunately, necessary capital was lacking for the start-up. Only in 1999 the financial support of a venture capital fund PBK Investments enabled the founders to start the business. The support amounted to PLN 1.3 million in return for 66% of shares in the ownership. The three graduates from the Lodz Institute of Technology, the founders of the business, were able to purchase, restore and adapt the production halls of the former company Anilana to the needs of their enterprise, owing to the VC funds. In 2001 the business was ready to implement the first orders and contracts. It has been operating up to now and remains under the control of family. The presented case proves the potential for family businesses to get financial support from PE/VC funds in spite of the general reluctance of the latter to engage into such entities. Moreover, the VC fund entered Eratech at the stage of start-up, as seems typical for capital investors of that kind (Tamowicz, 2004, p. 63).

3.5. Private Equity and the process of succession in family businesses

Polish family businesses which were founded in early 1990s will soon have to face a succession of power and ownership. In the great majority of these companies it shall be the founder’s will to preserve their family status. The
performance of succession appears to be a relatively straightforward task if there are successors willing to follow the founder’s footsteps. The situation becomes more complicated, however, when family successors do not plan active and/or passive commitment in the family business, or when there are no successors in the family business. Taking global trends into consideration, the sale of company to a PE fund seems to be a real alternative to family succession, also in Poland. Once the company has reached appropriately high rates of return, the fund will perform an efficient, secure and professional change of ownership, and, as a result, it will also turn the efforts of numerous family generations into cash, without withdrawing a prestigious brand from the market (Łagiewka, Koźuchowski, 2013). Therefore, not only do PE funds assume the role of a catalyst in the development of family businesses, but they can also prevent closures of enterprises when their current owners have lost the ability to run them successfully. The completion of a sales transaction is a very complex process that requires careful preparation and time, but the involvement of a PE fund may guarantee its legal and organisational correctness.

4. Conclusions

Taking into account the interests of family business, the analyses presented in the article make it possible to formulate several general conclusions regarding the relationship between a company and a PE fund:

– upon fulfilment of certain conditions, a private equity capital may constitute an effective form and possibility of support (not only financial), necessary for further development of a family business, or for financing its succession,

– the collaboration between a family business and a PE fund must be carefully prepared, including the preliminary terms of transaction, making the right choice, performing a due diligence process of the fund against the criteria set by the company, and detailed agreement on conditions of the contract, with particular focus on the investment structure and the fund’s participation in corporate management,

– in numerous cases the co-operation between a family company and a fund results in significant improvement in the quality of a company’s operations, and precedes its public offering (NewConnect or even Warsaw Stock Exchange),
funds may be a very effective support for the family businesses which are not capable of performing successful generation changes, especially if there are no successors in the family,
– the professionalization of a family business is another vital aspect, triggered by the presence of an outer factor in the form of a modern private equity fund.

To recapitulate, the speed of company development is very high in modern economy, and success depends not on decades or years, but – more often – on months of operation and management. PE funds address the needs of the companies willing to meet the high requirements of the market, and offer a chance for an accelerated development of family businesses, which are often run in accordance with obsolete and inadequate management models. To become reality, however, the co-operation between a family business and a fund must be meticulously prepared and based on the rules of genuine partnership that will satisfy both parties.

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Private Equity Consulting. Website dedicated to PE/VE funds.


RESOURCES AND COMPETENCIES IN THE FIELD OF FINANCE – THEIR SIGNIFICANCE FOR HOUSING COOPERATIVES FROM ŚWIĘTOKRZYSKIE PROVINCE

Izabela Konieczna¹

Abstract

The aim of this article is to examine the effectiveness of the system through the analysis of the validity and the state of resources and competencies in the field of finance in comparison with competition, basing on selected housing cooperatives in Świętokrzyskie province. The analysis is based on the results of direct interviews conducted, using a questionnaire, with six housing cooperatives. Results of the analysis show that each cooperative sees the importance of resources used and competencies had in the field of finance differently. However, from the point of view of competitiveness, cooperatives assess the highest the level of fixed unit costs, applied systems of managerial accounting, and the knowledge and abilities of financial and accounting services. Moreover, most cooperatives believe that their condition, in terms of resources and competencies they have in the field of finance is similar to that of their competitors.

JEL classification: G3, L2, M2

Keywords: Cooperatives, Resources, Competencies

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1. Introduction

A cooperative is a specific form of business as it differs from other organizational and legal forms – namely, it is a combination of association and company.

A housing cooperative is a corporation organized to buy, own and operate a residential building or property for the purpose of providing housing for its shareholders (Mallin, 1990). In a housing cooperative, people join to form a cooperative corporation which owns the buildings in which they live. Purchasing a share in the cooperative entitles each member to lease and occupy a dwelling unit from the cooperative and to participate in its operation. Each member pays a share of the cooperative’s monthly expenses. Housing cooperatives are democratically controlled, meaning that each member has one vote in deciding the affairs of the cooperative (Kennedy, Jermolowicz, Lambert, Reilly, Rotan, 1995). Members-owners purchase stock – sometimes called shares or membership certificates in the cooperative corporation. Upon purchasing stock in the cooperative, the member-owner becomes a shareholder, and signs a perpetual lease, called a proprietary lease or occupancy agreement, giving the member-owner legal and exclusive right to occupy a particular dwelling unit, on condition that all obligations to the cooperative are met (Sullivan, 2011).

The purpose of this paper is to examine the effectiveness of the system through the analysis of validity and the state of resources and competencies in the field of finance in comparison with competition, basing on selected housing cooperatives operating in Świętokrzyskie province in Poland. In order to achieve their goals and satisfy their existence and development needs, organizations have to collect and use necessary resources, which include physical resources (raw materials, machinery, and equipment), financial resources (capital, income, and profits), personal resources (staff and their qualifications), information resources (all kinds of data needed to take decisions) (Machaczka, 2001). The notion of resource is meant as anything that could be considered as a strength or weakness of a given business. More formally, resources of a business at a given time could be defined as those (tangible and intangible) assets which are semi-permanently tied thereto (Wernerfeld, 1997). The resources possessed by a business are the primary determinants of its performance, and these may contribute to its sustainable competitive advantage (Tokuda, 2005). To be a source of sustained competitive advantage, resources and capabilities must be (Hoopes, Madsen, Walker, 2003): 1. **Valuable**: A valuable resource enables a business to improve its market position relative to competitors. 2. **Rare**: To be of value in sustaining competitive advantage resources must be available in short supply relative to demand.
3. *Isolated from imitation or substitution.* To be rare, resources need to be immobile, and costly to imitate or to replicate.

Resource management is the comprehensive process of structuring the resource portfolio of a business, bundling the resources to build capabilities, and leveraging those capabilities with the purpose of creating and maintaining value for customers and owners (Sirman, Hitt, Ireland, 2007).

To effectively manage the business and protect its assets it is essential to possess reliable financial information and to have competent employees is one of the most significant components for improving operational efficiencies and reducing risk. Competent employees understand that their actions have financial impact on the enterprise. Resources and competences create strategic ability of a company, enabling it to perform difficult actions. They not only have to be adapted to the environment, but mainly they have to be developed to exploit new opportunities (Bratnicki, 2000).

Taking into account resources and competencies owned by the enterprise and the area of finance, it could be assumed that the sphere of finance consists of the following resources and competencies (Stankiewicz, 2002):

- financial potential of the enterprise,
- the share of technical cost of manufacturing in total cost,
- the level of total unit costs,
- the level of fixed unit costs,
- the level of labour unit costs,
- the possibility of financing the development from equity,
- the access to external financing sources,
- the potential of debt collection,
- the abilities in planning the revenues and costs,
- the systems of managerial accounting applied,
- the knowledge and abilities of financial and accounting services.

## 2. Validity of resources and competencies used by cooperatives

The analysis of the validity of resources and competences is based on the results of direct interviews conducted using a questionnaire in six housing cooperatives. Their executives were asked to assess a degree of importance of each resource and competence used by cooperatives in the field of finance from the point of view of competition. The interview findings are shown in Table 1, Figure 1 and Figure 2.
Table 1. Assessment of the validity of resources and competencies used by cooperatives in the area of finance from the point of view of competitiveness

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<th>Resources/competencies of the cooperative in the field of quality management</th>
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Rating scale: 5 – extremely important, 4 – very important, 3 – quite important, 2 – little important, and 1 – completely unimportant.
Source: Compiled by author.
Figure 1. Assessment of the validity of resources and competencies used by cooperatives in the area of finance from the point of view of competitiveness

Source: compiled by author.
Figure 2. Assessment of the validity of resources and competencies used by cooperatives in the area of finance from the point of view of competitiveness – average rating

Source: compiled by author.

From Table 1, Figure 1 and Figure 2, it is clear that five of six analyzed cooperatives considered financial potential of the enterprise as very important and one of them as quite important (the average rating is 3.8). The share of technical cost of manufacturing in total cost is considered as extremely important by one cooperative, as very important by three, as quite important by one, and as little important by one cooperative (the average rating is 3.7). The level of total unit costs and applied systems of managerial accounting are found as extremely important by one cooperative, as very important by three, and as quite important by one cooperative (the average rating is 3.8). The level of fixed unit costs is considered extremely important by one cooperative, as very important by four cooperatives, and as quite important by one cooperative (the average rating is 4.0). The level of labour unit costs is found very important by one cooperative, as very important by four cooperatives, and as little important by one cooperative (the average rating is 3.8). The possibility of financing the development from equity was considered extremely important by one cooperative, very important by four
cooperatives, and little important by one cooperative (the average rating is 3.8). The access to external financing sources and possibilities of debt collection are found very important by five cooperatives, and little important by one cooperative (the average rating is 3.7). Possibilities of debt collection are considered extremely important by one cooperative, very important by four cooperatives, and little important by one cooperative (the average rating is 3.8). The abilities in planning the revenues and costs are considered extremely important by one, very important by three, quite important by one, and little important by one cooperative (average rating is 3.7). The systems of managerial accounting applied are found extremely important by one cooperative, very important by four, and quite important by one cooperative (the average rating is 4.0). Finally, the knowledge and abilities of financial and accounting services are believed to be extremely important by one cooperative, very important by four, and quite important by one cooperative (the average rating being 4.0).

Figure 3. The assessment of the validity of resources and competencies used by cooperatives in the area of finance from the point of view of competitiveness, with division into cooperatives

Source: compiled by author.
Analyzing each cooperative separately, and taking into account Table 1 and Figure 3, it occurs that:

- Cooperatives “A”, “C” and “D” all indicated resources and competencies considered as very important.
- Cooperative “B” considered the following very important: the share of technical cost of manufacturing in total cost, the level of total unit costs, the level of fixed unit costs, the level of labour unit costs, possibilities of debt collection, systems of managerial accounting applied, and the knowledge and abilities of financial and accounting services, assessing, at the same time, the following as as very important: the financial potential of the enterprise, the possibility of financing the development from equity, and access to external financing sources. The abilities in planning the revenues and costs were considered quite important.
- Cooperative “E” considered the financial potential of the enterprise very important. It assessed the following as quite important: the share of technical cost of manufacturing in total cost, the level of total unit costs, the level of fixed unit costs, systems of managerial accounting applied, and the knowledge and abilities of financial and accounting services, while as little important: the level of labour unit costs, the possibility of financing the development from equity, access to external financing sources, possibilities of debt collection, and abilities in planning the revenues and costs.
- Cooperative “F” considered as extremely important the possibility of financing the development from equity, and abilities in planning the revenues and costs while as very important: the share of technical cost of manufacturing in total cost, the level of fixed unit costs, the level of labour unit costs, the access to external financing sources, possibilities of debt collection, systems of managerial accounting applied, the knowledge and abilities of financial and accounting services. As little important it reckoned the financial potential of the enterprise, and the level of total unit costs.

3. Resources and competencies in the field of finance in comparison with competitors

In the second part of the questionnaire, executives of housing cooperatives were asked to assess the state of resources and competencies used by cooperatives in the area of finance. The interview results are shown in Table 2, Figure 4 and in Figure 5.
Table 2. Evaluation of the state of resources and competencies used by cooperatives in comparison with competitors

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<th>Resources/competencies of the cooperative in the field of quality management</th>
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State: B – better, S – similar, W – worse.

Source: Compiled by author.

**Figure 4. Evaluation of the state of resources and competencies used by cooperatives in comparison with competitors**

State: 1 – better, 2 – similar, 3 – worse.

Source: Compiled by author.
From Table 2 and Figure 4, it is clear that:

- better state of resources used and competencies in the field of quality management in comparison with the competition occurs in the case of financial potential of the enterprise in one cooperative.

- similar state of used resources and competencies in the field of finance in comparison with the competition occurs in all cooperatives as regards the share of technical cost of manufacturing in total cost, the level of total unit costs, the level of fixed unit costs, the level of labour unit costs, abilities in planning the revenues and costs, systems of managerial accounting applied, and the knowledge and abilities of financial and accounting services. In the case of financial potential of the enterprise, the possibility of financing the development from equity, access to external financing sources, and possibilities of debt collection, five cooperatives declare similar level compared to their competitors.

- worse state of resources used and competencies had in the field of finance in comparison with the competition is declared in the case of the possibility of financing the development from equity, access to external financing sources, and possibilities of debt collection.

Figure 5. Evaluation of the state of resources and competencies used by cooperatives in comparison with competitors with division into cooperatives

State: 1 – better, 2 – similar, 3 – worse.
Source: Compiled by author.
When analyzing each cooperative separately, it turns out that:

- Cooperatives “A”, “B”, “C”, “D” and “F” conclude being at a similar level compared to the competition in all the resources and competencies indicated.

- Cooperative “E” concludes it is in better condition compared to the competition in terms of financial potential of the enterprise, and in a similar one as regards the share of technical cost of manufacturing in total cost, the level of total unit costs, the level of fixed unit costs, the level of labour unit costs, abilities in planning the revenues and costs, systems of managerial accounting applied, and the knowledge and abilities of financial and accounting services. On the other hand, a worse level in comparison with competition occurs in terms of the possibility of financing the development from equity, the access to external financing sources, and possibilities of debt collection.

4. Conclusion

An analysis of the validity of resources and competencies in the area of finance, based on the results of the research conducted in housing cooperatives from the Świętokrzyskie province, shows that, from the point of view of competitiveness, cooperatives assess the level of fixed unit costs, applied systems of managerial accounting, and the knowledge and abilities of financial and accounting services as highest. As lowest, in terms of validity, the cooperatives assess their share of technical cost of manufacturing in total cost, access to external financing sources, and abilities in planning the revenues and costs. Results of the research of competitive potential determined by the state of resources in comparison with competitors show that five out of six cooperatives in question recognize that the state of all kinds of resources and competencies in the field of finance is similar to that of their competitors. One cooperative concludes that the state of one of its resources / competencies is better, and the state of three of its resources / competencies is worse than in its competitors, while the state of other resources and competencies is at a level similar to the competition. The above-presented research results only relate to a few of housing cooperatives, it is therefore necessary to carry out a research based on the larger sample in order to obtain more generalized results relating to the industry.
References


EMPIRICAL ANALYSES OF A CEE COUNTRY ATTRACTIVENESS FOR FOREIGN DIRECT INVESTMENT

M.Sc. Matjaž Rihtarsic¹
M.Sc. Tanja Rihtarsic²

Abstract

Globalization is changing the economic area into a unified market as it removes economic, political and other obstacles. Therefore, companies must ensure competitiveness and strengthen their development capabilities. It is also an opportunity for growth. One of the ways to achieve growth is through foreign direct investment (FDI). In this research the attractiveness of FDI in Bosnia and Herzegovina will be assessed compared to other countries of Central and Eastern Europe. An additional contribution to the current model research will be given in the form of comprehensive overview and explanation of factors which influence this decision in connection with factors at the national level. Globalization is the guide to changes in the world today and it has been particularly tense over the last decade or two. Competitiveness of companies is the key to their long-term existence. This forces the companies into a process of internationalization in which they seek to find cheaper production sources, to achieve economies of scale, to enter new markets and ensure continuous improvement of processes along which they operate. Also, FDI have positive impact on domestic competition.

JEL classification: F23, F21

Keywords: growth, competitiveness, FDI, globalization, countries of CEE

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1. Introduction

The internationalization of business is a term that defines the process of spreading across borders, while globalization as a concept defines the status achieved. Globalization and internationalization are complementary concepts. The concept of internationalization is more focused on the process, while the term globalization refers to the achieved cross-sectional state. Internationalization is not a process that takes place in one direction; instead, it is by its very nature a two-way process (Dubrovski, 2006). The well-being of society and the people is undeniably an objective in pursuit of which each country improves their competitiveness. Foreign direct investments (FDI) play a very significant role in this. The overview of theoretical starting points is given in the second section. The third section gives an overview of existing literature about factors which influence FDI. The fourth section presents additional methodological starting points for the research. The research is done using the method of ratings, i.e. the same as used by UNCTAD with calculation of attractiveness and prosperity of individual countries for FDI index. The fifth section provides the results of the analysis of Bosnia and Herzegovina attractiveness for the automotive industry. The findings with recommendations for further research are listed in the sixth section.

2. Theoretical concepts

The extent depends on the following conditions (Dunning, 1993): ownership-specific advantages, which may be tangible (technology, natural resources, capital and labour) and intangible (information, knowledge), the ability to maximize the profitability through different forms of internationalization (direct export, production abroad, franchising, etc.) and the ability of countries to exploit specific advantages resulting from their geographical location. The implementation of all three types of strengths depends on compliance with a company’s strategy. The above-mentioned motives most commonly complement each other; sourcing, searching for markets, efficiency increasing and strategic reasons. The attractiveness of countries for foreign direct investments (FDI) is rated similarly as measuring competitiveness – we estimate decisions made on microeconomic level, using macroeconomic data, basing upon Dunning’s theoretical concept mentioned before. Every investment-related decision defines the selected location on the basis of individual choice. Nevertheless, we can use the methods to
calculate attractiveness using selected factors. The rating we get is relative and there are quite a few methodological and substantive concerns in this context. The trend of FDI is a complex problem. It consists of various intertwined multidimensional variables. Factors most frequently applied include an accessible market, liberal government policies, technological infrastructure, educated labour force and cultural preference for FDI. The analysis was done on selected CEE countries. In analysis of competitiveness, we used data obtained from the World Economic Forum.

FDI and positive impact it has upon the inward economy through strengthened domestic competition, R&D spill-over effect and better productivity performances are reported in a number of studies (Wie and Lui, 2006; Buckley, Clegg and Weng, 2005).

Traditional theories of international exchange are the oldest. This group includes A. Smith’s theory of absolute advantage, Richard’s theory of comparative advantages, Hekschler’s and Ohlin’s HO model of production factors and Leontief’s upgrade of the model (Daniels, Radebaugh and Sullivan, 2007). The basic assumptions are based on the diversity of production factors, interest rates, stage of development and location factors identified as causes for international trade (Svetličič, 1996). They are all trying to answer the questions of when, where, who and how companies should involve in international trade.

Porter’s diamond theory of national competitive advantage (Daniels, Radebaugh and Sullivan, 2007; Hämälainen, 2003) is one of most frequently used theories these days. Determinants which affect the internationalization of business operations include: factor terms (resources, personnel, infrastructure, entrepreneurial structural strategy and competitiveness, demand conditions, supporting and complementary industries. These determinants create an environment in which companies compete and develop. Competitiveness of national economy is based on innovation and ability to adapt and update. Intense competition is forcing companies to gain competitive advantage. Knowledge is becoming an increasingly competitive advantage, which may be provided by the state. Cultural characteristics of a nation, the institutional framework, economical structures and other factors of the country also influence the competitiveness of businesses (Czinkota et al., 1995). Porter later added another two determinants: the impact of the government and its policies, and coincidence. Both are external factors and as such have no direct impact on any specific company. Coincidences relate to war, coincidental inventions, changes in demand, etc. The impact of the government is reflected through tax and customs restrictions, granting of subsidies, economic and fiscal policy of the country.
Modern theories of international exchange have an ambition to supplement traditional theories of international exchange. The clarification is often explained by the technological factors (Krugman and Obstfeld, 2006). Strategic trade policy states that the pattern of international trade is affected by large enterprises with the support of their government. Here, a key role is played by politics on one hand and R&D or high technology on the other hand (Svetličič, 1996). Recent international theories are focusing on FDI as well as on international exchange. Hymer's model of specific advantages, Verno's model of international life cycle of a product and internationalization theory are also included here (Piggott in Cook, 2006).

The next group consists of theories based on the internationalization process rather than on the assumption of international trade. Here we include the theory of network approach and transnational theory (Jaklič in Svetličič, 2005). Dunning presented the theory of investment development path. The largest contribution to the theory is in the dynamics of the theory itself, the clarification of FDI flows and the role of the government in these flows and in increasing competitiveness in general (Buckley in Castro, 1998).

The concept and the idea of internationalization have been developed in 1937 by Coase. He concluded that the market is expensive and inefficient for certain products, which results in high transaction costs. If the transactions within a company can be held on a level lower than market cost, the company decides to internationalize (Coase, 1937 in Rojec, 1994). In 1976 Buckley and Casson presented (Henisz, 2003; Rojec, 1994) a theoretical point of departure from country-specific advantages of the factors and characteristics at companies' level and individual industrial sectors. They researched the market of half products and capital market. They found that specific advantages of a company, such as hidden knowledge (also tacit knowledge) and innovation, lead to the internationalization of companies' operations. Today, this is the key theory which explains FDI. The basic hypothesis of the theory is that the company internationalizes its activities when the costs of such transactions are lower than the costs of transactions on the market. Internal transfer becomes cheaper. In this case the internationalization occurs due to high production of mid-phase products (Svetličič, 1996). The most significant representative is the Uppsala stage internationalization model (Jaklič and Svetličič, 2005). The model foresees four phases of internationalization; pre-export phase, exports through independent agents, the establishment of a trading branch and the establishment of a manufacturing branch abroad. Kojimo's macroeconomic theory focuses on factors which affect the transfer of production from countries with high labour costs to those with low labour costs. He later renamed his theory to
theory of tracing cycle of production and illustrated it with the flight of geese. The point is that the import of a product is followed by domestic production and export according to the changing of competitive position (Svetličič, 1996).

In his eclectic paradigm and OLI model, Dunning (1993) used specific strengths of the company as well as specific local benefits. Particular strengths of the company are a necessary but not a sufficient condition for internationalization. The basic idea is that the company upgrades ownership-specific strengths with the help of location advantages, therefore it decides for a process of internationalization. Better conditions, cheaper inputs or institutional strengths allow the company to exploit its advantages. Other theories we also include are The International Financing Hypothesis, The Currency Areas Hypothesis and The Hypothesis of Diversification with Barriers to International Capital Flows.

3. Literature Overview

Attractiveness of countries for foreign direct investments (FDI) is rated similarly as measuring competitiveness – we estimate decisions made on microeconomic level using macroeconomic data. Every investment decision defines a location selected basing on an individual choice. Nevertheless, we can apply methods to calculate attractiveness using selected factors. The rating we get is only relative and subject to quite a few methodological and substantive concerns. Listed below are three most obvious concerns. The first weakness stems from the name itself – as a contrast between the concept and indicators of competitiveness. Competitiveness is a field of economics where we analyze the situation and strategies with which countries create and maintain the environment. This environment allows continuous growth of added value of businesses and greater welfare of society (Garelli, 2006). The foundation of the concept of competitiveness is in microeconomics, where we compare competitiveness of individual economic subjects. The country’s competitiveness, instead, is about macroeconomic indicators. This leads us to the second weakness – the theoretical framework is very broad and undefined. The third shortcoming is related to the method of data acquisition, sampling method, recognizable composition of samples and method in interpretation.

The trend of FDI is a complex problem. It consists of various intertwined multidimensional variables. Factors most frequently taken into account...
include an accessible market, liberal government policies, technological infrastructure, educated labour force and cultural preference to FDI (Sethi et al., 2003). World Trade Organization (WTO, 2011) recommends a mix of the new factors cited above: GDP, political stability, economic stability, infrastructure, level of trade barriers and others. The research of Buckley, Devinney and Louvir (2007) classifies the influence of various factors on acceptance of decisions. The most important influences are the return on investment, market growth and market size. The least important influence is cultural dimension. In addition, it was found that decision makers with more experience are less afraid of making decisions. Foster (2000) recommends a three-stage analysis. The first stage is the analysis of the target country, its culture and infrastructure, its available workforce and political risk. The second stage is the analysis of the industry if the industry already exists in the target country. The last stage is the evaluation of individual project value.

United Nations Conference on Trade and Development (UNCTAD) has published two indices: the index of attractiveness of countries for FDI (FDI potential index) and the index of successful acquisition of foreign direct investment (FDI performance index).

There is a lot of different literature on which factors and to which extent influence the implementation of foreign direct investment. In the previous chapters various theoretical frameworks were presented. Certainly there are analyses of all the different models. Wheeler and Moody (1992) state there were many significant factors when U.S. companies invested abroad – political risk, function of administration and bureaucracy, corruption and legal system. Lall and Naruja (2004) indicate the importance of openness of the countries for economic development and the importance of access to technology, knowledge transfer and access to international markets. Vadlamannati, Tamazian and Irala (2009) divide factors into macroeconomic (labour, policy, macroeconomic risk), institutional (consistency of government policy, corruption, freedom), political (regime and stability, the level of conflict) and social (literacy rate, infant mortality rate). Kinoshita and Campos (2003) define the importance of location specific factors, such as low cost of the labour force, the size of the domestic market, infrastructure and sympathy for countries of Western Europe and the influence of institutional factors such as the policy of individual governments, macroeconomic policy and functioning of institutions in particular. Woodward and Rolfe (1993) have sought the influence on the decision of market size, labour costs and transportation costs. Barkema, Bell and Pennings (1996) emphasize the importance of the cultural dimension. This particularly applies in the case of joint venture. Henisz (2000) states that the institutions of the recipient
country are extremely important. This especially applies in the case of increased risk in the case of joint venture. Holland and Pain (1998) analyze the importance of individual determinants on foreign direct investment in transition countries. A special emphasis is on the level and method of privatization. Grabbe and Hughes (1998) define the importance of EU membership for the countries of CEE. Bevan and Estrin (2001) state that the integration of countries in EU will reduce the risk of individual countries or the risk will become irrelevant. The size of the country, labour price and distance all have a significant influence upon this. Janicki and Wunnava (2004) specifically indicate the importance of trade barriers and barriers whose abolition is very important for increasing foreign direct investment. Aurora, Vieira and Vieira (2004) try to define the meaning of individual factors for attraction of FDI in the CEE countries. As a key reason for attractiveness they mention low cost labour, even if it is unskilled. Here we can find the efficiency factor. Basur and Tosanoglu (2006) emphasize the importance of regional connections for the recipient country. Plykinas and Akbar (2006) analyze 24 determinants, which in their opinion influence foreign direct investment. The analysis was done on the panel of countries from CEE. They divided the determinants into four groups: economic, financial, social and locational. Krugell and Mathee (2008) measure the attractiveness of regions of South Africa for FDI. They used UNCTAD’s calculation of attractiveness for FDI, but chose individual categories slightly differently – they compared their results over some period. Numerous studies highlight all the factors which influence the process of implementation of FDI. The very nature of the process makes it impossible to connect them with the aspect of implementation of investment. This chapter presented some starting points for the decision on selecting locations for FDI. The image of the country itself affects the selection before the start of a more detailed analysis. The better the knowledge of the target location i.e. the recipient country of FDI, the less likely it is for a wrong decision to be made. In this case we can help ourselves with analyses of various organizations. These are the global competitiveness index, the index of attractiveness for FDI and the index of success in attracting FDI and analysis of the influence of various factors on existing FDI streams in the past. The sole nature of the analysis prevents the theoretical research correctness of the analysis – to

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3 The image of Bosnia and Herzegovina is more negative than the image of FYROM. Both countries have very similar economic indicators, but the value of FDI is smaller in Bosnia and Herzegovina. This is due to the »negative image of Bosnia and Herzegovina«, as an unstable and recalcitrant country in which it is always boiling (note a).
analyze the decision from micro-level of the company with the help of macro-level of a specific area, country or region.

4. Methodology

4.1. The sample and limitations of the research

The sample is intentionally chosen and consists of chosen countries in the broader region of Central and Eastern Europe. The countries are characterized by transformation of their economic systems over the past two and half decades, the process of transition and efforts to obtain direct foreign investment. The heritage also includes two important facts: extensive industrial infrastructure and low costs of existing and untapped resources. The selection of countries is dictated by the current process of relocation of production, proximity of the western market and the market of the former Soviet Union countries. The selected countries include: Croatia, Bosnia and Herzegovina, Serbia, Montenegro, Albania, FYROM, Hungary, Romania, Bulgaria, Slovakia, Czech Republic and Poland.

Research limitations arise from the research itself and the measurement. Each investment is assessed differently and individually. There is also the assumption that the internal rate of return of individual FDI is the same. When measuring the attractiveness of an individual country for FDI, we measure aggregate values and indices for the entire country. It would be more accurate to use the data for individual regions or areas within the countries and compare them. The competitiveness of countries for the attractiveness for FDI is very difficult to assess, because the aggregate and macroeconomic factors are compared on a level of an individual subject.

4.2. The method and calculation of results

In analysis of competitiveness, we used data obtained from the World Economic Forum (WEF 2011). We selected individual indicators on the basis of the theoretical starting points of an eclectic paradigm, of research carried out so far, factors of assessing individual investments and theoretical starting points for the aforementioned indices of attractiveness for individual countries for FDI. Using factor analysis method, we combined individual factors into a factor, to which we calculated the standard value.
Attractiveness of an individual country is calculated using the following equation:

\[ \text{IND} (\text{PRIV})_j = \sum K_j \times \text{IND}_j, \]

where \( K_j \) represents the weight of an individual indicator and \( \text{IND}_j \) represents the value of the indicator for and individual country.

Individual values of indicators are calculated for individual countries, using the following equation:

\[ \text{IND}_j = \sum U_{ij} \times \text{Ind}_{ij}, \]

where \( U_{ij} \) represents the weight of an individual indicator and \( \text{Ind}_{ij} \) the value of an individual indicator for the selected country.

The chosen indicator is calculated as follows:

\[ \text{Ind}_{ij} = \frac{V_i - V_{\text{min}}}{V_{\text{max}} - V_{\text{min}}}, \]

where \( V_i \) represents the value of an indicator for the selected country, \( V_{\text{min}} \) the minimum value of indicator of all selected countries and \( V_{\text{max}} \) the maximum value of indicator for all selected countries.

5. Research

The research was carried out in 2011 on the results of previous periods 2009 and 2010. We used secondary data. The results of the research are presented in Table 1.

Bosnia and Herzegovina has ended up in the first half of the selected countries. Czech Republic and Slovakia are ranked first and second, respectively, which is completely understandable. FYROM, which is trying to attract foreign investors with the help of intensive government policy, ranks third. The major obstacle there is the lack of industrial tradition. Inferior ranking of Hungary is very surprising. The problem in this case is in macro economical conditions which have deteriorated with the occurrence of the crisis, currency depreciation and high indebtedness of the country. Right at the bottom of the list is Albania.
Table 1. Attractiveness of individual countries for FDI in the year 2011

<table>
<thead>
<tr>
<th>Country</th>
<th>Place</th>
</tr>
</thead>
<tbody>
<tr>
<td>Czech Republic</td>
<td>1.</td>
</tr>
<tr>
<td>Slovakia</td>
<td>2.</td>
</tr>
<tr>
<td>FYROM</td>
<td>3.</td>
</tr>
<tr>
<td>Croatia</td>
<td>4.</td>
</tr>
<tr>
<td>Poland</td>
<td>5.</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>6.</td>
</tr>
<tr>
<td>Montenegro</td>
<td>7.</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>8.</td>
</tr>
<tr>
<td>Serbia</td>
<td>9.</td>
</tr>
<tr>
<td>Hungary</td>
<td>10.</td>
</tr>
<tr>
<td>Romania</td>
<td>11.</td>
</tr>
<tr>
<td>Albania</td>
<td>12.</td>
</tr>
</tbody>
</table>

Source: own calculations.

Table 2 presents the results for individual indicators of areas for Bosnia and Herzegovina. Individual indices are composed of certain factors and are evaluated differently. The advantages of Bosnia and Herzegovina as the recipient country of FDI from Slovenia are cheap resources for production, available labour force and energy resources. Control of FDI is easier because of the relative closeness, cultural dimension (language, folk links, understanding, etc.) and common past history. The tax burden is low and the rates of customs duty for EU are 0. In addition, the macroeconomic environment is relatively stable.
Table 2. Values of individual indicators for BIH and their rank in the year 2011

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Sub-indicator</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functioning of the government and the state of law</td>
<td>The effectiveness of laws and regulations</td>
<td>12.</td>
</tr>
<tr>
<td></td>
<td>The strength of investor protection</td>
<td>8.</td>
</tr>
<tr>
<td></td>
<td>The protection of intellectual property</td>
<td>12.</td>
</tr>
<tr>
<td></td>
<td>The preference for FDI</td>
<td>9.</td>
</tr>
<tr>
<td>Macroeconomic environment</td>
<td>Inflation rate in a period of time</td>
<td>2.</td>
</tr>
<tr>
<td></td>
<td>The balance of the budget</td>
<td>7.</td>
</tr>
<tr>
<td>Financial and banking environment</td>
<td>Accessibility of loans</td>
<td>11.</td>
</tr>
<tr>
<td></td>
<td>Availability of local capital market</td>
<td>8.</td>
</tr>
<tr>
<td></td>
<td>Restrictions on the movement of capital</td>
<td>12.</td>
</tr>
<tr>
<td></td>
<td>Credit ratings</td>
<td>12.</td>
</tr>
<tr>
<td>Tax and customs duty rates</td>
<td>Total effective rate of taxation</td>
<td>2.</td>
</tr>
<tr>
<td></td>
<td>Customs duty rate</td>
<td>10.</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>Common infrastructure (roads, railways, ports, airports, terminals, etc.)</td>
<td>12.</td>
</tr>
<tr>
<td></td>
<td>Infrastructure for the operation of clusters</td>
<td>3.</td>
</tr>
<tr>
<td></td>
<td>The number of fixed telephone lines per 100 inhabitants</td>
<td>6.</td>
</tr>
<tr>
<td>The energy</td>
<td>Provision of electricity</td>
<td>4.</td>
</tr>
<tr>
<td>Technological environment</td>
<td>FDI and transfer of modern technologies</td>
<td>8.</td>
</tr>
<tr>
<td></td>
<td>The quality of research institutions</td>
<td>11.</td>
</tr>
<tr>
<td></td>
<td>The cooperation of educational institutions and the economy</td>
<td>10.</td>
</tr>
<tr>
<td>The market size</td>
<td>The market size</td>
<td>9.</td>
</tr>
<tr>
<td>Education</td>
<td>Rate of involvement in secondary education</td>
<td>7.</td>
</tr>
<tr>
<td></td>
<td>The quality of business schools</td>
<td>6.</td>
</tr>
<tr>
<td></td>
<td>The availability of specialized educational institutions</td>
<td>12.</td>
</tr>
</tbody>
</table>
Labour force | The level of trade union organization and bargaining power of trade unions | 8. |
| | The flexibility of wage levels and other payments | 4. |
| | The ease of hiring and firing of labour force | 1. |
Efficiency | The ratio between effect and pay | 12. |
Resource costs | Low costs of resources (raw materials, energy, labour) are a competitive advantage | 3. |
Management of FDI | Distance between Ljubljana and the Capital of a selected country | 3. |
| | Linguistic and cultural dimension | 1. |
Various indices of the business environment | Corruption index | 12. |
| | The degree of trade freedom | 12. |
| | The rate of global competitiveness | 12. |

Source: own calculations.

However, there can also be a potential risk due to the vagueness of political relationships. The disadvantages are arising from a complex political system and the setting system. Bosnia and Herzegovina has 14 governments – the central government, the government of entities and the cantons, the Brčko District. Financial and banking environment is relatively underdeveloped, which means that financial resources are difficult to achieve. The consequences of past events have left traces on the undeveloped infrastructure (roads, railways, etc.) and on the technological development of the society. Their ICT structure is well developed. They have high hopes for the development of industrial zones and clusters – the area of central Bosnia and Herzegovina with Zenica as the centre being particularly active areas in this context. The major obstacle is the high level of corruption, since Bosnia and Herzegovina is estimated the worst of all the countries in the panel. Efficiency is very low at the moment. Lower labour costs do not necessarily translate into higher added value. However, this is the aggregate index, which can be substantially modified in the case of an individual company.
6. Conclusion

Globalization is the guide to changes in the world today and it is particularly tense in the last decade or two. Competitiveness of companies is the key to their long-term existence. This forces the companies into a process of internationalization by finding cheaper production sources, achieving economies of scale, finding new markets and continuous improvement of the processes in the company.

We analyzed individual factors of Bosnia and Herzegovina which influence the recipient country. The biggest obstacle for higher attractiveness and better competitive ability to attract FDI in Bosnia and Herzegovina leads to an unfinished political process. This affects the stability, complexity of administrative procedures and flexibility of government’s and institutions’ functioning. Other obstacles include factors of funding because the access to these resources in Bosnia and Herzegovina is very limited – a factor which implies difficulties in the movement of the capital. The existing transport infrastructure needs to be updated. Bosnia and Herzegovina is intentionally investing in its ability to ensure necessary conditions for technological parks and industrial zones to operate, which is a good starting point for the development of clusters. High unemployment, the ease of labour laws and low prices of available sources are all the factors making Bosnia and Herzegovina unattractive for FDI.

Specific regions within the countries of Central and Eastern Europe should be explored in further researches of the potential for FDI and to obtain a chance for growth. The research could also be carried out by comparing the competitiveness and attractiveness throughout periods of time. The decision for investing is an individual choice of the location. Every industry has its own requirements and needs. In case studies on the existing FDI we could once again determine the factors that influence the decision. The form of the FDI is the next segment for further researching. Is a new investment a better choice as the renewal of existing plants, a joint venture…?

References


