THE RELATIONSHIP BETWEEN ECONOMIC DEVELOPMENT AND ECONOMIC FREEDOM: THE CASE OF TRANSITION ECONOMIES

JANINA SEPUTIENE
janina.seputiene@takas.lt
Siauliai University

SOLVEIGA SKUNCIKIENE
s_solveiga@yahoo.com
Siauliai University

ABSTRACT. Economic theory emphasizes various factors, determining economic growth and development. Recently economists have focused their attention on institutional environment as precondition for economic growth. This article focuses on one aspect of institutional environment, namely economic freedom. Considering the importance of economic freedom, its change extent and continuity this article focuses on 18 economies in which central planning was dismantled in 1990–1992 and aims to investigate whether the differences in economic performance can be associated with level and change of economic freedom. The methods of the article are the systematic analysis of literature, correlation analysis, regression analysis, comparison and generalization.

Introduction

Economic theory emphasizes various factors, determining economic growth and development. The neoclassical model focuses on the ‘proximate determinants’ of growth, particularly capital accumulation and total factor productivity growth, though the model can’t help to explain what promotes the accumulation of physical capital or human capital, or what drives total factor productivity growth and how to improve it? Due to these questions economists focused their attention on deep determinants of economic growth, and one of them is institutional environment.
A series of studies explored the positive link between institutional environment and economic performance.\(^1\) The results of the studies, which focus on one aspect of institutional environment – economic freedom, show its positive impact on economic performance. Gwartney presents empirical evidences that countries with more economic freedom grow more rapidly and achieve higher levels of per capita income than those that are less free.\(^2\) Despite the agreement among researches that economic freedom does matter for growth, Carlsson and Lundstrom present the survey of numerous empirical studies, which have revealed that some components of economic freedom have insignificant or even negative effect on economic variables.\(^3\) Similar conclusion was drawn by the author of this paper in the European Union countries sample.\(^4\)

In the literature the relationship between economic freedom and economic performance was clarified in various time span and different countries’ samples. Paakkonen confirms that economic freedom contributes to growth of transition economies.\(^5\) Since economic freedom is a highly aggregated concept, following Carlsson and Lundstrom, in this paper we seek to examine which components of economic freedom are the mostly related to output level in transition economies.\(^6\) This paper also contributes to the discussion in the literature what influences economic performance: the level of economic freedom or its improvement? According to Gwartney et al. the change in economic freedom will have a positive effect only after some time, as it will take time to convince decision-makers that the change is permanent, rather than temporary.\(^7\)

Considering the importance of economic freedom, its change extent and continuity this article focuses on 18 economies which almost at once (in 1990–1992) had begun the transition from centrally planned to a market economy, and aims to investigate whether the differences in economic performance can be associated with the level and change of economic freedom.

The methods of the article are the systematic analysis of literature, correlation analysis, regression analysis, comparison and generalization.

The paper is organized as follows. The next section deals with the definitional aspects of economic freedom and presents analytical findings about the role of economic freedom on economic performance. The second section introduces the data and methodology the
analysis is based on. The third section presents the empirical analysis and discusses the results. The article ends with conclusions.

**Economic freedom and its impact on economic performance**

*Economic freedom* is a composite that attempts to characterize the degree to which an economy is a market economy, that is, the degree to which it entails the possibility of entering into voluntary contracts within the framework of a stable and predictable rule of law that upholds contracts and protects private property, with a limited degree of interventionism in the form of government ownership, regulations, and taxes.

The authors of the Index of Economic Freedom define economic freedom as a concept, encompassing all liberties and rights of production, distribution, or consumption of goods and services. The highest form of economic freedom provides an absolute right of property ownership, fully realized freedoms of movement for labor, capital, and goods, and an absolute absence of coercion or constraint of economic liberty beyond the extent necessary for citizens to protect and maintain liberty itself.

Gwartney et al. summarized the reasons, provided by economic theory, why incomes in a freer economy grow more rapidly and eventually rise to higher levels than those in economies that are less free:

- secure property rights and low taxes will encourage individuals to engage more intensely in productive activity;
- greater freedom of exchange will expand the realization of gains derived from specialization;
- freedom to enter and compete in markets will help to direct resources toward their most highly valued uses and to promote efficiency in production;
- economic freedom facilitates the process of entrepreneurial discovery of new and improved technologies, better methods of production, which are an important source of economic growth.

We have theoretical reasons to expect a positive relationship between economic freedom and economic growth and empirical evidence confirms this effect. There is a wide agreement among researches that economically free societies are richer than less free societies. However there are discussions in the literature what influ-
ences economic growth: the level of economic freedom or its improvement? Many authors have found that the level of economic freedom is positively related to growth.\textsuperscript{11} Other researchers do not find that the level of economic freedom can significantly explain growth, but that positive changes in economic freedom do so.\textsuperscript{12} More recently published researches on the impact of economic freedom on growth reaffirms that both the level of economic freedom and its improvement have an impact on growth rates.\textsuperscript{13}

While the results on the effect of economic freedom on growth rates are contradictory, the conclusions about the positive impact of economic freedom on income level are consistent.\textsuperscript{14}

**Data and methodology**

This article aims to analyze the economic performance of 18 countries, which almost at once (in-1990–1992) had begun the transition to a market economy, and to investigate, whether differences in economic performance can be associated with economic freedom. These countries are: Albania, Armenia, Azerbaijan, Belarus, Bulgaria, Croatia, Czech Republic, Georgia, Hungary, Latvia, Lithuania, Moldavia, Poland, Romania, Russia, Slovak Republic, Slovenia, and Ukraine.

The economic freedom is measured by the Index of Economic Freedom (\textit{IEF}), constructed by The Wall Street Journal and the Heritage Foundation.\textsuperscript{15} The \textit{IEF} uses 10 specific freedoms, some as composites of even further detailed and quantifiable components: Business freedom, Trade freedom, Monetary freedom, Freedom from government, Fiscal freedom, Property rights, Investment freedom, Financial freedom, Freedom from corruption, and Labor freedom. These 10 freedoms are averaged equally into a total score – Index of Economic Freedom (\textit{IEF}). Each one of the 10 freedoms is graded using a scale from 0 to 100, where the figure 100 represents the maximum freedom.

Countries’ economic performance is measured by GDP per capita (\textit{GDP pc.}) based on purchasing power parity (\textit{PPP}). The data source is World Bank. This paper carried out an empirical assessment of the relationship between the economic freedom and GDP per capita by correlation analysis. The impact of economic freedom on income level was tested by regression analysis performed with computer program \textit{SPSS}. Scatter plot and R-square value examined the nature of the relationship between the dependent variable and each in-
dependent variable. Analysis of variance (ANOVA) was used to test how well the model fits the data. The one-sample Kolmogorov-Smirnov test was applied to test whether residuals are normally distributed. The standardized residuals and Cook’s distance values were examined in order to detect outliers, which can influence model coefficients. It can be noted here, that no outliers were found. The tolerance and variance inflation factor (VIF) was used as multicollinearity diagnostic statistics.

**Empirical findings**

Table 1 presents the data on per capita income of 18 countries in which transition process began in 1990–1992.

**Table 1. The GDP per capita, PPP (current international $, thousand)**

<table>
<thead>
<tr>
<th>Country</th>
<th>Transition year (T)</th>
<th>GDP pc. T</th>
<th>GDP pc. 2008</th>
<th>Change (T–2008)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>1991</td>
<td>1,93</td>
<td>7,29</td>
<td>5,36</td>
</tr>
<tr>
<td>Armenia</td>
<td>1992</td>
<td>1,18</td>
<td>6,07</td>
<td>4,89</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>1992</td>
<td>2,71</td>
<td>8,77</td>
<td>6,06</td>
</tr>
<tr>
<td>Belarus</td>
<td>1992</td>
<td>4,38</td>
<td>12,28</td>
<td>7,90</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>1991</td>
<td>5,25</td>
<td>11,79</td>
<td>6,54</td>
</tr>
<tr>
<td>Croatia</td>
<td>1990</td>
<td>9,70</td>
<td>17,66</td>
<td>7,96</td>
</tr>
<tr>
<td>Czech Rep.</td>
<td>1991</td>
<td>10,29</td>
<td>24,64</td>
<td>14,36</td>
</tr>
<tr>
<td>Georgia</td>
<td>1992</td>
<td>1,83</td>
<td>4,97</td>
<td>3,13</td>
</tr>
<tr>
<td>Hungary</td>
<td>1990</td>
<td>8,76</td>
<td>19,79</td>
<td>11,03</td>
</tr>
<tr>
<td>Latvia</td>
<td>1992</td>
<td>5,04</td>
<td>16,36</td>
<td>11,32</td>
</tr>
<tr>
<td>Lithuania</td>
<td>1992</td>
<td>7,15</td>
<td>17,75</td>
<td>10,61</td>
</tr>
<tr>
<td>Moldavia</td>
<td>1992</td>
<td>1,91</td>
<td>2,98</td>
<td>1,07</td>
</tr>
<tr>
<td>Poland</td>
<td>1990</td>
<td>5,46</td>
<td>17,27</td>
<td>11,81</td>
</tr>
<tr>
<td>Romania</td>
<td>1991</td>
<td>4,74</td>
<td>13,45</td>
<td>8,71</td>
</tr>
<tr>
<td>Russia</td>
<td>1992</td>
<td>7,81</td>
<td>15,92</td>
<td>8,11</td>
</tr>
<tr>
<td>Slovak Rep.</td>
<td>1991</td>
<td>6,82</td>
<td>22,14</td>
<td>15,32</td>
</tr>
<tr>
<td>Slovenia</td>
<td>1990</td>
<td>11,83</td>
<td>27,87</td>
<td>16,04</td>
</tr>
<tr>
<td>Ukraine</td>
<td>1992</td>
<td>5,07</td>
<td>7,28</td>
<td>2,21</td>
</tr>
</tbody>
</table>
At the beginning of transition GDP per capita varied from $1.18 thousand in Armenia to $11.83 thousand in Slovenia. After almost 20 years Slovenia continues to hold the leading position with $27.87 thousand GDP per capita. From transition year to 2008 all countries made economic improvement. In transition year GDP per capita exceeded $10 thousand only in two countries (Slovenia and Chech Republic). In 2008 only 6 countries didn’t reach $10 thousand GDP per capita. Comparing GDP per capita change (in thousands US $) from transition year to 2008 the greatest results show Slovenia (16.04), Slovak Republic (15.32), and Czech Republic (14.36).

As we can see from table 1, differences in economic performance after central planning dismantlement are noticeable. There may be many factors determining this significant gap in the economic development among the transition economies: initial conditions, human capital, investments, infrastructure endowments, technologies, institutional environment and etc. However, thereafter the point is made on only two factors, namely initial conditions and economic freedom. Table 2 presents GDP per capita correlation with IEF and 10 specific freedoms in 1996.

Table 2. Correlation between economic freedoms (1996) and GDP per capita.

<table>
<thead>
<tr>
<th></th>
<th>GDP pc. in 2008</th>
<th>GDP pc. in T</th>
<th>GDP pc. change (T–2008)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index of Economic Freedom</td>
<td>0,57*</td>
<td>0,48*</td>
<td>0,57*</td>
</tr>
<tr>
<td>Business freedom</td>
<td>0,55*</td>
<td>0,48*</td>
<td>0,54*</td>
</tr>
<tr>
<td>Trade freedom</td>
<td>-0,09</td>
<td>-0,04</td>
<td>-0,12</td>
</tr>
<tr>
<td>Fiscal freedom</td>
<td>-0,21</td>
<td>-0,15</td>
<td>-0,23</td>
</tr>
<tr>
<td>Freedom from government</td>
<td>-0,22</td>
<td>-0,10</td>
<td>-0,29</td>
</tr>
<tr>
<td>Monetary freedom</td>
<td>0,72**</td>
<td>0,53*</td>
<td>0,78**</td>
</tr>
<tr>
<td>Investment freedom</td>
<td>0,23</td>
<td>0,21</td>
<td>0,22</td>
</tr>
<tr>
<td>Financial freedom</td>
<td>0,59*</td>
<td>0,54*</td>
<td>0,56*</td>
</tr>
<tr>
<td>Property rights</td>
<td>0,34</td>
<td>0,27</td>
<td>0,36</td>
</tr>
<tr>
<td>Freedom from corruption</td>
<td>0,47</td>
<td>0,33</td>
<td>0,51*</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed); * at the 0.05 level (2-tailed).

The economic freedom before and after central planning dismantlement can’t be compared as there is data for economic freedom only for few analyzed countries before 1996. As transition process
began in 1990–1992, economic freedom indicators in 1996 quite well indicate the level of economic freedom established after transition process beginning. No significant relationship was found (so results are not presented here) between the change of economic freedom from 1996 to 2009 and economic variables: GDP per capita in 2008 and GDP per capita change from transition year to 2008.

As we can see from table 2, not all correlation coefficients are significant and some of them even indicate negative relationship between GDP per capita and economic freedom indicators. Similar results were obtained by other authors in other countries samples. The level of various economic freedoms (especially monetary, financial, and business) in 1996 is more related to GDP per capita in 2008 than GDP per capita in transition year. These results come in line with the assumption of Aixala and Fabro that causation runs from economic freedom to economic performance and not vice versa. The GDP per capita change is positively and statistically significantly related to the level of economic freedom and especially to the level of monetary freedom established after transition process beginning. It can be seen from table 3, that monetary freedom even better explains variation in GDP per capita change than initial conditions (measured through GDP per capita in transition year).

Table 3. Results of regression analysis (dependent variable in PPP, current international $, thousands)

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>Beta</th>
<th>Sig.</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1: Dependent variable: GDP per capita in 2008 adjusted $R^2 = 0.90; N = 18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>2.677</td>
<td>0.029</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP per capita in T</td>
<td>1.654</td>
<td>0.739</td>
<td>0.000</td>
<td>0.724</td>
<td>1.381</td>
</tr>
<tr>
<td>Monetary Freedom 1996</td>
<td>0.083</td>
<td>0.330</td>
<td>0.002</td>
<td>0.724</td>
<td>1.381</td>
</tr>
<tr>
<td>Model 2: Dependent variable: GDP per capita change from T to 2008 adjusted $R^2 = 0.74; N = 18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>2.674</td>
<td>0.029</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monetary Freedom 1996</td>
<td>0.083</td>
<td>0.533</td>
<td>0.002</td>
<td>0.724</td>
<td>1.381</td>
</tr>
<tr>
<td>GDP per capita in T</td>
<td>0.655</td>
<td>0.472</td>
<td>0.005</td>
<td>0.724</td>
<td>1.381</td>
</tr>
</tbody>
</table>

Model 1 indicates that 90 percent of variation in GDP per capita in 2008 across 18 transition economies can be explained by initial con-
ditions and the level of monetary freedom, established after transition process beginning, with the former being dominant factor.

As regards GDP per capita change from transition year to 2008, initial conditions and monetary freedom can explain 74 percent variation, but in this case the standardized coefficient beta in Table 3 indicates that monetary freedom has the higher impact on GDP per capita change than initial conditions in transition year.

**Conclusions**

From transition year to 2008 all analyzed countries made improvement in economic performance measured by GDP per capita change, but it varies from $1,07 thousand in Moldavia to $16,04 thousand in Slovenia. There may be many factors determining this significant gap in the economic development among the transition economies: initial conditions, human capital, investments, infrastructure endowments, technologies, institutional environment and etc., however the point was made on only two factors, namely initial conditions (measured by GDP per capita in transition year) and economic freedom.

The importance of initial conditions is obvious as the results of regression analysis confirm positive and statistically significant impact of GDP per capita in transition year on both GDP per capita in 2008 and GDP per capita change from transition year to 2008, though former impact is stronger. Even after taking into account the impact of initial conditions, monetary freedom remains statistically significant explanatory factor of economic development variation across transition economies. Monetary freedom seems to be the most important component of economic freedom, which positively contributed, to GDP improvement after transition process beginning.

No improvement was found that the change of economic freedom from 1996 to 2009 is related to the level of GDP per capita in 2008 or GDP per capita change from transition year to 2008.

**NOTES**

2. (Gwartney 2009).
3. (Carlsson and Lundstrom 2002).
4. (Seputiene 2007).
REFERENCES


ABSTRACT. In the developing countries the studies concerning the transfer of labor from rural to urban are in particularly based upon the works of Todaro (1969) and Harris-Todaro (1970). Many of the studies define the informal sector as inactive and inefficient. Therefore a discussion will be carried out to identify whether the informal sector with its role as a stopover place in the passage to the formal sector in probabilistic models of migration is an inactive and inefficient sector or it has a dynamic function in Turkey in respect of the alleviation unemployment and the secured economic development. In this study we analyze whether the informal sector which is seen as an important tool in the fight against poverty in developing countries carries the same importance for Turkish economy will be evaluated. The focus of the analysis will be on those who migrated from rural to urban and the labor markets.

Introduction

The phenomenon of migration from rural to urban, as it is admitted in general in literature, takes place as a result of willingness of individuals and households for maximizing their benefits. The reason behind this perception is that, the individuals and the households in rural areas assume that their expected future income in urban areas will be higher than their rural income when they approach the matter
from perspective of cost-benefit analysis. Therefore, alternative cost of rural income is the income expected in urban. Migration is the phenomenon, which will continue as long as the income level in urban remains higher than rural. This kind of assumption requires admission of the fact that those who live in rural space are relatively poorer than those who live in urban space. In such cases, rural migrants will be among those who are unemployed in urban or they will be employed in informal sector until they will pass to formal sector.

In developing countries, the studies concerning transfer of labor from rural to urban are in particular based upon the works of Todaro (1969) and Harris-Todaro (1970). While many of the studies which resemble Todaro (1969) and Harris-Todaro (1970) define the informal sector as an inactive and inefficient, they also see the informal sector as savior of urban unemployment and also as a stopover place of migrants (from rural to urban) in their journey to formal sector. In these studies, called also as probabilistic models of migration, there has been a disagreement as to the role of informal sector played in migration from rural to urban due to two important reasons. The first reason is the question of which type of activities should be included in informal sector. The other reason is the degree of economic development of the country or the region and also the degree of institutionalization. According to the opposite view, the informal sector has begun to be seen as dynamic, effective. Furthermore, the informal sector is not only seen as a source of employment, it is also seen as an important sector in the fight against poverty and in provision of the goods and services, which constitute their basic needs, with low-income consumers. In development economics literature, it is assumed that the labor migrating from rural cannot be absorbed by the formal sector of urban and therefore the rural poor carries his or her poverty to urban. Therefore, in this study an analyze as to whether the informal sector which is seen as an important tool in the fight against poverty in developing countries carries the same importance for Turkish economy will be carried out. The focus of the analysis will be those who migrated from rural to urban and the labor markets. Therefore a discussion will be carried out as to whether the informal sector with its role as a stopover place in the passage to the formal sector in probabilistic model of migration is an inactive and inefficient sector or it has a dynamic function in Turkey.
in respect of alleviation unemployment and of securing economic development.

This paper is organized as follows. In the next section of the paper, we draw on the existing literature to establish relationship between migration from rural to urban and informal sector in the urban areas. Further, the role of the informal sector on the poverty alleviation will be discussed in the second section of paper. In the third section, informal sector in Turkey will be evaluated in terms of labor market and the role of poverty alleviation. At last section concludes the paper.

**Conceptual and Theoretical Issues**

Currently, agriculture is still the single largest source of employment in rural areas, though non-farm activities are becoming increasingly important. Despite the heterogeneity, some features of rural work are common across sectors and locations. Most rural workers are self-employed and often very small, enterprises typical of rural non-farm activities. Hired workers are in the minority. A recent estimate put the number of farm workers at 450 million out of a total agricultural labor force of 1,100 million in the world.\(^1\) Most rural work is poorly rewarded. The critical problem of rural employment is that so much effort leads only poverty wages. Given these problems, it is not surprising that many rural workers migrate to try and find better-paid jobs, often in urban areas or manufacturing industry. However, in urban areas, the lack of opportunities in the formal sector (manufacturing sector) tends to concentrate a large share of the population in the informal sector. Informal jobs in the service and construction sectors, with no contract or social security, also absorb large numbers of workers. Although hardly decent work, these jobs offer more days of work in a year and better wages than farm work. Poor working conditions do, however, involve elements of risk for the poor.

Poverty alleviation and eradication is at the top of the agenda of most of the developing economy policy makers. Poverty in developing countries has also been raised to the process of urbanization, a dilemma of the development processes that is being faced by them. The rise in urban population can be attributed to an increase in rural to urban migration.\(^2\) The poverty is included to not only urban areas but also rural areas. However, the relationship between poverty and
The informal sector concept we use in the article relates to the labor market. During the 1950s and 1960s, poor traditional economies could be transformed into dynamic modern economies. W. Arthur Lewis (1954) developed a theoretical model of economic development based on assumptions that there was an unlimited supply of labor in most developing countries and that the vast pool of surplus labor would be absorbed as the modern industrial sector in this countries grew. In the process, the traditional sector comprised of petty traders, small producers and a range of casual jobs would be absorbed formal sector. The successful rebuilding Europe and Japan after Second World War and the expansion of mass production in Europe and North America reinforced this perspective. But developing countries labors did not have same opportunity like developed countries. A large part of the labor in developing countries absorbs informal sector that does not have social security.

The informal sector was first coined by a British economist, Keith Hart, in a study of economic activities in urban Ghana. But, as the concept of informality was introduced for the first time by the International Labor Organization (ILO) in 1972; the characteristics of informal sector were stated by ILO as follows: (a) ease of entry; (b) reliance on indigenous resources; (c) family ownership; (d) small scale operations; (e) labor intensive and adaptive technology; (e) skills acquired outside of the formal sector; (g) unregulated and competitive markets. As the ILO definition of informality included some level of ambiguity, the search for alternative definitions continued. The fifteenth International Conference of Labor Statisticians which was held in 1993 characterized the informal sector as the part of the economy consisting of the categories of family enterprises with unpaid family and self employed workers, small scale enterprises and the enterprises which do not have a legal status or which employ unregistered workers. In developing countries, the term informal sector has broadly associated with unregistered and unregulated small-scale activities that generate income and employment for urban poor. Informal sector employment is a necessary survival strategy in developing countries that lack social safety nets such as employment insurance.
In development economics, the informal sector has gained importance because of its rapid growth especially in developing countries. Especially; rapid urbanization causes negative results in terms of labor market especially in developing countries. Further, the informal sector plays a very important role in employment in developing countries constituting at least 70 per cent of total employment of the working population. In these economies, formal or modern sector has not been able to provide employment to all the surplus and marginal labor force in urban areas. Further, public sector employment in such economies has also considerably gone down. Employment creation in the informal sector becomes one of the ways of overcoming urban poverty and unemployment. Those who lost their jobs in the public sector and new entrants to the labor market with no or low education are working informally, therefore the informal sector is a large job absorber. Despite being an impediment to growth, the informal sector is second best option. It is a provider of work and to billions of people it is the only available source of income as the economy provides no other alternative to an acceptable life. Regardless of the fact that these firms are unofficial and thus in a sense illegal, they do, at least to some extent, add to national GDP. The disagreements about contributions of informal sector to the economic development still have continued among economists, politicians and other authorities. On one side informal sector provides labor and poor class for having job opportunity and obtaining income in the most developing countries, on other side this sector continues to have low productivity, poor working conditions, low incomes and few opportunities for advancement. Although some of the more structured groups of the informal sector, such as street traders, tend to have an entrepreneurial character and sometimes high incomes, it is widely recognized that the informal sector is still vulnerable, with little capital, limited markets, inadequate economic returns, and low levels of living standards.

The informal sector has been absorbed to be the entry point to the city for migrants who leave their villages with the hope of availing themselves of an urban income higher than their agricultural income. According to Webster and Fidler (1996), the urban informal sector is a major provider of employment and income to three categories of socio-economic groups: survivalist (very poor people), the self-employed and very small business. A high proportion of informal workers is self-employed. For the most part, the income
workers receive from informal employment in developing countries is very low, often consigning these workers and their families to a poverty-level standard of living, and sometimes to severe poverty. Albu (2004) highlights the distinction between these two groups of people with different motivations for doing informal work. Albu calls the first the subsistence creation, and the second the enterprise criterion. This type of distinction is in line with the theory that sees the informal sector as composed of two tiers. According to this view, the upper tier comprises the competitive part, those who voluntarily choose to be informal, and the lower tier those who are there because they do not have other alternatives. Economic factors such as growth, the structure of economy, rural to urban migration and poverty and unemployment are among the primary determinants of informal employment. Although the effects of the determinant factors on informal employment, we will only highlight on the rural to urban migration as an affected factor on informal employment in this study. The issue of informal employment is vulnerable groups of the population who have no alternatives. High poverty levels can lead to informal employment but informal employment can also cause higher poverty. In developing countries, the term informal sector has broadly been associated with unregistered and unregulated small-scale activities that generate income and employment for the urban poor. With increasing urbanization, the informal economy tends to absorb most of the growing labor force. Informal sector employment is a necessary survival strategy in developing countries that lack social safety nets such as unemployment insurance. Informal employment is a complex phenomenon and not easy to capture in either conceptual or empirical terms. The first standardized definition, from the International Labor Organization (ILO), was agreed upon in 1993, when informal work was defined in terms of production units: informality in this sense refers to whether a firm is formal or not and it included self-employment. This definition was seen as leaving out important segments of informal workers and so was revised to include informal workers outside informal enterprises. According to this broader definition, informal employment is defined as the “total number of informal jobs, whether carried out in formal sector enterprises, informal sector enterprises, or households.”

Several studies indicate that there is a close relation between migration from rural to urban and the informal sector. In this migration process, the growth of the informal sector in developing
labor markets is inevitable because the informal sector is the primary job generator. In these countries, micro-enterprises, own-account workers and domestic services create many of new jobs. Therefore, the urban informal employment absorbs the urban labor force. For many times, in the analysis of rural-urban migration in developing countries has been based on probabilistic models. First developed by Todaro (1969) this model, rural-urban migration is caused by geographic differences in the supply and demand for labor. According to Haris-Todaro (1970) model, the decision to migrate depends on expected rather than actual urban-rural wage differentials and the probability of successfully obtaining employment in the urban modern (formal sector). Rural to urban migration continues that rural and urban wages until equalization. The probability of obtaining an urban job is inversely related to the urban unemployment rate. In this sense, Todaro (1969) and Harris-Todaro (1970) models give importance only formal sector (modern sector). Many migrants, who move to urban, would like to obtain job in formal sector. From point of migrants a good job in formal sector with social security means to protect from calamities such as retirements, disability, and death. But most rural migrants have to enter into the informal sector that is unable to find jobs in the formal sector. Migrants’ purpose, who come to city, are taking part in the informal sector is that earn enough income to sustain their lives. Even if wages of urban informal sector are less than rural wages, rural-urban migration may continue. In this sense, the assumptions of probabilistic model are controversial issue. The first reason is the question of which type of activities is to be included in informal sector. The other reason is the degree of economic development of the country or the region and also the degree of institutionalization there. Labor market theory suggests an increase in informal activities as a result of economic turmoil, since informal employment can act as a buffer when people are laid off in the formal sector and need to find new job opportunities.

According to the probabilistic model of migration, the basic characteristics of informal sector are described as low wage, small and family based freedom of entry, lack of a stable employer-employee relationship and being ignored by authorities. Some researchers believe that the urban labor market structure prevailing in developing countries is not accurately portrayed in probabilistic migration models. They accept some assumptions of probabilistic
models. However, they disagree with one of the assumptions of probabilistic models. According to probabilistic models, urban labor market is divided into two sectors. A high wage formal sector in which the wage rate is set above the market clearing level and is downwardly rigid and low-wage informal sector with is characterized by high rate of turnover and thus, freedom of entry. This is so-called segmented labor market model. The segmented labor market model hypothesizes that the wage determination process is different in two sectors. It is argued that human capital is rewarded at a lower rate in the informal sector. It is arguable whether informal sector should ignore or not in terms of labor markets. Initially the informal sector was considered to be mainly composed of the urban working poor migrated from rural areas in search of work. Later it was recognized as an important employment-generating sector and an important source of production and income.\textsuperscript{23}

Especially, the limits of industrialization and emerging trends of urbanization in Turkey have resulted in the proliferation of the informal sector in the labor markets. Informal sector in Turkey still accounts for most of the total employment. During the 1990s and 2000s, the number of those who constitute the economically active population and who depend on the informal sector as their main source of employment and income has been consistently more than forty five percent of the total labor. Those who lost their jobs in the public sector and new entrants to the labor market with no or low education are working informally, therefore the informal sector is a large job absorber. New growth and poverty alleviation strategies have to rely on technology and scale advantages of formal sector and on employment creation and survival.

The merits of the informal sector are great in terms of employment expansion and nowadays in terms of preventing premature deindustrialization as global competition and the global services sector expansion modify the conditions of for industrialization and manufacturing employment also in developing countries. In order to avoid to a pathological form of deindustrialization, and industrial policy has to be reinstated and long-term dynamic comparative advantage should guide specialization. The informal sector has a role, as we see in India, and government policy may prevent such a form of pathological deindustrialization. The situation in Africa is different because of the absence of industrial policy and because of a lack of dynamic comparative advantage considerations. However,
despite of considerable employment creation the poverty of workers in the informal manufacturing sector is widespread so that new strategies for structural change and productivity in the informal sector and for the parallel development of both sectors.24

Rural-Urban Migration and the Role of the Informal Sector in Overcoming Poverty

During the year 2000, the population of Turkey was nearly 64 million. However, this number increased up nearly to 72 million as of 2009.25 This means that the population of Turkey had been increased by 10% since 2000. On the other side, during the same period, active population increased by 12%. In 2000, the number of unemployed people was 1.5 million. This number reached to 3 million 489 thousand people as of 2009.26 Adding to that, in 2000, the population that is not a part of labor force, raised from 23 million to 27 million people. This indicates that the increase in employment is not sufficiently parallel to the increase in active population. Between the years 1988-2008, average active population increase rate was 3.5%. During the same period, the employment increase rate was 1.5%. Accordingly, despite the increasing active population, the employment rate did not increase in the same rate (Table 1). Labor Force Participation Rate (EPR) is much lower than the average of the European Union (EU) and OECD countries. (In 2007, the average of OECD and the AB was 72%, while this rate was 46.2% in Turkey for the same year.) This indicates that Turkish labor market employs only 4 of each 10 people or seeking for job being unemployed. It is considerable that the rest is out of the labor force as housewives, or students or retirees. In addition, by 2008, employees are distributed as 23.6% in agriculture sector; 20.9% in industry sector, 19.9% is manufacturing industry 5.8% in construction sector and 49.5% is service sector.27

In this case, this indicates that the increase in employment is not sufficiently parallel to the increase in active population. The resulting decline in labor force participation and employment rates indicates that a significant part of the Turkish labor supply resources are underutilized. The low participation and employment rates are of course not only the result of demographic causes and entry problems in the labor market but also consequence of low growth, recession and structural shifts resulting in lay-offs and matching problems. On
the labor demand side, volatile growth rates also impact negatively on participation rates. The low employment potential of growth in Turkey seems also to be closely linked to the high poverty rates and the low elasticity of poverty with respect to growth. The high rate of employment in the Turkish labor market causes to get bigger of informal sector.28

Table 1: Labor Market Rates in Turkey (Thousand)

<table>
<thead>
<tr>
<th>Years</th>
<th>Non-institutional population</th>
<th>Active Population</th>
<th>Increase Rate of Active Population (%)</th>
<th>Labor Force</th>
<th>Employed</th>
<th>Increase rate of Employed (%)</th>
<th>Number of Unemployed</th>
<th>Employment participation rate (%)</th>
<th>Population that is not a part of labor force</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988</td>
<td>53.3</td>
<td>33.7</td>
<td>-</td>
<td>19.4</td>
<td>17.8</td>
<td>-</td>
<td>1638</td>
<td>57.5</td>
<td>14.4</td>
</tr>
<tr>
<td>1990</td>
<td>55.3</td>
<td>35.6</td>
<td>5.4</td>
<td>20.2</td>
<td>18.6</td>
<td>4.4</td>
<td>1611</td>
<td>56.6</td>
<td>15.5</td>
</tr>
<tr>
<td>1994</td>
<td>59.5</td>
<td>40.0</td>
<td>12.4</td>
<td>21.9</td>
<td>20.0</td>
<td>7.9</td>
<td>1871</td>
<td>54.6</td>
<td>18.2</td>
</tr>
<tr>
<td>1999</td>
<td>65.1</td>
<td>45.3</td>
<td>13.2</td>
<td>23.9</td>
<td>22.0</td>
<td>10.2</td>
<td>1829</td>
<td>52.7</td>
<td>21.4</td>
</tr>
<tr>
<td>2000</td>
<td>66.2</td>
<td>46.2</td>
<td>1.9</td>
<td>23.1</td>
<td>21.6</td>
<td>-2.1</td>
<td>1497</td>
<td>49.9</td>
<td>23.1</td>
</tr>
<tr>
<td>2001</td>
<td>67.3</td>
<td>47.2</td>
<td>2.05</td>
<td>23.5</td>
<td>21.6</td>
<td>-0.2</td>
<td>1967</td>
<td>49.8</td>
<td>23.7</td>
</tr>
<tr>
<td>2002</td>
<td>68.4</td>
<td>48.0</td>
<td>1.8</td>
<td>23.8</td>
<td>21.4</td>
<td>-0.7</td>
<td>2464</td>
<td>49.6</td>
<td>24.2</td>
</tr>
<tr>
<td>2003</td>
<td>69.5</td>
<td>48.9</td>
<td>1.8</td>
<td>23.6</td>
<td>23.6</td>
<td>10.7</td>
<td>2493</td>
<td>48.3</td>
<td>25.4</td>
</tr>
<tr>
<td>2004</td>
<td>70.6</td>
<td>49.8</td>
<td>1.8</td>
<td>24.2</td>
<td>21.1</td>
<td>-10.5</td>
<td>2479</td>
<td>48.5</td>
<td>25.6</td>
</tr>
<tr>
<td>2005</td>
<td>71.6</td>
<td>46.5</td>
<td>-6.6</td>
<td>24.6</td>
<td>21.7</td>
<td>2.6</td>
<td>2500</td>
<td>48.3</td>
<td>21.9</td>
</tr>
<tr>
<td>2006</td>
<td>72.6</td>
<td>51.7</td>
<td>11.02</td>
<td>24.7</td>
<td>22.4</td>
<td>3.3</td>
<td>2448</td>
<td>47.9</td>
<td>26.9</td>
</tr>
<tr>
<td>2007*</td>
<td>68.9</td>
<td>49.9</td>
<td>-3.2</td>
<td>23.1</td>
<td>20.7</td>
<td>-7.5</td>
<td>2376</td>
<td>46.2</td>
<td>26.8</td>
</tr>
<tr>
<td>2008</td>
<td>69.7</td>
<td>50.7</td>
<td>1.5</td>
<td>23.8</td>
<td>21.2</td>
<td>2.2</td>
<td>2611</td>
<td>46.9</td>
<td>26.9</td>
</tr>
<tr>
<td>2009</td>
<td>70.4</td>
<td>52.2</td>
<td>2.8</td>
<td>24.7</td>
<td>21.2</td>
<td>0.1</td>
<td>3489</td>
<td>47.8</td>
<td>27.4</td>
</tr>
</tbody>
</table>

* Since 2007, Address Based Census has been current.  

During 2001 and 2007-2008 crises, informal employment in Turkey increases and after the crises, these numbers do not decrease. So we may talk about a persistency in unemployment figures. In 2008, the ratio of employees that are not covered by any social security institution, in other words informal employment, to total employment was 43.5% (see Table 2). Informal employment is more common in the agriculture sector (Table 3). The employees without having any social security have the status of a natural poverty.

Unpaid family workers that are informally working at the agriculture sector makes up nearly 51% of the total agriculture population. Together with the self employed people and the jobbers, informal employees working at the agriculture sector makes up 98% of
the population working at the Individuals working in agriculture are generally employed as unpaid family workers or the self-employed. The migration of people involved in agriculture from rural areas to cities has caused a decrease in the number of unpaid family workers and the self-employment comprises 80% of non-registered employment.

Table 2: Status of Total Employees (in thousands) in Turkey that Are Not Registered to Any Social Security Institution (Informal Employment)

<table>
<thead>
<tr>
<th>Years</th>
<th>Employees that are not registered to any Social Security Institution</th>
<th>Self employed people that are not registered to any Social Security Institution</th>
<th>Unpaid Family Workers that are not registered to any Social Security Institution</th>
<th>Paid employees and jobbers that are not registered to any Social Security Institution</th>
<th>Ratio of Informal Employment in total employment (%)**</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>10.925</td>
<td>3416</td>
<td>4366</td>
<td>2974</td>
<td>50.6</td>
</tr>
<tr>
<td>2001</td>
<td>11.382</td>
<td>3645</td>
<td>4753</td>
<td>2800</td>
<td>52.8</td>
</tr>
<tr>
<td>2002</td>
<td>11.133</td>
<td>3309</td>
<td>4374</td>
<td>3225</td>
<td>52.1</td>
</tr>
<tr>
<td>2003</td>
<td>10.062</td>
<td>3463</td>
<td>4057</td>
<td>3228</td>
<td>42.5</td>
</tr>
<tr>
<td>2004</td>
<td>11.529</td>
<td>3528</td>
<td>4171</td>
<td>3583</td>
<td>54.5</td>
</tr>
<tr>
<td>2005</td>
<td>11.104</td>
<td>3565</td>
<td>3552</td>
<td>4879</td>
<td>51.1</td>
</tr>
<tr>
<td>2006</td>
<td>10.848</td>
<td>3418</td>
<td>3115</td>
<td>5022</td>
<td>48.3</td>
</tr>
<tr>
<td>2007*</td>
<td>9.423</td>
<td>2892</td>
<td>3429</td>
<td>3681</td>
<td>45.4</td>
</tr>
<tr>
<td>2008</td>
<td>9.220</td>
<td>2893</td>
<td>2563</td>
<td>3414</td>
<td>43.5</td>
</tr>
<tr>
<td>2009*</td>
<td>9.317</td>
<td>3026</td>
<td>2645</td>
<td>3321</td>
<td>43.8</td>
</tr>
</tbody>
</table>

*Since 2007, Address Based Census is current.
** Calculated by the authors
*** Reflects the data of 10 month average of 2009.

Turkish Statistics Institute (TurkStat) means by the statement of informal sector, non-agricultural institutions with employees between 1-9 people and those become company (with legal status of individual ownership or simple partnership), being taxable in a simple procedure or paying no tax at all; by the statement of informal employment means those not registered to any social security institutions in the reference week because of his work.29

Labor market in Turkey has seen important developments during the post 1980 period. Low growth and increasing poverty levels pushed many people into informal employment. The lack of formal jobs and adverse economic and labor market conditions are behind

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the increase of informal employment in Turkey. Poverty rate is at high level among the agriculture workers in Turkey.

Table 3: Status of Total Employees (in thousands) in Turkish Agriculture Sector that Are Not Registered to Any Social Security Institution (Informal Employment)

<table>
<thead>
<tr>
<th>Years</th>
<th>Total</th>
<th>Self employed people that are not registered to any Social Security Institution</th>
<th>Unpaid Family Workers that are not registered to any Social Security Institution</th>
<th>Paid employees and jobbers that are not registered to any Social Security Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>6.887</td>
<td>2.515</td>
<td>3.958</td>
<td>358</td>
</tr>
<tr>
<td>2001</td>
<td>7.422</td>
<td>2.748</td>
<td>4.316</td>
<td>313</td>
</tr>
<tr>
<td>2002</td>
<td>6.723</td>
<td>2.412</td>
<td>4.374</td>
<td>360</td>
</tr>
<tr>
<td>2003</td>
<td>6.531</td>
<td>2.520</td>
<td>3.633</td>
<td>330</td>
</tr>
<tr>
<td>2004</td>
<td>6.671</td>
<td>3.528</td>
<td>3.720</td>
<td>429</td>
</tr>
<tr>
<td>2005</td>
<td>5.833</td>
<td>3.565</td>
<td>2.281</td>
<td>459</td>
</tr>
<tr>
<td>2006</td>
<td>5.339</td>
<td>2.096</td>
<td>2.703</td>
<td>483</td>
</tr>
<tr>
<td>2007*</td>
<td>4.290</td>
<td>1.726</td>
<td>2.150</td>
<td>362</td>
</tr>
<tr>
<td>2008</td>
<td>4.406</td>
<td>1.722</td>
<td>2.221</td>
<td>393</td>
</tr>
<tr>
<td>2009**</td>
<td>4.529</td>
<td>1.758</td>
<td>2.309</td>
<td>407</td>
</tr>
</tbody>
</table>

*Since 2007, Address Based Census is current.
**Calculated by us.
***Reflects the data of 10 month average of 2009.


Productivity level in is very low in Turkish agriculture sector. In the beginning of the 1980’s, agricultural employment constituted half of the active labor force. The agricultural sector in Turkey is largely comprised of small peasant holdings where unpaid family labor prevails in a way to limit the commodification of labour. Low productivity and huge population in Turkish agricultural sector is the main reasons for the informal sector in Turkey. The mechanism that creates the informal sector operates in the following way. The already large and surplus population in rural areas bolstered by high population growth rates pushes the people to cities. In other words, people with low income in rural areas and working in agriculture have a strong propensity to go to the cities.

One of the most fundamental problems of Turkey’s labor market is seen as high unemployment rates and informal employment ratio. It is noted that the poverty, especially with the increasing urban unemployment has caused serious problems in the community. One
of the most important factors in fostering urban unemployment is migration from rural to urban areas. The increase in urban unemployment is not only should be based on the rural-urban migration fact. As a result of the fluctuations in economic growth, the decrease in the rate of investment, insufficient job creation in the formal sector, public sector privatization, and rapid population growth can be shown among other reasons.

Migration from rural to urban in Turkey has always continued since 1960’s primarily because of economic and social reasons. While the urbanization rate was 5.22% in the 1975-1980 period, it declined to 2.89% in 2000, 38.7 million people accounting for 57% of the total population started living in urban areas. As of 31.12.2007, 47.6 million people who make up of 67.4% of total population that live in cities is determined by the Address Based Population System. Moreover, the increases in the share of those who migrate from rural to urban in the total population have been observed, 6.7 million people who constitute 11% of whole population emigrated in the period of 1975-1980.

The accelerated rural-urban migration movements in Turkey, unrealized the expected industrial production increase since 1980 and declines in the number of public employees due to the privatization and such other elements increased the number of urban unemployed significantly. The increase in urban unemployment, inability to create employment opportunities for people coming from rural to urban areas due to the low growth rate of industrial sector, resulting in chronic unemployment constitute important cost items for Turkey's economy. To eliminate the phenomenon of unemployment, the informal sector is considered as a temporary solution for labor migration, but not creating enough work in the formal sector has led immigrant labor to continue to work as informal.

The relationship between poverty and unregistered work are close to each other directly. Because while the share of the paid and casual workers in urban areas in total urban employment was around 73%, this ratio increased significantly from 24.7% to 32.4% in rural areas. This means that the majority of people emigrating from rural to urban areas either joins the waged employees or becomes unemployed or works in the informal sector. Workers in the informal sector are not under any social security umbrella and for that reason sometimes even does not get minimum wage. The share of entrepreneurial income is 22.4%. Consequently even if those migrated
from rural to urban involve in activities as entrepreneurs in the informal sector, and the share of entrepreneurial income obtained from total income is could not be said to be high.

**Conclusion**

Probabilistic models predicate the causes of migration from rural to urban on the higher expectations of income and living standards in the cities than those in rural areas do. Whereas, in these models, the informal sector for the people emigrated from rural areas is a temporary stopping place. Because the main productive sector is formal sector, in a sense the industrial activities. Even if those coming from rural areas work in informal sector a while, this situation will continue until they find a job in formal sector. Some of them will remain unemployed in the cities. Some will work informally in cities, because the formal sector requires a certain level of education and skill. However, the probabilistic migration models did not have appropriate assumptions for the requirements of many developing countries. The informal sector in these models is considered non-productive and low value added sectors. Migration from rural to urban in developing countries are not being based solely on the attractiveness of formal sector, informal sector into the economy with the possibility of significant contributions to urban migration is seen as another reason for attraction.

In contrast, informal workers, because of being outside the social security umbrella, these people are considered poor naturally. Because those migrated from rural to urban and work even in informal sector, some of them working as entrepreneurs can have a higher income than the formal sector. The attractiveness of the city continues even if enough the jobs are not created in the formal sector, because the returns in rural areas are higher than those in the cities. The poorest live in rural areas in Turkey too. Even if being unemployed, it is difficult to return to the cities, because of the opportunities provided by the city may be said to be difficult.

It is difficult to say informalization reduces poverty in terms of labor market. Informal sector can be seen as a safety valve of the economy. Especially in a country where fluctuating growth rates exist and because of low investment it seems to be very difficult to create formal jobs for rising urban population. For example, during the 2001 crisis in Turkey, it was put forward that 1 million people
lost his job and worked as informal. That is specified for developing countries that provide more revenue for the informal sector as a point of view, may apply only for those entrepreneurs. Yet it is difficult to say the same thing for labor. According to the study carried out by TurkStat in 2008 while working minimum wage was set at 503.26 TL. In the same period, the monthly starvation level of a family of four was 275 TL and 767 TL per month was determined as the poverty line. If the informal sector remaining outside social security, which sometimes could not even get the minimum wage, is accepted, this labor force though not in the starvation but are living in poverty, because 73% of the employees in the cities are paid salaries and wages. In this case, working informally has an effect on not reducing poverty, but not living in starvation.

In conclusion, the migration from rural to urban could not be prevented without an appropriate agricultural policy in Turkey, because the rural residents constitute the poorest segment of society in Turkey. Even if an appropriate agricultural policy is generated as long as the charm of the city continues migration from the rural to urban is seen as an unresolved phenomenon. In order to reduce informalisation, there is a need for Turkey's steady growth and productive investments. In addition, inadequate training of those coming from rural areas is another reason for them to work in the informal sector that necessary measures should be taken for these people to gain adequate training and skills.

NOTES

1. (Hurst et al. 2005)
2. (Reddy, 2007)
3. (Hart, 1973)
5. (Gundogan and Bicerli, 2009)
6. (Bhagirathi, 2000)
7. (Agenor, 1996)
8. (Bhagirathi, 2000)
9. (Granström, 2009)
10. (Suharto, 2002)
11. (Chaudhuri, 1989)
12. (Fields, 1990; 2005)
13. (Gundogan and Bicerli, 2009)
14. (Jütting et al., 2008)
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COMPARATIVE ANALYSIS OF LABOUR MARKET'S FLEXIBILITY WITHIN EU¹

MARIUS-CORNELIU MARINAŞ
marinasmarius@yahoo.fr
Academy of Economic Studies, Bucharest

CRISTIAN SOCOL
socol.cristian@gmail.com
Academy of Economic Studies, Bucharest

AURA GABRIELA SOCOL
auragabriela.socol@gmail.com
Academy of Economic Studies, Bucharest

ABSTRACT. The objective of this comparative analysis is to identify the good practices in the economic and social fields inside EU and to define the transforming directions of the labor market systems in the new member countries according to their evolutions. To achieve the objective of flexicurity assumed by the European social model, it is necessary both to modernize the social security system in order to increase the incentives to participate into the labor market and also to increase the flexibility degree of the labor market, so that the workers and the companies could faster adjust to the rapid economic changes.

The principle of flexicurity

To achieve the objective of flexicurity assumed by the European social model, it is necessary both to modernize the social security system in order to increase the incentives for participation on the labor market (as we have presented in the previous section), and also to increase the flexibility degree of the labor market, so that the workers and the companies could faster adjust to the rapid economic changes, which are induced by the economic globalization process. The labor market should create more jobs, it should not affect the
incentives for labor offer and it should respond to the risk of losing the job to a greater extent. For these purposes, the flexicurity strategy proposed by the European Commission has the following objectives: to render the labor contracts more flexible by modernizing the labor legislation and the collective negotiations; to apply comprehending strategies for permanent learning in order to provide the labor force’s adjustment, especially for the most vulnerable categories; and to promote active policies on the labor market, which can result in the decrease of the unemployment level and to facilitate the transition towards a new job. According to the three flexicurity criteria, we have made a comparison between the European sub-models, the objective of this analysis being to outline both the differences between the most flexible economies (the Northern and the Anglo-Saxon ones), and also the deficits of the other sub-models if compared to their efficiency.

Among the three characteristics of flexicurity, the first one is the most important as it represents a condition for the achievement of the other two. Thus, without changing the labor legislation related to the increase in the flexibility of the labor contracts, the effects of permanent training and of the active policies will be very low. However, the decrease in rigidity of the labor market represents a necessary but not sufficient condition for the increase of the workers’ flexibility degree. Any change brought to the labor legislation, if is not also accompanied by active measures and reorientation/requalifying programs, will only generate the increase of social insecurity and a high resistance to the changes from behalf of the unions.

The analysis of the flexicurity’s principle in the EU submodels

In this study we made a comparison between the five submodels of the European Union:

- **The Northern (Scandinavian) sub-model** includes Denmark, Finland, Sweden and the Netherlands, and it is characterized by a high redistribution degree, by promoting social inclusion, universality of the social assistance, social dialogue and cooperation between the social partners and government.

- **The Anglo-Saxon sub-model** includes Great Britain and Ireland and it constitutes the mirror of a liberal approach for the welfare system in which the social assistance is limited and in which the private insurance for persons’ risks are encouraged (meaning that the
The responsibilities for jobs searching belongs to the persons (the budget expenses for active policies on the labor market are low).

- **The continental sub-model** includes France, Germany, Austria, Belgium and Luxembourg. Within this sub-model, employment constitutes the basis of the social transfers, and the granted benefits are lower than those from the Northern sub-model, depending on the level of the previously obtained income are. As for the functioning of the labor market, it is regulated, without stimulating the workers’ flexibility, while the wages negotiations within it are centralized.

- **The Southern sub-model** includes Greece, Italy, Spain, Portugal, Malta and Cyprus. The state’s role is residual, being limited to granting partial social assistance, and the social expenses are oriented towards the aged population and towards certain occupational groups, such as the employees from industry. The labor market is highly segmented and regulated, and the wage negotiations are centralized.

- **The catching-up sub-model (of Central and Eastern Europe, CEE)** includes the Czech Republic, Slovakia, Slovenia, Hungary, Poland, Estonia, Lithuania, Latvia, Romania and Bulgaria. Although all these economies passed through a process of transition towards a market economy, there are significant differences regarding the organization of the welfare national systems. Some of the countries, such as Hungary and Slovenia, have chosen the increase of the spendings for social protection, while others, such as the Baltic States, have chosen to maintain them low and to stimulate the recovery process for the development gaps by promoting a taxation which is close to that from the Anglo-Saxon sub-model. However, the general analysis of the sub-model suggests the existence of regulated labor markets, of an institution of social dialogue, which is still less economically developed, and of a low level of social security. If we make an analysis by considering the three trade-offs, the catching-up model recorded high rates of economic growth, this aspect being characteristic for economies which are less economically developed but which induced a polarization of incomes, as in the Anglo-Saxon sub-model. The CEE sub-model was divided in two groups of countries: Visegrad countries, which include Czech Republic Slovakia, Slovenia, Hungary, Poland and the Baltic countries.

The economies which unified the three principles of flexicurity are those which belong to the Northern sub-model. Based on the
social dialogue and on the social security system, they harmonized two aspects, which are totally opposed in the continental countries, namely a high percentage of workers who joined unions (approximately 80%) and a low legislative protection of employment. The purpose of the implementation of a severe legislation for the employees was to improve the working conditions of the workers and their welfare, meaning the job security. This form of legislation has positive effects, as it encourages the increase in the productivity of the workers who frequently change their jobs, and it also had negative effects, as it limits the companies’ activities during periods of sales decrease and fast technological changes. On these lines, the economic literature considers that the rigid legislation related to employment is responsible for the decrease in flexibility of companies and of labor force, these aspects being mirrored in the increase of unemployment on a long term. In order to assess the impact of labor legislation upon the flexibility of contracts arrangements within EU, we have created Figure 1, in which we have included the coefficient of employment rigidity for 2009, which was calculated by the World Bank\(^2\). In EU, Denmark and the Anglo-Saxon economies are characterized by the lowest employment protection, while the Southern and the continental economies show more rigidity in this matter.

Figure 1. Coefficient of employment rigidity within EU-27 (2009)


![Figure 1](image_url)

The CEE submodel is not a homogeneous group, as Bulgaria, the Czech Republic and Hungary have a less severe legislation if compared to that of the Northern sub-model, while Romania (together with Luxembourg) is characterized by the highest employees’ pro-
tection within EU. Romania negatively influences the average of the new member countries, under the terms in which all the other economies in ECE grant a lower protection to their employed population, if compared to the average of the Scandinavian economies. Austria, which is considered to be similar to Denmark in terms of implementing the flexicurity principles, is perfectly flexible if we consider the labor employment (the coefficient of employment rigidity is zero), but it records an average difficulty in unemployment (the value is 40). Other economies have employment legislation which are different from the Austrian model; thus, in the Czech Republic, France, Slovenia, Spain, Romania and Luxembourg, the national legislation would rather limit employment, than unemployment, and this fact could generate the increase of labor insecurity in case other complementary measures are not taken.

According to the hierarchy presented in Figure 1, we can settle certain directions of the reform on the labor markets and of the social security systems within EU:

• the economies within the Southern sub-model (except Italy) should relax the legislation on employment protection together with promoting the other flexicurity criteria; otherwise, rendering the legislation flexible will not generate an increase of the employment rate, but rather an increase of the unemployment rate and a decrease of the social cohesion;
• as for the continental countries, it is also necessary to decrease the employment rigidity, but by coordinating it with measures for supporting the transition to another job;
• the new EU member countries, except Romania, have a legislation, which is less strict than that of the Northern sub-model, but, in comparison to that one, they do not provide comprehensive professional reorientation programs.

Until this moment, most of the reforms planned for changing the employment legislation are in a draft phase. However, the main coordinates, which were identified in certain economies are characterized by a high legislative rigidity in terms of labor market, are as it follows: extension of temporary labor contract and harmonization of labor legislation with social protection, as for Portugal; legal settlement of a mechanism for unemployment, which should be agreed by the social partners and introducing new fixed-term contracts (between 18 and 36 months), as in France; providing public services of permanent training for the employed population, as in Italy; more-
over, this economy established the renewal of the fixed-term contracts; simplifying the unemployment procedures for workers and increase in flexibility of working hours, as in Slovenia; moreover, the labor legislation was modified in order to allow the family’s life getting in line with labor; coordination of the employment insurance system with the public services for integration on the labor market, as in Estonia and Poland.

The flexible forms of the labor market

The legislation reforms for employment do not suppose only the decrease of restrictions in terms of unemployment and employment, but also the implementation of flexible labor forms. For this purpose, a series of economies regulated new labor forms, according to the community’s directives regarding the decrease of rigidity in working hours; thus, Hungary, Poland, Estonia included the labor in front of the computer into the legislation (telework), and Lithuania, Poland and Malta legalized the part-time labor contracts and the fixed-term contracts. Rendering the labor contracts flexible will allow the working hours to get in line with family life and with continuous training. Moreover, a series of groups, which are more vulnerable on the labor market, such as the poorly qualified workers, the youthful people and the women, will be able to more easily get employed, and the result will be the increase of the national employment rate.

In EU-27, the percentage of the workers who have part-time labor contracts was 18.2% in 2008, 2 percents higher than that recorded in 2000. During the same period, the percentage of the women with part-time jobs increased from 28.7% to 30.7%, and that for men increased from 5.9% to 7.1%. The labor markets from the old member countries are more flexible than those which belong to the ECE sub-model, the percentage of the part-time workers being of 21% in EU-15 and of 8% in the case of the new member countries. The Northern sub-model adjusted to a greater extent to this employment form, the Netherlands, Sweden and Denmark having more than 25% workers with flexible contracts. In Netherlands, 47.3% of the workers have part-time contracts, under the terms in which 75% of the employed women chose this form of labor contracts. Since the ’80s, the social partners from this economy agreed to decrease the number of the working hours in order to redistribute employment
and to increase the labor’s flexibility, and these aspects generated the entry of a greater number of women on the labor market.

The differences recorded between the Northern, the continental and the Anglo-Saxon sub-models, on the one hand and the Southern and the ECE sub-models, on the other hand, which are emphasized in Figure 2, are caused by the different adjustment degree of the legislation in terms of social security. As long as the part-time activity supposes much lower social rights than the full-time contracts, then the percentage of those, which choose a more flexible form of labor, is lower. As for the new member countries, the part-time contracts are rather a temporary alternative to the full-time ones and not a substitute for them. This is the reason why the acceleration of the economic growth recorded during the period 2002-2008 in countries such as Romania, Bulgaria and the Baltic States was accompanied by the decrease in the percentage of the employed population which have part-time labor contracts.

Figure 2. Part-time workers’ percentage of the total employed persons (2008)
*Data source:* Eurostat (2009)

Another modality to increase the labor market’s flexibility is represented by the fixed-term contracts, which, in most of the cases, refer to the professional training period of the workers or to the probationary period. Most of the persons who get employed under the terms of this type of contract are involuntary, meaning that they have searched for a job with fixed-term contract, but they have not found it. In EU, approximately 45% of them had contracts for periods shorter than 6 months in 2008, and approximately 30% had contracts between 6 months and one year. The implementation of
this labor form in the economies which are characterized by lower social rights results in the increase of labor force’s insecurity, while in countries from the Northern sub-models, it represents a method for encouraging the project-based activities. In EU-27, the percentage of the workers who have temporary contracts was 14% in 2008, the level decreasing by 1 percentage in comparison to 2006. The differences between the sub-models are lower than for the part-time employment, and the Northern sub-model, which is characterized by the highest flexibility of the labor market, has a lower percentage of workers with fixed-term contracts if compared to the Southern sub-model and the Visegrad group. Over 20% of the employed population from Spain, Portugal and Poland have fixed-term contracts, while in the Baltic States, Romania, Bulgaria and Slovakia, the percentage is below 5% of the total employed persons (Figure 3).

Figure 3. Temporary workers’ percentage of the total employed persons (2008)

The differences are caused by the more strict labor legislation, which does not establish the possibility to successively conclude such a contract with the same employer.

Conclusions

The analysis made in this study meant to identify the differences between the European sub-models according to the flexicurity coordinates, which represent the main characteristic of the modernized social model. This concept supposes the getting in line of the social spending with the increase of the labor employment rate, under the terms of the improvement of the incentives for staying on the labor
market, of increasing the flexibility on the labor market and of the redistribution system’s sustainability. The flexicurity systems of the Northern and Anglo-Saxon sub-models represent examples of good practices for reforming the national welfare systems, but their implementation represent a problem under the terms of the differences recorded in terms of employment, of incentives for the entry on the labor market and of labor legislation’s flexibility within the other European sub-models.

NOTES

1. This paper represents a partial dissemination of the postdoctoral research project CNCSIS, HUMAN RESOURCES type, Macroeconomic modeling of the relationships between the asymmetric shocks, convergence of business cycles and mechanisms of adjustment in the context of Romania's adhesion to the Euro area, No.78/03.08.2010, Project Manager Mari- naș Marius-Corneliu.

2. The World Bank’s coefficient is determined as an average of three sub-coefficients: the difficulty in employment, the difficulty in unemployment and the rigidity of the working hours. This coefficient records values within the range 0–100, a higher level corresponding to a rigid regulation of the labor market. In the economic literature, the coefficient related to the degree of employment strictness, calculated by OECD, its calculation method being similar to that used for the first coefficient. The OECD coefficient takes into consideration 18 sub-indicators, which are classified in three main fields: employees’ protection against unemployment, the provisions of the legislation on collective firing and the regulation of other employment forms, such as the temporary and part-time jobs. The reason for choosing the first coefficient was that of the current statistical data availability for all the EU-27 member countries, except Malta and Cyprus. As for the second one, it only takes into account 19 out of the EU-27 countries, and the latest statistical data are those recorded in 2006.

REFERENCES


Eurostat database, 2009
ABSTRACT. Foreign direct investment plays a positive role in the development of a country’s economy by introducing foreign capital and modern technologies, in restructuring the economy and accelerating the pace of privatization, reducing the unemployment and raising the income per person, improving the balance of payments, increasing the level of GDP, the exports, the competitive ability of local products on international markets. Albania has a high potential to attract FDI in various sectors such as industrial processing, agribusiness, tourism, services, agriculture etc. But absorption of FDI in Albania is much lower than its real potential. After 2000, Albania has made visible progress to increase the flow of foreign direct investment not only just from state privatization companies, but also in the involvement of foreign private sector to obtain the concession strategic sectors.

Introduction

Foreign direct investment (hereafter FDI) has played an important role in the transition process and economic development of many developing countries. They can be an important component of de-
velopment strategy of a country. Growth of FDI during the last two decades has been higher than growth of trade between countries. FDI in the global economy are becoming increasingly important and the stock of FDI occupies about 20 percent of global GDP.

Developing countries have opened doors for FDI entry in the hope that they will encourage a greater economic growth, improve access to foreign markets, will increase employment and improve balance of payments.

Program designed aimed at meeting the objectives set for review strategy for addiction sectors, to prepare and present a long-term policy framework for energy sector development, a policy framework to ensure competition and eliminate discrimination in the market, providing a climate convenient for business and foreign investments that minimize administrative barriers and reduce the cost of opening the business, guaranteeing an open and transparent process in the privatization of strategic sectors, thus aiming to improve the image of Albania as an attractive place for business both foreign and domestic business.

Encouraging foreign investment, as an instrument with significant contribution to economic growth is a priority and will continue to be supported by accelerating the process of privatization of strategic sectors of the country, as KESH, the insurance sector, oil and gas, including ports and airports which will be allocated giving concession policies.

Parallel work on improving the legal framework for attracting investment in energy sectors and in infrastructure development in general, encouraged all forms of partnership with the private sector as an opportunity to generate additional resources in the economy and to ensure a sustainable pace economic development.

Albanian economy - general macroeconomic environment

The Albanian economy appears characterized by a stable macroeconomic situation (see Table 1). GDP has experienced a constant growth and inflation has been kept at low levels. However living standards in our country remain low compared with Western standards. The economy is based mainly in the services sector and domestic demand for consumption relies on imports leading to continued deterioration of the trade balance. Agriculture Sector still continues to be characterized by major problems, which dominate those,
related to ownership and sharing of agricultural land, which prevent large-scale investments. Industrial production sector reflects a production capacity not activated, mainly in extraction and processing industry. Network lags is another problem that, despite continued investment poses an obstacle to growth. Energy crisis has hit the country several times due to a volatile energy sector. Despite this, Albania has good opportunities for tourism. Underdevelopment of the sector to full potential have been the lack of managerial experience, combined limited funds and poor infrastructure.

**Table 1: The main macroeconomic indicators**

<table>
<thead>
<tr>
<th>Indicators</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population (million inhabitants)</td>
<td>3.15</td>
<td>3.16</td>
<td>3.17</td>
<td>3.18</td>
</tr>
<tr>
<td>Nominal GDP (in billion lek)</td>
<td>882.2</td>
<td>971.2</td>
<td>1085.7</td>
<td>1176.3</td>
</tr>
<tr>
<td>Real growth of GDP (in%)</td>
<td>5.4</td>
<td>6.0</td>
<td>8.0</td>
<td>5.8</td>
</tr>
<tr>
<td>Nominal GDP per capita (in thousand leks)</td>
<td>280.1</td>
<td>307.2</td>
<td>342.7</td>
<td>369.4</td>
</tr>
<tr>
<td>Nominal GDP per capita (in USD)</td>
<td>2855.6</td>
<td>3396.7</td>
<td>4085.0</td>
<td>3827.7</td>
</tr>
<tr>
<td>Deflator of GDP</td>
<td>2.7</td>
<td>3.9</td>
<td>3.5</td>
<td>2.4</td>
</tr>
<tr>
<td>Average annual inflation</td>
<td>2.4</td>
<td>2.9</td>
<td>3.4</td>
<td>2.3</td>
</tr>
<tr>
<td>Exchange rate (Lek / Euro)</td>
<td>123.0</td>
<td>123.9</td>
<td>122.8</td>
<td>130.0</td>
</tr>
<tr>
<td>Total investment (in% of GDP)</td>
<td>39.0</td>
<td>38.6</td>
<td>40.2</td>
<td>38.7</td>
</tr>
<tr>
<td>by which public</td>
<td>6.8</td>
<td>6.5</td>
<td>9.5</td>
<td>9.8</td>
</tr>
<tr>
<td>Trade balance (in% of GDP)</td>
<td>-23.6</td>
<td>-26.7</td>
<td>-26.7</td>
<td>-25.0</td>
</tr>
<tr>
<td>Current account balance (in% of GDP)</td>
<td>-6.6</td>
<td>-10.6</td>
<td>-14.9</td>
<td>-14.6</td>
</tr>
<tr>
<td>Balance of payments (in million Euros)</td>
<td>206.5</td>
<td>148.6</td>
<td>191.9</td>
<td>-240.0</td>
</tr>
</tbody>
</table>

So we can say that the performance of the Albanian economy in recent years is characterized by maintenance of relatively high rates of growth within a stable macroeconomic framework. The expansion of financial intermediation and the gradual improvement of the structural environment of the economy support the private sector economy. Monetary conditions, providing low interest rates, exchange rate stability and financial resources for the economy, have favored
economic growth. Meanwhile, public sector development is oriented by the need for continued fiscal consolidation, aiming at the same time increasing the quality of service.

Developments consist in all sectors of the economy and a series of statistics to support the prediction of a genuine real annual growth in recent years. Consumer prices during the fourth quarter of 2008 and 2009 have been relatively stable. Improving indicators of employment, increase exports and imports and the sharp growth of credit, show that domestic demand remains high, despite the problems caused by difficulties in production and use of electricity.

Recent developments suggest that economic and monetary environment remains conducive to overall economic growth during the next period. However, prospects are still uncertain energy situation, the rapid growth of credit and its impact on domestic demand, the trade balance deficit and implications for financial conditions rather than coercive cycle in the Euro zone monetary policy remains potential factors risk for macroeconomic stability in the country.

**Foreign direct investment – level, development and prospects in the region**

Most occur through direct investment to developed countries, but during the last 15 years has noticed an increase in foreign direct investment to developing countries and those in transition.

Countries of South-Eastern Europe, though geographically near to the EU countries remain far from their level of development. In order to reach as many other countries developing states South-Eastern Europe must rely on large investments. Since savings rates remain low, underdeveloped financial systems, the attraction of foreign investment represents an opportunity to increase capital formation and achieve economic growth. Foreign direct investment in Central European countries, Eastern and South-East has known growing steadily during recent years, despite an overall declining trend in other countries. It (Chart 1) seems clear trend of strong growth of FDI to the SEE countries in comparison with the incident trend in FDI to developing countries in general and the world. States targeted, as the most preferred countries for FDI entry are Estonia, Czech Republic and Hungary. These are the countries with greater stock of FDI per capita in the region. Since the beginning of the transition these countries have been preferred FDI.
FDI has been an important element of growth and economic development for countries of Central Europe. These countries opened the doors in search of more foreign investments in the hope of a growth with major, to have better access to foreign markets and to improve the balance of payments. Crucial factors that determine this large influx of FDI in Central European countries are unit labor costs, market size of host country, the level of trust (which measures how a country risk) and geographic proximity with the developed countries of Europe. The main determinant is the estimated cost per unit of work. Not only that labor is not expensive, but that makes it more attractive investment in these countries is high level of development and training in comparison with other developing countries that have the same level of income per capita. Starting from the general trend of FDI in different countries of the world, FDI in these countries are more oriented services sector. South Eastern European countries, in comparison with Central European countries are less developed.

A great help in their process of rapprochement with the developed countries has given the general improvement of business climate and privatization projects. Western Balkan countries, meanwhile, have attracted much smaller FDI entry. FDI entry fell significantly during 2004 for Croatia and Serbia, while flows to Albania, Bosnia and Macedonia recognized Herzegovina growth for this year (although they remain at lower levels). This region has some disadvantages compared with Romania and Bulgaria due to higher wages and a general investment climate less attractive. Economic and political progress during recent years makes the general appear-
ance of the region as a whole to be more positive than ever since the transition process. According to him, the best performance of FDI in the Balkans is a sign of continuity rather than a casual event. Other reasons to invest in the Balkan countries remain tax reduction, efforts to improve the business climate, higher growth rates than the European average, inflation at low levels, pay almost half of Central Europe and the movement towards liberalization regional trade.

**Walking of foreign direct investment in Albania**

Although flows of foreign investment in Albania have been steadily increasing, they remain very low levels if compared with the Region. This as a result of a negative heritage of serious damage to business climate, because of the considerable obstacles administrative, spread corruption, regulatory weakness and perceived risk of the country's economic and political.

FDI performance over time reflected (Chart 2). As you can recognize and graph, foreign investments have increased more during the last five years, as a result of privatization of small enterprises and medium state. In fact, the average ratio of FDI to GDP for the period 2000-2005 is 4 percent, compared with 2.5 percent of GDP that was for the period 1993-1999.

In 1991, Albania entered the path of socio-economic restructuring of the country and one of the main issues has been the promotion of FDI. Until 1996 seen a small increase in FDI but investment levels have remained low as a result of lack of security and political and economic instability. In the years 1997-1999 have declined to FDI as a result of social-political crisis caused by economic bankruptcy of pyramid schemes. Crisis of 1997 brought negative impacts on foreign investors. As a result of its foreign investment figure was reduced to $ 47.5 million, and so experienced a decline of more than 50% compared with a year ago. The events of September 1998 and the Kosovo crisis of 1999 brought further decline in investment, respectively, $ 44.5 million and $ 41.2 million. During the 1998-1999 FDI accounted for about 1% of GDP. During this period, foreign investors were removed from the Balkan region in general and in particular from Albania. In 2000 the situation improved significantly, at least in economic terms, and the figure reached about $ 143 million, about three times higher compared to 1999. As for foreign investment in 2001 reached their peak with a value of about
$207 million. In 2002, because of the energy crisis and unfavorable weather conditions FDI decline to $149 million. During 2003 they increased by about 16.3%. In 2004 FDI reached about $341 million, 64% of which have entered our country in the form of privatization.

Foreign direct investment during recent years has experienced a considerable growth. Albania ranks of the countries that despite the global crisis, the level of foreign direct investment has been higher. Increased foreign direct investment as other countries in the region was based on the privatization of large companies that were owned by state and improvement of business environment. (Chart 3)

Chart 2. IHD ne SHQIPERI (in percentage)
Source: Data from statistical Bank of Albania, 2009

Chart 3. FDI in Albania (in million Euro)
In 2008, Albania has a 20% increase in foreign investment in the form of direct investment, privatization etc. The same trend continued during the first quarter of 2009 where Albania has experienced growth compared to last year's quarter by about 20%.

For FDI data indicate that foreign investors have a major impact on the country's economic development. From the data we see that 48% of FDI have their origin from Italy, 34.2% from Greece, 2.2% from Turkey and Macedonia. Interesting is that 87% of FDI in Albania have originated from Europe. This high percentage in FDI in Albania from EU countries coming to its simple fact that Albania is part of Europe and has more opportunities for recognition bloc countries than for American States, Asian and European countries etc. have easier to have ties with Albania after delivery or arrival of goods is cheaper than if you do the same countries outside Europe. Most tend of Italian investment are SMEs operating mainly in the construction sector (35%), textile and shoe manufacturing (21%), trade and services (16%), as well as agricultural production (8%). They are more concentrated in the western part of Albania. Italian firms benefit from competitive advantage to skilled labor and low cost. Greek investments are focused in the telecommunications, banks and construction in our country, which are also profitable.

In view of the stock of foreign capital, at the end of 2004, not less than 82 percent of this stock was on behalf of the European Union countries, with Greece's main investor (with 48 percent of the stock of foreign capital at the end of 2004) and Italy (30 percent). Greece and Italy have significantly increased their presence in the stock of foreign capital in the country. Albania’s geographical proximity to these two countries as well as a powerful economic cooperation with the EU is among the main reasons for the dominance of foreign investors from these countries.

Increasing the stock of foreign capital in years seems to have been sensitive regarding the Greek capital. The latter, at the end of 2004 is estimated at about 18 billion, 7 billion estimated by the end of 2001. Greek capital is concentrated mainly in the communications sector (68 percent) came as a result of involvement in privatization and trade during the years 2000-2001 with the majority (13 percent). Over recent years has somewhat diminished its presence in the clothing industry. Italian capital for the period surveyed (2001-2004) has saved about 60-65 percent intervals representing its investment
in processing industry. At the end of 2004, the Italian capital stock is estimated at about 11.3 billion from 3.8 billion in 2001.

FDI in the agricultural sector remain low due to large scale of plots and land fragmentation, making restrictions on ownership by foreigners of land in rural areas and poor road links and transportation with major domestic markets and the region. Agricultural sub-sector to attract more foreign investors is the agro-industry and the conservation of fish processing. (Table 2)

Table 2: FDI by sectors 2006-2008 (in million U.S. dollars)

<table>
<thead>
<tr>
<th>Sectors</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Value</td>
<td>%</td>
<td>Value</td>
</tr>
<tr>
<td>Industry</td>
<td>35</td>
<td>10.3</td>
<td>70</td>
</tr>
<tr>
<td>Transport</td>
<td>40</td>
<td>11.7</td>
<td>55</td>
</tr>
<tr>
<td>Telekom</td>
<td>100</td>
<td>29.3</td>
<td>40</td>
</tr>
<tr>
<td>Services</td>
<td>151</td>
<td>44.3</td>
<td>40</td>
</tr>
<tr>
<td>Other</td>
<td>15</td>
<td>4.4</td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
<td>341</td>
<td>100.0</td>
<td>245</td>
</tr>
</tbody>
</table>

In services, FDI is concentrated in banking services, retail and construction. FDI in construction is increasing in terms of number of enterprises and their business volume. In the production sector, most foreign companies dealing with export semi final and final products. Most are clothing, small items of shoes. Foreign subsidiaries in Albania initially import raw materials from abroad (usually neighboring countries), the process it using methods of production and labor intensive then export again product in various stages of processing (often return to the country of origin of investors).

One of the characteristics of transition in the country has been the privatization of state property purpose of stimulating the local economy. One of the objectives of the privatization process has been to support more private sector development and thus attract strategic foreign investors, raising more efficient use of natural and human resources. The privatization of strategic sectors is regarded as the most important phase of the privatization process because it ensures the consolidation of capital market and creates conditions to encourage foreign investment in important sectors of the country's economy.
We should note, however, that Albania has been one of the most successful countries in attracting FDI. Compared with the countries of SEE, but also the Balkan countries, it has been more attractive choice for foreign investors. In 2005, the flux of incoming FDI was only 3.1 per cent level of GDP, compared to 5 percent of GDP of countries CE. The reasons are as related to problems of domestic economy, as well as related to the surrounding environment. As regards the latter, experience has shown that the benefits of regional integration tend to not be divided proportionally among integrated. Foreign investors tend to go to the countries largest group. So the benefit of regional integration seems to not be equal. Assessment of political and economic stability is an important element in the decision making process to invest in a country. Thus, using a survey of businesses operating in Albania, it is estimated that the biggest obstacle facing companies in Albania include unfair competition, changes in taxation procedural, lack of financial resources and related public order problems.

Low levels of FDI in Albania stay because of low income per person and political instability. Other factors are negative and, weakness in the application and strengthening of law, frequent inspections and destructive of public officials (especially customs, taxes and when required license or special permit); acceptance by the public administration officials illegal payments; inadequate infrastructure (roads, energy, water and communications); problems over land ownership and building permits and a financial sector generally not supportive.

Albania can simultaneously attract investors based on market research and investors who rely on search efficiency. FDI in manufacturing in the search market may be limited initially because of the small market in Albania and consumer purchasing power. But small market barriers are expected to melt by the progress with integration in regional markets. While investors rely on search efficiency will be withdrawn from the labor force with a low-cost packages and privatization. Tourism, thanks to cultural heritage coast has significant potential to develop. However, the situation will be subject FDI infrastructure in this field in the construction of tourist villages.
Business climate in Albania as one of the main determinant

The private sector developed where foreign direct investments and domestic investments grow and thrive. Foreign direct investment address where business opportunities are greater and obstacles to entrepreneurship are small. Then who are the main factors in determining these investments?

First, macroeconomic sustainability, in which, certainly plays a major role the central bank, low inflation and political sustainability. Of course, that political sustainability should be defined first, and created one of the areas where uncertainty is what means by sustainability and political security.

Other factors are: a system of appropriate legal and regulatory, financial factors markets, employment and real estate, better functioning, a better system of property rights and contracts Bailiff and low corruption or mechanisms to combat it. So to open a new business in Albania must pass in 11 procedures, compared with only 9 procedures that is the average of countries in the region and the 6 procedures developed countries with the OECD. Translated into time and cost, this means that entrepreneurs will take approximately 5 days more and double the cost if they decide to open a new business in Albania and not in our neighboring countries.

In Albania, enforcing contracts and files registration costs more, registration procedures and bankruptcy properties take longer and offered less protection for the rights of lenders and borrowers and implementation of contracts. In Albania these indicators lies behind not only developed countries but also those in development, part of the region. So it seems that the most important that the government can undertake to promote investment are: interference on administrative barriers; intervention to curb corruption; intervention to promote and to develop strong sectors, through a number of indirect mechanisms and the creation of an attractive business environment, which means the conditions of production factors, of course investment in human capital and infrastructure investments.

It should have been aware that the investment climate has a major impact on entry flows of foreign direct investment. The stress factor particularly in the case of comparing the best performance of developed countries in transition of Central and weak performance of the Balkan states, which are less developed in terms of transition reforms, belongs to you. There are a number of factors that may be
included in Albania in improving the business climate. Among them may be mentioned: the index of start of business, and holiday employment index, the index of contract enforcement, etc.

First indicator "business start", measures the number of procedures and days before preparation for start-up a new business. Number of procedures is almost the same between countries, but it differs days. Albania has a good position compared with the average of all Central and Eastern Europe, and is near the EU average for this indicator.

Indicator of "employment and leave" represents the labor market flexibility. Albania is an exception relatively high throughout the Western Balkans shows that compared with other transition countries, regarding hiring index and that of dismissal. Index of Albania speaks for a high flexibility in both indices.

The third indicator "of contract enforcement" is judicial system efficiency measures in applications of commercial contracts. Albania has the lowest number of days that should be expected to pay, but there are a number of procedures to be followed and that lead to higher costs.

With the increase of foreign capital in the country have also been changes in the level of employment. Increase the level of employment, has been a fundamental objective of social policy and the companies which have invested in Albania.

The existence of an informal sector of the relation by overstating informal employment has stressed the need for more effective intervention than in the direction of institutionalization of the labor market.

Measures taken by the Government during these years have been made in order to be eligible population for several different types of professions in line with market needs. Bringing new technologies from foreign firms was born also need better training which has brought increased work efficiency through training centers as a result of the increasing number of persons trained in accordance with the requirements of the labor market. This has led at the same time also increase the effectiveness of labor across firms or companies operating in the country. Given strategic business items in Albania have been a monopoly of the government, considerable liberalization of the economy through FDI or privatization of Albanian firms has revealed the need for formation and strengthening of regulatory structures and market to promote competition in to. Implementation
of strategies during recent years has brought considerable progress in the privatization process of public economy and market opening for foreign investors is another element of structural reforms, developed in Albania.

**The legal framework on foreign direct investment in Albania**

Albania during these years has created a broad framework of laws and regulations to enable the functioning of business in a country that continuously develops towards an open and competitive economy.

One of the main points of this treatment is the "Law on promotion of investment, which represents a clear attempt to create a regulatory basis for attracting FDI. This law is in continuity of law no. 7764 "Law on Foreign Investments." Both are designed to create a favorable climate for FDI in Albania. It offers guarantees to support foreign investors desire to invest in Albania.

Law on Direct Foreign Investments allows FDI and treats them on the basis of terms no less favorable than those that were recognized domestic investment in similar conditions, with the exception of land ownership, which is regulated by special law (Law no. 7764, Article 2, for FDI). The law also guarantees foreign investors against expropriation or nationalization and recognizes the right to transfer funds outside the territory of the Republic of Albania

Some of its provisions can mention:

a. No sector is limited to FDI and there is no need for any specific permission for this.

b. There are no quota restrictions on foreign investor participation in equity of the company - a participation of 100% is permitted.

c. Foreign investment cannot be expropriated directly or indirectly, except special cases, which are of interest to the community provided such cases in Albanian law.

d. Foreign investors have the right to take home funds and their contributions in the form of investment.

e. It is envisaged a more favorable treatment in connection with international agreement.

The law provided for export initiatives for creating new jobs for industrial parks and free zones. And main recommendations are immediate reforms.
Albanian regulatory environment has reflected the problems regarding the quality of the legal framework affecting business development associated with high costs for its growth and development while encouraging the latter to stay in the informal market. This has affected the competitiveness of the Albanian economy by reducing the scale of attracting foreign investors.

To this Albanian Government has undertaken a comprehensive regulatory reform which is a dynamic and comprehensive program to create a regulatory environment attractive for new investment, domestic and foreign.

From analysis of this plan we can say that some of the innovations of this reform are:

We must focus not only to improve existing and/or eliminating administrative barriers, but also in non-allowing the creation of new barriers. Establish system for the management of such reforms so complex, will ensure that this reform be long term and sustainable.

Conclusion

To increase FDI in Albania should be made great efforts to improve the business climate. There are factors that affect the deployment of FDI as:

1. Political factors, which include: stability and political risk, international conventions or agreements signed. If you predict a stable political system in place, investment will be numerous and long.

2. Economic factors, which include the population of the country, quality and price of labor force, infrastructure, energy, inflation, income per capita, etc. In general, foreign capital has the tendency of concentration to countries with a relatively high level or an increase in income per capita.

3. Social factors, which include the attitude of host country population to foreign capital.

4. Technological factors which include: the need to boost its technology transfer through or by means of foreign capital investment in the framework of technical assistance.

One of the important actions the government is reducing investment barriers in order to improve the investment climate and the perception of foreign investors to.

For this is recommended:
1. Improve business climate by establishing a relationship between policy and to regulatory and market liberalization and state intervention in the market, simplifying licensing procedures, problem solving and building land, reducing the informal economy will have positive effects increased investment in the country.

2. Speeding up the process of privatization as a major source of FDI growth in the short term

3. Identify market opportunities and potential investments in other sectors such as electric power, mining, oil and gas, agribusiness and tourism.

4. Reducing the informal economy which will bring not only improve macro-economic indicators, but will bring and the elimination of unfair competition in business.

5. Reduction of administrative barriers for foreign investors by creating an office (one stop shop) to occur only where the foreign investors to carry out all administrative actions necessary to invest in Albania.

6. Develop a coordinated program to promote Albania and its investment opportunities even in areas and industries via new policy orientation towards function effectively in the best exploitation of these investments.

If we improving these important factors, Albania will certainly improve its image in the world, which will became a favorite place for foreign investors to invest their capital.

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DETERMINANTS OF DOMESTIC INVESTMENT IN THE LIBYAN PUBLIC MANUFACTURING SECTOR

NASER TAWIRI
s0710115@connect.glos.ac.uk
University of Gloucestershire

MARIN MARINOV
mmarinov@glos.ac.uk
University of Gloucestershire

ABSTRACT. Many studies and empirical literature on investment have shown some important variables affecting domestic investment. This study aimed to identify determinants of domestic investment in the public manufacturing sector in the Libyan economy during the period (1962-2008). Properties of time series of the model variables have been analyzed by using several tests for determining the integration level of each time series separately. By using the Johansen-Juselius cointegration method, the results showed the significance of the impact of annual appropriations for the manufacturing sector and imports of machinery & capital goods on domestic investment in the public manufacturing sector, the results of these tests revealed an equilibrium relationship between domestic investment in the public manufacturing sector and its determinants in the long and short-run.

Introduction

After the transition to a socialist system (end of 1970s, and early 1980s), the prevailing idea of the Libyan government was the inability of the private sector to carry out the development process given the small size of this sector and the domestic market, therefore, the public sector took a greater role in economic activity and economic and social development. This is reflected in the distribution of planned fixed capital formation between the public and private sectors (Al-Farsi, 2003). Table 1 shows the declining private sector
investment in total investment from 12.7% on average during the period (1976-1980), to 8.3% during (1981-1985). In the early 1980s, an economic blockade was imposed on Libya; it resulted in a high cost of imports of various goods, and coincided with a reduction in the price of oil in global markets. As a result, the State's revenue declined by a large margin. To address the problem, the government adopted a method of deficit financing and internal public debt stood at around L.D 5045 million in 1989 (Central Bank of Libya, 1989. P. 40), this led to a rise in the rate of inflation in Libya to unprecedented levels. To deal with inflation and other negatives in the economy, the Government adopted a set of economic policies to correct the economic situation. Most important of these policies is providing an opportunity to the private sector in economic activity. Given the instability of those economic policies, that led to a high degree of uncertainty, which made the contribution of the private sector low. With regard to fiscal policy, emphasis was placed on public spending to achieve some of the goals of economic policy. Due to the magnitude of the size of the administrative body, the bulk of the reduction in public expenditure was concentrated on investment spending, which resulted in a negative impact on the rate of growth.

**Evaluation of manufacturing investment in the period 1970-2008**

**The period 1970-1985**

Development allocations to the manufacturing sector during the period 1970-1985 amounted to L.D 24148 million. Table 2 shows the total investments in the manufacturing sector and other sectors. The size of investment in the manufacturing sector reached high levels in the years 1980 and 1981 compared to other years, they amounted respectively to L.D 429.1 and 498.8 million. That was due to a number of reasons including:

- Rising oil revenues in the late 1970s led the government to allocate large sums to finance development plans.
- Focusing on some industrial activities whose purpose was to export and to reduce dependence on oil.
- The years 1980 and 1981 saw the start of heavy industries in Libya (Iron and Steel industry, for example).

Development plans mentioned earlier in this chapter refers to the following: The manufacturing sector during the first plan (1973-1975)
took up 12.1% of the total allocation, which is low when compared to allocations directed to other sectors. For instance, the agriculture sector received 14.4% of the allocations. The same was repeated during the second plan (1976-1980) when the manufacturing sector had 13.6%, which is a low percentage when compared to the strategic importance of this sector in the development process on one hand, and the allocations obtained by other sectors on the other hand. The third plan (1981-1985) saw a marked improvement in the proportion of investment allocations directed to the manufacturing sector, which came in the second rank at 16.1% after the transport and communication sector, which came first with 18.7% of allocations.

Table 1: Percentage distribution of investments between the public and private sector (1976-2007)

<table>
<thead>
<tr>
<th>Period &amp; Year</th>
<th>Public Sector %</th>
<th>Private Sector %</th>
</tr>
</thead>
<tbody>
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<td>2008</td>
<td>81.5</td>
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</table>


The period 1986-1999
This period witnessed a decline in oil revenues due to the drop in oil demand and the deterioration of its prices in international markets.
Another reason was to the desire of governments in the developed world to adopt a more rational use of oil in the circumstances, which emerged in that period. Decline in oil revenues was reflected in the emergence of a deficit in the state budget in trends of investment expenditure, in particular directed to commodity sectors (manufacturing and agriculture). The most important observations of this period include:

-There were marked declines in the proportion of allocations directed towards the manufacturing and agriculture sectors. This decline explains the Government's desire not to expand by adding new production capacities, and being satisfied with only the lifting of the utilization degree of existing capacity. This led to the suspension or postponement of many industrial and agricultural projects.

-Compared with the decline of investments in the group of commodity activities, activities of non-commodity sectors witnessed a remarkable increase, from 8% during the period 1981-1985 to 15.8% during 1990-1996. This was explained by the focus of government spending during that period to improve public services, and a reduction in the volume of investment expenditure made for purposes of economic development (due to the drop in oil revenues and the rise in the deficit of the state budget).

In light of the above, it can be said that the period 1986-1999 witnessed a marked decline in the productive trends of the investment policy compared to the emergence of consumption trends. This approach formed the basis for generating inflationary waves in the Libyan economy during that period. In addition, trends of the investment policy were a dependent variable to the size of the contribution of oil revenues in the state budget. The relative importance of development expenditure increased compared with the current expenditure (this stage is characterized by the development plans during the period 1973-1985). However, after a decline in oil revenues during the period 1986-1996, a deflationary investment policy was adopted. Policies aimed at the rationalisation of government expenditure were also adopted, and focused on the financing of current spending requirements (mainly including operating expenses, particularly the wages of public sector employees). Therefore, adopting a policy of long-term development plans was abandoned, and annual investment programmes were adopted.
Table 2: Investment in the Major Sector in the Libyan Economy (1970-2008)

<table>
<thead>
<tr>
<th>Sector Year</th>
<th>Manufacturing value</th>
<th>Agriculture value</th>
<th>Construction value</th>
<th>Services value</th>
<th>Oil value</th>
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<tr>
<td></td>
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<td>2007</td>
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<td>1461.0</td>
<td>42.7</td>
<td>2784.5</td>
<td>2002.5</td>
<td>16676.1</td>
</tr>
<tr>
<td>2008</td>
<td>675.7</td>
<td>1668.5</td>
<td>47.2</td>
<td>2890.4</td>
<td>2223.3</td>
<td>18592.6</td>
</tr>
</tbody>
</table>

*Total for the whole economic sectors.

The period 2000-2008

Table 2 shows the values of investments in major sectors in the Libyan economy during the period 1970-2006. Through the table, it is noted that investments of the manufacturing sector were relatively high, especially in the period 1980-1984 which witnessed the begin-
ning of a policy of heavy industries in Libya (as previously noted). However, those investments were also low, especially in the early 1990s, while some other sectors (such as agriculture) witnessed a rise in investments. Increased investments in the agricultural sector during this period were due to the expansion of expenditure on this sector because of the trend towards investment on "the Man-Made River".

Total investments increased generally during this period. However, the ratio of investment in the manufacturing sector to the total investment declined from the previous period. Table 2 also shows a significant drop in the proportion of investments in the agriculture sector from 26.5% to 9.1%. The increase of total investments due to adopting an investment policy depended on the expansion of service activities and the rehabilitation of infrastructure, in addition to the focus on investment in the oil sector which saw a slight rise in the percentage of investment. In addition, the policy of restructuring the economy, which the government started in preparing for it to be a sign of economic change, had an impact on investment behaviour, in accordance with the new international economic and political developments.

We can deduce from the above that the rates of investment at the macroeconomic level were relatively weak, where these ratios were weaker than the rates which must be achieved to drive and activate the economic sectors. In addition, the ratio of investment in the manufacturing sector was relatively high, reaching 16.3% in the early 1980s, and then falling sharply to 4.2% during the 2000s. Overall, it can be concluded that there was a lack of a real important change in the structure of production in the manufacturing sector in the form, which confirms the existence of an advanced industrial sector.

Model of domestic investment in the public manufacturing sector

Description of variables and data
This model tried to consider some of the improvements made on previous studies, furthermore, it will relate to recent years, in addition to the inclusion of other important factors which have had important effects on investment in the manufacturing sector in Libya. The model of this study consists of an equation investigating the determinants of public investment in the manufacturing sector, which
deals with the study determinants affecting this function in the Libyan economy.

The most important variables of the model are used for interpreting the changes in manufacturing investment in Libya, specified on the basis of previously applied studies. The dependent variable which will be used in this section is gross public domestic fixed capital formation (domestic public investment in the manufacturing sector) (see Looney, 1997; Devarajan, 2002; Omar, 2002 and Nair, 2003; Mohamed, 1997; Tabibian, 2003). This study has relied on the results of the analysis of some previous studies for selecting the explanatory variables.

**OIL REVENUES**
The studies by Omar, 2002; Mohamed, 1997; Tabibian, 2003 gave great importance to the availability of finance which is realized from oil revenues, where oil revenues have a strong impact on manufacturing investment. Investment in the Libyan economy depends on oil revenues, which means, we expect that an increase in oil revenues will encourage investment in the manufacturing sector in the Libyan economy.

**GOVERNMENT’S ANNUAL APPROPRIATIONS GIVEN TO THE MANUFACTURING SECTOR**
Mohamed's study (1997) emphasised the role of the government's annual appropriation for investment in manufacturing and the products of manufacturing for its major direct impact on the desired level of investment in the manufacturing sector.

There is no doubt that these appropriations granted by the Government to support the industrial sector have a positive impact on investment in this sector, increasing allocations in order to support development and investment projects leading to positive effects on investment in the manufacturing sector.

**REAL GDP IN THE MANUFACTURING SECTOR**
There is a positive relationship between real GDP and investment in the public manufacturing sector; this is according to a study of Omar (2002). There is consensus among economists on the existence of a direct correlation between investment and the growth of real GDP. Neo-Keynesian and Neo-classic investment theory suggest investment is positively related to real GDP. This relationship can be derived from the model of flexible acceleration, which assumes a pro-
duction function with a fixed relationship between the desired capital
and changes in GDP. According to what has been raised above, this
study expected that the real GDP in the public manufacturing sector
has a positive relationship with public investment in the manufacturing sector.

IMPORTS OF CAPITAL GOODS AND MACHINERY
A country's imports of capital goods and machinery is an important
determinant for investment, the import of machinery and capital
goods helps to stimulate investment and increase the volume of in-
vestment. So the relationship between investment and imports of
machinery and capital goods is expected to be positive (Mileva,
2008).

LABOUR FORCE IN THE MANUFACTURING SECTOR
The labour force is considered as one of the most important deter-
minants of investment because it is positively related to GDP. The
planned and appropriate increase in the labour force lead to increased
production, and thus surplus production will lead to increase the sav-
ings which have a positive impact on increasing investment.

A series of applied studies have proven that employment has a
positive effect on investment in the manufacturing sector and its
growth (Al-Gannam, 2004; Seruvatu and Jayraman, 2001; Soderbom
& Teal, 2006; Ndikumana, 2005). Some of the studies addressed the
effect of labour on the various aspects of employment, some of them
examined the impact of real unit labour cost on investment in the
manufacturing sector, and other only studied the impact of employ-
ment and its increase. This study used the amount of employment in
the private manufacturing sector because of the difficulty of obtain-
ing accurate and real data on unit labour cost during a long time
series.

Through previous studies and analysis of key variables of the
Libyan economy, it is noted that the determinants of public invest-
ment in the manufacturing sector are: real oil revenue; real govern-
ment's annual appropriation for investment in the manufacturing sec-
tor; real GDP in the Manufacturing sector; real capital goods and
machinery imports; labour force in the Manufacturing sector.

DATA
The study is limited to economic developments and manufacturing
investment in the period from 1962 to 2008, and data variables are
given in their real value and are measured at constant prices for the year 2000.

While the study attempts to identify the factors which control domestic investment in the manufacturing sector, the study information is collected from many references, books, periodicals, articles and bulletins related to the study. Also, data and statistics are collected from report and publications for various years on industrial investment issued by the General Authority for Investment and Ministry of General Planning. This is in addition to the Investment Promotion Boards in Libya, the Ministry of Industry, Ministry of Economy, Central Bank of Libya, General Planning Council, General Authority for Information and Documentation in Libya, World Development Database, and UNCTAD, and other sources relevant to this topic of study.

**The model**
The study provides the justification for the use of the methodology of econometrics to be applied later in this study. Using the regression model employed by the majority of specialists in econometrics, and using economic theory, the extent to which the model can be relied upon in the analysis of results can be estimated. If it is proved that the model is not satisfactory, then it can be improved in different ways according to econometrics theory (Barrett, 2001), until a model is formulated that we are sure is satisfactory. An econometrics model is applied to test the basic hypotheses of the study. With respect to the model of study, the economic theory assumes through the investment theories that investment depends on certain determinants. To determine the existence of a relationship or non-existence of a relationship between the used variables, and to determine the type of this relationship as linear or non-linear, this study adopted the ordinary least squares method (OLS). This method is used to estimate the economic relationships because it gives the best linear unbiased estimator, based on the theoretical basis of this method, which will estimate the public manufacturing investment equation on the independent variables mentioned above.

This study relies on a descriptive analytical approach to analyze and describe the most important determinants of investment in the manufacturing sector in the Libyan economy, and to analyze the important aspects related to the factors affecting these variables. In addition, the study adopts the applied traditional methodology in
econometrics for the purpose of testing the extent of moral determinants of investment and its impact on the manufacturing sector, by using a time series analysis to determine the degree of stability of those parameters and the nature and direction of the causal relationship between independent and dependent variables.

Regarding to the equation of Public Investment in the Manufacturing Sector, the model assumed the general mathematics as the following formula:

\[ \text{DGIM} = f(\text{OILR}, \text{GAIN}, \text{GDPM}, \text{MACHIM}, \text{MANLAB}) \quad (1) \]

where:
- \( \text{DGIM} \) = Real domestic investment in the public manufacturing sector.
- \( \text{OILR} \) = Real oil revenues.
- \( \text{GAIN} \) = Real government’s annual appropriation for investment in the manufacturing sector.
- \( \text{GDPM} \) = Real GDP in the manufacturing sector.
- \( \text{MACHIM} \) = real capital goods and machinery imports.
- \( \text{MANLAB} \) = Labour force in the manufacturing sector.

When using the OLS estimation method, and by taking the logarithms of equation (1), we apply the model that is similar to equation (1) and rewrite it as:

\[
\ln \text{DGIM} = \alpha + \beta_1 \ln \text{OILR} + \beta_2 \ln \text{GAIN} + \beta_3 \ln \text{GDPM} + \beta_4 \ln \text{MACHIM} + \beta_5 \ln \text{MANLAB} + e \quad (2)
\]

where \( e \) represents a random error of the equation which assumes its value is normally distributed in arithmetic mean = zero, and fixed variance \( \sigma^2(\mu_1 \sim N(0)) \); these assumptions are important to obtain unbiased and efficient estimates for each parameter of the model \((\alpha, \beta_1, \beta_2, \beta_3, \beta_4, \beta_5)\).

The regression model reflects the elasticity of independent variables to domestic investment in the public manufacturing sector. Therefore, the elasticity of independent variables for \( \text{DGIM} \) becomes respectively: \( \beta_1, \beta_2, \beta_3, \beta_4, \beta_5 \).
**Testing and empirical estimation**

In this study, the time series during the period 1962-2008 was used to determine the impact of investment on growth in the Libyan economy.

This section of this study is concerned with analysing the relationship between real public investment in the manufacturing sector and its determinants during the period 1962-2008. The study adopted a time series analysis and ensured that the latter was stationary by using the Unit Root Test. The current values of the variables are converted into real terms at 2000 constant prices by using the GDP price index. However, by estimating the whole model, the sign of GDP turns negative. That means there is important multicollinearity between GDP and some other variables. This is a reason to remove GDP from the model. Therefore, multicollinearity between the explanatory variables of the model is not considered influential on the validity of estimation of that model. According the Anderson-Darling Normality Test (Singh, 2007), all the variables are normally distributed, that means there is no difference between the data and normal data.

**UNIT ROOT TEST USING ADF**

The Unit Root Test is an important step in time series analysis. In the case of non-stationary model variables, the degree of integration is determined. If the time series are nonstationary at the same level, it is difficult to achieve a long-term relationship between the variables of the study. The ADF test indicates that none of the variables are stationary in their level, but are stationary in the first differences. This means that the variables are integrated of order 1 or \( I(1) \). Therefore, it is possible to move on to the next step, attempting to detect if any of these variables cointegrated. Tests for a unit root have attracted a considerable amount of attention in applied econometric studies. One important reason is that these tests can help to evaluate the nature of the nonstationarity that many macroeconomic data exhibit. Many empirical studies have been conducted to show that many macroeconomic variables have structures with a unit root (Xiao and Phillips, 1998). The most commonly used test for a unit root is the Dickey–Fuller test.

The Dickey–Fuller test (1979) is based on the regression of the observed variable on its one period lagged value, sometimes including an intercept and time trend. According to Xiao and Phillips,
"the Dickey–Fuller t-test for a unit root, which was originally developed for autoregressive (AR) representations of known order, remains asymptotically valid for a general ARMA process of unknown order". This t-test is usually called the Augmented Dickey–Fuller (ADF) test. If the series are non-stationary, a cointegration relationship should exist to ensure the presence of a long-run relationship between the levels of the variables. Otherwise, regressions can be spurious and economically meaningless because of the common trends shared by the variables. All variables are first-difference stationary $I(1)$ and therefore contain a unit root. A long-run relationship between the dependant variable and independent variables exists only if they are cointegrated. The Johansen-Juselius Test for cointegration was adopted. The evidence favours the hypothesis of cointegration.

**ECM ESTIMATON**

From the analysis above it appears that there are five variables which do not present statistical or economic problems and are integrated of the same difference $I-I(1)$ (domestic investment in the public manufacturing sector, government's annual appropriation given to the manufacturing Sector, imports of capital goods and machinery, labour force in the manufacturing sector and oil revenues). This indicates that these time series move together over time and there is a long run time period known as cointegration regression. The cointegration equation is estimated by the Johansen-Juselius method for cointegration.

Engle-Granger test is enough if the number of variables in the model is only two, but if they are more than two, it is preferable to use Johansson cointegration test. Johansen, 1988; Johansen and Juselius, 1990 are used to confirm the long-run equilibrium relationship between domestic investment in the public manufacturing sector and its determinants in this study. Before moving on to the cointegration test, the optimal number of lags must be established. The Schwarz Information Criterion indicates that 1 is the optimal number of lags.

The next step is to conduct the Trace and Maximum Eigenvalue tests in order to determine existence a relationship between the variables in the long run or not.

Cointegration test showed that the null hypothesis ($r = 0$) cannot be accepted, which states that there is no cointegration equation at
significant level (5%), but also the null hypothesis \( r \leq 1 \) cannot be reject at significant level of (5%). Therefore, there is only one cointegration equation between domestic investment in the public manufacturing and its determinants.

In the light of the results to the error correction model, it be noted that correction error variable is significant \( \varepsilon_{t-1} \) at 1% level, with the expected negative indication. This also confirmed the long-run equilibrium relationship in the model. Value of the error correction coefficient (-0.16) indicates domestic investment in the public manufacturing sector adjusts toward its equilibrium value in each time period by 16%. In other words, domestic investment in the public manufacturing sector corrects the imbalance of its equilibrium value which remainder of each past period about 16%. That is, when domestic investment during the short-run in the period \((t-1)\) diverts from its equilibrium value in the long run, it is corrected about 16% of this deviation in the period \((t)\). In other words, this percentage of correction reflects a low adjusting speed towards equilibrium, in the sense that domestic investment in the public manufacturing sector takes approximately 6.25 years \((1/0.16)\) towards the equilibrium value after impact of any shock in the model as a result of a change in its determinants.

By using the results of estimating model we got the elasticity of domestic investment in the public manufacturing sector to its determinants in the long and short-run. The equation indicates that the estimated parameters have the expected signs, which means domestic investment (DGIM) is directly affected by (GAIN, MACHIM, OILR and MANLAB). DGIM is more flexible to GAIN than the other variables in the long-run. From the results we note that an increase in GAIN 1 unit leads to a direct increase in DGIM by 0.24 %, and continues its impact in the long run until it reaches 2.18%. This indicates to the adoption of domestic investment in the manufacturing sector on the size of GAIN. As for the impact of MACHIM, the study found that an increase in size of MACHIM 1 unit leads to increase in DGIM by 0.77% in the short-run and 0.82% in the long-run. The increases in the rates of employment and oil revenue in the Libyan economy have little impacts on DGIM in general. Accumulation of the number of labours in some production locations over the required led to a little increase in domestic investment. The modest impact of oil revenues on domestic investment in the manufacturing sector may due to the indirect relationship between them.
through appropriation to the manufacturing sector, an increase in oil revenues directly leads to an increase in appropriations. For this reason, it might have been better if excluded this variable. That could be translated through the elasticity of domestic investment in the manufacturing sector to changes in oil revenues, which was much higher in the case of the long run than in the short run.

The results of long-term relationship obtained by Johansen approach are come compatible with the economic theory for the explanatory variables, the results were significant as well except for labour in the short run, in addition, the results indicate that these variables affect domestic investment in the manufacturing sector more than labour, this indicates that government’s annual appropriations for investment manufacturing sector, capital goods & machinery imports and oil revenues are somewhat driving domestic investment in the Libyan manufacturing sector. Results also indicated that the cointegration vector coefficients, which describes the long-run relationship are significant, that because the value of likelihood = 648.29.

**STATISTICS EXAMINATION OF THE MODEL’S RESIDUALS**

To ensure the absence of econometric problems in error correction model, several tests has been used; they found that the model has exceeded all residuals statistics test, such as condition for normality distribution by using the (Jarque-Bera), and free from the serial correlation using a test (LM) till the third degree. In addition, there is no variance till the third degree by using (ARCH test) as well as by using (White test). Moreover, there is no restriction error in the model by using (Ramsey RESET Test).

**COINTEGRATION AND CAUSALITY TEST**

This study used the Granger causality test which takes into consideration the time series properties of the data to examine the causal relationship between variables. According Granger, the existence of cointegration between domestic investment and its determinants contains a causal relationship in one direction at least, but determining the direction of causality in the short and long term between the variables under study requires estimating (VCEM) to determine the direction of the relationship between the variables and analyze the behaviour of the relationship in the short-term. Engel-Granger explained how the introduction of Granger traditional test of causality in the error correction model (ECM). If the variables in the
model (VAR) integrated are common, the model can be used vector error correction (VECM) derived from a form VAR in order to determine the direction of causality and estimate the speed of adjustment of any imbalance in the short term to balance long-term relationship between domestic investment in the public manufacturing sector and the explanatory variables. If we analyse causality results based on vector error correction model, the results showed that the changes in government’s annual appropriation for investment in the manufacturing sector helps in explaining the changes in domestic investment in the manufacturing public sector, that means annual appropriation is causing domestic investment in the manufacturing sector according to the concept of Granger. The statistics value of F (3.81) is statistically significant at a level (1%). The same results occurred with capital goods & machinery imports (F, 15.92) and oil revenues (F, 6.41), while the changes in labour force in the manufacturing sector do not help in explaining the changes in domestic investment in the manufacturing sector as the value of F statistics (0.11) is less than the critical value of F. Accordingly, there is a causal relationship with one direction from annual appropriation for investment in the manufacturing sector, capital goods & machinery imports and oil revenue to domestic investment in the manufacturing sector in the short term.

Regarding to the long term relationship, T-test for the parameters showed that changes in the explanatory variables help in explaining changes in domestic investment in the public manufacturing sector at a significant statistic level 1%, excluding labour force where T-statistics is insignificant = 0.44, this means that changes in labour force in the manufacturing sector do not help in explaining changes in domestic investment in the same sector.

**Findings and discussions**

Stationary test results using unit root tests showed that variables in the model are not stationary at the level but stationary at the first differences.

Variables are cointegrated there is a long-term equilibrium relationship between variables of the study, which means that the variables not so far from each other where show similar behaviour. Coefficient of residuals in the error correction model is negative and statistically significant, this indicates that domestic investment would
take 16% of time (6.25) years for a shock to be completely absorbed by the system.

Results of cointegration test and error correction model are come compatible with economic theory; they showed the positive impact of explanatory variables on domestic investment in the Libyan public manufacturing sector. Elasticity in the long term was greater than in the short term, results showed that the flexibility of domestic investment in the manufacturing sector to changes in the volume of government appropriations was bigger in the long term, but they showed also a low flexibility in the short term. This is due to the annual appropriations need enough time to yield results, as this indicates that the adoption of investments in the manufacturing sector on such appropriations granted by the government, this is consistent with the results of Mohamed’s study (1997) which showed that annual appropriations have a significant impact on investments in the manufacturing sector. Capital goods & machinery imports has a positive impact on domestic investment in the manufacturing sector which that means part of these imports go directly to the manufacturing sector, and contribute the increase in investment in this sector. The modest impact of oil revenues on domestic investment in the manufacturing sector may due to the indirect relationship between them through appropriation to the manufacturing sector, an increase in oil revenues directly leads to an increase in appropriations. The study by Omar (2002) concluded that oil revenues have a strong influence on domestic investment in the public manufacturing sector, but this may be due to it depended on a short time series (1980-2002), therefore, this period does not reflect the conditions of the use of time series methods in econometrics.

Results showed that changes in labour force in the manufacturing sector do not help in explaining the changes in domestic investment in the manufacturing sector. However, there is a causal relationship with one direction from annual appropriation for investment in the manufacturing sector, capital goods & machinery imports and oil revenue to domestic investment in the manufacturing sector in the short term and long term on both.

NOTES

1. The Man-Made River Project is a major water transfer and supply scheme begun in the 1980s

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REFERENCES


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ABSTRACT. The integration in Europe has been and remains the main challenge of Albania. In this article we will look at some of the criteria that must be met for the entry of Albania in the European Union. We will analyze several indicators that directly or indirectly affect the country's fiscal policy. The purpose of this study is to identify the progress of the Albanian economy, the current stage in which it is now and highlights the challenges that await Albania for the future.

Introduction

We have analyzed the progress that Albania has made in its long path towards European integration. In some cases we have seen this progress related with the progress made by other countries of Western Balkans. We have emphasized that comprehensive support that has been given to Albania in the past and ongoing by the European Union to achieve the dream of all Albanians towards European integration. We concentrated mainly on budget analysis by examining the costs and revenues in several years and highlighting some trends of macroeconomic indicators. We have compared the indicators in several years and analyzing the factors that have affected their respective changes. In our study we used data published by the Ministry of Finance, Ministry of Integration, International Monetary Fund and World Bank.
European Union and the integration of Western Balkans

The initial thought to establish what would later be called the European Union was the desire to rebuild Europe after the disastrous effects of World War II and the good will to prevent the eruption of similar conflicts in the future. It was born as a project based on the vision that increased economic cooperation and integration between different interests of nations could offer and ensure permanent peace and prosperity. Collaboration brought development. The success of this project sought gradual delivery of a part of national sovereignty to European Union institutions. European Union since its creation has undergone continuous expansions. The greater expansion period of the European Union is considered the period after the Cold War. Former Soviet bloc countries expressed their willingness to become part of the great European family in which they belonged not only geographically but also by historical and cultural similarity. Countries with rapid advances in establishing of democracy, rule of law and functioning market economy were quickly given the right to apply for membership in the EU.

The greatest expansion of the European Union took place in May 1, 2004, where 8 of the former Soviet bloc countries joined the EU. With the expanding number of countries EU in 2007 reached 27 members. During this process, not easy politically and economically, the more Europe expanded with new membership, many names such as Eastern Europe, Western Europe, Central Europe, etc… were losing importance, and they survive only representing parts of Europe not yet integrated. Such is the Western Balkans. Even today, the Western Balkans represents the poorest and unstable part of Europe. In 2007, the Western Balkans make up only 6.27% of the EU-27 area, only 5.57% of the population, his GDP (gross product) is only 1.5% of GDP in EU-27 estimated by purchasing power. The income (per capita) is not more than 28.3% of the EU-27 and you see big difference between countries in the region. The consequences from crises, conflicts and wars have significantly affected the challenge of European integration of Western Balkan countries. Albania has had some historical background that has affected on staying away from conflict and war, because it had no religious conflicts or inter-ethnic conflicts. But what really damaged Albania and it took many years to recover was the serious economic, political and social crisis situation of 1996-1997 as a result of the fall of pyramidal schemes. That brought
a decrease of 7% economic growth but above all brought physical destruction of state institutions.

Despite recent positive economic and social development policy in the region due to reasons mentioned above, these countries still remain far from meeting conditions for EU membership. Of course within the EU block, not all countries have the same level of progress. So, Croatia and Macedonia have received candidate status and Albania has signed the SAA (Stabilization and Association Agreement). Overall the region is still in need for deeper structural reforms towards a functioning market economy where other than the initial reforms of price liberalization, trade, privatization of state companies, also ones to consolidate enterprises, local and foreign private investment, consolidation of fiscal policy and targeting further integration of financial systems not only in regional markets but also in European Union. Regarding the privatization process in Albania, this process has seen a dynamic speed, significantly increasing participation by the private sector in strategic sectors such as telecommunications, energy, financial services.

Western Balkan countries in fulfilling the tasks to EU have in front of them many structural reforms and growth strategy and a key factor in achieving this challenge is good governance. All actors of these countries: politicians, academics, public opinion, media, etc. should aim at good governance of their country because it will encourage and facilitate consensus and compromise for the country's challenges. These reforms must also be obtained in time desired by the regional countries because delays would create new additional economic, social and political costs.

**Albania and the European Union**

The history of relation between Albania and EU begins in 1991 with the establishment of diplomatic relations Albania-European Economic Community, which starts Albania's efforts to join Europe immediately after the overthrow of the communist regime. EU assistance to Albania has been constant throughout these years. In order to support economic and political stability and to stimulate reforms to promote rule of law and free economy, the EU in May 1999 endorsed a new initiative for 5 Western Balkan countries called Stabilization and Association Process. In this context, in 2000 financial assistance was given for this region through a new program called CARDS
In September 2006 the European Parliament voted in favor of the Resolution on the ratification of SAA (Stabilization and Association Agreement) by the 27 member states of EU. In less than 3 years, in April 2009 the Stabilization and Association Agreement entered into force after ratification by 25 member countries of EU. In November 2009 the Council of Ministers of the EU approves the application for membership of Albania. SAA is not a promise for integration and it does not predetermine a date for membership in the European Union but it brings significant benefits in the field of trade, the improvement in exports, the growth of local companies and the national economy in general. On the other hand SAA creates the possibility of obtaining financial resources from different structural funds, also helping to build institutional capacity, regional development and participation in many EU projects. EU integration means first approaching and embracing the fundamental values on the basis of which it is built and lives this large interstate community, and fulfilling the following two criteria:

- Democracy, rule of law, protection of human rights, protection and respecting the rights of national minorities.
- Functioning market economy, able to withstand competitive pressures and market within the EU.

The fulfillment of these 2 criteria together with the obligation to adopt EU legislation, are the main prerequisite for entering the EU.

**Macroeconomic and budgetary situation of Albania**

Over the last decade the Albanian economy is characterized by a valuable progress. Transformation and restructuring processes of the economy, as well as macroeconomic and structural policies pursued during this 10 years led to a very good stability, now consolidated, macroeconomic.
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<tr>
<td><strong>Real Growth GDP (in %)</strong></td>
<td>6.7</td>
<td>7.9</td>
<td>4.2</td>
<td>5.8</td>
<td>5.7</td>
<td>5.7</td>
<td>5.5</td>
<td>6.2</td>
<td>7.2</td>
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<td><strong>Percentage of Unemployment</strong></td>
<td>16.8</td>
<td>16.4</td>
<td>15.8</td>
<td>15</td>
<td>14.4</td>
<td>14.1</td>
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<td>12.7</td>
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<td><strong>Percentage of inflation</strong></td>
<td>0.1</td>
<td>3.1</td>
<td>5.2</td>
<td>2.4</td>
<td>2.9</td>
<td>2.4</td>
<td>2.4</td>
<td>2.9</td>
<td>3.5</td>
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<tr>
<td><strong>Budget Deficit (% of grants in GDP)</strong></td>
<td>-7.6</td>
<td>-6.9</td>
<td>-6.1</td>
<td>-4.9</td>
<td>-5.1</td>
<td>-3.4</td>
<td>-3.3</td>
<td>-3.2</td>
<td>-5.5</td>
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<td><strong>Public Debt (in % of GDP)</strong></td>
<td>60.5</td>
<td>57.7</td>
<td>63.1</td>
<td>59.2</td>
<td>56.8</td>
<td>57.4</td>
<td>55.5</td>
<td>52.6</td>
<td>54.8</td>
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<td><strong>Foreign Debt (in % of GDP)</strong></td>
<td>17.2</td>
<td>16.4</td>
<td>21.2</td>
<td>18.8</td>
<td>17.5</td>
<td>17.2</td>
<td>16.3</td>
<td>15.1</td>
<td>17.9</td>
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<tr>
<td><strong>Domestic Debt (in % of GDP)</strong></td>
<td>43.2</td>
<td>41.3</td>
<td>41.9</td>
<td>40.5</td>
<td>39.3</td>
<td>40.2</td>
<td>39.2</td>
<td>37.5</td>
<td>36.9</td>
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<td><strong>Current Account (in % of GDP)</strong></td>
<td>-4.7</td>
<td>-6.9</td>
<td>-9.5</td>
<td>-7</td>
<td>-5.7</td>
<td>-8.7</td>
<td>-6.5</td>
<td>-10.5</td>
<td>-14.9</td>
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*Source: INSTAT, Ministry of Finance, International Monetary Fund, World Bank*
Table no. 1 presents dynamics of some key economic indicators during the period 1999-2008. Average economic growth for this period is about 6% per year and per capita GDP has tripled. Until 2002, economic growth has been satisfactory but we have a decrease this year and a key factor that has contributed to this has been the energy crisis that had a major impact on increasing costs of production capacities. Afterwards it was a normal growth for a developing country, reflecting macroeconomic stability. Since 1999 the inflation rate has been steady been near the level of the monetary authority's target of 3% and is one of the lowest levels of inflation in the region. The highest level of inflation was registered in 2002 (tab1), confirming the relation, real growth of GDP - inflation.

Current account deficit during these years has been in a relatively low level and manageable compared to other European countries. In the past two years has been an increase in current account deficit, but this mainly reflects a strong investment behavior of our economy, either by government, or private sector. Positive development and a satisfactory stability in the financial sector have played an important role in the performance of the true sector of economy. The unemployment rate has fallen during these years in a gradual way to reach 12.7% in 2008 (see Table no. 1). Satisfactory performance in all sectors of the economy includes that of the fiscal sector. This is reflected in revenue collection, the management of expenditures, keeping low and manageable level in budget deficit and it’s financing with fewer costs, to the gradual reduction of public debt.

During this period, revenues have followed a path of relatively constant growth. It is noticed an increase of budget revenues in recent years especially in 2008, 2009. One of the reasons for this growth is the introduction of the flat rate tax. But it should be noted that in this increase has affected also the improvement in the system of management fees and taxes together with a reduction of tax evasion. The first 7 months of 2009 compared with the same period in 2008 show an increase of budget revenues.
The main sources of budget revenues are revenues from customs, income tax, income from social security and health contributions, the income from the local government etc.

With regard to expenditures in recent years the trend of public expenditure in relation to GDP has increased, this mainly as a result of capital investment.

The total expenditures done in January-July period of 2009 recurrent expenditure took about 73.2% of about 74% of the one foreseen, while investment costs took about 27% from 26% of predicted. A year ago the structure of the general expenditure budget implemented during 7 months was about 77% of recurrent expenditure and the rest capital expenditure. The increase of public investment made necessary a reform in public finance management that will consist in improving the efficiency of public investments, especially those with internal funding and that would have a direct impact on sustainable economic growth and alleviating poverty.

**Figure 2. Total expenditures and their growth rate**

*Source: Ministry of Finance*
In the last 2-3 years despite of the revenue growth, the budget deficit has seen an increase due to higher rate of growth in expenditures. Public debt has known a steady decline during the period 1999-2007, but in 2008-2009 there is an increase of public debt also as a result of public investment, where the most important was street 'Durres-Kukes'. By the year 2008 the ratio of foreign financing with soft terms is reduced by increasing the ratio of internal financing that will naturally have a higher capital cost, where efficiency and the return of public expenditure will be the meter for growth. However, compared with the region's public debt, indicators of public debt in Albania are positive, especially in relation to indicators of solvency, paying ability and liquidity of foreign debt. The ratio of net present value of external debt over GDP and exports is relatively low with the average of neighboring countries.

**Conclusion**

The integration process should be understood as a reforms program that gets closer the country with the European model of the state, democracy and economic development and not simply as the free movement towards west. The process should include the commitment of all political and economic factors of the society. In the political culture of dialogue among political parties and independence of state institutions must be yet strengthened to make possible the effective functioning of the political system. Non banking financial sector must have more impact in financial intermediation. Fiscal consolidation and reduction of budget deficit reduction other than public spending, it is possible to be achieved without increasing fiscal burden, but by improving tax administration, reduce tax evasion and enhance fiscal basis. In general, Albania has made progress in the road towards a free market economy. The level of unemployment in decrease, controlled inflation, progress in the field of privatization and the environment of enterprises, etc. Albania has played a positive role in the region by respecting all international obligations.
REFERENCES


FORECASTING MODEL OF WORKING CAPITAL

ALEKSANDRA SZPULAK
aleksandra.szpulak@ue.wroc.pl
Wrocław University of Economics

ABSTRACT: The fundamental questions possessed by managers usually concern future operational activities. The only one possible way of achieving this information is to make accurate forecasts. In general, there are two parallel ways of building forecasting models – one is based on data exploration and second is based on data explanation. The hypothesis of this research assumes that it is possible to build corporate models of financial variables in respect to the nature of the relevant phenomena. To test this hypothesis the author has built models of variables included in working capital and applied it in the food production company.

Introduction

The usual and at the same time basic questions asked by managers are usually connected with operational activities and include: timing and magnitude of production, supply, delivery, inventory, liabilities, accounts receivable, cash inflows and outflows. The only one possible way of achieving this information is to make accurate forecasts but unfortunately everyone who does it knows how difficult it is and, even assuming best intention, usually gives poor results. One can consider if there was any possibility to improve the forecast accuracy?

There are two parallel ways of forecasting – one is based on data exploration and second is based on data explanation. This first approach was fully explored in various types of research and because of high forecasts inaccuracy finally was disapproved by many researchers. The hypothesis of this research assumes that it is possible to build corporate models of financial variables in respect to the
nature of the relevant phenomena (i.e. company extrinsic and intrinsic factors and accountancy). To test this hypothesis Author has build models of variables included in working capital and applied it in the food production company.

**Model assumptions**

Assumption 1. *Company activities are limited to operational activities.* This assumption enables to isolate financial flows generated in the operational activity from others generated in financial and investment activity which are not always strictly connected with production and sales. The operational activity is limited to production of one assortment.

Assumption 2. *All company accounts receivable and liabilities are trade receivable and liabilities.* This assumption means that company does not pay taxes, salaries for employees, etc.

Assumption 3. *Production equals sales.* This means that there is no semi-finished product and work in progress. Even if this assumption seems to be unreal it is reasonable in today’s company where managers make every effort to minimize the size of semi-finished product and work in progress.

Assumption 4. *Unlimited access to internal financial data.* Today managers usually have access to all financial data as almost all companies are computerized and systems like Management Information Systems operate. Even though actually applied in the company MIS is unable to deliver requested data it is possible to gather them directly from database.

Assumption 5. *Terms of trade receivables and liabilities payments.* Receivers pay their bills exactly at the last day defined by trade receivable settlement period and company pays its bills exactly at the last day defined by trade liabilities settlement period. The pending decision on settling before time due is irrational, because the mercantile credit is a form of free external capital (settling before due time may, however, be considered useful, e.g. as an argument in price discounts).

Assumption 6. *Timing of deliveries and trade liabilities.* Materials are delivered at the first day defined by delivery cycle. At the same day arise liabilities.

Assumptions no. 1 and 2 are obviously unreal but this restriction makes difficult considerations easier so that they may be fully com-

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prehend. These assumptions should be relaxed what is the consecutive step of my future research.

**Plan or forecast?**

In everyday business and in the scientific dissertations as well terms *plan* and *forecast* are usually applied as if they were changeable. In fact these terms differ greatly. Let’s consider this simply real life example. I travel to work 100 hundred kilometers by train and this experience taught me, my colleges and students the special kind of humility. Although I can plan the time of my getting up and going out to work (excluding unusual events) it is hard to predict the time of my arrival. I plan the time of my going out as this depends solely on me and I forecast the time of my arrival, as this does not depend solely on me.

Extrapolating this simply situation into business reality we can distinguish between plan (planning) and forecast (forecasting). Think for example about sales. Is it plan or forecast? Imagine you have 100 books to sell during one day. You decided to go on the market place and try to sell them for 50 Euro per book. Although people are interested in this book they are not willing to pay 50 Euro for it. At the end of your trading day your sales revenue is 0. You have planned that it will be 5000 Euro. Well, it is not a plan it is a forecast because you cannot plan the people reaction, as this does not depend solely on you. To develop these considerations on the field of forecasting for managing working capital see the graph no. 1. In my opinion the only one variable we can honestly plan within the corporate finance is a production. All others variables are forecasts, as their level does not depend solely on managers but on factors like prices, settlements periods, delivery cycles and guarantee stocks.

**The forecasting model of working capital**

Thorough description of model equations is made in my previous papers; see [Dittmann at all 2009, Szpulak 2010a, Szpulak 2010b]. This paper present complete concept of forecasting variables included in working capital and the impact is put on the application rather than theoretical basis. However, the key to understand the formulas presented here is the basic question that I have state to myself:
How this specific number, i.e. the amount of trade receivables, trade liabilities, stocks and so on, is generated. The simple answers to this question in respect to the assumptions and accountancy rules have created the forecasting model equations. The structure of the model is presented on the graph below (see graph no. 1).

We start forecasting of financial variables included in working capital from building daily production plan, and according to my previous thesis, production is probably the only one relevant variable in the company that can honestly be planned. We denote daily production plan as $Q_t$. From this point we have two parallel ways of financial flows: one provides cash inflows and the other generates cash outflows. These both meet in one position of current assets – cash at hand and in bank. At the graph all variables forecasted are put in the rectangles and all model parameters are put in the ellipses.

**Forecasting of trade receivables**

The amount of account receivables at time $t$ equals the sum of daily sales revenues from the settlement period:

$$N_t = \begin{cases} \sum_{t^*=t-T^N+2}^{t} P_{t^*} & t \geq T^N \\ \sum_{t^*=1}^{t} P_{t^*} & t < T^N \end{cases}$$

(1)

where:

$T^N$ – trade receivables settlement period

$P_{t^*}$ – daily sales revenues at time $t$ ($t$ and $t^*$ are the same period numbers, the need for $t^*$ is a result of using sum $\sum$)

The daily sales revenues from equation (1) equals:

$$P_t = Q_t \cdot p_s$$

(2)

where:

$Q_t$ – daily production plan

$p_s$ – price per unit of sales

From equations (1) and (2) we know that in order to build the trade receivables forecast one need to:

1) make a daily production plan $Q_t$  
2) estimate price for unit sale $p_s$ in the forecasting horizon  
3) estimate trade receivables settlement period $T^N$ in the forecasting horizon
Graph 1. The structure of the forecasting model of working capital

- Daily sales forecasts
- Daily production plan
- Price of final products forecasts
- Price of materials forecasts
- Limits of materials consumption
- Consumption of materials forecasts
- Trade receivable forecasts
- Trade receivable forecasts receivable
- Cash inflows from trade receivable forecasts
- Trade receivable settlement period forecast
- Delivery forecast
- Delivery cycle forecast
- Guarantee stocks forecasts
- Stocks forecast
- Cash in hand and in bank forecast
- Cash outflows from trade liabilities forecast
- Trade liabilities forecast
- Trade liabilities settlement period forecast
Forecasting of cash inflows form trade receivables

Cash inflows generated by the company depend on the amount of the sales revenues $P_t$ and the moment of its existence $t$ depends on trade receivables settlement period $T^N$:

$$CF^+_t = \begin{cases} 0 & t < T^N \\ P_{t-T^N+1} & t \geq T^N \end{cases}$$

(3)

where:
- $CF^+_t$ – cash inflows from trade receivables at time $t$
- $P_t$ – sales revenues at time $t$
- $T^N$ – trade receivables settlement period

Forecasting of consumption of materials

Consumption of materials depends on daily production plan, limits of materials consumption, price per units of materials and the adjustment made as a result of deviation from fixed limits of materials consumption. The daily consumption of materials equals:

$$M_t = Q_t \cdot m \cdot p_z + \overline{M}$$

(4)

where:
- $M_t$ – daily consumption of materials
- $Q_t$ – daily production plan [in units]
- $m$ – limit of consumption of materials per unit of production
- $p_z$ – price per unit of materials
- $\overline{M}$ – consumption of materials adjustment

Forecasting of delivery

The delivery amount depends on the daily consumption of materials and delivery cycle (denoted in days). For deliveries with fixed delivery cycle equals $T^D$ days the $k$ delivery is:

$$D_k = \sum_{t=T^D(k-1)+1}^{kT^D} M_t$$

(5)

where:
- $D_k$ – the amount of $k$ delivery
- $T^D$ – delivery cycle denoted in days

Forecasting of stocks

The amount of stocks in the company depends on the daily consumption of materials, the amount of delivery, delivery cycle and guarantee stocks. Having this forecasted (for variables) and estimated (for parameters) we can define the level of stocks at time $t$ as:

$$Z_{t,k} = D_0 + D_k - \sum_{t=T^D(k-1)+1}^{t} M_t$$

(6)
where:

\( Z_{t,k} \) – the level of materials stocks from \( k \) delivery at time \( t \)
\( D_0 \) – guarantee stocks
\( D_k \) – the amount of \( k \) delivery
\( T^D \) – delivery cycle
\( M_t \) – consumption of materials at time \( t \)

From equations (6) we know that in order to forecast stocks in the company one need to:

1) plan daily production \( Q_t \)
2) compile the limits of materials consumption \( m \) in the forecasting horizon
3) forecast the prices of materials \( p_z \)
4) fix the delivery cycle \( T^D \) and forecast delivery \( D_k \)
5) fix the level of guarantee stocks \( D_0 \).

**Forecasting of trade liabilities**  

Trade liabilities equal the delivery which was previously denoted by \( D_k \). However, when forecasting trade liabilities not only the amount of liabilities matter but also the time of its existence \( t \). Thus we convert \( D_k \) into \( D_t \) in the following way:

\[
D_t = \begin{cases} 
D_k & t = (k-1)T^D + 1 \\
D_0 & t \neq 1 \land t \neq (k-1)T^D + 1
\end{cases}
\]

(7)

The level of trade liabilities at time \( t \) is the sum of deliveries over the settlement period:

\[
Z_{t_o} = \begin{cases} 
\sum_{t^* = t - T^{Z_0} + 2}^{t} D_{t^*} & t \geq T^{Z_0} \\
\sum_{t^* = 1}^{t} D_{t^*} & t < T^{Z_0}
\end{cases}
\]

(8)

where:

\( D_{t^*} \) – delivery at time \( t \) (\( t \) and \( t^* \) are the same period numbers, the need for \( t^* \) is a result of using sum \( \sum \))

\( T^{Z_0} \) – trade liabilities settlement period

From equations (8) we know that in order to forecast trade liabilities one need to:
1) fix the trade liabilities settlement period $T^{Zo}$ in the forecast horizon
2) forecast delivery $D_k$ and the moment of trade liabilities existence $D_t$

_Forecasting of cash outflows from trade liabilities_

Cash outflows generated by the company depend on the delivery and the time of its existence depends from the trade liabilities settlement period:

$$CF_i^-=\begin{cases} 0 & t < T^{Zo} \\ D_{i-T^{Zo}+1} & t \geq T^{Zo} \end{cases}$$

(9)

where:
- $CF_i^-$ – cash outflows at time $t$
- $D_i$ – delivery at time $t$
- $T^{Zo}$ – trade liabilities settlement period

_Forecasting cash at hand and in the bank_

The last position of current assets – the level of cash – is a difference between sum of cash inflows and sum cash outflows adjusted by cash reserve:

$$G_t = \sum_{i=1}^{t} CF_i^+ - \sum_{i=1}^{t} CF_i^- + G_0$$

(10)

Where:
- $G_t$ – cash at hand and in the bank at time $t$
- $CF_i^+$ – cash inflows from trade receivables
- $CF_i^-$ – cash outflows from trade liabilities
- $G_0$ – cash reserve

From equations (3), (9) and (10) we know that in order to forecast cash one need to:

1) forecast daily revenues $P_t$
2) forecast delivery $D_k$ and $D_t$
3) estimate trade receivables settlement period $T^N$ in the forecasting horizon
4) estimate trade liabilities settlement period $T^{Zo}$ in the forecasting horizon
Model application – an example

This model had been applied to forecast working capital in the company that produces food – condensed milk.

Managers prepared daily production plan over 30 days (see table 1) and defined the following model parameters:

- price of materials \( p_z = 0.4 \) per kg
- limits of materials consumption \( m = 0.8 \) per kg
- delivery cycle \( T^D = 10 \) days
- guarantee stocks \( D_0 = 20 \) kg
- price of final product \( p_s = 0.8 \) per kg
- trade receivables settlement period \( T^N = 10 \) days
- trade liabilities settlement period \( T^{Z_0} = 12 \) days
- cash reserved \( G_0 = 100 \)

Table 1 consists of forecasts of consumption of materials \( M_t \), deliveries \( D_k \) and \( D_t \), trade liabilities \( Z_0_t \), stocks \( Z_{t,k} \), cash outflows from trade liabilities \( CF_t \), sales revenue \( P_t \), trade receivable \( N_t \), cash inflows from trade receivables \( CF_t^+ \) and finally cash at hand and in bank \( G_t \). Forecasts were built using a model equations from (1) to (10).

Let’s investigate the 12th day.

Production plan \( Q_{12} = 7741 \) kg. Forecast of materials consumption \( M_{12} \) from equation (4) equals:

\[ M_{12} = Q_{12} \cdot p_z \cdot m = 7741 \cdot 0.8 \cdot 0.4 = 2477 \]

Delivery forecast from equation (5) equals:

\[ D_2 = \sum_{t=10}^{10} M_t = 36469 \]

Conversion of \( D_k \) into \( D_t \) from equation (7) is:

\[ D_{12} = 0 \quad 12 \neq (2-1) \cdot 10 + 1 \]

Stocks forecasts from equation (6) equals:

\[ Z_{12,2} = D_0 + D_2 - \sum_{t=10}^{12} M_t = 20 + 36469 - (2477 + 3482) = 27280 \]

Sales revenue forecast from equation (2) equals:

\[ P_{12} = Q_{12} \cdot p_s = 7741 \cdot 0.8 = 6193 \]

Trade receivables forecast from equation (1) equals:

\[ N_{12} = \sum_{r=12-10+2}^{12} P_{t} = 84698 \]
Trade liabilities forecast from equation (8) equals:

\[ Z_{12} = \sum_{r=12-12+2}^{12} D_{r} = 36469 \]

Cash inflows from trade receivables forecast from equation (3) equals:

\[ CF_{12}^+ = P_{12-10+1} = 10719 \]

Cash outflows from trade liabilities forecast from equation (9) equals:

\[ CF_{12}^- = D_{12-12+1} = 33291 \]

Cash at hand and in bank forecast from equation (10) equals:

\[ G_{12} = G_0 + \sum_{r=1}^{12} CF_{r}^+ - \sum_{r=1}^{12} CF_{r}^- = -11635 \]

**Conclusions**

Presented model of working capital is of a great value to financial services because of the following advantages:

- although it requires a lot of work before first run, once prepared in calculation sheet can be applied multiple times and thus creates simply and fast possibility to gain forecasts of key financial variables including deliveries, stocks, trade receivables and liabilities, cash flows and cash level,
- gives possibility to create financial strategies of financing operational assets,
- gives possibility to forecast materials flows (those presented in this paper where rather financial) including staff, working hours, investment, etc.,
- generates warning signals while losing liquidity,
- enables to direct the operational activity in relevant direction.

In my opinion the last advantage is the most beneficial as I think that financial forecasting within the company is the key factor of its balanced-growth. The fundamental task is to create stable process, which generates data – in this case it is a production. If it was stable all others variables would be stable as well and managing of working capital would be more efficient.
Table 1. Working capital forecasts (own computations)

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REFERENCES


ENVIRONMENTAL AUDIT, REQUIREMENT OF SUSTAINABLE DEVELOPMENT

GEORGIANA ALEXANDRU
georgiana19iu@yahoo.com
Spiru Haret University

LUCIANA SPINEANU-GEORGESCU
lspineanu@yahoo.com
Spiru Haret University

ABSTRACT. Sustainable development or our common future, as it defined by the World Commission on Environment and Development, is a pattern of resource usage that aims at meeting human needs while preserving the environment so that these needs can be met not only in the present, but in the indefinite future, shortly it follows the needs of the present without compromising the ability of future generations to meet their needs. Whereas, this concept has been linked to the environment and natural resources crisis, this paper addresses audit environment in the context of ensuring a present development without affecting the resources needed for the development and survival of future generations. The paper presents the general concept of sustainable development and environmental audit, highlighting the role and the need of an environmental audit, seen as a key in realizing and ensuring of a sustainable development.

Sustainable development. Concept. Principles

We live in a society fielded in a full development, where all our needs are registering large increments. Our growing needs are followed by a diminution of the resources, diminution that could represent risks on long term. Also, our growing needs have represented a large increment as it regards development of factories and plants, which with not an adequate plan regarding pollution could bring such a great harm to the environment. We must take in concern that life is not represented just by us, the present generation, the society
has to have a continuation and we must assure a healthy and secure
development and survival of the ones who come after us. Thus, the
modern society needs to follow a direction in order to assure a
common future. Common future is the name given to sustainable
development by the World Commission on Environment and De-
velopment, who defines sustainable development as it follows: Sus-
tainable development is development that meets the needs of the pre-
sent without compromising the ability of future generations to meet
their own needs.

Sustainability is better seen as a measure of the relationship be-
tween the community as learners and their environments, rather than
an externally designed goal to be achieved. The term of sustainable
development is a relative new term, though that does not mean that
the concern for sustainability was not present until now. Many
cultures over the course of human history have recognized the need
for harmony between the environment, society and economy. What
is new is an articulation of these ideas in the context of a global
industrial and information society.

The concept of sustainable development has been born 30 years
ago as an answer to the environmental problems appeared and the
natural resources crises. Practically, the moment of taking in concern
that human activity contributes to the environmental deterioration,
running into danger the future of the planet, is known as the Con-
ference regarding Environment in Stockholm, 1972. A few years
later, in 1983, the World Commission on Environment and Devel-
opment was starting its activity. Sustainable development become an
objective of the European Union starting 1977, when it was included
in the Maastricht Treaty, continuing with an elaboration of a EU
Since then, the concept of sustainable development met new and set
directions.

Sustainable development regards society’s growing concern for
the future of our interlocked ecological and economic systems in a
highly populated world that is characterized by major social dis-
parities. Sustainable development focuses on improving the quality
of life for all of the Earth’s citizens without increasing the use of
natural resources beyond the capacity of the environment to supply
them indefinitely. Sustainable development is to become a concept
integrated on every level. It is about taking action, changing policy
and practice at all levels, from the individual to the international.
Innovative ways must be found and taken in order to change the institutional structures and influence individual behavior.

In addition, sustainable development strategies usually highlight the interplay between the local and global, the developing and the developed, and the need for cooperation within and between sectors. Sustainable development is not a static, but a dynamic character, is a concept that evolves gradually, continuously and permanently. One can say that it has legs of mortar, in the sense that it has a well-determined, rooted objective and a body of clay, in the sense that under the existing dynamism in the society, it may be modified and adapted to needs. Despite the dynamic character, being a fluid concept that will continue to evolve over time, sustainable development brings together three basic principles, emphasizing the need for concern for equity and fairness, long-term view and systems thinking. Those principles are presented in a short way in the following figure.
Starting from the idea of equity and fairness between generations, one of the greatest challenges in decision-making is how to protect the rights of the voiceless. This issue is the fact that future generations have no ability to speak on their own behalf, in order to protect their interests, so if we are talking about a development that would be sustainable, then the rights and interests of future generations should be taken into consideration.

As it regards systems thinking, the major aspect refers to the following aspect: the consequences of decisions made in one part of the world quickly affect us all. So, in this purpose, we are all connected, no mother in what part of the world we live in. Is not fair to say that if we are in a part of the world we will not be affected by changes that take place at the other end of it. Regardless of the area where changes occur, especially regarding the environment, sooner or later, directly or indirectly, they will affect any area of the earth. In this regard it is appropriate to affirm to think global and act local.

Taking into account the complexity and difficulty of making the practice of sustainable development that can be addressed from the perspective of the dynamics of the coordinates presented below.

- **Ecological** Address the growth in the light of the need to prevent ecological imbalances, to maintain a dynamic equilibrium within each ecosystem and the entire biosphere, in terms of ensuring compatibility environment created by humans with the natural environment. Any economic activity cannot be conceived, the more carried out without consideration of ecological, to the extent that the natural environment contribute to the process of economic growth.
- **Economic** Regarded as the main form of human activity, the economy ensure through employment factor, transfer of substances and energy from the natural environment, which it uses to produce goods intended for economic productive and unproductive.
- **Technical and technological** Represents the decisive factor of economic growth, which through the progress of quality imprisoned on the other production factors, as binders to ensure compatibility between the coordinates of sustainable development. By its aggressive, destructive current way it causes multiple disruptions in all the subsystems of human activity, primarily in economics and environment.
• **Social and human** Express the indissoluble link between the economic growth and social purpose - the welfare of the individual and human prosperity. Sustainable development embraces the concept of quality of life in its complexity, under the economic, social and ecological aspects, promoting a balance between economic growth, social equity, efficiency and environmental conservation.

• **Political** The guarantor affirmation of democracy. Political, in interconnection with other human activities, through state institutions, has the role of organization, coordination and control of all social actions of a country, depending on the interests of parties, classes and social groups on power.

• **Educational** Is unanimously recognized as the most effective method available to human society to meet the challenges of the future, because of progress depends increasingly on the capacity of research, innovation and adapting to new generations present and future requirements. Access to education is the condition sine qua non of active participation and creativity, primarily, of the youth to the economic and social life and culture at all levels.

• **Cultural** Lies in the formation of a high horizon general, a new way of thinking, behavior of people in relation to the realities of economic and social dynamic and the natural environment, but also in relations between them, the affirmation of a new economic, ecological and civic consciousness. In fact, the practical realization of all dimensions of sustainable development cannot be conceived without the formation of a new way of thinking and individual behavior, in accordance with the constitution and assertion of a new technical and technological production.

• **Legislative** Aims at creating legal and institutional framework necessary for a sustainable development and covers all fields of human activity.

• **Spatial** Relates to ensuring compatibility criteria optimization at all levels of structural economy - national, regional and global. Such coordination is generated by the process of globalization. The overall strategy for sustainable development highlights the interdependence between local and global, developed countries and those in devel-
opment, thus emphasizing the need for cooperation within and be-
tween the economic, social and environmental.

Environmental audit-connection with sustainable development

Auditing activity is primarily a form of control, either way internal or external. Regardless of what a category of audit is about, every concept will meet the expression form of control. Initially appearing as a form of punishment and prevention of theft, the audit has known a rapid development, being observed in almost all forms of activities present in an economy. According to international standards, the audit is a form of examination of situations, in order to reflect the compliance of these situations with the imposed standards, rules and guidelines.

In a modern manner, the audit can be defined as an activity used to evaluate deviation of the actual situation from the pre-established one. Increasingly, more and more economic entities are appealing to certification, this bringing notoriety, giving a mark of confidence to all partners with which the company gets in contact. Thus, a cer-
tification from an environmental point of view designates that such entity is concerned about protecting the environment, implicitly in protecting life, in providing security to partners.

Given the rapid rhythm of development is undeniable that all activities in society affect more or less, directly or indirectly the environment. Regardless of the degree to which an activity affects the environment, there is a responsibility; we cannot deny each one’s contribution to environmental degradation. Each generation has a responsibility to leave behind a clean environment, allowing a proper development of our children and our children's children. In one way or another we are responsible for the continuation of life.

Thus, in order to protect the environment and reduce the effects that our activities have on environment (we cannot talk about an elimination of those effects from obvious reasons) it was necessary to develop and implement an environmental management system.

Environmental audit is related to environmental management. Environmental management system, concept introduced for the first time in 1985 in the Netherlands, provides a structured and systematic way of integrating environmental issues into all aspects of a company. The goal is not only complying with environmental legislation and minimizing financial risks, but also regards continuous improve-
ment of environmental performance, thus ensuring a good image and a series of advantages in market competition. Environment Management System (EMS) is defined as a "component of the overall system management including organizational structure, planning activities, responsibilities, practices, procedures, processes and resources for the preparation, implementation, implementation, review and retention policy environment." Environment Management System represents an instrument of identifying and solving specific environmental problems that can be implemented in a company in different ways, depending on specific conditions. From the standards development viewpoint, in the field of Environment Management System are to be held the European EMAS standards (Environment Management and Audit Scheme) and the international ISO 14001 and ISO 19011.

ISO 19011 provides guidance on the principles of auditing, managing audit programs, conducting quality management system audits and environmental management system audits, as well as guidance on the competence of quality and environmental management system auditors.

It is applicable to all organizations needing to conduct internal or external audits of quality and/or environmental management systems or to manage an audit program.

Implementation of environmental management systems is a voluntary action, managed to convince not only the financial benefits obtained (identify areas that can bring savings, increase production efficiency, finding new markets, etc.), but by increasing credibility in obtaining loans, attracting investors and new customers.

Environmental audit is part of the instruments of analysis and assessment of the environmental management system, being used in order to verify compliance with specific legislation and assessment practices and environmental policies. Also, environmental audit is included in the stage of control of the environmental management.

Environmental audit is a methodical and documented process of verification and evidence of the audit documents obtained and evaluated in an objective manner, in order to establish whether activities, events, conditions, the environmental management system or information relating to these issues are in accordance with the audit criteria (the results of this process being communicated to the client).

It can be conducted by the company's professionals (internal audit) or by independent practitioners (external audit) and has a spe-
cific character, being linked to the environment, requested and used in taking and underlying decisions. It consists of a systematic evaluation, periodically documented, in the purpose of the extent to which organization, management, infrastructure equipment and environmental requirements to ensure the security environment.

In terms of economic development and legislative acceleration, an audit environment that offers a fast "photo" of the environmental situation of an organization at a definite time is crucial in the decision making process.

The concept of sustainable development requires environmental audit in a heady way. Conducting an environmental audit is no longer an option but a sound precaution and a proactive measure in today's heavily regulated environment. Indeed, evidence suggests that environmental audit has a valuable role to play, encouraging systematic incorporation of environmental perspectives into many aspects of an organization’s overall operation, helping to trigger new awareness and new priorities in policies and practices. Environmental audits are intended to quantify environmental performance and environmental position. An environmental audit can highlight areas of inefficiency in processes, for example, where the amount of resources used are out of proportion to the amount of saleable items or services produced. It can also highlight excessive waste, providing an opportunity for business to decrease its waste output and decrease costs of waste treatment and disposal. An environmental audit can give a company a much clearer understanding of its operations and impacts and ultimately, provides a starting point for other environmental initiatives.

An environmental audit can be modified according to the size and complexity of a business. For example, a small business may simply concentrate on such things as paper usage and water and energy consumed, whereas a large organization may have a broader range of inputs and outputs to be measured.

An example of environmental audit questionnaire better said some examples of questions to be answered, will be faced on the next table.
Table 1.
Environmental Audit Questionnaire

<table>
<thead>
<tr>
<th>Question</th>
<th>YES</th>
<th>NO</th>
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<tr>
<td>Are there legal provisions and other environmental requirements present in the firm?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is access to this information assured?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does the firm have a written environmental policy?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you use natural gas (from gas mains or bottled gas)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you use heating oil or similar liquid fuel?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you collect and use roof runoff to the extent practicable?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is waste paper sent for recycling?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are there cleaning chemicals used?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are pesticides used on site?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are you planning any building development or renovation work?</td>
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</table>

Of course, that a real environmental audit questionnaire is to be more overwrought, more punctiliously drawn, with delimited areas of questions, regarding environmental legislation, economic use of resources, formation of an eco-conscious behavior, compliance with environmental guidelines, reducing consumption of electricity, existence of a environmental management system and so on, depending of the domain of activity in which the entity activates.

According to the answers to the environmental audit questionnaire, the audit team takes decisions, elaborate an opinion, which will be transformed into base of the future action plan.

In order to ensure that future generations will be able to enjoy development and a proper life, we can draw only one conclusion: *Think sustainable!*

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ABSTRACT: The main aim of this paper is to develop and calibrate an econometric model for modeling prices of long term electricity future contracts. The calibration of our model is performed on data from EEX AG allowing us to capture the specific features of German electricity market. The data sample contains several structural breaks, which have to be taken into account for modeling. We model the data with an ARIMAX model which reveals high correlation between the price of electricity futures contracts (namely Phelix Base Futures with next year’s delivery) and prices of long-term futures contracts of fuels (namely coal, natural gas and crude oil). Besides this, also a share price index of representative electricity companies traded on Xetra, spread between 10Y and 1Y German bonds and exchange rate between EUR and USD appeared to have significant explanatory power over these futures contracts on EEX.

Introduction

EEX is the biggest market with energy in continental Europe with respect to both, turnover and number of agents. EEX enables trading in power, natural gas, coal as well as emission allowance. Besides the liquid daily spot market, electricity is also being traded in form of futures and option contracts.
The paper consists of six parts. The first chapter summarizes current theoretical and empirical literature concerning our topic. Next chapter describes the specifics of the general model for futures pricing and its modifications that enable to use the model for our purposes. The third part is devoted to data analysis and methodology description. All variables are introduced and explained. The econometrical approaches and results are provided in the fourth part. The fifth chapter analyses the results obtained. At the end we provide a summary of the results, conclusive remarks and suggestions for future research.

**Literature overview**

The most influential paper from our point of view was written by Povh and Fleten (2009). They modeled the relationship between prices of long-term forward contracts on fuels (such as oil, coal and natural gas), the price of emission allowances and imported electricity and the long-term price of electricity forwards.

The second important study written by Povh, Fleten and Golob (2009) is a valuable extension of the first paper. Besides variables mentioned above they included also price of aluminum and in addition to this electricity price from neighboring market (EEX) as explanatory variables. They used vector autoregressive model for long-term modeling and quite surprisingly found out that the gas prices were insignificant in this model.

The third interesting contribution was made by Redl (2007) who described a model for forecasting futures electricity price directly on the EEX. He found out that the forward prices are mostly influenced by futures prices of fuels (namely natural gas and coal) and CO$_2$ emission allowances. He also pointed out that if forward contracts are priced correctly, then both, futures and spot prices should follow the same trend corrected by risk premium.

**Valuation of futures contracts**

The standard approach used to calculate the price a futures contract is to meet so called no-arbitrage condition. This condition ensures that the futures contract is priced fairly and there is no possibility for risk-free arbitrage. Even thought this concept can be used for almost
all commodities, it is not suitable for electricity futures since the electricity cannot be economically stored for an extended time period. Moreover, this model implies that there is no direct link between the spot and futures price. Thus the formula used for pricing a standard futures contract as it is described by equation (1) cannot be applied in our case:

\[ F_{t,T} = S_{t,T} * (1 + r - \lambda)^{T-t} \]  

(1)

In equation (1) \( F_{t,T} \) represents the price of futures contract, \( S_{t,T} \) stands for the spot price of a given commodity, the term \( (1 + r - \lambda) \) denotes risk premium and \( T - t \) reflects time to maturity. Because we want to find out the pricing formula for the case of electricity, we have to employ expected spot price \( E(S_{t,T}) \) instead of the spot one. This is done in equation (2) which provides the basic formula suitable for pricing electricity futures (in logarithmic form):

\[ \log F_{t,T} = \log E(S_{t,T}) + (T - t) \log(1 + r - \lambda) \]  

(2)

As Povh and Fleten (2009) argue that the term \( \log(1 + r - \lambda) \) is relatively stable with far maturity so the expected future spot price comprises most of the variability that explains futures price. Factors that determine future spot price are future supply and demand - unfortunately hardly predictable. Thus instead of them, variables directly influencing supply and demand are to be employed. The following variables can be considered to have significant impact on either demand or supply:\n
1. fuel prices – gas, oil, coal
2. emission allowances
3. weather conditions
4. time factor
5. economic activity
6. other – historical or forecasted loads, electricity prices in neighboring markets, market structure, regulation and future demographic development, etc.

Not all of these factors can be observed with sufficient frequency. Moreover, another limitation of their approach is an insufficient liquidity in some markets.
Data analysis and methodology

The electricity market in Germany is by far represented by EEX. As a reference time series we consider a yearly Phelix Base Futures with next year’s delivery. Our data sample contains data started from the beginning of 2006 till June 2009. Data in this period are observed on a daily basis which allows us for short-term modeling. Our dataset was trimmed from extreme observations and in addition to this, the EEX time series were transformed by linear interpolation.

As we mentioned above, we have to identify possible determinants of future spot price. Here we divide variables with possible explanatory power into several groups:

In the first group we include futures on fuel prices as they obviously influence the costs of electricity production. This group covers time series on oil, natural gas and coal. Oil prices are represented by a monthly futures contract of BRENT crude oil and a yearly futures contract of NYMEX WTI light sweet crude oil. Natural gas is represented by yearly futures of TTF gas from Zeebrugge hub. As coal is mostly OTC traded we consider TFS API4 price index (coal delivered in Amsterdam, Rotterdam and Antwerp harbor) in our model.

The second group of variables impacting the production costs of electricity is the emission allowances. The system of emission allowances within the European Union was firstly introduced in January 2005 and nowadays it is to be considered as an important factor influencing the price of electricity futures contract. Because of the long-term nature of our modeling, we incorporate one year-ahead futures contracts of emission allowances EU ETS.

The last group of variables is the ones reflecting financial market conditions and economic development – those variables might have indirect impact on electricity prices. The first of those variables is the EUR/USD exchange rate. Then we considered variables that measure the risk premium associated with time factor of future contracts. This risk premium can be indirectly observed from a shape of yield curve. For this purpose we used variable SPREAD. This variable models the right part of the yield curve shape. SPREAD is defined as a difference between 10Y and 1Y government bonds in Germany. This variable thus models the right part of the yield curve shape. The last explanatory variable is the Prime Utilities Index (UTIL) traded on Xetra. This index contains weighted results of share price
evolution of following companies: E.ON AG, MVV Energie AG, RWE AG St and RWE AG Vz. This variable was included because we think that financial markets through this index variable are able to reveal the market expectations on the future price of electricity futures (these are then reflected in the share price). All of the time series mentioned in this paragraph were also retrieved from Bloomberg.

The evolution of all above mentioned variables at the first sight reveal high correlation between the evolution of electricity price of futures contracts at EEX and BRENT crude oil. Moreover, it is interesting to point out the dramatic change in SPREAD in the third quarter of 2008. This probably reflects the troubles in financial markets prior to collapse of Lehman Brothers. The shock to EUR/USD exchange rate was just temporary. We can observe that since September 2008 the variance of all variables employed in our model has substantially increased as a consequence of substantial financial turmoil. The only exception is the price of emission allowances experienced substantial decrease starting from this date which can be explained by lower demand for emission allowances as a consequence of diminishing industrial production during the economic crises.

Econometric Analysis

As all the variables are defined, we continue with description of the econometrical model for electricity futures. We apply ARIMAX – autoregressive integrated moving average model with exogenous input that is derived from simple ARIMA – autoregressive moving average model. The general form of the model we use is described by equation (3):

$$ Y_t = \alpha + \sum_{i=1}^{p} \beta_i Y_{t-i} + \epsilon_t + \sum_{j=1}^{q} \theta_j \epsilon_{t-j} + \sum_{k=1}^{d} \gamma_k X_{t-k} $$

(3)

where \( \alpha \) is a drift, the first sum denotes an autoregressive term, \( \epsilon_t \) is an error term, the second sum represents a moving average process of past error terms and the last sum are exogenous variables. All the data are going to be transformed into natural logarithms and then differenced in order to avoid spurious regression that could be caused by using possibly non-stationary series. The model we work
with is estimated by using OLS method. The dependant variable is the price of long-term electricity futures contract.

For the purpose of econometric analysis we used the above mentioned data series. The observation period is from 11th September 2006 to 5th April 2009.

Table 1: Unit root test

<table>
<thead>
<tr>
<th>Method</th>
<th>Statistic</th>
<th>Prob*</th>
<th>Cross-</th>
<th>Obs</th>
</tr>
</thead>
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<tr>
<td>Levin, Lin &amp; Chu f</td>
<td>-91.9436</td>
<td>0.0000</td>
<td>9</td>
<td>7356</td>
</tr>
<tr>
<td>Null: Unit root (assumes common unit root process)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Im, Pesaran and Shin W-stat</td>
<td>-83.4376</td>
<td>0.0000</td>
<td>9</td>
<td>7356</td>
</tr>
<tr>
<td>Null: Unit root (assumes individual unit root process)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D-F - Fisher Chi-square</td>
<td>1389.00</td>
<td>0.0000</td>
<td>9</td>
<td>7356</td>
</tr>
<tr>
<td>P-P - Fisher Chi-square</td>
<td>1440.14</td>
<td>0.0000</td>
<td>9</td>
<td>7356</td>
</tr>
</tbody>
</table>

Source: eViews

At first we have to check whether the data series are stationary. To do so, we use unit root test. The results are summarized in Table 1. It shows that both commonly used test (namely Augmented Dickey-Fuller test and Phillips-Perron test) reject the null hypothesis at very high levels of significance. Based on this finding we can treat the data series as being stationary.

Application of standard OLS regression on the data sample revealed several problems. One of the most severe was the presence of structural breaks in the dataset. In order to identify them, we used Quandt-Andrews unknown breakpoint test and Chow Breakpoint test. These two tests indentified the presence of two structural breaks (8th August 2007 and 10th November 2007) in our dataset with relatively high significance levels.

Another problem was related to heteroscedasticity of residuals. Moreover, it was not clear which form of heteroscedasticity the dataset exhibits. In order to solve these two issues (namely presence
of structural breaks and heteroscedasticity of residuals) we decided to use Newey-West heteroscedasticity and autocorrelation consistent covariance estimates. These estimates provide more general covariance estimator than White estimate and it also returns results with high explanatory power even in the presence of both, heteroscedasticity and autocorrelation of unknown form. This enables us to use OLS method even when there are autocorrelated residuals and heteroscedasticity in the dataset. From now on, we will denote the estimator which was obtained by employing Newey-West estimator as the second approach. Moreover, all obtained results which follow are obtained by employing this second approach. The OLS method provided us with results described in Table 2.

Table 2: Econometrical results OLS

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-0.0012367</td>
<td>0.001983</td>
<td>-0.683933</td>
<td>0.4946</td>
</tr>
<tr>
<td>BREN(-1)</td>
<td>0.102555</td>
<td>0.047241</td>
<td>2.128542</td>
<td>0.0344</td>
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<tr>
<td>BREN(-2)</td>
<td>-0.123962</td>
<td>0.059156</td>
<td>-2.179845</td>
<td>0.0300</td>
</tr>
<tr>
<td>BREN(-3)</td>
<td>0.159440</td>
<td>0.061131</td>
<td>2.608152</td>
<td>0.0095</td>
</tr>
<tr>
<td>EURUS(0)</td>
<td>-0.276049</td>
<td>0.125276</td>
<td>-2.252061</td>
<td>0.0250</td>
</tr>
<tr>
<td>SPREAD(5)</td>
<td>-0.000474</td>
<td>0.000205</td>
<td>-2.31001</td>
<td>0.0215</td>
</tr>
<tr>
<td>SPREAD(6)</td>
<td>0.001041</td>
<td>0.000403</td>
<td>2.405858</td>
<td>0.0187</td>
</tr>
<tr>
<td>SPREAD(7)</td>
<td>-0.000826</td>
<td>0.000205</td>
<td>-4.035002</td>
<td>0.0001</td>
</tr>
<tr>
<td>TFSCE(3)</td>
<td>0.129734</td>
<td>0.056339</td>
<td>2.344328</td>
<td>0.0197</td>
</tr>
<tr>
<td>TFSCE(5)</td>
<td>0.109232</td>
<td>0.034734</td>
<td>3.144811</td>
<td>0.0018</td>
</tr>
<tr>
<td>TFSCE(10)</td>
<td>0.118821</td>
<td>0.042429</td>
<td>2.818338</td>
<td>0.0051</td>
</tr>
<tr>
<td>TTE(-1)</td>
<td>-0.106410</td>
<td>0.041536</td>
<td>-2.558777</td>
<td>0.0110</td>
</tr>
<tr>
<td>TTE(-2)</td>
<td>0.108323</td>
<td>0.038185</td>
<td>2.836904</td>
<td>0.0049</td>
</tr>
<tr>
<td>TTE(-4)</td>
<td>-0.067489</td>
<td>0.034933</td>
<td>-1.931986</td>
<td>0.0543</td>
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<tr>
<td>TTE(-8)</td>
<td>-0.086381</td>
<td>0.040396</td>
<td>-2.360421</td>
<td>0.0189</td>
</tr>
<tr>
<td>TTE(-9)</td>
<td>-0.107909</td>
<td>0.040242</td>
<td>-2.674666</td>
<td>0.0070</td>
</tr>
<tr>
<td>UTIL(-3)</td>
<td>-0.085660</td>
<td>0.028885</td>
<td>-2.261823</td>
<td>0.0244</td>
</tr>
<tr>
<td>UTIL(-7)</td>
<td>-0.090081</td>
<td>0.037860</td>
<td>-2.379544</td>
<td>0.0179</td>
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<tr>
<td>UTIL(-9)</td>
<td>-0.105776</td>
<td>0.032462</td>
<td>-3.268439</td>
<td>0.0012</td>
</tr>
<tr>
<td>UTIL(-10)</td>
<td>0.073008</td>
<td>0.032222</td>
<td>2.237832</td>
<td>0.0206</td>
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<tr>
<td>AR(7)</td>
<td>0.151188</td>
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<td>2.001537</td>
<td>0.0462</td>
</tr>
<tr>
<td>AR(9)</td>
<td>0.216110</td>
<td>0.065414</td>
<td>3.303724</td>
<td>0.0011</td>
</tr>
<tr>
<td>AR(10)</td>
<td>0.254000</td>
<td>0.064804</td>
<td>3.932664</td>
<td>0.0001</td>
</tr>
</tbody>
</table>

R-squared | 0.209114 | Mean dependent var | 0.000260 |
Adjusted R-squared | 0.217077 | S.D. dependent var | 0.013086 |
S.E. of regression | 0.011561 | Akaike info criterion | -6.015639 |
Sum squared resid | 0.004130 | Schwarz criterion | -5.751986 |
Log likelihood | 1021.289 | Hannan-Quinn criterion | -6.910466 |
F-statistic | 5.171589 | Durbin-Watson stat | 1.813373 |
Prob(F-statistic) | 0.000000 |

Source: eViews
Table 2 summarizes results of our model, which was calibrated on 332 observations, as they were collected during the period starting from November 2006 until May 2009. The adjusted R\(^2\) of the model is higher than 0.20 which allows us to consider the model explanatory power as sufficient even in presence of higher volatility of almost all variables from the data sample after September 2008 as a consequence of financial crises as mentioned in previous chapter.

If we plot the residuals retrieved from the model with respect to time (as shown the Graph 2), we can see significant increase in the variance of residuals starting from second quarter of 2008. Even though, the results obtained points to relatively good performance of our model.

Although the obtained results of our model are satisfactory, we have to check whether there are still any structural breaks in the modified (second) approach or not. Employing the Chow Breakpoint test did this. Output of this test shows that we cannot reject null hypothesis stating that there is no structural break on 8\(^{th}\) July 2007 on 5% significance level. We can conclude that the modified dataset does not contain any structural break with high probability. This finding simplifies our further analysis.

**Interpretation of results**

This chapter contains economic interpretation of results obtained in the previous section. The stationarity of the data sample that was verified in the fourth part of our paper allows us interpret the obtained results. The Table 2 provides clear insights that, except for intercept and futures contracts on natural gas lagged by four periods (i.e. four months in our case), all variables are estimated as significant at least at 5% level of significance.

More interesting, from the interpretation point of view are estimates of regression coefficients, or more precisely their signs. If we recall Table 2 presenting the results of regression analysis for the first model, we find out that most of the variables (namely BRENT, SPREAD, TTF and UTIL) the sign of the regression coefficient depends on the time lag. Thus our model detected that the relationship between dependent variable and certain explanatory variables is not stable. The way in, which is the dependent variable influenced by these explanatory variables, is sometimes positive and sometimes negative. This is rather counterintuitive for the first sight. However,
there can be effects driving the value of the lagged variable below zero. One of the variables with constantly positive sign of regression coefficient for all time lags was TFSE. The sign was in its case always positive. There is clearly a positive correlation between coal price and price of electricity futures contracts.

**Conclusion**

In this paper we examined the possible determinants of the price of futures electricity contracts at EEX. We did it by empirical analysis based on ARIMAX model. As a dependent variable we chose Phelix Base Futures with next year’s delivery. We tried to explain this variable by incorporating contracts on fuels (namely natural gas, oil and coal), emission allowances and indicators from financial markets (index based on assets performance, LIBOR and Germany 1Y and 10Y bonds, EUR/USD exchange rate).

The results are summarized in Table 2. This table demonstrates that all estimated variables have significant power in explaining electricity futures prices variability. The fact, whether a relationship between a certain variable and the electricity futures is positive or negative, depends on the time lag. The possible interpretation is that (especially in case of fuel contracts) it hinges on whether or not the “costs effects” dominates over “substitution effects.” The exception to this is coal with persistent positive price effect for all time lags. The performance of the model measured as goodness of fit was relevant - our model is able to account for explain more than 25 percent of the variance observed in prices of electricity futures. In addition to this, even on these time series we can observe the impacts of recent financial crisis via substantial increase (with the exception of the price for emission allowances) in the variance in a corresponding period. This might lead to a decrease in the performance of our model.

If we would like to compare our results with other empirical literature considering the same topic, we can see that similarly to e.g. in Povh and Fleten (2009) and Redl (2007) we found out the significance of fuel costs or emission allowances. Contrary to them, our analysis revealed that even natural gas has an explanatory power over electricity futures. Including other factor from the financial markets than the ones related to the evolution of interest rates seem
to be rather innovative and thus it does not allow us to compare obtained results with previous empirical literature.

Although the fact that our model is relatively up to date it could be somehow treated as outdated due to rapid development of economic conditions caused by the ongoing financial crisis. Such crisis often changes the trends and relationships between particular variables. On the other hand, the “core” of revealed relationships we assume to stay unchanged. This creates suitable position for further research - to verify, whether even in the after-crisis period, the results we mentioned in our paper still hold. Moreover, also modeling the same data with different methods (e.g. cointegration or neural networks) might shed more light on this topic.

NOTES

1. Financial support for this research from: The Czech Science Foundation, project The Institutional Responses to Financial Market Failures, under No. GA P403/10/1235; The IES Institutional Research Framework 2005-2010 under No. MSM0021620841; The Charles University Grant Agency, project Alternative Methods of Stress Testing for Operational Risk Modeling under No. GAUK 31610/2010 is gratefully acknowledged.

2. For the explanation of “far maturity” Diko, Lawford, Limpens (2006).


4. All the fuel prices data series are retrieved from Bloomberg and Reuters databases.

5. The data on emission allowances were retrieved directly from EEX.

REFERENCES


ABSTRACT. This paper focuses on how to calibrate models to be used in stress tests that emphasize the most important risks in the banking system. The paper argues that stress tests should be calibrated conservatively and slightly overestimate the risks. However, to ensure that the stress test framework is conservative enough over time, verification, i.e. comparison of the actual values of key financial variables with predictions generated by the stress-testing models should become a standard part of the stress-testing framework.

Introduction

Stress tests are used by commercial financial institutions, regulators and central banks as a means of testing the resilience of institutions or the entire sector to adverse changes in the economic environment. The global financial crisis uncovered the deficiencies of the stress-testing methodologies used in many countries. Before the crisis, many tests were wrongly indicating that the sector would remain stable even in the event of sizeable shocks (Haldane, 2009). These deficiencies related not only to the configuration of the adverse scenarios used, which had initially seemed implausibly strong but were often exceeded in reality, but also to the shock combination assume Breuer et al. (2009). A role was also played by deficiencies in model calibration and in the assumed behaviour of banks and markets, and by the absence of testing of liquidity risk alongside
traditional financial risks (in particular credit risk and interest rate
risk).

Consequently, the assumptions and parameters used in stress
tests are gradually being re-examined so that the tests can better
analyze the impacts of strong shocks to the financial system. In
defense of stress testing, however, it should be mentioned that this is
a relatively new too and hence it still requires ongoing methodo-
logical development and refinement.

This paper focuses on how to calibrate models used to stress test
the most important risks in the banking system. We argue that stress
tests should be calibrated conservatively and slightly overestimate
the risks. However, to ensure that the stress test framework is con-
servative enough over time, a process of verification, i.e. comparison
of the actual values of key banking sector variables with predictions
generated by the stress-testing models should become a standard part
of the stress-testing framework. Direct verification of adverse sce-
narios is in majority of cases (i.e. non-crisis periods) not possible.
Thus, the verification should be performed on baseline scenarios.
However, the whole stress-testing model should be calibrated con-
servatively in order to take into account the uncertainty related to the
possible changes in estimated relationships in the case of adverse
economic development. Hence, ex-post comparison between reality
and predictions generated by baseline scenarios should indicate
systematic risk overestimation.

To illustrate our point we present the results of the verification of
the Czech National Bank’s (CNB) stress testing framework. The
CNB has been performing bank stress tests since 2003 and has sig-
nificantly expanded its methodology over the past few years. The
most recent major update was done in mid-2009 and involved and
introduction of dynamic features in the system (see section 2). On
this occasion, a verification of the overall stress-testing methodology
was conducted in the context of the aforementioned international
debate on the reliability of the predictions of the impacts of shocks to
the banking sector. The aims were to demonstrate whether the stress
test assumptions were correctly configured and to identify any defi-

The analysis reveals that the current CNB stress-testing system
generally errs on the right – i.e. pessimistic – side and slightly over-
estimates the risks. This leads on average to estimates of key finan-
cial soundness indicators (in particular capital adequacy) that are
lower (more conservative) than the actual values. Some verification results were used to further develop the stress tests.

To our knowledge, there is no other study that would systematically and transparently present the verification of someone’s stress testing methodology. With this paper we would like to make a contribution to the debate on how to develop and calibrate reliable stress testing frameworks.

The paper is structured as follows. Section 2 briefly describes the CNB’s stress-testing methodology as of end-2009 that was subsequently verified. Section 3 summarizes the verification methodology and presents summary conclusions of the verification for capital adequacy and some other key banking sector variables used in the stress tests. The conclusion summarizes the verification results and proposes a medium-term plan for further developing the tests.

**Current banking sector stress-testing methodology of the CNB**

The original banking sector stress-testing methodology applied at the CNB was based on the IMF methodology Čihák (2005). The CNB later switched from testing historical ad-hoc scenarios defined by a combination of shocks to using consistent macroeconomic scenarios generated by the CNB’s prediction model and related credit risk and credit growth sub-models (Čihák, Heřmánek and Hlaváček, 2007; Jakubík and Schmieder, 2008).

In the second half of 2009, the CNB significantly updated the banking sector stress-testing methodology in three respects. First, the tests were “dynamised”, in the sense of switching to quarterly modelling of shocks and their impacts on banks’ portfolios. This change was described in a box in the CNB Financial Stability Report 2008/2009 (CNB, 2009, pp. 63–64). Second, in the credit risk area there was a changeover to “Basel II terminology”, i.e. to capturing the credit risk of several separate portfolios using the standard parameters PD, LGD and EAD and relating risk-weighted assets to those parameters using procedures specified in the IRB approach to calculating capital requirements. The final major innovation was the extension of the shock impact horizon from one to two years (or eight subsequent quarters).
Alternative macroeconomic scenarios

Alternative macroeconomic scenarios still serve as the starting point for stress testing in the updated methodological framework. The scenarios are designed using the CNB’s official prediction model supplemented with an estimate of the evolution of some additional variables, which are not directly generated by the model. “Stress scenarios” are constructed based on the identification of risks to the Czech economy in the near future. To compare the stress outcome with the most probable outcome, the stress tests use a baseline scenario, i.e. the current official macroeconomic prediction of the CNB.

The predictions for GDP growth, inflation and other macroeconomic variables enter credit risk and credit growth models. They were developed to capture changes in banks’ credit portfolios and credit risk. The stress tests work explicitly with the four main loan portfolio segments by debtor and/or credit type (non-financial corporations, loans to households for house purchase, consumer credit and other loans), to which the sub-models are also adjusted. The credit risk models are used to predict PD for the individual loan segments, whereas the credit growth models are used to estimate the growth in bank portfolios in relation to the macroeconomic situation and (after certain adjustments) to estimate the evolution of risk-weighted assets.

In the stress tests, the prediction for macroeconomic and financial variables for individual quarters is reflected directly in the prediction for the main balance-sheet and flow indicators of banks. The tests are dynamic, i.e. for each item of assets, liabilities, income and expenditure there is an initial (the last actually known) stock, to which the impact of the shock in one quarter is added/deducted, and this final stock is then used as the initial stock for the following quarter. This logic is repeated in all eight quarters for which the prediction is being prepared. The consistency between stocks and flows is thus ensured.

Credit risk

Credit risk testing is the most important area of stress testing. This testing is based on the use of PD for each of the four main segments of the loan portfolio. The second credit risk parameter is LGD, which is currently determined by expert judgement, with different
amounts being set for different scenarios and different credit segments in line with the regulatory rules, commercial bank practices, the approaches applied by some rating agencies (Moody’s, 2009) and existing estimates based on market data (Seidler and Jakubík, 2009). The third parameter is EAD, which is determined as the volume of the non-default part of the portfolio (i.e. excluding non-performing loans).

An increase in PD and LGD has two main effects on individual banks.

First, the expected loan losses (in CZK millions), against which banks will create new provisions of an equal amount and record them on the expenses side of the profit and loss statement as impairment losses, are calculated as the product of PD, LGD and EAD for each credit segment and quarter. Total assets are then symmetrically reduced by the amount of these expenses.

The product of PD and the volume of the non-default portfolio forms the volume of new non-performing loans (NPLs) for each quarter. This allows us to generate the volume of total NPLs in the following eight quarters for each bank, and subsequently for the banking sector as a whole, according to the following equation:

\[
NPL_{t+1} = NPL_t + \sum_{i=1}^{4} PD_{t+i} NP_i - aNPL_t
\]

where \(NPL\) are non-performing loans, \(PD\) is the probability of default, \(NP\) is the non-default portfolio in the four segments defined above and \(a\) is an NPL outflow parameter (i.e. write-offs or sales of existing NPLs, i.e. the default part of the portfolio). Parameter \(a\) is set by expert judgement at 15% for all segments, i.e. 15% of NPLs are written off/sold each quarter and subsequently disappear from the total volume of NPLs and (gross) assets of the bank.

The credit growth model leads to an estimate of the gross volume of loans in individual segments. Using relation (1) for NPL modeling, this allows us to determine for each bank, and subsequently for the banking sector as a whole, the NPL/total loans ratio, a standard indicator of the banking sector’s health.

Second, in the case of banks applying the Basel II IRB approach to the calculation of capital requirements for credit risk, the capital requirements (or risk-weighted assets, \(RWA^3\)) for credit risk are a function of PD, LGD and EAD. Given that the largest banks in the Czech Republic apply this approach, this relation is applied to all banks for the sake of simplicity. Given a constant non-default port-
folio volume, i.e. EAD, an increase in PD and LGD thus generally results in an increase in RWA and therefore a decrease in capital adequacy.

**Interest rate and currency risk**

The macroeconomic scenarios contain a prediction of the evolution of the simplified koruna and Euro yield curves (rates with 3M, 1Y and 5Y maturities). A change in interest rates has a direct effect on bank balance sheets in two main items, namely interest profit and the value of bond holdings. A rise in short-term rates thus reduces the interest rate profit of those banks, which have an excess of short-term liabilities over short-term assets. However, the calculation is adjusted by expert judgement to take account of the business policies of commercial banks, which respond relatively little to market interest rate changes on the deposit side.

The quarter-on-quarter change in the CZK/EUR exchange rate is applied to the net open foreign currency position (including off-balance-sheet items), generating either a loss or a profit depending on the sign of the net open position and the direction of the exchange rate change.

**Interbank contagion risk**

Interbank contagion risk is modeled in two selected periods (in the fourth and eighth quarters). The test uses data on interbank exposures, with the capital adequacy of individual banks being used to determine their probability of default (PD). As interbank exposures are mostly unsecured, LGD is assumed to be 100%. The expected losses due to interbank exposures are calculated for each bank according to the formula PD×LGD×EAD, where EAD is the net interbank exposure. If these losses are relatively high and will lead to a reduction in the bank’s capital adequacy and thus an increase in its PD, there follows another iteration of the transmission of the negative effects to other banks through an increase in the expected losses. These iterations are performed until this “domino effect” of interbank contagion stops, i.e. until the rise in PD induced in one bank or group of banks does not lead to a rise in the PD of other banks.
Profit, regulatory capital and capital adequacy

The stress test assumes that banks will continue to generate revenues even in the stress period, particularly net interest income (interest profit) and net fee income. For these purposes, an analytical item of the profit and loss account called “adjusted operating profit” has been constructed. This consists of interest profit (+), fee profit (+), administrative expenses (-) and some other (non-shock) items. The volume of adjusted operating profit was initially determined by expert judgment for the individual scenarios. A model estimate of this item was introduced only in mid-2010 (CNB 2010).

Regulatory capital is modelled in accordance with the applicable CNB regulations. Each bank enters the first predicted quarter with initial capital equal to that recorded in the last known quarter. If a bank generates a profit in the first predicted quarter (i.e. its adjusted operating profit is higher than its losses due to the shocks), its regulatory capital remains at the same level (is not increased). If, however, it generates a loss, its regulatory capital is reduced by the amount of that loss. The impacts of the shocks are thus reflected in a reduction of capital only if they exceed adjusted operating profit and the bank generates a loss.

Total capital adequacy is calculated for the individual quarters as the ratio of regulatory capital to total RWA. The portion of RWA relating to credit risk is modelled on the basis of the credit risk parameters (see above), while the other components of RWA (or of the capital requirements for other risks) for the individual quarters are determined by expert judgement.

Verification of the stress tests

The objective of the verification is to examine to what extent the assumptions and sub-models used in the stress testing framework are in line with reality. A problematic aspect of the verification is that the tests use stress – i.e. unlikely – scenarios, which may not occur in reality. Hence, we cannot subsequently compare predictions based on adverse scenarios with reality. For this reason, only the scenario that represents the most likely evolution of the economic environment, i.e. the no-stress baseline scenario of the CNB forecast, could be used for the verification.
The prediction using the baseline (i.e. likely) scenario should indicate slightly higher risks than those that occur in reality. This is because the whole system should have a “conservative” buffer to offset the uncertainty associated with estimating losses given adverse economic developments, when relations (for example between GDP growth and risk parameters such as PD) estimated by standard econometric techniques on data from mainly calm periods can change suddenly for the worse. This requirement implies that stress test prediction errors should be evaluated differently from the errors of standard macroeconomic predictions, where deviations in either direction are regarded as “equally bad”. In verifications using baseline scenarios, it is appropriate to apply an asymmetric view in the stress tests and tolerate prediction errors towards modest overestimation of the risks.

The verification was conducted on quarterly data in the period 2004 Q4–2009 Q2, i.e. for 19 periods in all. The actual values of key variables for the banking sector as a whole are compared with the predictions generated by the current stress-testing methodology for the individual quarters using the relevant baseline scenario of the forecast. The predictions for past quarters were therefore created subsequently using the updated stress-testing methodology in order to verify that methodology and do not match the values published in CNB Financial Stability Reports.

Two statistics based on the mean prediction errors were used to verify the selected variables: the mean absolute error (MAE) defined by equation (2):

\[ (2) \frac{1}{n} \sum_{i=1}^{n} |P_i - A_i| \]

and the mean error in direction (MED) defined as:

\[ (3) \frac{1}{n} \sum_{i=1}^{n} \frac{P_i - A_i}{|A_i|} , \]

where \( P_i \) denotes the value of the prediction of the estimated variable for the given quarter, \( A_i \) denotes the actual value and \( t \) represents the quarter for which the prediction is being made.

MAE serves for simple presentation of the mean prediction error in the units in which the given variable is expressed, while MED expresses whether the given variable was overestimated or underestimated on average and thus gives the degree of “conservatism”.

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The prediction error of the capital adequacy ratio and other key banking sector variables can be split into two main factors. The first is the potential prediction error caused by inaccuracy in the estimates of the macroeconomic variables entering the stress-testing mechanism (interest rates and the exchange rate), and the second concerns the assumptions and sub-models used in the stress test itself (e.g. the assumptions about how the bank raises its regulatory capital, what interest and non-interest yields it achieves and how sensitive it is to interest rate risk). The macroeconomic prediction error can be eliminated in the verification by using the actual (ex post) values of macroeconomic variables. The residual error is then due to inaccuracies in the assumptions and sub-models of the stress-testing framework and the intentional conservative buffer.

The most important output variable of the tests is the estimate of the capital adequacy ratio (CAR). The mean absolute deviation (MAE) for CAR equates to roughly 1.6 p.p. of the capital adequacy ratio (see Table 1). This means, for example, that the test predicts CAR of 11.4% instead of 13%.

### Table 1: Deviation of capital adequacy ratio estimate

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</thead>
<tbody>
<tr>
<td>Prediction – stress test</td>
<td>1.6</td>
<td>1.0</td>
<td>0.8</td>
<td>1.6</td>
<td>2.1</td>
<td>1.9</td>
</tr>
<tr>
<td>Prediction – known macro</td>
<td>1.5</td>
<td>0.9</td>
<td>0.6</td>
<td>1.1</td>
<td>2.0</td>
<td>2.5</td>
</tr>
</tbody>
</table>

<table>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Prediction – stress test</td>
<td>-10.8</td>
<td>-1.7</td>
<td>-6.5</td>
<td>-13.1</td>
<td>-17.2</td>
<td>-15.3</td>
</tr>
<tr>
<td>Prediction – known macro</td>
<td>-8.8</td>
<td>1.9</td>
<td>-1.3</td>
<td>-7.1</td>
<td>-16.3</td>
<td>-20.0</td>
</tr>
</tbody>
</table>

This prediction error equates to roughly 1.8 standard deviations. In the individual shorter periods this error gradually shrinks to 0.8 p.p. (i.e. 1 standard deviation) but then grows again slightly from 2007 onwards. Only a small part of the error is due to errors in the macroeconomic forecast, as the MAE statistic decreases only modestly with knowledge of actual macroeconomic developments.

The negative MED statistic of -10.8% shows that the real values were higher on average in the period as a whole and the stress tests thus tended to generate overvalued CAR estimates (see Table 1). This fact is also demonstrated by Chart 1, which reveals that a lower-than-actual CAR is predicted from the end of 2006 onwards. The resulting CAR was thus underestimated for most periods, in line with the conservative design of the tests. This conclusion remains valid even when the predictions are adjusted for the error in the prediction of macroeconomic variables.
The estimate of a lower-than-actual CAR is due to inaccuracy in the estimate of both RWA and regulatory capital. With few exceptions the stress test overestimated RWA (see Chart 2) and simultaneously tended to under estimate regulatory capital (see Chart 3). The decomposition of the error in the CAR estimate into the part caused by inaccurate prediction of RWA and the part caused by inaccurate prediction of regulatory capital shows that the contributions of the two items to the error are balanced on average.

The overestimation of risk-weighted assets has two sources: first, the credit growth model tends to predict higher credit volumes than the ex-post turnout. While on a first sight an underestimation of credit growth seems to be the conservative calibration, the opposite is true at least from the point of view of risk-weighted assets. Second, the
framework uses the estimates of PDs and LGDs as a base of risk weights (IRB approach) which are also overestimated.

Regulatory capital is regularly increased out of after-tax profits, so the estimate of profits is an important parameter for the evolution of capital. Profits are calculated as the difference between adjusted operating profit and losses due to the individual shocks tested (see section 2). The verification of this variable revealed that the stress test systematically underestimates after-tax profit (Chart 4). This is due to two factors. First, the test systematically underestimates adjusted operating profit directly through the assumption about its level (for the baseline it was assumed that adjusted operating profit will be 90% of the average for the previous two years). This is also in line with the more conservative approach to risk assessment. The second cause is that the stress test tends to overestimate the impact of the main risk tested, i.e. credit risk, in the form of higher-than-actual PD and related higher provisioning for NPLs (recorded in the “losses from impairment” category), partly also due to a too conservative expert estimates of LGD.

Despite the relatively positive message of the verification results, further gradual refinement of the predictions is desirable. The main problem in the credit risk area is with the sub-models and assumptions used, as they excessively overestimate the impact of credit risk in the form of losses on impaired loans. While the direction towards overestimation is correct, the degree of overestimation should be held in a reasonable range.

The further development of the stress tests should be based on regular verification. This should become an integral part of the banking sector stress-testing framework to enable ongoing assessment of whether the assumptions are realistic and a conservative buffer is being maintained in the risk predictions.

**Conclusion**

This paper focused on how to calibrate parameters used in stress tests. It argued that the parameters should be calibrated conservatively and should slightly overestimate risks in order to take into account the uncertainty related to the possible changes in estimated elasticities in the case of adverse economic development.

We used the case study of the CNB’s banking sector stress-testing methodology and presented the results of a verification of that
methodology. Such verification is a tool that should be used regularly as a guide for refining the assumptions and models used. The results of the verification, conducted at the end of 2009, reveal that the CNB stress tests err on the right – i.e. pessimistic – side and slightly overestimate the risks. This leads on average to capital adequacy estimates that are lower (more conservative) than the actual values. This is consistent with the design of the stress tests, which should be built on conservative assumptions.

NOTES

1. Both authors acknowledge the support by the Grant Agency of the Czech Republic (GACR 403/10/1235). Jakub Seidler also acknowledges the support by Grant Agency of the Charles University (GAUK 2009/47509). The findings, interpretations and conclusions expressed in this paper are entirely those of the authors and do not represent the views of any of the above-mentioned institutions.

2. PD – probability of default; LGD – loss given default; EAD – exposure at default; IRB – internal ratings based.

3. Risk-weighted assets = capital requirements (in CZK millions)×12.5.

4. For example, a positive open foreign currency position and appreciation of the koruna leads to losses.

5. The first attempt to verify the stress tests using the baseline forecast scenario was made back in 2007 (Hlaváček et al., 2007), when the capital adequacy ratio and NPL growth predictions generated by the 2006 stress-testing methodology were compared with their real counterparts.

REFERENCES


THE DETERMINANTS OF BANK RATING CHANGES: 
AN ANALYSIS OF GLOBAL BANKING MERGER 
AND ACQUISITION (M&A)

JO-HUI CHEN
johi@cycu.edu.tw
Chung Yuan Christian University
CAROL HSU
carolint@ms22.hinet.net
Chung Yuan Christian University

ABSTRACT. This study reviews the ordered logit model with a marginal effect to assess the changes in the overall credit ratings by comparing pre-merger and acquisition (M&A) with that post-M&A performance from the perspective of the acquiring banks. Efforts should be made to identify the key elements that influence the successful ratings of an appropriate M&A strategy. The CAMEL criteria are referable for bank rating determination in terms of pre-M&A performance. Moreover, capital adequacy and liquidity should be taken into account for the economy scale of M&A performance because capital soundness accelerates the accomplishment of an M&A by creating synergy.

Introduction

Under the wave of globalization, the factors involved in the M&A arena have become extremely differentiated and complicated (Golbe and White, 1988; Larsson and Michael, 2001). Lazaridis (2003) found more possible deregulation for interstate bank mergers in the United States than that during the merger mania of the 1980s. Changes in the financial services industry may be partially responsible for the recent rapid pace of consolidation, technological progress, and improvement in the financial condition, excess capacity or financial distress, and deregulation (Berger et al., 1998; Berger et al.,
1999; Akhigbe and Martin, 2000). Reports available on the topic of M&As indicate that the frenzy for M&As is due to the view that it acts as, among others, a means for banks to penetrate new markets, realize the potential of economies, acquire the financial power and prestige associated with large size (Benston et al., 1995), increase performance efficiency (Cornett and Sankar, 1991; Holder, 1993), maximize the wealth of its shareholders (Berger et al., 1999), and significantly defend established situations (Vennet, 1996).

M&A has become a crucial means for expansion of the financial industry. A number of theoretical and empirical studies on financial M&As have concentrated on examining the effects of pre-M&As and post-M&As from the perspectives of management governance, acquisition announcements, risk mitigation, top management turnover, and synergy (Chin et al., 2004; Reuer et al., 2004; Datta et al., 1992; Walsh, 1988, 1989; Gupta and Gerchak, 2002; Larsson and Finkelstein, 1999; Zollo and Singh, 2004).

However, a few studies have reported on the effects of prevailing supervision or banking rates. Accordingly, many parties are potentially interested in the achievement and prosperity of financial industries after M&A, regardless of the significant role that supervision rates play in carrying out M&As. The large number of failures of bank and thrift companies in the 1980s resulted in on-site examinations becoming central components of government supervision for the safety and soundness of commercial banks. The U.S. Congress promptly enacted the Federal Deposit Insurance Corporation Improvement Act of 1991, which required nearly all U.S. banks to be subject to a comprehensive on-site examination at least annually (Wheelock and Wilson, 2005). On-site examinations can provide comprehensive information regarding the object's condition, but the performance cost is high.

Using the ordered logit model, this study examines the assessment of pre- and post-M&A performances using an enormous volume of sample data of supervision rates collected monthly from acquiring banks and financial institutions worldwide during the period June 1989 to June 2009. This article evaluates whether the supervision rates contain referable information for M&A achievement and uses the CAMEL criteria directly measured in terms of five dimensions, composed of capital adequacy (C), asset quality (A), management (M), earnings (E), and liquidity (L).
Ordered logit model of bank rating in M&As

The ordered logit with the cross section effect model was estimated by assigning the cross section and time series of credit ratings as follows:

\[ RATING_i^* = \alpha_1 + \alpha_2 ETA_i + \alpha_3 ENL_i + \alpha_4 ETA_i + \alpha_5 OETA_i + \alpha_6 ROAE_i + \alpha_7 EDSF_i + \alpha_8 NIM_i + \alpha_9 LATDB_i + \alpha_{10} CRN_i + \alpha_{11} SIZE_i + \alpha_{12} SIZESQ_i + \epsilon_i. \] (1)

where \( RATING_i^* \) represents some unobserved measure of credit ratings associated with M&A activity; the white-noise residual and group specific term were measured by \( \epsilon_i \). Three observed values of the discrete-valued dependent variables \( ALL_i \), \( OP_i \), and \( INV_i \) were the linear cardinal measures of bank ratings. \( ALL_i \) is identically defined as having a threshold value rating from zero to four, composed of ascendant ratings that represent consisted ratings of B or below, A, AA, and AAA, whereas \( OP_i \) particularly deleted the lower value of net income. \( INV_i \), based on the investment level above BB, has a threshold value rating from zero to three, composed of ratings represented as BB, BBB, A, and AA.

This work intends to maximize a log likelihood function with reference to the threshold values, formed as follows

\[ \log \left( \text{Pr}(Y_i = j | x_i, \beta, z) \right) = \sum_{j=0}^{M-1} \log \left( \text{Pr}(Y_i = j | x_i, \beta, z) \right) 
\] (2)

where \( \text{I}(\cdot) \) represents an indicator function that illustrates the value 1 if the argument is true; 0, if otherwise. To acquire the effect of change in the covariates of each independent variable on the cell M probabilities, the ordered logit models with marginal effects can be written as

\[ \frac{\partial \text{prob}(\text{Cell M})}{\partial x_i} = [f(z_{M-1} - \beta' x_i) - f(z_{M} - \beta' x_i)] \cdot \beta \] (3)

where \( f(\cdot) \) is the appropriate logistic density function (Greene, 2002).

Data

The objective is to evaluate the impact of M&A on changes in bank rating and provide some insight into the proxies of the five categories—C, A, M, E, and L—to the CAMEL criteria and miscel-
laneous factors collected from the Bankscope database. This article underlies the availability of the parameters for setting pools of financial institutions and eliminates some redundancies. It also evaluates credit rating changes by comparing the cross section of a single year pre-M&A performance with the post-M&A performance extracted from Bankscope’s database of 36,463 financial service institutions over the period June 1989 to June 2009.

Empirical results

To examine the effects of change in ratings among financial institution M&As, this study used qualified records of M&A, which had at least a year’s Fitch ratings on both pre- and post-M&A performances, then divided the data into three different levels—the all (ALL), out-performance (OP), and investment (INV) levels in Table 1.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Pre-M&amp;A</th>
<th>Post-M&amp;A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ALL (I)</td>
<td>OP (II)</td>
</tr>
<tr>
<td>ETA</td>
<td>1.79***</td>
<td>1.63**</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.02)</td>
</tr>
<tr>
<td>ENL</td>
<td>-0.16**</td>
<td>-0.29***</td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(0.01)</td>
</tr>
<tr>
<td>ETTA</td>
<td>178.61**</td>
<td>52.19</td>
</tr>
<tr>
<td></td>
<td>(0.04)</td>
<td>(0.63)</td>
</tr>
<tr>
<td>OETA</td>
<td>134.43***</td>
<td>106.43**</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.05)</td>
</tr>
<tr>
<td>ROAE</td>
<td>-0.22***</td>
<td>-0.10</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.37)</td>
</tr>
<tr>
<td>EDSF</td>
<td>-1.11***</td>
<td>-0.81**</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.09)</td>
</tr>
<tr>
<td>NIM</td>
<td>-0.79***</td>
<td>-0.54*</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.07)</td>
</tr>
<tr>
<td>LATDB</td>
<td>0.01*</td>
<td>0.01</td>
</tr>
<tr>
<td></td>
<td>(0.07)</td>
<td>(0.13)</td>
</tr>
<tr>
<td>CRN</td>
<td>-11.99**</td>
<td>-8.14</td>
</tr>
<tr>
<td></td>
<td>(0.04)</td>
<td>(0.21)</td>
</tr>
<tr>
<td>SIZE</td>
<td>-0.47</td>
<td>1.11</td>
</tr>
<tr>
<td></td>
<td>(0.18)</td>
<td>(0.40)</td>
</tr>
<tr>
<td>SIZESQ</td>
<td>0.02</td>
<td>-0.04</td>
</tr>
<tr>
<td></td>
<td>(0.18)</td>
<td>(0.42)</td>
</tr>
<tr>
<td>LR Test (\chi^2)</td>
<td>36.3*</td>
<td>33.4*</td>
</tr>
<tr>
<td>% correctly predicted</td>
<td>64.44%</td>
<td>65.00%</td>
</tr>
</tbody>
</table>

Notes: * p < 0.10, ** p < 0.05, *** p < 0.01. Pseudo R=x^2(0.01,1)=24.72.
The equity to total asset ratio marked on the pre-M&A performances, as expected, illustrate good capital adequacy contributing to an upgrade in the probability of bank ratings, but imply difficulties in integrating the different capital structures after M&A due to the burden of the finance of the target (Altubas et al., 2008; Akhavein et al., 1997). The results show that the ratio of equity to new loan in both pre- and post-M&A settings are negative and statistically significant, except for insignificant estimations in column VI. Generally, the results of overhead expense to total assets and earnings of the total asset have a significant positive impact on the probability of pre-M&A credit ratings. This implies that most banks experience lower quality of management because the priority for cost reduction and lower asset efficiency could reduce the probability of bank ratings; however, this may not be the main strategic advantage of M&As (Altunbas et al., 2008). The negative impact of the return on average of equity, equity to deposit and short funding, and net interest margin before M&A possibly result from shifting of resources toward improvements in profit efficiency associated with the scale of M&A after a disappointing earnings performance (Akhavein et al., 1997). However, the results display a negligible impact on post-M&A activity (Chen, 2003; Altunbas et al, 2008). To capture the liquidity effect, the estimated results of the ratio of liquid assets to total deposit and borrowing (LATDB) show a significantly positive effect on M&A performance. This illustrates that an increase of LATDB lowers the possibility of hazard and promotes higher profit efficiency, leading to better credit rating. However, the result of the current ratio appears to have only a significant effect on the normal grade before the M&A, reflecting risk diversification (Altunbas et al., 2008). As expected, the significant impact of the quadratic size effect on post-M&A activity can interpret the economies of scale that create a higher probability of M&A synergy (Francis et al., 2008).

Table 2 shows an increase in the ratio of equity to total asset is associated with a decrease of 0.28 in the lower rating at the BB level. The estimated results generally point out that the equity to new loan ratio, return on average equity, and liquid assets to total deposit and borrowing show mixed signs but negligible values before M&A, while the positive effects for upgraded rating levels support our expectation of well-capitalized M&As probably accelerating their achievement by diversification. The higher value of earnings to total assets and overhead also indicates that operational efficiency and
quality management improved the ratings at higher rating levels and that these are associated with a cost-saving strategy.

The improvement of earnings to total assets appears to raise the ratings and accelerate M&A performance in terms of pre-M&A. The equity of total asset reflects the negative effect on lower level ratings but is the reverse in upgraded ratings for both pre- and post-M&A activities.

Table 2. Marginal effects on the pre-M&A and the post-M&A

<table>
<thead>
<tr>
<th>Pre-M&amp;A</th>
<th>ALL (I)</th>
<th>OP (II)</th>
<th>INV (III)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rating Levels</td>
<td>BB</td>
<td>BBB</td>
<td>A</td>
</tr>
<tr>
<td>C ETA</td>
<td>-0.28</td>
<td>0.00</td>
<td>0.28</td>
</tr>
<tr>
<td>C ENL</td>
<td>0.03</td>
<td>0.00</td>
<td>-0.03</td>
</tr>
<tr>
<td>A ETTA</td>
<td>-28.09</td>
<td>0.40</td>
<td>27.54</td>
</tr>
<tr>
<td>M OETA</td>
<td>-21.14</td>
<td>0.30</td>
<td>20.73</td>
</tr>
<tr>
<td>E ROAE</td>
<td>0.04</td>
<td>0.00</td>
<td>-0.03</td>
</tr>
<tr>
<td>E EDSF</td>
<td>0.17</td>
<td>0.00</td>
<td>-0.17</td>
</tr>
<tr>
<td>E NIM</td>
<td>0.12</td>
<td>0.00</td>
<td>-0.12</td>
</tr>
<tr>
<td>L LATDB</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>L CRN</td>
<td>1.89</td>
<td>-0.03</td>
<td>-1.85</td>
</tr>
<tr>
<td>L SIZE</td>
<td>0.07</td>
<td>0.00</td>
<td>-0.07</td>
</tr>
<tr>
<td>L SIZESQ</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Post-M&amp;A</th>
<th>ALL (IV)</th>
<th>OP (V)</th>
<th>INV (VI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rating Levels</td>
<td>BB</td>
<td>BBB</td>
<td>A</td>
</tr>
<tr>
<td>C ETA</td>
<td>-0.05</td>
<td>0.00</td>
<td>0.06</td>
</tr>
<tr>
<td>C ENL</td>
<td>0.01</td>
<td>0.00</td>
<td>-0.01</td>
</tr>
<tr>
<td>A ETTA</td>
<td>2.20</td>
<td>0.02</td>
<td>-2.38</td>
</tr>
<tr>
<td>M OETA</td>
<td>0.48</td>
<td>0.00</td>
<td>-0.52</td>
</tr>
<tr>
<td>E ROAE</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>E EDSF</td>
<td>0.03</td>
<td>0.00</td>
<td>-0.03</td>
</tr>
<tr>
<td>E NIM</td>
<td>0.02</td>
<td>0.00</td>
<td>-0.03</td>
</tr>
<tr>
<td>L</td>
<td>LATDB</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>CRN</td>
<td>0.07</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>SIZE</td>
<td>-0.30</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>SIZESQ</td>
<td>0.01</td>
<td>0.00</td>
</tr>
</tbody>
</table>

For the decreased ratio of equity to deposit and short-term funding, the net interest margin and the current ratio in the higher rating at A level make it appear that inefficient management results from poor leverage control and asset quality before M&A, whereas the improved effects of M&As are possibly the result of the shift of resources toward improvement in profit efficiency associated with the scale of the M&A.

A comparison of the marginal effect of earnings to total assets and overhead for all the three-group samples at higher rating grades on pre-M&A activities show identical results for the group samples of OP on post-M&A activities only, in contrast with the samples of levels ALL and INV. These results are close to our hypothesis that the cost-saving strategy of an M&A project derives from a significant operational efficiency to improve rating. The results clearly show that economies of scale may be connected with bank ratings of A or above for post-M&A activity.

**Conclusions**

The results illustrate that asset quality, proxied by the ratio value of earnings to total assets, has a positive impact on the probability of credit ratings accelerating M&A performance. The positive impact of overhead earnings to total assets as a proxy variable for management quality indicates that the probability of credit ratings on pre-M&A performance are associated with cost-saving strategy, but lower ratio values for post-M&A performance imply that most banks experience lower quality of management as they lay a priority on cost reduction. As expected, the positive effect of quadratic size is significantly related with the upgraded rating of M&A accomplishment, thus creating an economy of scale. The diversification of M&As accelerating the improvement of capital soundness and superior leverage management in consonance with other financial M&A studies, especially for outperforming M&A activities, the latter being associated with the scale of the M&As.
REFERENCES


ABSTRACT. Immovable property market in Albania has taken a major development after 90 years. Economic and demographic developments influenced the real estate market, which in years of the communist regime was almost not existent. Real estate prices have experienced a significant increase in these 20 years, almost doubling. The financial crisis that has included all immigrant-receiving countries has hampered the provision of income from them. Remittances was reduced in 2009 from 11.5% of GDP to 9.5%, which means about 200 million Euro less the income from migrants play an important role in the property market because about 70 percent of buyers potential apartments in our country are immigrants, also the continuous depreciation of local currency against ALL foreign currencies has led to low market demand for immovable property. About 4000 apartments were not sold during 2009.

The real estate market in Albania

The real estate is a field of investments interesting for the development country. In Albania the value of real estate is 3-4 plicate and from a study made from “The Move Chanell” a house brokering in the United Kingdom Albania is ranked second in the world in the top list of real estate.
The real estate market in Albania is developed rapidly almost in the principal cities. The major weight in this market is from housing apartments and commercial settings.

The values of apartment are increasing with 35-40% and in some particular zone are duplicated. The increase of them is more emphatic in the center of cities.

This particular place of the construction sector in the Albanian economy is connected with the fact that Albanian population is constantly in growth and the condition of resettlement and the apartment constructed in the previous regime are worse and the citizens have continuously need for new apartments for big apartments. In the other countries of the World this boom is caused from the need to buy a second house, in Albania we are still taking for the first one.

But the prices of real estate in Albania are higher taking into consideration the fact that the average salary doesn’t exceed 200 € for month.

There are three fundamental periods of phenomena political-economic and social, which had influence in the urban landscape in Albania.
• Before 1944,
• 1944-1990,
• Transition period from 1990 until 2009.

Those periods are characterized from the creation of specific form of property of urban effects and had contribute on the urban landscape, economic and ideological and the bases of each period are reflected in different architectural model of physical type and aims of constructions.
• Before 1944 the best buildings are with one floor and there are some with 2-3 floors.
• The period 1944-1990 is characterized from buildings, which are tended to the highness, and their composition is done based on “rational urbanization” with relative big urban emptiness predicted like green zones.
• The third period after 1990 is characterized from rapid variation. This period attests for one chaotic process accompanied with much problem of possession and the right to the property, in the private initiative, the exploitation of free spaces, and the property transactions without any plan or policy clear oriented.
The property categories in Albania

The principal categories of property in Albania are:

An structure with more property, property units, like building with apartments; this is the physical type who carry more properties and families for surface unit so with this is exploited in the best way the earth surface. Those surfaces are limited 50-80 m2 and this is used so in the socialist period in Albania.

The property with one structure. Before1944 it was the dominant type bright from the strong tradition when the person lived in a residence with one or two floors and all the functions was bright inside this structure. In 1945-1990 serve like solution for residence zones with low level of buildings, not threaten from urban plan of the period. After 1990 this category exists in the zones when the value of the earth like land is lower so in the peripheral zones. In the future plans one solution for the housing problem must be the zones outside dense central cities.

The property with more structures, but under one property, are determinate like different categories from the property with one structure because those are more traditional, has to do with a way of living a little of rural areas when the functions are bright in different element inside the parcel of land.

The habitant apartments market

The market of real estate is growing rapidly especially in the big cities in Albania. The biggest weight in these is from the habitant apartments and commercial stores, which are accompanied with a higher growth of prices in the last period.

The habitant apartment is the most important property for the majority of Albanian families, therefore the financial activities connected with the construction and real estate commerce represents a higher percentage of the expenditure and of the incomes of buildings companies and of the national incomes of the families, companies or banking loans. The price variations influence directly in the development or the credibility of this property in the activity of buildings companies.

The habitant apartments market was created in 1993 with the process of privatization of national buildings. In the 90’s was done the privatization of national apartments, with the reimbursement of
the total value in one rate or with monthly rate in a credit loan. In the moment when this was done they were called automatically proprietors of those apartments.

In this way commence the first’s transactions and the commerce of existing apartments. In this period the prices were influenced from the location and the high prices were in the central zones of the cities. The prices of the apartments in central zones of the cities were 70% higher than in the peripheral areas. They changed from 15000 ALL/m² until 28300 ALL/m² for the apartments in the central zones.

In April 1997 with the decrease of pyramidal schemes the habitant apartment market had big variations. The price level was changed and there was a strong devaluation of local money. The devaluation of Albanian money brought a devaluation of the market. There was a decrease of the number of apartments offered for sell so a decrease of the transactions of commerce. The principal cause of decrease of the sells of residences was the political and economic collapse that the country had passed and the high insecurity in all directions.

The price of habitant apartments had a high increase from 1994-1996 when the medium price of apartments was 290$/m² and in 2007 this price was 813$/m² in the center of Tirana, so we have an increase of 202% from 1996-2007 or 18.4% for each year.

During the period 1995-2001, big parts of constructions like habitations, hotels, edifices, and commercial constructions were financed from private investors. The infrastructure, social-cultural and sanitary objects were financed principally from public investors. The Albanian investors were more interested for financing the objects in construction sectors. The weight that they sustain was dominant achieving so the financing of 80% of them.

The housing fund was characterized from construction with a lower number of residences in them and from small constructions. The growth of housing number was outspread in villages and in towns but with a higher growth in the last. As seen from the chart real estate prices have undergone a considerable growth among years, especially in large cities and coastal as Tirana, Durres, Vlore, this prices in 2001 are 67 thousand ALL.
During the period 2002-2003, the novelty habitations price and the olden habitations too during 2002-2003 were increased up to 30% in confront with the previous years. (Data from the statistic institutions confirmed also from immovable agency). The constructions during the period 2002-2003 were in lower level, for the no-giving the construction licenses. So to increase the profits, which in accordance with the statistic institutions was decreased with 4.45%, the constructions had changed the m2 sale from dollar to Euro on purpose to profit more.

The prices varied in some zones of the capital and the coastal cities 400-450 € to 800-1000 €.

The factors, which had influenced the constructions price growth, are:

- The drop of American currency.
- The growth of construction materials costs.
- The conversion of m² sale price from dollar in Euro.

During the period 2005-2007, the sales volume in the construction sector had an appreciable drop during the 2007, meantime the prices of those sales not only had proceeded to be higher but had also expansion. Through the first quarter of 2007, the sales in the construction sectors had a decline of 1.3% in confront with the first quarter of 2005.

The construction prices had not been influenced neither from the supply growth arrival like a result of construction volume growth through the first quarter, which is increasing with 5.7% confronting with the first quarter of a previous year. By the opinion of experts this phenomenon comes against the logical market, which made that the construction price, are higher, after the supply increase also after the sales reduction.
During 2008, for the first time after 7 years the apartment prices are pegged. The financial crisis of 2008 had affected the construction sector in Albania. Through 2008 this sector is faced with the condition of a general climate not favorable for the business. The construction companies through this year had faced obstacles and numerous difficulties which had their negative effects, directly in the quantity of proceeding made, in the number of workers that they have engaged, in the incomes and also in the amount indebted and paid from construction companies. Over 700 construction sectors from 2500 registered in country scale not have no all turnover during 2008. This sector in Albania is passing through the collapse. Through the Bank of Albania for the first 6 months of 2008 signify for a real drop with 3% of apartment price.

In the zones adjacent the capital the apartments price had decrease in the level of 500 €/m² but for some companies had offered like in promotion the reduction of price with 30-40€/m².

The reasons of apartment demand decrease in year 2008 are the appreciable demand decrease of individuals within Albania, but especially emigrants demands for purchasing houses as a result of financial situation decrease, the loan request, the change of interest rate and the inflation decrease, the novelty construction are made in peripheral zones when lack the infrastructures and the standard services, which made the habitants not much preferred for the public.

During 2009, the economic crisis consequences continue to deep. The economic development cadencies are decreasing from 6.3% to 3%. Also incomes from migrants are an important factor in the crisis that has included real estate market. The financial crisis that has included all immigrant-receiving countries as well as all other countries of the world has hampered the provision of income from their and consequently the percentage of commission that bank transfers by migrants is lower than a year ago, year in which the financial crisis had not fully affected countries. Remittances were reduced in 2009 - from 11.5% of GDP, to 9.5%, which means that approximately 200 million Euro less are available for Albanian consumers. About 70 percent of potential buyers of apartments in our country are migrants, who with their money through loans or buying a home, which rent and continue to work in neighboring countries. But now, they feel affected by the effects of the crisis, jeopardizing jobs, or not providing enough income to buy an apartment. As a result you can say that the construction sector is the sector hit by global economic
crisis. The prices increase was noticed in 2009, is like effect of currency depreciation against the Euro, because real estate prices in Albania are only in Euro

Chart 2. Price housing index.

![Price Housing Index](chart)

Source: Bank of Albania.

**Conclusion**

The general crisis will allow his effects also in the immovable market. The apartments value will be increasing but not in the nowadays level. The construction business is in crisis and the number of apartments is decrease with 60%. The growth of the business company’s license will not influence in the quantity increment of apartment throw into the market. The apartment value will have growth but maybe not in the obvious level still now. It accentuates the apartment price in specific zone (in process on in conclusion) which still now had a growth 10-15% in confront with the price in the beginning of the construction). The growth of the business company’s license will not influence in the quantity increment of apartment throw into the market. The demand will be in growth (are continuing the demographic movements meantime in the last two years is remarked a higher purchase of apartments from emigrants)

The same thing is to say about the services ambient price like store studio and other activities. The apartment and store ambient price will be reflected on the price growth of lands. For the industrial objects is forecasting that for the other two years will be value growth. This will come like the results of land value growth. Is accentuated the fact that the land value growth was higher that the capital goods objects amortization. Many businesses now are con-
solidate and had changes her activity in production activity. Like a consequence will continue to increase the value evaluating like a business and not only like an asset.

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THE TAX AUDIT – PROCEDURAL ASPECTS
AND CONSEQUENCES

GEORGE MIHU
george_mihu@yahoo.com
Spiru Haret University

ABSTRACT. Tax audit involves framing into insufficiently structured laws and this may affect the relationship between rights and obligations of the parties involved in this process. In this document, we follow the analysis of the regulatory framework governing this scope, completion procedures and consequences of tax audits, focusing on some insufficiently structured laws, which may affect the relationship between rights and obligations of the parties involved: taxpayers and tax authorities. Clearly, the two participants have antagonistic positions towards the goals they pursue and, from this perspective; the proper conduct of relations requires compliance with good faith and exercise their rights. Central axis of this exposure is represented by the provisions of Title VII - The Tax Audit of the Fiscal Procedure Code, although the tax audit settlement, on some occasions more or less specific, is also found in other articles of that referential normative and other normative acts, which we’ll refer, even if only tangentially, in the following chapters.

Pre-procedural Aspects of Tax Audit

Tax audit objectives and functions are quite accurately defined in art. 94 of the Fiscal Procedure Code and, as such, I consider that an analysis is required of them in full. In terms of the form in which it is carried out, the tax audit can be general (refers to verify all the tax liability of taxpayers for a given period of time) or partial (refers to checking one or more of taxpayers' tax liabilities for a given period of time). General trend of conducting tax inspections is specific to developed countries, with a coherent and well "articulated” tax system, representing the tendency to standardize the exercise of fiscal
control, while the partial control is encountered in the countries which have a “disintegrated” tax system, with separate administrations on different types of taxes. Although, generally, mainly due to the large volume of activity, random (or selective) checks are made, where it reveals irregularities, the tax audit is necessary to be extended to all documents and accounting records to accurately quantify the taxpayer's tax liability.

Starting tax audit by the fiscal authorities should be preceded by the establishment of a procedural act in this sense, called the tax audit notification, according to regulations stipulated in art. 101 (on how to draw up and fill in the notification) and art. 102 of the Fiscal Procedure Code (relating to procedures for communication of the notification in question). Commencement of the tax audit therefore depends on the drawing up of the notification - which must contain all items specified in Art. 101 par. (2) F.P.C. – and its communication within the time specified in the law, terms that are differentiated (30 days/15 days) depending on the taxpayer (large contributors and the other categories of taxpayers). According to Art. 100 F.P.C., selecting taxpayers to be subject to tax audit is the exclusive attribute of the competent fiscal authority, the taxpayer not being able to make objections in this regard, but having the opportunity to postpone, for one time, the start of the tax audit, and only for valid reasons.

In this context, the question arises whether the tax audit opinion can be appealed by taxpayers? Given that it is, in substance, a fiscal administrative act, may the absence of its formal requirements imposed at normative level, regarding the material and temporal limits, lead to procedural invalidity of the act? The analysis of the law does not disclose the existence of such possibility and, therefore, the possibility of objection by the taxpayer can be exercised only at the end of the tax audit, and only concerns the results of the audit. In support of these considerations also comes the possibility granted to the fiscal body to further extend the subject of a tax audit in relation to its right to review all relevant reports for taxation; in this case the taxpayer's consent is not required, but only its information.

The art. 102 par. (2) F.P.C. contains four situations in which the communication of the tax audit is not mandatory. The analysis of the text reveals that tax authorities cannot extend the cases restrictively listed in this article. According to par. (3) of the aforementioned article, that, during a tax audit settlement of a request from the
taxpayer, the tax auditor may decide to conduct a general or partial tax inspections, case in which the taxpayer cannot object to it, and in which the aforementioned communication is purely formal.

In practice the following scenario it may occur: a taxpayer claims the refund of VAT, but, until the tax audit (usually partial, value-added tax applied to reimbursement), the taxpayer notifies the tax authority that he waived his request. In this context, the next question arises: if the tax authorities want to do that tax audit, could they proceed without proper preparation and communication of it? Our answer is negative in that sense because we do not find in any of the situations provided by art. 102 par. (2) F.P.C. In this case, the taxpayer’s refusal to allow access to the tax authorities in conducting the inspections can be classified as a felony under art. 5 of Law no. 241/2005? Again, the answer is negative since the compliance of the taxpayer must be preceded by the compliance of the tax authorities. In other words, taxpayer obligations for submission of documents, books, records, business documents and any other documents (according to Article 56 par. (1) F.P.C.) cooperation (according to art. 10 F.P.C.), information supply, according to art. Article 52. (1) F.P.C.) collaboration for determination the tax status quo (cf. art. 106 F.P.C.) arises only after the fulfillment by the tax authorities of their duties.

If, however, by the verification of the taxpayer's tax file as a result of his request for reimbursement of VAT, there is an evidence of the felony of tax evasion (for example, in form 394 are enrolled as providers companies with a recognized ghost type) - this is why the waiver request was voluntary, as a result of "risk" reevaluation- how tax authorities should proceed in an efficient way to prevent the risk, “volatilization” subsequent to the taxpayer and its financial and accounting documents? In this case, tax authorities can proceed to make an unannounced inspection, its materialization not being found in a tax audit report, but in a minute, and, depending on the findings made, the tax authorities may raise some primary documents of accounting (30 days term) and at the same time, submit tax audit opinion (the start of inspections within 15 or 30 days, as appropriate, depending upon the taxpayer quality), to be subsequently carried out in compliance with such procedural rules.

Before starting the tax audit, the tax payer is required to submit a ticket and service order, to enroll in the single control register start-
ing date and tax audit objectives, which must be consistent with those specified in the notice of tax audit.

Regarding to those explained the above, see also art. 7 par. (1) F.P.C., Order of the President of ANAF no. 713/2004 (on approval of the Charter of rights and obligations of taxpayers during tax inspection) and the Decree of the Minister of the Public Finances no. 1422/2006 (on the form and content of the documents used in tax audit activity).

**Procedural issues relating to tax inspection**

In practice, the most controversial issues raised were regarding the period subject of the tax inspection. As a general rule, the tax audit is carried out within the period of limitation of the right to determine the tax liability. In addition to this general rule, applicable to all taxpayers, we distinguish the following situations with a particular character:

- If the tax liability results from the commission of criminal acts, the verification is extended to the previous 10 years. This raises the question whether the tax authority is authorized to do so. In other words, does the fiscal body, as administrative authority have this right (when indications of committing criminal acts are found, with implications for the tax liability of taxpayers) or is the exercise of this right subject to a prior finding by the judicial organs? Although literature reviews are mixed, we appreciate that tax authorities have this right by default, where there is clear evidence of an offense being committed under the criminal law.

- As the large contributors are concerned, the period audited begins at the end of the previously controlled period, within the limitation period of five years.

  For the other categories of taxpayers, tax audit is carried out on claims arising in the last three fiscal years, for which tax returns are required to be submitted, and may extend throughout the entire period of limitation in the following situations:

- There is evidence of reduction of taxes, contributions and other amounts owed to the general government.
• Tax returns were not filled out within the period of limitation.

• The obligations to pay taxes, contributions and other amounts owed to the general government were not fulfilled.

The situations referred to in Article 98, par. (3). b) and c) F.P.C. should be known before the start of tax audit, from the vector data base and the taxpayer’s file and, consequently, brought to the taxpayer’s attention before a tax audit, by the very way of filling out the tax audit notification. Indeed, the situation referred to in art. 98, par. (3). a) F.P.C. cannot be predicted before the start of tax audit, only being subject of confirmation during the course of such verification. In this context, the following question arises: if there are signs of reducing tax obligations, can verification go up to the statute of limitation, even if there is another control measure for the previous fiscal period in question? Starting from the principle of the uniqueness of the tax audit, this is only possible if there are additional data relevant to determining the actual fiscal situation of the taxpayer and not known to the tax body at the time of the initial verification. If this is the case, the fiscal body shall draw up a reasoned report and the head of the tax authority assesses the opportunity of a new verification, drawing up, if necessary, a decision on the subject, which shall be communicated to the taxpayer. Practice and literature have noted that the recommencement of the tax audit cannot be based on reasons of negligence or carelessness of the fiscal body, these being attributable solely to it.

At this point it is necessary to distinguish between re-checking and recovery of tax audits, concepts that are often considered, unreasonably, equal. There are obviously similarities, but the differences between them are essential. Thus, the competent body to decide is the head of the fiscal inspection (under the conditions specified in the aforementioned paragraph), while restoring the tax audit is the result of an appeal against the administrative decision of the tax settlement (issued under tax audit report). Practically, the competent body to decide if the tax audit will be repeated is the body responsible for addressing the dispute in question. The similarity between the two concepts is that the effect is common: drafting a new tax audit report and, based on this, a new tax assessment decision. The duration of the tax audit is maximum 6 months for large taxpayers and those who have secondary places of business and
maximum 3 months for all other taxpayers, even though the law does not establish penalties for the fiscal authority if such terms are exceeded. If in the case of the deadline for notification and the inspection period the law does not distinguish the taxpayers who hold secondary places of business, the same thing cannot be said about the length of tax audits, meaning that they are assimilated in this respect to the large taxpayers. In the context of this analysis we will also consider art. 34 F.P.C, on territorial jurisdiction for the administration of the payment obligations incumbent to secondary locations.

Terms and conditions for suspension of a tax audit are set by ANAF President Order no. 14/2010. In this sense, if we find the fulfillment of one of the conditions stipulated by legislative act, the tax will make a reasoned report, subject to approval by the Head of Service Coordinator and by the tax inspection head, ensuring that, at the completion of tax audits, to will be annexed to the tax audit report. The new bill has eliminated, as grounds for suspending the tax audit, the request for clarifications / opinions from the specialized departments of the Ministry of Finance. It also notes that a taxpayer may request a suspension of a tax audit, for duly justified reasons, only once, however the fiscal body may take this action whenever deemed necessary (but obviously in agreement with the conditions and requirements of art. 2 of the ANAF President Order no. 14/2010).

The period of the tax audit will circumscribe to the taxpayer’s business hours, carrying out tax audit work program involving both the taxpayer's written consent and the approval of the head of the fiscal body. The location of the tax audit refers to the taxpayer's place of business’ premises. In this case, we must consider the art. 80 F.P.C. on the rules of accounting and tax management, according to which the tax and accounting records will be held, if applicable, at the fiscal residence of the taxpayer, its secondary locations, also through electronic means, or can be entrusted to a company authorized by law to provide archiving services. This is why the requirement of declaring within 30 days of the establishment of a secondary office (either in or outside the country) acquires new connotations. This practice becomes operational either through the submission to the competent fiscal authority of the tax declaration according to art. 75 par. (2) F.P.C., either of the declaration stated under art. 77 par. (1)
F.P.C., if their establishment takes place after the tax registration certificate issued, within the period of 30 days.

What happens if the fiscal body determines either the submission of the aforementioned declaration after the expiration of the 30 days term, either the absolute non-compliance with this requirement? Deviation, in this case, as a general rule, constitutes a violation governed by art. 219 par. (1). a) F.P.C. But if that act was committed in order to avoid being submitted to a financial, fiscal or customs verification, we find ourselves in the circumstances foreseen in art. 9 par. (1). f) of Law no. 241/2005, under which tax evasion is a criminal offense.

Avoiding financial verifications, tax and customs by giving fictional or inaccurate data on primary or secondary offices of people checked in the context of the analysis will be investigated also the provisions of OMEF no. 2296/2007, for approval of tax forms for taxpayers (whose provisions came into force from 01.01.2008) and the Official Gazette no. 419/2007 for the approval of change of the registration procedure of the main office and of the fiscal office.

Those presented in the previous paragraph are relevant in terms of local tax inspection, since it should coincide with the location of the taxpayer is required to keep tax documents and financial accounting. From this perspective, the ability of taxpayers to keep their records including the subsidiaries, may occur in practice some controversial statements on the venue tax audits and competent body to carry it out.

Suppose a company with headquarters in Bucharest (city not engaged in any economic activity), opting to keep accounting records and secondary tax on its premises, say, Timisoara (where not only a very small place part of the work) and most substantial part of its activities are carried out at its side in, for example, Botosani, which is competent in carrying out the tax audit? It is understood that the situation is more complicated if the secondary office is located documents are held outside the country (said otherwise in advance, the tax authorities, according to legal procedures to which I refer above), which in this case is how the tax audit? Answering the above questions is found in art. 56 par. (2) F.P.C., under which tax authorities may request the release of the documents available at its fiscal domicile or the person, required submitting them. Also, both the Fiscal Procedure Code (according to Art. 50), and its detailed rules on the application, provide the opportunity given to ask the tax
authorities, whenever necessary, the taxpayer's presence on its premises, without delineate the circumstances in which tax authorities can done so of their own, which, at least in theory, can give rise to conflict situations.

Given the foregoing, it is noted and the procedure for amending the tax residence of the taxpayer's motion, approved by the A.N.A.F President Order no. 526/2004, approving the form and content of the following forms:

- Decision to request registration of the tax residence of the taxpayer, provided in Appendix. 2 of the A.N.A.F. President Order no. 519/2004.

- Notice of change of tax residence of the taxpayer's office, provided in Appendix. 3 of the A.N.A.F. President Order no. 519/2004.

- Decision on change of tax residence of the taxpayer's office, provided in Appendix. 4 The President A.N.A.F. no. 519/2004.

In this respect, the procedure for amending the taxpayer's fiscal residence is to be initiated by the fiscal body in whose jurisdiction the taxpayer has established the new fiscal residence (taking into account the definition of the fiscal residence in art. 31 F.P.C.); without the fiscal authority filing the application thereof, in the form of a statement of claims, according to Art. 77 par. (1) F.P.C.) Tax authorities concerned shall prepare a notice of motion to amend the fiscal residence of the taxpayer which, under these circumstances, replaces the fiscal residence registration form. This aspect has practical relevance by itself, since some companies carry out this method of "dissipation" of fiscal registration, with the scope of delaying the fiscal authorities’ efforts to establish their actual fiscal condition, in accordance with their management and evaluation of the evidence provided in Title III, Chapter III, "Administration and assessment of evidence" of the Fiscal Procedure Code.

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Orders issued by ANAF President.
ABSTRACT. Romanian fiscal system reform made by rewording the tax code and building a modern tax system based on new principles, adapted to the trends and achievements specific to the European Union, is the main goal in state reformation. Lately, in Romania, it has been discussed more extensively at the political-decision level, about the need to reform the state. This general reform included the judiciary reform, the education reform, the reform of public health and so on, but nobody talked about the imperative reform needed to support all other reforms: the Romanian tax reform, that, due to premature aging, has become an obstacle both in strengthening and modernizing the State, and to the business community and other taxpayers.

Romanian Tax Code and the Need to Reform the National Tax System

If the tax reform will be started, we should not forget that it should necessarily be based on Law no. 571/2003, the enactment of taxation in Romanian. In this idea, not only rewriting and redesigning the Tax Code should be mandatory, but even rethinking and restructuring the foundations of modern principles, similar to those adopted in most developed countries. This will replace the four principles fallen into abeyance, presented in Tax Code, Title I, Chapter II, art. 3.

The mere listing and reading the four principles mentioned, namely: Neutrality, Certainty of taxation, Tax equity, Tax efficiency and comparing them with the principles of taxation that are found both in the international literature and international law make us
understand why the tax code should be completely rethought and restructured.

The way in which basic principles of taxation are set out and defined in the Romanian Tax Code, and the lack of truly modern principles really are causes of backwardness of the domestic tax system in comparison with the Tax Codes of other countries. Tax neutrality as defined by the Tax Code is the only principle that has a definition at all comparable with the one found in the literature. Certainty of taxation is a principle that is not listed among the principles on which functional tax systems are constructed, and its definition is rather reminiscent of the principle of simplicity, proving (and generating) confusion.

Tax equity is narrowly defined and it regards the individuals, this definition being at variance with the core of direct taxation in Romania – the flat tax. The efficiency of taxation, as defined by the Tax Code, has nothing to do with the principle of economic efficiency, even more, it is generally confused with the stability of the tax laws (the principle of stability), and its definition lacks economic logic. Most European countries have built national taxation systems based on modern principles. The same principles and / or similar ones, govern the European tax law already use or they are applied in drafting legislation that will be adopted in the foreseeable future of a common EU tax.

Alignment with the trends and achievements of the European Union represents a requirement and a legal necessity for Romania, as a community member. This means that modernizing the tax system and correlate it with other European tax systems must be made as quickly as possible. Below we’ll present the most important principles of a modern tax system as it appears in the international literature and we’ll discuss about the possible implications of the introduction (or not) of these principles in the Tax Code.

**Principles of a modern system of taxation**

The most important principles on which a modern tax system is built and assessed are:
Principle of profit

Other manufacturers or suppliers can also supply where goods and services provided by government, or where only a part of the population benefits of such goods and services, a fee may be collected from it in exchange for consumption of these goods or services. This is principle of profit. Consumers through paying taxes and contributions can make the financing of such goods or services directly or indirectly. Examples of such taxes and contributions: road tax, local tax for public domain occupation, social security contributions.

Keeping this principle would require the inclusion of social security contributions and health contributions in the Tax Code, giving it unity. Moreover, adopting the principle of profit and health and social contributions in the Tax Code would lead to their transformation from contributions to the “solidarity” funds into fiscal contributions, which would involve a change of mentality in the sense in which a taxpayer must recognize that it can benefit of health and social services only directly proportional to the amount paid for their purchase.

“Ability to pay” principle

Under this principle, the state budget revenue should reach the taxes that each taxpayer has a duty to pay in accordance with his ability to pay. This principle allows the government to exercise its functions of income redistribution. Unlike the principle of profit, taxes are not made in direct connection with the provision of public services. This principle does not specify the exact relationship between taxes paid and the taxpayer's income, but assumes that this relationship is positive.

In essence, a specific feature can be printed to a tax system to help us determine the relationship between the tax and the realized by the taxpayers. From this point of view, a tax may be:

a) proportional, when the income tax rate remains constant, even if it grows;
b) progressive, when the income tax rate increases as the income increases;
c) regressive, when tax rate decreases as the taxable income increases.
This principle is going to replace the so-called “principle of tax fairness,” thus realizing, on one hand, the uniform application of tax provisions for individuals and for legal or other entities and, on the other hand, a correlation could be made between flat or progressive and regressive tax arrangements that could be adopted in the future with the basic principles of a modern tax system.

The principle of economic efficiency

A tax or a charge increases a product’s price by adding a percentage of this price (tax calculated ad valorem), or by adding a fixed amount (or specific tax per unit) at the initial price. This creates a difference between the amount that consumers pay for a product (enquiry price) and economic resources necessary for production cost (bid price). When such a levy is introduced to compensate another market externality, it will create a distortion that will affect the behavior of producers and consumers.

Such market distortions caused by taxation (due to changing behavior of the consumers / producers) creates a loss of economic efficiency. The size of this loss depends primarily on price elasticity of demand and supply of goods whose markets are distorted already by the introduced tax rate. The price elasticity of demand or supply is higher when the inefficiency introduced by the new tax on the market is greater. High charge also creates higher costs in terms of economic efficiency. A charge is properly established in terms of economic efficiency if the loss is small. Taxes such as income tax or taxing the good or service that are inelastic in demand tend to have less impact on the producer or consumer behavior, and therefore produce less distortion in the market.

Economic efficiency is an important agent when constructing a tax system. Introducing economic efficiency in the Tax Code would impose a limitation on the number and nature of economic criteria of the taxes, which would be adopted by law, made only after thorough research on their impact on the real economy. Mathematical models would become mandatory working tools for professionals that are called upon to make proposals for introducing new taxes and the taxes with no significant effect or even negative impact (such as flat tax or the minimum one) will not have a place among the tax laws. The correct understanding of this principle would lead to accepting the idea that a reasonable level of taxation and a tax system based on
the minimum taxes distortion of the internal market economy mechanisms would diminish or even eliminate significant economic inefficiency generated by the current tax system.

The principle of economic growth

A modern system of taxation should produce and accelerate the growth of a country. It occurs primarily by increasing people's savings and investments in activities targeting a high income. Also, the tax system must not create a disinterest towards work. Well-designed tax systems should encourage economic growth in most industries.

Principle of correlating the tax revenue with budgetary needs

Income taxes collected for the state budget depends on the size of the tax base and level of tax rates used. Taxes and fees implemented must be the most suitable and large enough to finance the government needs for a certain period of time. In other words, whether is necessary to waive a tax or lower one’s rate, the tax system must be flexible enough to allow either the introduction of other taxes or increase the rates of others so that the distortion produced in the economy to be minimal and the income from taxes and government fees remain high enough to cover its needs.

If the income taxes are not high enough to meet the needs of the government, then the government is obliged to resort to loans, sale assets, and slow implementation of development projects or even to print money. The lack of this principle from the Tax Code and, therefore, its inobservance, conscious or not, has led to macro-economic imbalances that have become even more evident in the context of economic global crisis. Romania has been obliged to resort to IMF and the European Union loans (which will be repaid, with appropriate interest, from future tax revenue) to implement unpopular projects of massively reduction of current spending and to defer, to stop or even to abandon important projects of investment in superstructure.

The only thing that the Romanian government did not make (yet!) is money printing. Regarding this decision, the National Bank had an
important role, because it advocates strong anti-inflationary monetary policies.

**The principle of stability**

As tax revenues correlation with the budgetary needs is important in financing government needs, stability of income made from taxes is important in maintaining the continuity of a country’s fiscal policies. If the income made from taxes is not stable and it fluctuates from one year to another, the government programs will be negatively affected. When incomes lower, the profit that can be made from previous investments also decreases, because the maintenance costs of these investments cannot be covered. Moreover, instability of the incomes can produce a poor implementation of the new development program. This means time delays and cost increases or even abandonment of these projects.

Tax system should allow an increase of incomes from tax in a rate equal to or greater than GDP growth. To ensure this, the government should use appropriate fiscal policies and should include revenues obtained from the expanding sectors of the economy on the basis of taxation. Stability of tax laws and tax rates is necessary not only to the Government but also to the business community and other contributors. Constant rates and taxes laws changes create difficulties for the investors in long-term planning. When the tax system is structurally unstable it becomes a source of risk and generates economic inefficiency, both now and in the future.

As it can be seen, fiscal stability is important for both the state and the taxpayers, and sometimes it is even more important for a government, which wishes to operate in long-term development strategies that require the creation of multi-annual budgets. Without a real fiscal stability and in the absence of the principles of stability, multi-annual budgets are nonsenses, and the current provisions of Art. 4 of Tax Code become ridiculous.

**Principle of Simplicity**

A tax system should be simple so those taxpayers easily abide it. Simplicity should be applied for both the level of tax laws and the level of administration. The simplicity of the tax system helps in
promoting better and effective administration of taxes and fees. A complex tax system can generate, on one hand, disproportionately high compliance costs for taxpayers and, on the other hand, can bring high costs of collecting and administering taxes. For this reason, setting a clear and simple tax law is absolutely necessary, and taking this principle into the Tax Code would create the legal basis necessary to achieve this goal.

The principle of low costs for administration and compliance

As long as tax revenues are collected primarily for financing the Govern's needs, high costs of collecting taxes reduces the Net income available. A good tax system requires low administrative and compliance costs. If these costs are an important part of tax revenues, tax system should be restructured in accordance with this principle, when the collection and administration costs are higher than the revenue from the imposition of a tax, it is necessary to give up that tax and the introduction of this principle into the Tax Code would create the legal basis for it.

Principle of Neutrality

One state tax system should not create major distortions in the behavior of consumers and producers. A levy or tax should not change investors' decisions by favoring certain types of investments and disadvantage others. If the neutrality of tax system is respected, then one of the main demands of foreign investors is satisfied, and this is paving the way for major capital investment that Romanian economy so desperately needs. It is obvious and well known that the simple acceptance of principles does not mean compliance. However, if the principles, on which the modern fiscal systems are constructed, that were described and discussed in this article will be introduced in the Romanian Tax Code, the first step towards achieving a real tax reform has been made. This will improve the economic activity - financial, business development.

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ABSTRACT. Prescription is designed for protecting public interest by removing uncertainty in legal relations and can become a civil sanction directed against the holder of a civil right.

Legislative Considerations

In the present state of legislation, laws regarding the institution of prescription in tax ratios are presented in Decree no. 167/1958 regarding the prescription of extinction, republished, which is the law in this area, the G.O. no. 92/2003 regarding the Fiscal Procedure Code, republished, with subsequent amendments, and in the provisions of G.O. no. 2 / 2001 regarding the legality of contraventions, amended and supplemented.

De lege lata, extinctive prescription is regulated as a legal institution of public policy, designed for patronizing the general interest, which means it removes the uncertainty of civil legal relations and it ensures their stability. In civil law, the prescription appears to be a penalty against the passivity of an individual civil right holder. This aspect is to determine what prescription is for the tax law. Thus, in tax law, the prescription is described as a penalty against the passivity of the fiscal body to determine tax obligations and to seek enforcement of tax claims, and, also, as a sanction against the passivity of the taxpayer to request compensation or restitution of tax claims.

From this point of view, we show that the prescription has a mobilizing function, stimulating the rights holders to exploit these
rights in terms established by law. Prescription of the right to determine tax liability shall be governed by Art. 91-93, Chapter II, Title VI of the Tax Procedure Code, and the prescription of the right of law enforcement and of the right to seek compensation or refund is found in art. 131-135, Chapter VII, Title VIII of the same Code. Prior to the Tax Procedure Code, the prescription of the fiscal control body right to establish tax differences was governed by Chapter V of G.O. no. 70/1997 regarding to fiscal control, with subsequent amendments, and prescription of the right of law enforcement to seek compensation or reimbursement amounts is based on its budgetary obligations by GO no. 61/2002 concerning the collection of budgetary debts, republished.

This aspect is important in applying the law in calculating the basis of prescription in the sense that art. 231 Tax Procedure Code provides that the current limits on entry into force of this Code (n.n. 01.01.2004) is calculated according to the law in force at the date when commenced.

The Prescription Term Regarding the Fiscal Body Ability to Establish the Tax Liability or to Apply Fines

Prescription Period

We can define the prescription period as the time limitation, established by law, within which the fiscal authority must exercise the right to determine tax liability or to impose fines, under penalty of losing the possibility to determine tax liability or to impose fines and, thus, to obtain an order for the debtor to pay those debts.

Regarding the fiscal body right to establish tax liabilities

According to art. Article 91. (A) and (2) F.P.C. the fiscal body right to determine tax liability is extinguished within 5 years, unless otherwise provided by law, and this period begins to run from 1 January of the following the year after the one in which tax receivable arose under Art. 23, if the law doesn’t provision otherwise.

Art. 23 provides that, unless the law provides otherwise, the right of tax liability and the corresponding tax obligation are born in the movement when, by law, the tax base they generate is constituted.
That’s the time when governing body has the right to establish and determine fiscal tax liability due. Regarding the right of the fiscal body to assess tax liabilities resulting from the commission presented in the criminal law, art. 91. (3) and (4) of the Code provides that it shall lapse within 10 years, a term which begins on the date the crime is made.

Previously, according to art. 21 O.G. no. 70/1997 on fiscal control, with subsequent amendments, and art. 184 O.G. no. 39/2003 on procedures for local budget debt management, fiscal control or law enforcement, where appropriate, specialized services of local authorities that have to determine differences in taxes and late payment penalties for failure to pay within term, and to find violations and impose fines and penalties are prescribed as follows:

- **Within 5 years from the date of the deadline expiry** for submission of tax return for that period.
- **Within 5 years after the last legal deadline for payment of tax**, if the law does not require submissions.
- **Within 5 years from the date of submission to the taxpayer**, the tax established by the tax authorities or, where appropriate, by specialized services of local authorities as provided by law.

**Regarding the fiscal body right to apply fines**

According to art. 13 O.G. no. 2 / 2001 regarding the legal status of the contraventions, as amended and supplemented, subject to special laws that can be provided and other prescription limits that can be made for application of sanctions, provides that the fine sanction is prescribed within 6 months from the date of the deed and, if violations continue, 6-month from the date of the discovery of the deed.

When the deed was prosecuted as a crime and it is subsequently determined that it is an offense, the limitation of applying the sanction will not run all the time in which the case is in front of the investigation or prosecution body or before a court, if the notification was made within a period of 6 months from the date of the deed or 6 months from the date of discovery of the offense, if violations continue.
Prescription penalty is not operating if the sanction hasn’t been applied within one year after the commission, or discovery of this act, if the law does not provide otherwise.

Suspension and interruption of the prescription period of the fiscal body right to determine tax liabilities

According to art. 92 par. (1) F.P.C., the time stipulated in art. 91 is interrupted and suspended in cases and under conditions set by law for the interruption and suspension of the prescription period of the right to act according to law, and according to par. (2), the prescription period of the law establishing the tax obligation shall be suspended for the period between the start of the tax audit and the moment the decision of carrying out the tax due is issued.

Currently, the suspension and interruption of the extinctive prescription can be found in art. no. 13-17. Decree no. 167/1958 regarding the extinctive prescription, republished.

Prescription Suspension and the effects of suspension

The extinctive prescription suspension means a modification of its course that is stopping the flow of prescription period as it takes for certain situations, limited by law, which make it impossible for the holder to act.

Causes of the suspension have two important legal characters. First, they are legal and they are determined only by law and not by the parties. On the other hand, they are limited to the strict interpretation and application, so that they cannot be applied by analogy; they produce legal effects (ope legis).

According to art. 13 of Decree no. 167/1958 regarding the extinctive prescription, republished, the limitation period is suspended:

- The period of time that against which it flows is prevented by majeure force to make acts of interruption.

- During the creditor or debtor is part of the Romanian Armed Forces, and they are put on a war footing.
• Until the resolution of the administrative complaint made by one entitled, with respect to compensation or refund under any contract of carriage or the provision of postal and telecommunications services, but no later than the expiration of 3 months counting from complaint record.

Regarding the majeure force, remember that this includes circumstances that occur independent of human will and the doctrine and jurisprudence recognize that it is an absolutely unpredictable event and absolutely insurmountable, such as a natural event (or otherwise) such as an earthquake, a flood, a catastrophic fire, a conflagration.

To produce the suspension of the prescription period it should cover the major force,” against whom the prescription runs” of the holder of the action. He must prove that that fact created a hurdle that could not and it was not possible under the circumstances, to remove him to do “acts of disruption”.

Regarding the cause of suspension governed by art. 13 letter. b) of Decree no. 167/1958 regarding the extinctive prescription, republished, note that either the lender - the right holder or the debtor a fortiori, the suspension will work if both are in this situation at the same time.

The Effects of Suspension

According to art. 15 par. (1) of Decree no. 167/1958 regarding the extinctive prescription, republished, “After the termination of suspension, limitation resume its course, considering the time passed before being suspended.”

In the light of these provisions, results that:

• For the previous case, the suspension does not cause any effect, and the time passed between the beginning and date of prescription is used to calculate the prescription period.

• During the case of suspension, the effect is to stop prescription period and this period is not included in the calculation of the limitation period.

• After the case of suspension, prescription resumes its course, considering the time and before being suspended.
Basically, if there has been a cause for suspension of the prescription period in fiscal body right to determine tax liability, the time by which action can be launched down the tax liability is done by adding the duration of the applicable prescription period, considered by the date on which the prescription period began to run, by the interval of time the suspension lasted.

Thus, if the limitation period of 5 years for income tax obligations representing salaries for the month of June 2004 began to run from January 1, 2005 and on September 1, 2006 has been a cause for suspension, the prescription rate ended on 1 November 2006, so the suspension lasted for two months, and the fiscal body of prescription period that assess tax obligations will be fulfilled on March 1, 2010.

**Prescription interruption and its effects**

“The interruption of the extinctive prescription means amending its course consisting in the removal of the prescription period elapsed before the occurrence of an interrupted cause and the start of another prescription.”

According to art. 16 of Decree no. 167/1958 regarding the extinctive prescription, republished, prescription is interrupted:

- By recognizing the right of action which is prescribed, being made by the person for who the prescription brings benefits.

- By an application for court action or arbitration, even if the application was brought to a court or an arbitration, incompetent body.

- By beginning an enforcement

  Prescription is not interrupted, if the process has terminated, if the application or enforcement of summons was dismissed, canceled or if it is outdated, or if the person who did it withdrew it.

  Thus, as an example, consider that the prescription period for the fiscal body to determine tax liability is interrupted by the taxpayer submission of tax after its legal deadline, which means that the taxpayer voluntary recognizes the tax payable, paying all or part of it, or by an organ performance by implementing enforcement (injunction).
The Effects of Interruption

In accordance with art. 17 of Decree no. 167/1958 regarding the extinctive prescription, republished, "interruption of the limitation period began before that the fact that has stopped it encountered.

After the break, a new prescription begins. If the prescription period was interrupted by a summon or request for arbitration or a new act of execution, the new prescription shall not begin as long as the decision to accept the application has become final or in case of enforcement, until the completion of the last act of execution. So, to these provisions, it appears that interruption of the limitation has the following effect:

- **Before the interruption occurred**, the prescription is removed, defaced, as if it never existed.

- **After the cessation of the cause of interruption**, a new prescription begins to run, as well as a new period of prescription.

Effect of the expiry of the prescription term of the right to determine tax liability

According to art. 93 F.P.C., if the tax authority notes the end of the prescription right to assess tax liability, it will proceed to the termination of the procedure of issuing tax debt instrument.

In the light of these provisions, the termination procedure of issuing the debt instrument has the effect the end of fiscal body right to determine tax liability to the taxpayer.

Consequently, in calculating the expiration of the limitation of the right to assess tax liability, consider the following elements as relevant:

- Limitation period applicable to this case.

- Date from which this period starts to run and if it began to run under laws previous to the Tax Procedure Code. In this case the calculation is made according to those rules, or is commenced under the Tax Procedure Code.
• If it has or not a cause for suspension or interruption of the prescription rate.

• According to the laws that determine when the limitation period expires.

On calculating the period of limitation of the right to assess tax liability for years, the provisions of art. 101 par. (3), Civil Procedure Code. So, the year deadline expires on the appropriate day on which the period began to run from last year. We appreciate that, in virtue of a logical legal rules, investigation and resolution of exceptions should be based on the effect they have to others.

In the case of disputes, assuming that the system of executive review the contestant invokes jurisdiction, except for prescription and except for lack of standing, it will give priority to solving the exception of the proceeding without jurisdiction. To the extent that it is rejected, the competent solution body will consider the lack of standing. This analysis can be done because the prescription can be modified in the sense of disruption and / or suspension, and these changes must be analyzed in relation to the person against whom the prescription term passes, so this has to be a person that has standing.

REFERENCES

Fiscal Procedure Code.
ABSTRACT. The objective of this paper is to examine the impact of corporate governance on the risk of banks. A sample of twelve listed bank holding companies has been examined over a ten-year period (1996-2005). Based on the panel data analysis, separate board leadership structure, higher proportion of independent directors, smaller size board, lower director ownership, higher institutional ownership and higher block ownership seem to have lower risk. The study applies the agency theory. All findings except director ownership are in line with theoretical expectation. It might be due to three main reasons discussed in the paper.

Introduction

Issues of corporate governance have emerged with the birth of the corporation and hence they are not new issues (Vinten, 1998). However, it becomes an attractive issue in Asian countries, including Malaysia in late 1990s following the 1997-1998 crises (Cheung & Chan, 2004; Tze, 2003). Agency theory and many corporate guidelines suggest having a good corporate governance system for the
betterment of the corporation. Corporate governance of banks seems to be more important than other industries because the banking sector plays a crucial financial intermediary role in any economy. Poor corporate governance of the banks can drive the market to lose confidence in the ability of a bank to properly manage its assets and liabilities, including deposits, which could in turn trigger a liquidity crisis and then it might lead to economic crisis in a country and pose a systemic risk to the society at large (Cebenoyan & Strahan, 2001; Basel Committee on banking supervision, 2005; Alexander, 2006; Garcia-Marco & Robles-Fernandez, 2008). Furthermore, Das and Ghosh (2007) and How, Abdul Karim and Verhoven (2005) stressed on the essential role of financial industry. According to Das and Ghosh (2007), the health of the financial sector is important since its failure can disrupt economic development of the country. Hence, the risk faced by banks is a great concern to policy makers and it has been reflected in Basel Committee’s the risk-based capital adequacy guideline (How, Abdul Karim & Verhoven, 2005). Due to that it is interested to examine the impact of corporate governance on risk in the banking sector.

Corporate governance and risk

Greuning and Bratanovic (2003) state that due to liberalization and the volatility of financial markets increased competition among the financial institutions, exposing them to new risks and challenges and requiring the continuous innovation of ways manage business. Because of this, banking Institutions are highly regulated compared to others. However, bank regulators and supervisors cannot prevent bank failures since their main role is to act as facilitators in the process of risk management and to enhance and monitor the statutory framework in which risk management is undertaken. According to them, ultimate responsibility lies with board of directors since they set the strategic direction, appoint management and establish operational policies for ensuring the soundness of a bank.

Derwall and Verwijmeren (2007) find that better governance is associated with lower systematic risk, as measured by a firm’s beta. Similarly, Ashbaugh-Skaife, Collins and LaFond (2006) also highlight the corporate governance can affect the bond ratings of the firms due to probability of default risks arisen from the agency conflicts. According to them, poor governance can create the agency
conflict between shareholders and bondholders since firms’ profit might be allocated more to pay dividend and the existence of tendency to invest in risk projects so that it might affect future cash flows and consequently result in the default risk. Their study finds that credit ratings are negatively associated with the board independence, board stock ownership and they conclude that good governance mechanisms will be able to monitor the management independently and promote effective managerial decision making that increase firm value and guard against the management opportunistic behavior that decreases firm value and able to be benefit to all the stakeholders.

Theoretical framework and literature review

According to Jensen and Meckling (1976) as quoted by McColgan (2001), due to the separation of ownership and control, agency problems, i.e. moral hazard (hidden action) and adverse selection (hidden information) could occur and the directors might maximize their own interests at the expense of the shareholders. Thus, the main issue from the agency theory is the existence of agency cost (Williams et al., 2006). The suggested mechanism to minimize this cost is good corporate governance (Gursoy & Aydogan, 2002; Judge et al., 2003) since it promotes goal congruence among principals and agents (Conyon & Schwalbach, 2000). Short et al. (1999) and Cheung and Chan (2004) also describe that the ultimate goal of corporate governance is to monitor the management decision-making in order to ensure that it is in line with shareholders’ interests, and to motivate managerial behavior towards enhancing the firms’ wealth. The following discussions provide some explanations of corporate governance mechanisms from the agency theory perspective.

Agency Theory and Separate Leadership Structure - Agency theory argues for a clear separation of the responsibilities of the CEO and the chairman of the board and seems to prefer to have separate leadership structure (Jensen & Meckling, 1976; Fama & Jensen, 1983; Jensen, 1993). The reason is that since the day-to-day management of the company is led by the CEO, the chairman of the board, as a leader of a board, needs to monitor the decisions made by the CEO which will be implemented by the management and to oversee the process of hiring, firing, evaluating and compensating the CEO (Brickley et. al, 1997; Weir, 1997). If the CEO and the
chairman of the board is the same person, there would be no other individual to monitor his or her actions and CEO will be very powerful and may maximize his or her own interests at the expense of the shareholders. The combined leadership structure promotes CEO entrenchment by reducing board monitoring effectiveness (Finkelstein & D’Aveni, 1994; Florackis & Ozkan, 2004). Thus, a separate leadership structure is recommended in order to monitor the CEO objectively and effectively.

Agency Theory and Board Composition - According to Choe and Lee (2003), board composition is very important to effectively monitor the managers and reduce the agency cost. Although the executive directors have specialized skills, expertise and valuable knowledge of the firms’ operating policies and day-to-day activities, there is a need for the independent directors to contribute the fresh ideas, independence, objectivity and expertise gained from their own fields (Weir, 1997; Firth et al., 2002; Cho, 2003). Hence, the agency theory recommends the involvement of independent non-executive directors to monitor any self-interested actions by managers and to minimize agency costs (Kiel & Nicholson, 2003; Le et al. 2006; Florackis & Ozkan, 2004; Williams et al. 2006).

Agency Theory and Board Size - Jensen (1983) and Florackis and Ozkan (2004) mention that boards with more than seven or eight members are unlikely to be effective. They further elaborate that large board’s result in less effective coordination, communication, and decision making, and are more likely controlled by the CEO. Yoshikawa and Phan (2003) also highlight that larger boards tend to be less cohesive and more difficult to coordinate because there might be a large number of potential interactions and conflicts among the group members (refer to Forbes and Milliken, 1999 and Lipton and Lorsch, 1992). In addition, Yoshikawa and Han (2003) further state that large boards are often created by CEOs because the large board makes the board members disperse the power in the boardroom and reduce the potential for coordinated action by directors, leaving the CEO as the predominant figure (in Leighton and Thain, 1997). In sum, smaller boards seem to be more conducive to board member participation and thus would result in a positive impact on the monitoring function and the strategic decision-making capability of the board, and independence from the management (Huther, 1997).

Agency Theory and Ownership - Agency theory stresses the importance of ownership structure in enhancing corporate governance.
It could be viewed from three different perspectives; (a) managerial ownership, (b) block ownership, and (c) institutional ownership. If directors own shares, the directors as the owners themselves are directly instructing and monitoring the management of the companies (Jensen & Meckling, 1976). Hence, there are likely to be fewer agency problems as compared to the situation where the directors, who are not the owners, supervise the management of the company. It is also supported by Seifert et al. (2005) who discuss agency conflicts.

With regard to block ownership, if an individual has a substantial amount of interest in a particular company (usually measured at 5%), he or she will be more interested in the company, compared to the shareholders who own a smaller number of shares because dispersed ownership may have less incentives to monitor management (Kang & Sorensen, 1999; Maher & Andersson, 1999; Kim & Lee, 2003). Lastly, regarding institutional investors, Hussain and Mallin (2002), Kim and Nofsinger (2004), Leng (2004), Soloman and Solomon (2004), Seifert et al. (2005), Le et al. (2006), Langnan, Steven and Weibin (2007) and Ramzi (2008) collectively agree on the important role of institutional shareholders in the monitoring of firms because of the following reasons; (a) institutional shareholders normally own substantial number of shares, (b) the potential benefits from their activism is large enough to be worth their effort, (c) they have less ability than individual shareholders to liquidate the shares without affecting the share price, (d) substantial influence on the management, (e) they seem to have a fiduciary responsibility towards the ultimate owners, and (f) they have ability to monitor executives since they are professionals.

**Research methodology**

**Hypotheses development**

Six hypotheses are developed in this study. They are as follows.

*Board leadership structure* plays an important role not only on firm performance but also the risks. Corporate governance literature points out that the separate leadership structure is essential to reduce the agency cost (Jensen & Meckling, 1976) because firms with separate leadership structure seem to be independent from the management. Thus, it could be assumed that when the separate leadership structure exists, the board might be able to monitor the management
independently and as a result, it is expected that firms with separate leadership structure might have lower risk than firms with combined leadership structure and the following hypothesis, in an alternative form, is developed. Therefore, the first hypothesis (stated in its alternative format) is stated as follows:

\[ H_1: \text{Risk is negatively related to separate leadership structure.} \]

Regarding board composition, based on the agency theory, several researchers have suggested to have higher proportion of independent non-executive directors to reduce the agency problems. The idea behind the involvement of more independent non-executive directors on the board could make the board independent from the management and able to monitor the management effectively (Choe & Lee, 2003). The research findings of Bhojraj and Sengupta (2003) show that firms with stronger outside directors dominated board enjoys lower bond yields and higher bond ratings due to monitoring power of outside directors on the firms’ risk. In addition, Brick and Chidambaran (2008) also find that board independence is negatively related to firms’ risk. Hence, it is expected that higher proportion of independent non-executive directors might be able to lower down the risk faced by the firms. The second hypothesis, in an alternative form, is developed.

\[ H_2: \text{Risk is negatively related to the proportion of independent directors on the board.} \]

Board size - in the case of board size, the assumption derived from the agency theory is that smaller board is recommended to reduce the agency cost, by effective control over the management and being independent from the management (Jensen & Ruback, 1983). It is expected theoretically that smaller board size should be able to reduce the risk due to its monitoring role in the risk diversifying process of the management and the third hypothesis, in an alternative form, is developed.

\[ H_3: \text{Risk is positively related to the board size.} \]

Ownership structure - the agency theory stresses on the importance of ownership in enhancing corporate governance within a firm, and subsequently leads towards lower firm’s risk. For example, through ownership, managers’ interests could be aligned with the shareholders’ interest, as managers have now become part of the owners. Hence, director ownership could be able to reduce the risk faced by the firms since the directors have the ownership interest to monitor the risk management process of the management (Beatty et
al., 1994; Pitts et al., 2003). With regard to the relationship between management ownership and risk, the findings of Beatty et al. (1994) and Pitts et al. (2003) show that managerial ownership and the risk are inversely related. Therefore, the fourth hypothesis, in an alternative form, is developed.

\( H_4 \): Risk is negatively related to director ownership.

Furthermore, the idea that could be derived from the agency theory is that, higher the ownership proportion is the more interest to monitor the firms. Accordingly, higher proportion of institutional ownership or block ownership could contribute to lower the risk of the firms because according to Sanders (1999: 64), “stock ownership should be a better incentive mechanism when firm risk is high” and the study by Garcia-Macro and Robles-Fernandex (2008) find that the shareholder concentration has a negative impact on the level of risk taking. In addition, the research findings of Bhojraj and Sen-gupta (2003) show that firms with greater institutional ownership enjoys lower bond yields and higher bond ratings due to monitoring power of the institutional owners on the firms’ risk. The fifth and sixth hypotheses, in an alternative form, are developed. They are: 

\( H_5 \): Risk is negatively related to institutional ownership. 
\( H_6 \): Risk is negatively related to block ownership.

**Empirical Model, Sample selection, Variables, Statistical Methods**

In this section, the empirical model of the study will be presented. The dependent variable is the risk of the banks, which are measured using three proxies; standard deviation of monthly returns is used to measure market risk and ratio of total loans to total deposits and ratio of total loans to total assets are used to measure the asset-liability management (the liquidity) risk. There are six independent variables, which comprise of three conventional measures of corporate governance (i.e. board leadership structure, board composition and board size) and three measures of ownership structure (i.e. director ownership, institutional ownership, and block ownership). Finally, the empirical model of the study also includes four control variables; two control variables related to firm-specific characteristics (i.e. firm size and leverage), and two control variables related to economic environment (i.e. gross domestic product rate and economic crisis). The complete empirical model is as follow.
\[ Y_{4it} = \beta_0 + \beta_1 x_{1it} + \beta_2 x_{2it} + \beta_3 x_{3it} + \beta_4 x_{4it} + \beta_5 x_{5it} + \beta_6 x_{6it} + \beta_7 x_{7it} + \beta_8 x_{8it} + \beta_9 x_{9it} + \beta_{10} x_{10it} + \mu_{it} \]

where, \( i = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 \)
\( T = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 \)

- \( Y_i \): Risk measures are proxied by standard deviation of monthly stock return (STD), loan to deposit ratio (TL_TD), and ratio of total loans to total assets (TL_TA)
- \( x_1 \): Board leadership structure (BLS)
- \( x_2 \): Proportion of independent non-executive directors on the board (INE_BZ)
- \( x_3 \): Board size (BZ)
- \( x_4 \): Proportion of director ownership (DOWN)
- \( x_5 \): Proportion of institutional ownership (IOWN)
- \( x_6 \): Proportion of block ownership (BOWN)
- \( x_7 \): Log of total assets (TA)
- \( x_8 \): Leverage (TD_TE)
- \( x_9 \): Gross domestic product growth rate (GDP)
- \( x_{10} \): Economic crisis variable (DUM_CRISES)
- \( \mu \): Error term

Samples include the twelve listed companies whose main activity is banking from 1996 until 2005. The total number of observations is 120 observations. However, some of the observations need to be dropped due to unavailability of data and some companies were not classified as banks in all the ten years’ period. It left the final observations to 108 observations. Data were collected either from the annual reports of the companies or from Bloomberg. The proxies for efficiency are standard deviation of monthly returns is used to measure market risk and ratio of total loans to total deposits and ratio of total loans to total assets are used to measure the asset-liability management (the liquidity) risk. The control variables are total assets, leverage and economic crisis dummy. The statistical method used in this study is panel data analysis (generalized least square method). Generalized least square method is used because the sample data are not normally distributed and the data have either heteroskedasticity problem, autocorrelation problem or both. According to Gujarati (2003), using generalized least square method will overcome all these problems.
Empirical results

Under this section, the descriptive statistics will be explained first. It will be followed by the discussions on the GLS multivariate regression results on the relationship between bank risk and corporate governance variables.

Descriptive Statistics - Table 1 shows the descriptive statistics of the variables used in the study. In case of board leadership structure, its mean value (0.81) shows that a majority of the companies have separate leadership structure although the minimum value (zero) shows that there are companies which have combined leadership structure. Similar to the recommendation of the MCCG (2001), the sample mean value (0.36) shows that ratio of independent directors is slightly more than one third of the total number of the directors. The mean value (8.23) of board size shows existence of a quite a reasonable board size, e.g. Jensen and Ruback (1983) suggest that a board size of not more than 7 or 8 members is considered reasonable in ensuring effectiveness. For ownership, the mean values of director ownership and institutional ownership are 0.02 and 0.17 respectively. The ownership of shares by directors can be considered very low where, on average, only 2 percent of shares owned by the directors. On the other hand, institutional investors, on average, owned 17 percent of shares, which could still be considered low although it is significantly higher than the ownership by the directors. In the case of block ownership, its mean value (0.53) shows that the significant portion of the shares is owned by large shareholders.

The mean values of dependent variables such as the standard deviation of monthly stock returns (STD), ratio of total loans to total deposits (TL_TD) and ratio of total loans to total assets (TL_TA) are 0.67, 101.01 and 60.38 respectively. Graph 1, 2 and 3 shows their yearly mean values from 1996 until 2005.

Based on those graphs, two measures of risk (i.e. STD and TL_TA) are quite volatile during the economic crisis period (i.e. 1997 and 1998). After this period, the risk measures become more stable. It could also been observed, that the above risk measures becomes lower in the later years of the study period. This might be due to the companies avoiding taking high-risk transactions. As for the firm-specific characteristics, the sample companies have the means values of RM45992.19 millions for total assets and 344.73 for
the ratio of total debt to total equity. Finally, the average GDP rate is 8 percent per annum.

Findings of the Impact of Corporate Governance on Risk: Since the risk is measured from two aspects, i.e. market and liquidity aspects, their findings are presented in the following paragraphs.

Standard Deviation of Monthly Stock Returns as a Proxy of Market Risk - Table 2 shows the GLS results for STD. The values of coefficients of INE_BZ and BOWN are in line with hypothesis, where INE_BZ is significant at one percent. However, BLS, BZ, DOWN and IOWN are not in line with what has been hypothesized and not significant. Therefore, the findings supported that higher INE_BZ (at 1-% Sig. level) has lower risk when STD is used as a proxy for market risk.

Graph1: Means of standard deviation of monthly stock returns from 1996 to 2005

Graph 2: Means of ratio of total loans to total deposits from 1996 to 2005

Graph 3: Means of total loans to total assets from 1996 to 2005
Ratio of Total Loans to Total Deposits as a Proxy of Liquidity Risk -
Table 3 shows the GLS results for TL_TD. The findings of BLS, IOWN and BOWN have significant impact on TL_TD at 1 percent significant level and the signs of their coefficients are in line with what have been hypothesized. Although the results are not significant, the sign of coefficient of BZ is in line with hypothesis but INE_BZ and DOWN are not. Therefore, it is supported that at one percent significant level, separate BLS, higher IOWN and higher BOWN have lower risk when TL_TD is used as a measure for liquidity risk.

Table 1: Descriptive Statistics Results

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<td>0.00</td>
<td>0.00</td>
<td>0.25</td>
</tr>
<tr>
<td>IOWN</td>
<td>0.17</td>
<td>0.18</td>
<td>0.00</td>
<td>0.09</td>
<td>0.64</td>
</tr>
<tr>
<td>BOWN</td>
<td>0.53</td>
<td>0.21</td>
<td>0.00</td>
<td>0.58</td>
<td>1.00</td>
</tr>
<tr>
<td>Dependent variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Market risk variable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STD</td>
<td>0.67</td>
<td>1.00</td>
<td>0.06</td>
<td>0.42</td>
<td>7.03</td>
</tr>
<tr>
<td>(b) Liquidity risk variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TL_TD</td>
<td>101.10</td>
<td>41.42</td>
<td>0.00</td>
<td>96.75</td>
<td>371.52</td>
</tr>
<tr>
<td>TL_TA</td>
<td>60.38</td>
<td>14.90</td>
<td>0.00</td>
<td>64.01</td>
<td>80.48</td>
</tr>
<tr>
<td>Control variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TA</td>
<td>45992.19</td>
<td>40245.92</td>
<td>1120.36</td>
<td>33326.95</td>
<td>191895.30</td>
</tr>
<tr>
<td>TD_TE</td>
<td>344.73</td>
<td>331.14</td>
<td>14.03</td>
<td>223.80</td>
<td>1442.26</td>
</tr>
<tr>
<td>GDP RATE</td>
<td>0.08</td>
<td>-0.05</td>
<td>0.02</td>
<td>0.09</td>
<td>0.14</td>
</tr>
</tbody>
</table>

Table 2: GLS results of standard deviation of monthly stock returns

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>T statistics</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent variables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BLS</td>
<td>0.06</td>
<td>1.86</td>
<td>0.06</td>
</tr>
<tr>
<td>INE_BZ</td>
<td>-0.15</td>
<td>-3.92*</td>
<td>0.00</td>
</tr>
<tr>
<td>BZ</td>
<td>-0.01</td>
<td>-1.65</td>
<td>0.10</td>
</tr>
<tr>
<td>DOWN</td>
<td>0.13</td>
<td>0.68</td>
<td>0.50</td>
</tr>
<tr>
<td>IOWN</td>
<td>0.07</td>
<td>1.32</td>
<td>0.19</td>
</tr>
<tr>
<td>BOWN</td>
<td>-0.05</td>
<td>-1.48</td>
<td>0.14</td>
</tr>
<tr>
<td>Control variables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LNTA</td>
<td>-0.02</td>
<td>-1.09</td>
<td>0.28</td>
</tr>
<tr>
<td>TD_TE</td>
<td>0.00</td>
<td>0.16</td>
<td>0.87</td>
</tr>
<tr>
<td>GDP RATE</td>
<td>-0.64</td>
<td>-8.24*</td>
<td>0.00</td>
</tr>
<tr>
<td>DUM_CRISIS</td>
<td>0.10</td>
<td>7.91*</td>
<td>0.00</td>
</tr>
<tr>
<td>CONS</td>
<td>0.41</td>
<td>3.26*</td>
<td>0.00</td>
</tr>
<tr>
<td>Chi-Sq.</td>
<td>P value</td>
<td>Heteroskedastic (LR Test)</td>
<td>LR Chi\textsuperscript{2}</td>
</tr>
<tr>
<td>--------</td>
<td>---------</td>
<td>--------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Autocorrelation (Wooldridge Test)</td>
<td>F statistics</td>
<td>8.734*</td>
<td>P value</td>
</tr>
</tbody>
</table>

* Significant at 1%
** Significant at 5%

### Table 3: GLS results of ratio of total loans to total deposits

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Coefficient</th>
<th>Z_value</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLS</td>
<td>-14.89</td>
<td>-3.17*</td>
<td>0.00</td>
</tr>
<tr>
<td>INE_BZ</td>
<td>6.61</td>
<td>0.73</td>
<td>0.47</td>
</tr>
<tr>
<td>BZ</td>
<td>1.27</td>
<td>1.52</td>
<td>0.13</td>
</tr>
<tr>
<td>DOWN</td>
<td>61.37</td>
<td>1.57</td>
<td>0.12</td>
</tr>
<tr>
<td>IOWN</td>
<td>-35.53</td>
<td>-3.68*</td>
<td>0.00</td>
</tr>
<tr>
<td>BOWN</td>
<td>-19.24</td>
<td>-2.65*</td>
<td>0.01</td>
</tr>
</tbody>
</table>

**Control variables**

| LNTA                  | -4.99       | -1.57   | 0.12   |
| TD_TE                 | 0.03        | 3.76*   | 0.00   |
| GDP RATE              | -56.83      | -4.41*  | 0.00   |
| DUM_CRI\textsuperscript{S} | 4.12       | 1.89    | 0.06   |
| CONS                  | 154.74      | 5.08*   | 0.00   |

<table>
<thead>
<tr>
<th>F statistics</th>
<th>Coefficient</th>
<th>Z Statistics</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>81.77*</td>
<td></td>
<td>0.00</td>
</tr>
</tbody>
</table>

Heteroskedastic (LR Test) | LR Chi\textsuperscript{2} | 182.66* | P value | 0.00 |

Autocorrelation (Wooldridge Test) | F statistics | 2445.93* | P value | 0.00 |

* Significant at 1%
** Significant at 5%

### Table 4: GLS results of ratio of total loans to total assets

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Coefficient</th>
<th>Z Statistics</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLS</td>
<td>-7.12</td>
<td>-3.57*</td>
<td>0.00</td>
</tr>
<tr>
<td>INE_BZ</td>
<td>-9.30</td>
<td>-1.67</td>
<td>0.09</td>
</tr>
<tr>
<td>BZ</td>
<td>0.07</td>
<td>0.19</td>
<td>0.85</td>
</tr>
<tr>
<td>DOWN</td>
<td>-73.04</td>
<td>-1.94*</td>
<td>0.05</td>
</tr>
<tr>
<td>IOWN</td>
<td>-15.55</td>
<td>-3.27*</td>
<td>0.00</td>
</tr>
<tr>
<td>BOWN</td>
<td>-2.54</td>
<td>-0.59</td>
<td>0.55</td>
</tr>
</tbody>
</table>

**Control variables**

| LNTA                  | 1.39        | 1.11         | 0.27    |
| TD_TE                 | 0.00        | -0.89        | 0.37    |
| GDP RATE              | -31.49      | -3.56*       | 0.00    |
| DUM_CRI\textsuperscript{S} | -1.28       | -0.88        | 0.38    |
| CONS                  | 66.63       | 6.01*        | 0.00    |

| Chi-Sq. | P value | Heteroskedastic (LR Test) | LR Chi\textsuperscript{2} | 91.94* | P value | 0.00 |

52.28* | 0.00 |

Heteroskedastic (LR Test) | LR Chi\textsuperscript{2} | 91.94* | P value | 0.00 |
<table>
<thead>
<tr>
<th>Autocorrelation (Wooldridge Test)</th>
<th>F statistics</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>41.431*</td>
<td>0.00</td>
</tr>
</tbody>
</table>

* Significant at 1%
** Significant at 5%

*Ratios of Total Assets to Total Liabilities as a Proxy of Liquidity Risk*

Table 4 shows the GLS results for TA_TL. The coefficient values of BLS, IOWN and DOWN are in line with hypothesis where the first two variables have 1 percent significant level and the last one has 5 percent significant level. Moreover, the findings of INE_BZ, BZ and BOWN are also in line with hypothesis although the coefficient values are not significant. Therefore, the findings support that separate BLS (at 1 percent significant level) and higher IOWN (1 percent significant level) and higher DOWN (at 5 percent significant level) have lower risk when TL_TA is a proxy for liquidity risk.

**Summary Results**

As discussed earlier, the risk is measured by three proxies, namely, STD, TL_TD and TA_TL. The summary results are summarized in Table 5 and will be explained in the following paragraphs.

The results of BLS show that separate BLS have lower risk for TL_TD (at 1% Sig. level) and the results still consistent when risk is measured by TL_TA (at 1% Sig. level). However, the STD is used as a proxy; the finding is not according to expectation insignificantly. Therefore, it could be generally concluded that banks with separate BLS seems to have lower risk.

In the case of INE_BZ, it is in line with hypothesis for STD (at 1% Sig. level) and TL_TA (at 1% Sig. level). However, insignificantly, the finding is not according to what has been hypothesized when TL_TD is used as a proxy. Therefore, it could be generally concluded that higher INE_BZ seems to have lower risk.

For BZ, the results are in line with hypothesis for TL_TD and TL_TA but not for STD and all the results are not significant. Therefore, it could be generally concluded that smaller BZ seems to have lower risk.

For DOWN, it is in line with hypothesis for TLTA (at five-percent significant level) but it is not the same results for other proxies insignificantly. Therefore, it could be generally concluded that lower DOWN seems to have lower risk.
For IOWN, the finding is significantly in line with hypothesis at one percent significant level for both TL_TD and TL_TA. However, it is not according to the theoretical expectation insignificantly. Therefore, it could be generally concluded that higher IOWN seems to have lower risk.

For BOWN, it is in line with hypothesis for TL_TD (at 1% Sig. level), STD and TL_TA. Therefore, it could be generally concluded that higher BOWN seems to have lower risk.

Table 5: Summary results for risk

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>TL_TD</th>
<th>STD</th>
<th>TL_TA</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLS</td>
<td>✓</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Significant level</strong></td>
<td>1%</td>
<td>-</td>
<td>1%</td>
</tr>
<tr>
<td>INE_BZ</td>
<td>X</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Significant level</strong></td>
<td>-</td>
<td>1%</td>
<td>-</td>
</tr>
<tr>
<td>BZ</td>
<td>✓</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Significant level</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>DOWN</td>
<td>X</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Significant level</strong></td>
<td>-</td>
<td>-</td>
<td>5%</td>
</tr>
<tr>
<td>IOWN</td>
<td>✓</td>
<td>X</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Significant level</strong></td>
<td>1%</td>
<td>-</td>
<td>1%</td>
</tr>
<tr>
<td>BOWN</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Significant level</strong></td>
<td>1%</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Therefore, it might be generally concluded that all the findings are in line with the theoretical expectation except for director ownership. It might be due to the following possible reasons. First, based on the results from descriptive statistics, 2.22% of ownership belongs to director. Thus, director ownership is insignificant to influence the board decision making process. Secondly, they might not have incentive to lower the risk of the firms since their investments might be diversified and they might prefer to get higher return at the expense of creditors. Due to that, managers might prefer to invest in the risky projects once the managers become the owners (Coles et al., 2001; Gursoy & Aydogan, 2002). Finally, although their ownership interest is there, they might try to maximize their private benefits, rather than firm value since ownership can influences the portfolio choice (Gorton and Rosen, 1994). Therefore, future research focuses on the impact of corporate governance variables on the risk management process since this paper focuses on the end product of the governance, i.e. risk.
NOTES

1. The purpose of this program is to consolidate and rationalize the industry, and to promote the merger of small and medium-size banks to form larger and financially stronger institutions (Bank Negara Malaysia Annual Report, 1998).

2. The purpose of Pengurusan Danaharta Nasional Berhand is to purchase non-performing loans from the banks and manage these non-performing loans in order to maximize their recovery value (Bank Negara Malaysia Annual Report, 1998).

3. The purpose of Donamodal is established to inject capital into viable banking institutions (Bank Negara Malaysia Annual Report, 1998).

4. The purpose of Corporate Debt Restructuring Committee is to (a) provide the platform for both the borrowers and the creditors to work out feasible debt restructuring schemes without having to resort to legal proceedings, (b) assist the finance companies in diversifying their funding sources, and (c) create additional liquidity to fund their lending activities (Bank Negara Malaysia Annual Report, 1998).

REFERENCES


ACCOUNTING STANDARDS AND FINANCIAL REPORTS, GUILTY FOR THE ACTUAL CRISIS?

CLAUDIA NICOLETA GUNI
borsanclaudia@yahoo.com
Spiru Haret University

OCTAV NEGURITĂ
neguritaoctav@yahoo.co.uk
Spiru Haret University

ABSTRACT. The current financial crisis has started on the US subprime mortgage market in the summer of 2007, reaching unexpected levels by 2008, rapidly spreading all over the world and disrupting the global financial system. The losses sustained by the American financial giants on complex structured securities triggered the collapse of other markets such as the housing market or the auto market. In less than a year, the balance-sheets of the biggest financial companies reported impaired assets and major declines in value due to the lack of liquidity of certain markets or assets. The investors’ confidence in the financial markets and institutions has reached a new historical low and the financial crisis has triggered the economic crisis. This context has lead to strong debates among bankers, insurers, auditors and politicians about whom is to blame for the crisis, but also about finding the solutions for surpassing the crisis and reducing the likelihood that these situations would recur. The paper aims at assessing the role of accounting rules and financial reporting in causing and spreading the current crisis.

Introduction

Despite the fact that the entire world became aware of the existence of a huge financial crisis, the first signs of these could have been noticed at least a year ago. The first clue appeared in June 2007, when 2 financial investment funds of Bear Stearns, that had been strongly involved on the sub-prime market, collapsed. All through
2007, more and more financial institutions have noticed that their financial titles, considered to be safe, had already been contaminated with the so-called “toxic mortgages”.

The beginning of 2008 had been marked by the American Federal Reserve action to save from bankruptcy Bear Stearns Corporation by infusing 30 billion USD and “arranging” its sale to JP Morgan Chase. In September 2008, the events took a major turn, and their consequences were felt both on the European and Asian continents.

In October 2008, the crisis had already crossed the ocean, reason for the European Union officials to decide the infusion of an important amount of money in the banking sector/compartment and certified in different percentages/ proportions the population’s deposits in order to prevent massive withdrawals that could have destabilized the banking system. Very quickly, the financial crisis put its mark on the worldwide economy, that entered in recession: the Gross Domestic Product of some economically developed countries have registered significant drops, the export has been diminished, the deterioration in housing market was accelerated, car markets have declined, the risk of deflation increased, unemployment has increased dramatically, and third world countries started to get less help that led to the increase of poverty and hunger. Resounding bankruptcies continue to happen and many specialists feel that we cannot talk about overcoming the crisis yet.

**Who’s guilty for the financial crisis?**

In the context of increasingly significant economic effects of financial crisis and the implementation of more expensive rescue plans for ordinary people, there have been heard voices that have been trying to identify the causes of these events and the causers of the actual crisis. Opinions were divided, but many experts agreed that one of the factors that generated the current events was the inappropriate use of complex and exotic financial instruments, which became incomprehensible, even to their creators. Consequences of using them consisted of increasing opacity of the financial system and financial reporting, accused of hiding risks, and therefore, the distortion of information sent to the public interest.

The perception of a close connection between the crisis and certain types of financial instruments resulted in the placement at the
forefront of discussions of these accounting standards relating to these instruments. The subject has become highly publicized, accounting standards being incriminated, primarily because of rules related to fair value. They were accused by bankers and insurers to be responsible for the registration of enormous losses by financial institutions related to financial instruments whose markets have become illiquid, losses that weren’t realized from actual transactions and that have deteriorated a situation already precarious.

Other voices were of the opinion that the current crisis is not responsible for the accounting rules, but the financial reports related to financial instruments, fair value and risks, which have failed through lack of transparency and comparability due to inadequate implementation of rules/norms describing the information. The main argument of the critics is that the financial reports ought to have provided a clearer and timely risk implication of the use of sophisticated financial instruments, that should allows investors and other stakeholders to properly assess the assets, liabilities and equities of their companies.

**Accounting based on fair value**

In order to analyze the role of accounting based on fair value we have mainly used three studies undertaken by different bodies (Securities Exchange Commission, Merrill Lynch and Financial Accounting Standards Board) regarding the impact on fair value accounting on financial institutions.

The report of Security Exchange Commission, conducted on a total of 50 financial institutions, of which 27 banks, 12 insurance societies and 5 brokers focused on the study of:

- the share of assets and liabilities at fair value balance sheet debt to total assets;
- effects of fluctuations in fair value on the profit and loss account;
- the use of fair value by the financial institutions at their own choice;
- the impact of the latest accounting standards issued by the American Security Exchange Commission regarding the fair value on the balance sheet;
- the nature of assets and liabilities at fair value;
- the impact of fair value accounting on bank failures in 2008;
The Merrill Lynch study was focused on the recent bank failures and loss of profits or significant reductions in area, identifying the main causes of these evolutions.

In turn, a working group appointed by the Financial Accounting Standards Board has examined institutions that have not survived the crisis and went further, comparing the market value of major commercial banks to that resulted from the accounting registers.

After having studied the reports mentioned above, we found that the figures clearly show that not the fair value accounting has been the main cause triggering the current crisis. This didn’t play a significant role in the famous bankruptcies of financial American institutions, rather caused by the significant losses recorded for the loans granted too easily, by the inadequate policy of risk management, by losing control of the financial engineering and the absence of appropriate prudential regulations.

The statements are based on these results drawn from U.S. Securities Exchange Commission report:

- only 45 % of all financial activities of financial entities were valued at fair value and 15 % of total debt;
- by branches, banks have reported only 31 % of assets at fair value;
- 25 % of total assets shown on balance sheets of financial institutions have been measured at fair value, with fluctuations reported directly in the income statement;
- 4 % of total assets were reported under fair value, respectively 5 % of total debt;
- the nature of the assets at fair value was: investment in shares and other instruments held for trading, as well as derivatives and the liabilities: liabilities held for trading and derivatives;
- 76 % of total assets at fair value, respectively 84 % of total debt fell within the second level of the hierarchy of fair value;
- 15 % of assets belonged to level one and 9 % were included in the third level;

The conclusions are important: not even half of the assets held by financial institutions were measured at fair value, in accordance with accounting standards, and regarding debt, the share was much smaller. In addition, if an even smaller percentage of balance sheet structures, the fluctuations in fair value were reported directly in the profit and loss account, these being rather “masked” by being registered in their own equity. Not surprisingly the fact that majority of
the assets/liabilities reported at fair value does not fit on the first level of the hierarchy of fair value, which quoted prices in active markets are the best representation of fair value, but the second level, which sufficient data are not observable and that implies adjustments that involve a certain degree of subjectivity.

The report issued by Merrill Lynch comes to support earlier claims by anticipating that the main cause of large losses on bad loans and bankruptcies were not recorded on a fair value basis. Instead, losses were gradually recognized in the income statement, especially when they were realized/achieved. These institutions have still come in the situation of bankruptcy, which can be interpreted only in that the provision for losses on loans have a greater impact on the financial position of money than losses resulting from marking to market.

No less important is the fact that many shares of the banks affected by the crisis are traded well below their book value, which shows that investors think the banks overstated net assets relative to their expectations, and not undervalued, as many of the critics of fair value accuse. They say that fair value reduces the value of irrational business market, reporting assets without regard to their real economic value. It seems that investors, in their capacity as major recipients of financial accounting information, do not have the same opinion.

Financial Reports

In order to analyze financial reports on the outbreak and spread of the crisis, we studied the annual reports published by the major American and European banks, focusing in particular on the description of information related to financial instruments and fair value. Analyzed financial statements refer to financial years 2008 and 2009, which we considered relevant because both years were marked by deep turbulent financial markets. 2008, the first year of important rules regarding the information presented in financial statements coincided with the beginning of the current crisis: the mortgage crisis. The financial reports of the financial year were impressive in volume, significantly increasing the number of pages published from previous years because of the new requirements for the description of the information contained in the above mentioned rules, but also due to the turmoil on financial markets. The information about financial
instruments, fair value and financial risks were found scattered all across the annual reports, which prevented the increase comparability and transparency expected to result from implementing new rules. The reported positive aspects are: providing more specific information about valuation methodologies, techniques used and the proportion of assets / liabilities at fair value; the presentation of quantitative information related to fair value hierarchy, a more transparent description of credit risk and liquidity as well as greater flexibility in relation to information submitted on the application of principles-based standards, and not on the rules.

The second year of implementation didn’t bring a dramatic enrichment of comparability and transparency. Moreover, financial reports had a striking resemblance to those of the previous year, being characterized in general by an increase in their volume. An explanation for the greater volume of information would be in developing numerous merging, acquisitions and reorganizations. Of course, banks have voluntarily provided useful additional information for users, improved descriptions related to exposures to credit risk, credit rating or financial crisis over their exposure. But the information described remained very complex, varied and difficult to understand, financial information presented was very different and, therefore, little comparable, and risks were not described in a useful manner, to assist users in making decisions.

Conclusions

Analyzing the published reports and studying the opinions expressed on the role of accounting in the current financial crisis, we believe we can draw the following conclusions:

- accounting rules cannot be blamed for the outbreak and spread of the crisis, which were identified deeper causes;
- emphasizing again that not accounting role is to ensure financial stability, but in that of providing useful information for users interested in taking decisions. Therefore, accounting must not be used as a mean of achieving stability, because it could affect transparency, and can not be a tool against pro-cyclicality because it must remain neutral;
- fair value accounting should not be removed or suspended, not even in crisis, being appreciated by investors as the best way to
assess the financial instruments that can be further improved by guidelines and recommendations, on which standardization bodies are already working.

REFERENCES


ACCOUNTING OF THE FINANCIAL INSTRUMENTS: ONE OF THE MOST CONTROVERSIAL FIELDS IN THE FINANCIAL REPORTING

CLAUDIA NICOLETA GUNI
borsanclaudia@yahoo.com
Spiru Haret University

OCTAV NEGURIȚĂ
neguritaoctav@yahoo.co.uk
Spiru Haret University

ABSTRACT. Issues concerning the identification of the most appropriate accounting manner of assets and liabilities in the balance, including the appearance of changes resulted from the achieved assessments, have represented the main concern in the financial reporting area since the development of oriented financial statements towards balance and profit and loss account. Although over the time have been considered a series of bases for the achievement of assessment required financial reporting, we can say the approach based on historical costs represented the dominant paradigm in a significant period and for numerous accounting references.

Introduction

The 20th century has seen a significant number of researches aimed to determine the best basis for evaluating assets, the reference works being those of Bonbright (1965) and Baxter (1967). Together with these researches, but somewhat separately, an older tradition continues to grow, that of the economical literature based on aspects related to evaluation and results, with origins in the writings of Ricardo and other classical economists. On the other hand, economists such as Fisher (1906), Lindahl (1933) and Hicks (1946) were already directly interested in determining ways to periodically assess the
results by means of a calculus framework for the current values of future monetary fluxes linked to assets and debts.

**Points of view regarding the economical analysis of the specific concepts of financial reporting**

As long as FASB and IASB, by means of their own conceptual framework, identifies the usefulness of the decisions as primary objective of financial reporting, the results of the analysis also value the provisions of the accounting rules, thus contributing to the development of the literature regarding the accounting standards and debates regarding the true value in accounting.

We thus consider that the informational perspective and that of the evaluation offer the general context for evaluating the decisional usefulness of the information. From an informational point of view, the financial reporting is only an informational system competing with another. As long as the information is only relevant because of its capacity of generating a review of the expectations, the format of the presentation does not benefit from a significant importance. By contrast, for the evaluating perspective, accounting representations such as assets and debts are relevant to a significant degree.

The so-called evaluating perspective represents a traditional take on the objective of information, in the context of the financial reports, putting an emphasis on the dimension of the financial accounting. It is very well known in the neo-classical theory of value and incomes developed by economists such as Hicks, Fisher and Lindahl. Its crucial aspects underline the fact that the evaluation perspective represents what accounting should directly quantify, and on the other hand to report basic information requested by the investors, such as the entity’s value or at least a fraction thereof.

Thus, the evaluating process is delegated to the reporting entity. As far as the evaluating perspective is concerned, the evaluation of the titles found within the own assets, debts and capitals, as well as the evaluation of the related fluxes, are well defined and prove an economical character. In an ideal world of complete and perfect markets, the presentation on the marked of the entity’s assets and debts value gives a direct account of the entity’s value and thus of the information requested by the investors. It is obvious that the evaluation perspective is encompassed in such a scenario, that the
decisional unit is represented by the information itself, contributing to the evaluation of the entity’s assets and debts.

The usefulness of the provided information regarding the cash fluxes depends upon their descriptive character, their quality and of course, upon the considerations regarding costs and profits, both being dependent upon the decisional situations undertaken by the typical investor. If we wish to come to a conclusion, we may say that the conceptual situation of determining value, from the perspective of rigid evaluation, can only be accomplished in the case of a scenario suitable for complete and perfect markets which do not need any financial reporting.

The evaluation perspective represents a basis for preliminary research. While this refers to the figures offered by means of the financial accounting as numeric entries for the evaluation models, the informational perspective undertakes a wider vision. In informational economics, the utility of the information is defined in an abstract manner, under the form of signals capable of generating a transformation of the preliminary expectations in ulterior expectations, which induce the revision and later the improvement of decisions.

Developing the informational perspective is conventionally attached to increasing the focus on empirical accounting research. In this context, it is still possible for the informational perspective to have its characteristics selectable and usable for conceptual evaluations. Furthermore, the following conceptual directions pertaining to the decisional utility can be identified, from an informational perspective:

- The contents of the information refers to the novelty of the accounting information

- Researches on the capital markets also acknowledge a less rigid form of decisional utility: the function of the financial situations of reuniting in an efficient manner the relevant information regarding the evaluation, especially under the aspect of opportunity, then providing efficient information from a cost perspective for the capital market. The aggregating function of the information will be considered as being the second alternative of the procedure for information that proves useful to the decisional process, obviously under the supervision of the informational perspective.
The necessity of financial tools accounting

The purpose of controlling the risks within the more sophisticated financial markets has generated a series of accounting standards which address the complex financial tools now used in all activity areas. Accounting practices especially referring to derivate financial tools have already created a series of debates and arguments among practitioners concerned with the evaluating bases used in cases such as risk covering operations, providing information and the related risks and losses. The necessity of redirecting from the principle of the historical price to the principle of the real value has actually represented the center of the attention for accounting standards developed on an international level in the context of financial tools.

In spite of this reality of the necessity to change the paradigms imposed by the accounting of some elements with an entirely different profile of economical fundaments has been known for some time by the theoreticians as well as by the practitioners, problems continue to exist in the present.

We could say that the bulk of specialized literature on financial instruments emphasizes the difficulties faced when it comes to the evaluation of its value, the recognition of gains and loses, and presentation of associated risks.

The real financial catastrophes cannot be entirely blamed on accounting or on complex financial tools transactions, but we do agree that using them creates real difficulties for accountants and auditors when it comes to respecting the extremely demanding accounting standards, developed internationally in this area of expertise.

When talking about complexity, we first need to take into consideration the possibilities that this term itself may offer from the point of view of dissimulating and misleading. Such a case was that of the extremely complex derivate credit instruments, which are the source of the current economic-financial crisis, their complexity making it possible to hide the real commissions, gained by the financial institutions involved. Simple products such as bonds and shares involve lower fees, easily verifiable in banks, which however is the cause why they cannot be compared from a point of view of attractiveness.

On the other hand, structured products are more difficult to compare due to the high degree of customization, investors not being
aware of the amount of fees paid to banks, while the latter are not obliged to disclose such information.

In such circumstances, accounting practitioners should be able to differentiate such products and to record fees incurred as expenses immediately affecting the gain and loss account within the financial statements of the investor.

But the reality is that few practitioners have such capacities, while banks are not at all willing to assist them in identifying these commissions, as a disclosure of said fees is the last thing they would want. These are extremely difficult situations, making it possible to wrongfully account the structured derivatives.

Another fundamental problem of the current accounting regulations in the accounting field is the mix attribute used for assessment, not all assets and liabilities being reflected in the balance sheet at market value. The result lies with ignoring the changing market values for certain categories of assets and liabilities, as is the case of any assets reflected at cost, any increase or decrease of the value of these assets is ignored, both in terms of balance sheet and in terms of the gain and loss account.

Inevitably, this situation creates the potential of developing new problems. Accounting rules, which are extremely complicated often, determine the entities to reflect gains or losses in the financial statements which are rather artificial, creative accounting being able to intervene in order to profit on account of such rules. Accounting regulating organisms have mostly intervened by establishing several dogmatic rules top prevent such situations, but the outcome was an extremely complex set of accounting rules, not always effective, since they are unable to close all the „loop holes”.

Since the famous collapse of Enron in 2001, accounting regulating organisms worldwide have made changes to the regulations issued, precisely in order to avoid abuses such as those of the biggest bankruptcies already recorded. On the one hand, there were naturally a series of improvements in this regard, but on the other hand some areas got to a point where there are too many rules, difficult to follow and to apply in practice, ultimately creating the premises for accounting creativity when there are areas which overlap, allowing expressing the options.
Accounting on the date of transaction vs. accounting on the date of settlement

Another aspect to be mentioned when it comes to financial instruments accounting is the distinction between the date of transaction and the date of settlement. For this we also need to mention the fact that an acquisition or a standard sale represents the acquisition or sale of the financial assets by a contract whose conditions require the delivery of the assets within the time period generally set by regulations or conventions of the market.

Accounting on the date of transaction considers the moment of contracting as the critical moment for the recognition or derecognition of the financial instrument, while accounting on the date of settlement refers to the settlement date for both recognition and derecognition. Accounting on the date of transaction assumes the recognition of an asset to be received and the obligation to pay for it on the date of the transaction, the derecognition of an asset to be sold, the recognition of any gains or losses encountered as a result of concessions and the recognition of a debt by the buyer for payment on the date of the transaction. This implies that the interest is not engaged on the asset and the corresponding debt until the date of settlement when the title is transferred.

Accounting on the date of settlement refers to the recognition and derecognition of an asset on the day it is received by the entity and the recognition of any gains or losses encountered as a result to concessions in the day it is delivered by the entity. In this case an entity accounts for any modification in the fair value of the asset that is to be received in the period between the date of the transaction and the date of the settlement in the same way it accounts the acquired asset. In other words, change in value is not recognized for the assets registered at cost or depreciated cost; it is recognized in profit or loss for the assets classified as financial assets at fair value in the profit or losses account; and it is recognized in capitals for assets classified as being available for sale.

IAS 39 allows enforcing both accounting practices, while the practitioners see to consider that applying accounting on the date of the transaction in the case of a purchase or standard sale could be a problem within the context of information regarding the financial position including titles that imply risks, considering that in some cases the settlement fails. If we were to analyze the effect of both
accounting practices on the financial situations of the entities, we notice that the financial position could be temporary influenced in a significant manner by each practices, while they do not effect the profit and losses account and the equity situation differently.

Conclusions

In this article we tried to offer a summary of the main elements of financial instruments accounting, if we can bring together all aspects mentioned above in the dome of this phrase. We could refer here only to the role IFRS 7 has in the attempt to simulate the presentation of as much detailed information in connection with all the previously analyzed elements, with the ultimate purpose of offering the users a complete image on the entities' financial position and performance.

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THE ROLE OF FAIR VALUE MEASUREMENT IN THE RECENT FINANCIAL CRUNCH

DAVID PROCHÁZKA
prochazd@vse.cz
University of Economics, Prague

ABSTRACT. Fair value measurement has become pervasive to financial reporting over last 20 years. Under fair value accounting, entities are obliged or permitted to measure particular assets and liabilities at their fair values as at the reporting dates. Fair value is a current market-based hypothetical value. This market value is not always directly observable. The debate on usefulness of fair value accounting has arisen in connection with the financial crunch and economic crisis in years 2007–2009. The opponents of fair value accounting insist on that financial reporting based on fair value measurement has accelerated the financial crisis and significantly worsened the impact on affected companies. On the other hand, there are several important opinions in favour of fair value accounting. The paper aim is to contribute to the actual debate whether fair value accounting played the role of a messenger or a mover in the recent financial crunch and subsequent economic recession and to analyze the characteristics of fair value accounting from the economic point of view.

Introduction

Measurement of accounting elements is one of the crucial factors in the process of preparing financial statements, which fairly present economic activity of an accounting entity. Elements of financial statements can be measured by various attributes, corresponding to the nature of an element and the purpose for which the element has been incurred by entity. The reliability and relevance of the attribute measure are the key points of measuring assets, liabilities, equity and other elements.
In connection with the recent financial and subsequent economic crisis, many opinions appeared blaming fair value measurements in financial statements to be one or even the main driver of the crisis. The aim of this paper is to analyze economic backgrounds of fair value and to depict strengths and weaknesses of the fair value concept for accounting purposes. Based on these findings, the paper will evaluate the role of fair value accounting in the contemporary financial and economic crisis.

Background

Literature overview
The critical debate on usefulness of fair value accounting has arisen in connection with the financial crunch and economic crisis in years 2007–2009. The opponents of fair value accounting insist on that financial reporting based on fair value measurement has accelerated the financial crisis and significantly worsened the impact on affected companies. Fair value accounting is facing to the criticism especially from the banking sector. The strongest opposition against fair value accounting probably comes from Wallison (2008) who argues that fair value accounting has been the principal cause of an unprecedented decline in asset values and an unprecedented rise in instability among financial institutions. Moreover, some believe (Wallison, 2009; Bloomfield et al., 2006; O’Grady, 2008) that fair value accounting is highly pro-cycling and should be abandoned or at least significantly modified in order to ensure that accounting statements report information on stability of the entity rather than on its earnings power. Abdel-khalik (2008) criticizes fair value measurement from the point of inconsistency of measurement within financial statements. According to his opinion, the mixture of measurement bases used hinder the users from making judgement on what happened with their money and what management will be able to do with their money.

There are also several important opinions in favor of FVA. The supporters of FVA (Rummell, 2008; Veron, 2008; Andre et al., 2009) claim that financial reporting based on fair value is just a messenger, who transmits information on what has actually happened and that critics had confused the cause and the consequence. Escaffre et al. (2008) argues against virulent attacks on fair value accounting due to its (alleged) pro-cyclicality.
We can divide the concerns about fair value measurement in following groups:

- **Unrealized profits** – revaluation of assets and liabilities at the balance date to their up-to-date fair value can lead to recognition of unrealized gains. If the unrealized profit is distributed to owners, the entity’s capital can be eroded. The risk of inappropriate distribution of unrealized profits is in a question esp. when markets are under bubble price development.

- **Reliability of measurement** – fair value is a hypothetical value reflecting fair conditions and positions of all market participants. In many cases, an estimate of such conditions has to be made in order to calculate fair value. The reliability of fair value measurement is impeded esp. in inactive and illiquid markets and under mass sale out of a particular asset. Consequently, a failure is reported as a success and vice versa.

- **Relevance of measurement** – there are some doubts about relevancy of information contained in income statement and the usefulness of net income as a measure of management performance when entities apply mixed bases to measure balance sheet elements.

- **Suboptimal behavior** – mark-to-market and fair value accounting lead to premature recognition of profits in comparison with the traditional historical cost model. Management may be impelled to adverse selections in order to meet expected or targeted numbers. This is mainly the case of financial instruments. Some bodies believe that suboptimal behaviour of companies may influence the markets and may cause systematic market risk and pro-cyclicality on the aggregate level. On the company’s level, fair value accounting leads to increase in information asymmetry and reducing transparency of financial statements.

**Aims of the paper**

Because of recent development in standard-setting process, fair value measurement has become pervasive to financial reporting and has resulted in an unprecedented shift in the content, significance and usefulness of information about financial situation and performance.
The accounting perception of economic phenomena and the way how to present the economic course of an entity’s life in financial statements is altering so enormously that some authors, e.g. Barlev (2003) or Hitz (2006), talk about change in accounting paradigm.

The paper aims at evaluating arguments for and reservations against fair value accounting, which have arisen in the last three years. The paper should serve as a contribution to the actual debate whether fair value accounting played the role of a messenger or a cause in the recent financial crunch and subsequent crisis.

Fair value within the measurement, economic and accounting theories

Measurement in accounting

Many attributes of a thing can be measured, but none of them can serve as an ideal attribute for all purposes. The standard-setters usually ordain that entities shall provide users with measurement of financial position, financial performance and changes in financial position in a form of financial statements. For this reason, financial reporting standards define the basic elements of financial statements, which attributes have to be measured.

Theoretically, there are two possible approaches to measurement in accounting and financial reporting respectively. Firstly, entities can follow pure one-measurement basis model under which all assets and liabilities are measured by the same attribute. The pure measurement model better addresses the information needs of users, such as information on stewardship function or earning potential (Abdel-Khalik, 2008). However, this approach requires that entities shall prepare more sets of financial statements in order to meet all substantial information needs of users. In order to lower cost burden, current accounting practice is characterized by usage of mixture of measurement bases.

When choosing the appropriate accounting measurement basis, an entity shall evaluate the aim of measurement and assess the trade-off among characteristics of competing bases. The tension between relevance and reliability is typical for fair value (Keys, 2009). If the relevance of information is of a greater importance, then fair value is preferred over other measurement bases. If the reliability does matter, historical costs are taken into account. Contemporary financial re-
reporting can by characterized by pervasive trade-off as far as measurement concerns (Laux and Leuz, 2009).

**Mutual relationship Capital – Value – Income**
The conventional accounting system favors the usage of amounts at which the elements of financial statements were measured at the date of their initial recognition. Historical costs possess some advantages; objectivity and conclusive evidence are in the first place. They can serve as a prudence measure for the protection of entity’s creditors. Unfortunately, historical costs are not suitable and relevant for major part of economic decision-making and they deteriorate the stewardship function of accounting from the view of entity’s owners as well. As a reaction to those disadvantages, standard setters prefer measurement attributes based on current market information and assumptions. Fair value is considered as the most useful market characteristic as far as financial reporting measurement concerns. However, we should have on our mind that “fair value is not panacea and other measurement bases also have desirable characteristics” (Barth, 2006). Fair value was chosen as a preferred solution in the never-ending trade-off between reliability and relevance of accounting information. The next part of the paper aims to reveal the economic backgrounds of fair value and the impact of its utilization on income and capital.

The mutual relation between capital and income was firstly scrutinized by the economist Irving Fisher (1906 and 1930) who asserted that value of capital is equal to discounted (capitalized) value of future incomes. Modern economic theories define income (profit) in terms of capitalized value of a company net assets (or capital). If the value of capital at the end of the period is higher than it was at the beginning of the period, entity has experienced profit. Economic profit represents the increase in wealth of an entity.

Accounting theory tries to offer an income concept, which respects economic characteristics of business on one hand and which is practically operational on the other hand. The first major attempts in this field were introduced by Edwards and Bell (in year 1961) and Chambers (in year 1966). Chambers (1974) operates with current cash equivalents in his income theory. Chambers calls for the use of one single measurement attribute. For the reason of evaluating the entity’s ability to engage in relations with other market participants,
Chambers favors current cash equivalents, i.e. realizable price. We can extend his theory to whichever measurement basis.

Regardless which basis we choose as the guiding concept, the common feature of above-mentioned theories is obvious. The authors plead for a uniform usage of one single basis for the purposes of accounting measurement. When respecting this requirement, we are able to calculate the accounting income, which features are similar to the economic income. Economic profit expresses the fact that entity has succeeded in retaining its earnings potential. In economics, the maintenance of capital is an inevitable consequence of income definition. In accounting, the capital maintenance is a starting point for all consideration about income determination.

**Fair value issues raised by financial crisis**

*Economic features of fair value*
The birth of fair value concept in accounting theory can be traced back to Bornbright (1937), who worked out the concept of deprival value that encompasses some features of fair value. Of more importance in this period is a MacNeal’s work from 1939, in which he preferred measurement of all accounting elements by the economic value. MacNeal prefers the using of market values for measurement of balance sheet elements and calls for the inclusion of all changes (even unrealized) in value of assets and liabilities in the profit and loss. However, he does not specify if the market value applied is the entry or exit price. He calls the measurement basis as the economic value. “The economic value of anything is its „power in exchange which, measured in money, is its market price” (MacNeal, 1979, p. 87). Current market price is an intersection of activity of many economic subjects and their preferences.

As Mises points out (1963, p. 210), actual market prices “are not facts in the sense in which a physicist calls the establishment of the weight of a quantity of copper a fact. They are historical events, expressive of what happened once at a definite instant and under definite circumstances. The same numerical exchange ratio may appear again, but it is by no means certain whether this will really happen and, if it happens, the question is open whether this identical result was the outcome of preservation of the same circumstances or of a return to them rather than the outcome of the interplay of a very different constellation of price-determining factors.”
The market actions taken by market participations based on their valuations constitute market prices. The most importing thing is that “the exchange ratio, the price, is not the product of equality of valuation, but, on the contrary, the product of a discrepancy in valuation” (Mises, 1963, p. 331). In this context, we can consider market price as an economic counterpart of accounting concept of fair value. Then, fair value income can be denoted as the approximation of economic income. Fair value income is future-oriented and its features are close to the characteristics of the Hicks’ (1946) Income III concept (Procházka, 2009).

Comments to the fair value topics
Unrealized profits and possible erosion of capital
Changes in fair value of entity’s assets and liabilities recognized in income statement (or in other comprehensive income) are holding gains and losses, which have not been realized as at the reporting date. As Abdel-khalik (2008, p. 7) stresses changes in “fair values are only expectations the realization of which is conditional on many factors—primarily management decision to liquidate the position and market stability or volatility.” Calling Mises’ remark on the inconstancy of prices, we should be aware when deciding whether to distribute or not such unrealized profits.

Example 1: Distribution of income
An Entity bought an asset measured at fair value through profit and loss for 100 €. Market price of the asset at the reporting date is 110 €. Next reporting period, the asset is sold for the price of 85 €.

Net income for Period 1 is 10 € and the general meeting can decide to pay the gain out as a dividend despite the fact that this profit is unrealized. However, the market price in subsequent period has declined and in order to stop further losses, the asset is sold for price, which does not recover initial purchase costs. Net income for Period 2 is the loss of 25 €. Therefore, the entity incurred total loss of 15 €. From this point of view, the entity eroded its capital by paying out cash dividends at the amount of 10 €.

The Example 1 illustrates the possible risk of capital erosion stemming from the distribution of unrealized profits. The function of accounting is not to hinder the users from distributing unearned profits. Financial reporting should only inform the users what can be distributed without erosion of capital. However, the decision whether to maintain the entity’s capital is just up to the owners. The re-
strictions set by the state authorities can be a limiting factor for distribution of profits in order to protect the creditors, minority owners, etc. What is remaining can be distributed and it is the owners’ competence to decide which course to follow.

The critics of FVA believe that under historical cost model or amortized cost model, which they consider as alternatives to the fair value model, the erosion of capital due to distribution of unrealized profits cannot happened. We should have on mind that historical cost accounting contains incentives to get up to “gains trading” or to securities and sell assets. There is no economic difference between unrealized profit (holding gain), which has emerged due to the change in fair value and realized profit arisen by selling an asset at the selling price higher than purchase price, if the profit has been reinvested in another asset.

The discretionary in accounting numbers in HCA reaches a higher level than in the case of FVA and this was one of major reasons for the implementation of fair value measurement in financial reporting. The return to historical costs would lead to old problems. Moreover, disadvantages of historical costs make things worse during crises (compare with Laux and Leuz, 2009).

Reliability and relevance of fair value measurement

The definition of fair value presumes that an entity “is a going concern without any intention or need to liquidate, to curtail materially the scale of its operations or to undertake a transaction on adverse terms” (IAS 39.AG71). Consequently, fair value is delimited as a price agreed by a willing buyer and a willing seller in an arm’s length transaction. Fair value is market-based measurement, which is not entity-specific.

Nevertheless, the entity always possesses advantages or disadvantages relative to others because two entities similar in all aspects can never exist. An entity’s best estimate of fair value does not necessarily equal the “real” fair value. If an entity measures an asset or liability at fair value or, it tends to take into account its perceived advantages or disadvantages relative to others marketplace participants. Such a practice can result in the deviation from requirements of financial reporting standards; however, this fully corresponds to the Mises’ inferences regarding functioning of markets. It is impossible
to set the fair value from the view of a “common market participant”, as there is no such a participant.

The low reliability of fair value measurement is the main issue when market prices are rapidly falling and/or when markets suffer from the lack of liquidity. The estimates of fair value may become distorted by forced sales or fire sales. However, the definition of fair value does not work with the force sale, but with an orderly transaction. The issue, that should be resolved, is whether more reliable and relevant information is provided by measurement based on actual market data or by using specific measurement model under conditions of falling markets.

Even if market prices are rapidly increasing or decreasing, fair values are more accurate and comparable across different entities. The current critique of fair value in terms of its low reliability and relevancy is not well founded. It is only purpose-built cry of those who previously profited on the increasing prices, but who must cope with bigger losses now. The fall in prices during credit crunch was a real economic phenomena and financial reporting should reflect the economic course to provide the users with useful information. If the market price drops suddenly from 1 000 € to 50 €, it is still the market value and it is still fair market value. All other opinions trying to find the “real” fair value not based on “fire sales” are merely normative value judgements without any solid economic background.

Moreover, all unrealized gains and losses should be a subject of detailed explanation by management of entity. If managers failed to explain those gains and losses appropriately, users would gain an indicator that something important happened. The fair value measurement and the detailed disclosure of all relevant changes represent a useful source of information for the users of financial statements, esp. as far as evaluation of financial performance concerns.

**Suboptimal behavior**

Regardless whether fair value accounting is pro-cyclical or not, the pro-cyclicality cannot be a justification for the rejection of fair value as a measurement basis. If fair value provides relevant information for decision-making of individuals, their interests cannot be given up in the favor of undefined aggregate “entity”. The problems, to which financial institutions faced during the credit crunch, were the real economic issues with the roots in excessive monetary expansion of
central banks and unaccountable behavior of financial institution in times of the monetary expansion. Ignoring the reality (i.e. by the dismissing of FVA shall not solve any consequent difficulties (e.g. the necessity to raise capital to meet capital requirements)). The regulators should step into the process and set the basic conditions for doing the business. The redefinition of capital with the respect to fair value measurement is needed and FVA can serve as a tool for evaluation the risks, which endanger financial position of an entity.

Moreover, fair value measurement is a useful indicator of an entity’s ability to foresee the future price movements. Recent financial crunch has many losers, but also some winners have appeared. Those, who had seen the seeds of the crisis in advance, have undertaken respective measures, and have changed their assets portfolios, won. They not only survived the crisis; they became even stronger than they had been before the start of credit crunch. FVA is neutral in respect of excessive prudence. If fair value is implemented properly, it portrays the reality as it is. Under unfavorable market development, fair value accounting enables the users to distinguish the winners from the losers. The latter ones cannot manage their earnings using the hidden reserves acquired in good times.

**Conclusions**

Fair value is the measurement concept that possesses the ability to represent truly and fairly the economic reality in the way, which is found useful by the users of financial statements. From the economic point of view, only current and market-based value is relevant for the decision-making. Conceptually, fair value is superior to the other measurement bases. In order to be a useful measurement basis, fair value must refer to market prices – directly or at least indirectly.

However, current definition of fair value is somehow unclear. There are some questions, which need a deeper explanation, e.g. should fair value be an exit price, an entry price, a mid price, a neutral price. Moreover, there is a conceptual contradiction between requirements on the fair value determination and the approach to the classification of a particular element of the balance sheet. Fair value should be independent on the entity, but the classification of an element often depends on the purpose why the entity acquired the element. The classification influences the subsequent measurement of the element. The discretion in the classification of balance sheet
elements can lead to the outcome that the same element is treated differently across entities (some entities may measure the element at its fair value, others at its historical costs, etc.). The comparability and relevance of financial statements are then reduced. Definition of fair value and principles of its usage are crucial factors in achieving true and fair view of economic reality in financial statements.

Determination of fair value in concrete situations is also an issue. In this connection, it is necessary to decide whether only one fair value for the element exists or if it is possible that several fair values can exist for the particular item. This problem arises chiefly when the evidence of market prices is missing. The guidance on fair value in financial reporting standards sets the duty to derive fair value under conditions of a hypothetical arm’s length transaction. However, even if the responsible person does his/her best, it is impossible to omit own perceptions of the market situation (compare with the Mises’ remark on this topic). Thereby, financial reporting is caught in a little schizophrenic situation. According to standards, fair value information is not entity-specific and fair value of the same element should be the same across entities. In reality, fair value encompasses entities’ opinions, observations and understanding of the market situation. Consequently, users can get different fair values for the same asset/liability. If the variations are significant, the comparability and relevance of financial statements are then reduced again. The correctness in pursuing the guidance on fair value measurement constitutes another crucial factor in achieving true and fair view of economic reality in financial statements.

Despite some disadvantages mentioned above, fair value remains the best available basis for measurement of certain elements of financial statements. The critique of fair value accounting, which emerged as a reaction on the recent financial crunch, is legitimate in some extent. However, the opponents do not offer any functional alternative. Such alternative have to both mitigate the negative impacts of fair value and solve the problems of historical costs for which the traditional measurement model was abandoned in favor of fair value. We should have in mind that each alternative to fair value is a measurement basis, which is “unfair”, actually.

When implementing financial reporting standards, all interested parties should be aware that measurement in accounting is mostly surrogated by its nature. We are not able to define a solid set of principles for measurement, which would ensure a perfect portrait of
economic reality in financial statements. Measurement in financial reporting is always conforming to the present-day economic paradigm and is, therefore, subject to a possible future change. However, the fluctuations of economic performance within a single paradigm (i.e. recent credit crunch) cannot be accepted as a reason for the abolishing of principles in force (i.e. fair value accounting).

ACKNOWLEDGEMENTS. The paper is processed as an output of a research project “Analysis of Accounting Standards for Income Reporting – New Approaches in the World and the Possibilities of Their Utilization in the Czech Republic” (registration number GA402/09/P523).

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OPTIMAL STRATEGY OF LIQUIDITY FINANCING
FOR NON-PROFIT ORGANIZATIONS

GRZEGORZ MICHALSKI
Grzegorz.Michalski@ue.wroc.pl
Wroclaw University of Economics

ABSTRACT. Independently of the kind of a realized mission, sensitivity on risk, which is a result of decision about liquidity financing policy, is on another level. The kind of non-profit organization influences the best strategy choice. If an exposition on liquidity strategy risk is greater, the more conservative will be the strategy. If the exposition on that risk is smaller, the more aggressive will be the net working capital strategy. The paper shows how decisions about liquidity strategy inflow the risk of the non-profit organizations and its economical results during realization of main mission.

Introduction

Financing of the liquidity has its cost depending on risk linked with liquidity strategies used by the financed organization. If we have higher risk, we will have higher cost of financing (cost of capital) and consequently other financially measured effects of nonprofit organization.

Cost of financing of liquidity depends on kind of financing, next on level of liquidity in relation to sales and last but not least danger for nonprofit organization mission caused by risk exposition.

Choosing between various levels of liquidity in relation to sales, we use one from three strategies:

- restrictive strategy when for realization of the mission of nonprofit organization we use the most risky but the cheapest, the smallest as possible, level of liquidity,
- moderate strategy when for realization of the mission of nonprofit organization we moderate between risk and costs of holding liquidity, and
- flexible strategy when for realization of the mission of nonprofit organization we use the most expensive and rather high levels of working capital wanting to hedge the nonprofit organization before risk of shortage of liquidity.

Risk exposition depends on the kind of mission realized by nonprofit organization. If the risk exposition should be higher, then smarter is to choose more flexible and more conservative solutions to have better results. It works in opposite direction also. The safer mission realized by nonprofit organization, the more restrictive and more aggressive strategies give better results.

Nonprofit organization property consists of total assets, i.e. fixed assets and current assets known also as liquid assets. We can see that property as fixed capital and working capital also. Generally working capital equal to current assets is defined as a sum of inventory, short term receivables (including all the accounts receivable for deliveries and services regardless of the maturity date) and short-term investments (cash and its equivalents) as well as short-term prepaid expenses [Mueller 1953; Graber 1948; Khoury 1999; Cote 1999]. Money tied in liquid assets serve nonprofit organization as protection against risk [Merton 1999, p. 506; Lofthouse 2005; p. 27-28; Parrino 2008, p. 224-233, Poteshman 2005, s. 21-60] but that money also are considered as an investment. It is because the nonprofit organization resigns from instant utilization of resources to realization of the mission for eventually future benefits that could be used for future realization of the mission [Levy 1999, p. 6; Reilly 1992, p. 6; Fabozzi 1999, p. 214].

Liquidity level is the effect of processes linked to the production organization or services realization. So, it results from the processes that are operational by nature and therefore correspond to the willingness to produce on time services that are probably desired by final incumbents of organization mission [Baumol 1952, Beck 2005, Beranek 1963, Emery 1988, Gallinger 1986, Holmstrom 2001, Kim 1998, Kim 1978, Lyn 1996, Tobin 1958, Stone 1972, Miller 1966, Miller 1996, Myers 1998, Opler 1999]. It exerts influence mainly on the inventory level and belongs to the area of interest of operational management [Peterson 1979, s. 67-69; Orlicky 1975, s.17-19; Plossl 1985, s. 421-424]. Nevertheless, current assets are also the result of
active customer winning and maintaining policy [Bougheas 2009]. Such policy is executed by finding an offer and a specific market where the product or service is sold. These policy consequences are reflected in the final products inventory level and accounts receivable in short term.

Among the motivating factors for investing in current assets, one may also mention uncertainty and risk. Due to uncertainty and risk, it is necessary to stock up circumspect (cautionary) cash, material and resources reserves that are inevitable in maintaining the continuity of production and preparing final services needed for realization of nonprofit organization mission.

Many organizations could act in a fast changing environment where the prices of needed materials and resources are subject to constant change. Other factors – like exchange rates for instance, are very changeable, too. It justifies keeping additional cash sources allotted for realization of built-in call options (American type) by buying the raw materials cheaper than the long term expected equilibrium price would suggest.

Nonprofit organization relationships with suppliers of materials, resources and services that are necessary to produce and sell final products usually result in adjourning the payments. Such situation creates accounts payable and employees (who are to some extent internal services providers). We will call such categories of obligations the non-financial current obligations in order to differentiate between them and current obligations that result from taking on financial obligations, e.g. short-term debt.

Required payments postponement exerts impact on reducing the demand for these nonprofit organization resources that are engaged in current asset financing. Current assets reduced by non-financial current obligations (non-financial short-term obligations) are called net current assets. Net current assets are the resources invested by the company in current assets equated with the capital tied in these assets.

**Working capital investment strategies and cost of financing**

Next it is necessary to consider the influence of each strategy of investment in the liquidity on the rate of cost of capital financing nonprofit organization and that influence on its economic results.
In the first variant, one must assume that capital providers (lenders) seriously consider while defining their claims to rates of return the liquidity investment strategy chosen by the organization they invested in. Let us also assume that the correction SZ function graph connected with strategy choice could be even and linear (fig. 1).

![Fig. 1. The shape of line of correction SZ as a function of CA/CR in the SZ1 variant](image)

**Source:** Author’s study.

**SZ1 variant.** We assume here that capital providers take into consideration the nonprofit organization liquidity investment strategy while defining their claims as regards the rates of return. Of course, restrictive strategy is perceived as more risky and therefore depending on investors risk aversion level, they tend to ascribe to the financed nonprofit organization applying restrictive strategy an additional expected risk premium. To put it simply, let us assume that ascribing the additional risk premium for applied liquidity investment strategy is reflected in the value of $\beta$ risk coefficient. For each strategy, the $\beta$ risk coefficient will be corrected by the corrective coefficient SZ corresponding to that specific strategy in relation to the CA/CR situation.

The risk free rate is 4%, and rate of return on market portfolio is 18%. If XYZ non-profit organization is a representative of W sector for which the non-leveraged risk coefficient $\beta_u = 0.77$. On the basis of Hamada relation, we can estimate the equity cost rate that is financing that organization in case of each of the three strategies in the SZ1 variant.

$$\beta_i = \beta_u \times \left(1 + (1 - T) \times \frac{D}{E}\right) = 0.77 \times \left(1 + 0.81 \times \frac{0.4}{0.6}\right) = 1.19$$
Where: T – effective tax rate\(^2\), D – organization financing capital coming from creditors (a sum of short term debt and long term debt \(D = D_s + D_l\)), E – organization financing capital coming from founders / owners of the organization, \(\beta\) – risk coefficient, \(\beta_u\) – risk coefficient for an assets of the non-profit organization that not use debt, \(\beta_l\) – risk coefficient for an organization that applying the system of financing by creditors capital (here we have both asset and financial risk).

For restrictive strategy, where CA/CR is 0.3; the SZ risk premium is 0.2:

\[
\beta_{l_f}^* = \beta_u \times \left(1 + (1 - T) \times \frac{D}{E}\right) \times (1 + \delta_s) \\
= 0.77 \times \left(1 + 0.81 \times \frac{0.4}{0.6}\right) \times 1.2 = 1.16 \times 1.2 \\
= 1.43
\]

Where: SZ – risk premium correction dependent on the liquidity investment strategy.

For moderate strategy, where CA/CR is 0.45 the SZ risk premium is 0.1:

\[
\beta_{l_m}^* = \beta_u \times \left(1 + (1 - T) \times \frac{D}{E}\right) \times (1 + \delta_s) \\
= 0.77 \times \left(1 + 0.81 \times \frac{0.4}{0.6}\right) \times 1.1 = 1.19 \times 1.1 \\
= 1.31
\]

For flexible strategy, where CA/CR is 0.6 the SZ risk premium is 0.01:

\[
\beta_{l_f}^* = \beta_u \times \left(1 + (1 - T) \times \frac{D}{E}\right) \times (1 + \delta_s) \\
= 0.77 \times \left(1 + 0.81 \times \frac{0.4}{0.6}\right) \times 1.01 = 1.19 \times 1.01 \\
= 1.2
\]

Using that information we can calculate cost of equity rates for each liquidity investment strategy. For restrictive strategy:

\[
k_{e_r} = \beta_l \times (k_{m} - k_{RF}) + k_{RF} = 1.43 \times 14\% + 4\% = 24\%;
\]

For moderate strategy:

\[
k_{e_m} = \beta_l \times (k_{m} - k_{RF}) + k_{RF} = 1.31 \times 14\% + 4\% = 22.3\%;
\]

And for flexible strategy:

\[
k_{e_f} = \beta_l \times (k_{m} - k_{RF}) + k_{RF} = 1.2 \times 14\% + 4\% = 20.8\%.
\]

where: \(k\) – rate of return expected by capital donors and at the same time (from nonprofit organization perspective) – cost of financing.
capital rate, \( k_e \) – for cost rate of the equity, \( k_{dl} \) – for long term debt rate, \( k_{ds} \) – for short term debt rate, \( k_m \) – for average rate of return on typical investment on the market, \( k_{RF} \) – for risk free rate of return whose approximation is an average profitability of treasury bills in the country where the investment is made.

In similar way, we can calculate the risk premiums for XYZ alternative rates. We know that long term debt rates differ for 9\% \times (1+SZ) in relation of equity to long term debt. From that we can get long term debt cost rates for each alternative strategy. For restrictive strategy:

\[
R_{dlr} = k_{er} - 9\% \times 1.2 = 24\% - 10.8\% = 13.2\%;
\]

For moderate strategy:

\[
R_{dln} = k_{en} - 9\% \times 1.1 = 22.3\% - 9.9\% = 12.4\%;
\]

And for flexible strategy:

\[
R_{dlf} = k_{ef} - 9\% \times 1.01 = 20.8\% - 9.1\% = 11.7\%.
\]

Next we can calculate the risk premiums for XYZ alternative cost of short term rates. We know that short term debt rates differ for 12\% \times (1+SZ) in relation of cost of equity to short term debt rates. From that we can get short term debt cost rates for each alternative strategy. For restrictive strategy:

\[
R_{dSr} = k_{er} - 12\% \times 1.2 = 24\% - 14.4\% = 9.6\%;
\]

For moderate strategy:

\[
R_{dSm} = k_{en} - 12\% \times 1.1 = 22.3\% - 13.2\% = 9.1\%;
\]

And for flexible strategy:

\[
R_{dlf} = k_{ef} - 12\% \times 1.01 = 20.8\% - 12.1\% = 8.7\%.
\]

As a result, cost of capital rate will amount to:

\[
CC = \frac{E}{E + D_1 + D_2} \times k_e + \frac{D_1}{E + D_1 + D_2} \times k_{dl} \times (1 - T) + \frac{D_3}{E + D_1 + D_2} \times k_{ds} \times (1 - T)
\]

However, for each strategy – this cost rate will be on another level (calculations in the table 1).

As it is shown in the table, rates of the cost of capital financing the non-profit organization are different for different approaches to liquidity investment. The lowest rate: \( CC = 13.1\% \); is observed in flexible strategy because that strategy is linked with the smallest level of risk but the highest economic effect is linked with restrictive strategy of investment in liquidity.

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Table 1. Cost of capital and changes in economic results depending on the choice of liquidity investment strategy.

<table>
<thead>
<tr>
<th>Liquidity investment strategy</th>
<th>Restrictive</th>
<th>Moderate</th>
<th>Flexible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash Revenues (CR)</td>
<td>2000</td>
<td>2080</td>
<td>2142.4</td>
</tr>
<tr>
<td>Fixed assets (FA)</td>
<td>1400</td>
<td>1445</td>
<td>1480</td>
</tr>
<tr>
<td>Current assets (CA)</td>
<td>600</td>
<td>936</td>
<td>1285</td>
</tr>
<tr>
<td>Total assets (TA) = Total liabilities (TL)</td>
<td>2000</td>
<td>2381</td>
<td>2765</td>
</tr>
<tr>
<td>Accounts payable (AP)</td>
<td>300</td>
<td>468</td>
<td>643</td>
</tr>
<tr>
<td>Capital invested (E+D₁+Dₛ)</td>
<td>1700</td>
<td>1913</td>
<td>2122</td>
</tr>
<tr>
<td>Equity (E)</td>
<td>680</td>
<td>765</td>
<td>849</td>
</tr>
<tr>
<td>Long-term debt (D₁)</td>
<td>340</td>
<td>383</td>
<td>424</td>
</tr>
<tr>
<td>Short-term debt (Dₛ)</td>
<td>680</td>
<td>765</td>
<td>849</td>
</tr>
<tr>
<td>EBIT share in CR</td>
<td>0.5</td>
<td>0.45</td>
<td>0.40</td>
</tr>
<tr>
<td>Earnings before interests and taxes (EBIT)³</td>
<td>1000</td>
<td>936</td>
<td>857</td>
</tr>
<tr>
<td>Free Cash Flows in 1 to n periods (FCF₁ₙ)</td>
<td>1000</td>
<td>936</td>
<td>857</td>
</tr>
<tr>
<td>Initial Free Cash Flows in year 0 (FCF₀)</td>
<td>-1700</td>
<td>-1913</td>
<td>-2122</td>
</tr>
<tr>
<td>SZ risk premium correction</td>
<td>0.2</td>
<td>0.1</td>
<td>0.01</td>
</tr>
<tr>
<td>Leveraged and corrected risk coefficient β₁</td>
<td>1.428</td>
<td>1.309</td>
<td>1.2019</td>
</tr>
<tr>
<td>Cost of equity rate (kₑ)</td>
<td>24%</td>
<td>22.3%</td>
<td>20.8%</td>
</tr>
<tr>
<td>Long-term debt rate (k₃₁)</td>
<td>13.2%</td>
<td>12.4%</td>
<td>11.7%</td>
</tr>
<tr>
<td>Short-term debt rate (k₃ₛ)</td>
<td>9.6%</td>
<td>9.1%</td>
<td>8.7%</td>
</tr>
<tr>
<td>Cost of capital (CC)</td>
<td>14.8%</td>
<td>13.9%</td>
<td><strong>13.1%</strong></td>
</tr>
<tr>
<td>Economic result of liquidity strategy</td>
<td><strong>5057</strong></td>
<td>4821</td>
<td>4420</td>
</tr>
</tbody>
</table>

Source: Author’s study

Cost of capital for restrictive strategy of investment in liquidity:

\[
CC_r = \frac{680}{1700} \times 24\% + \frac{340}{1700} \times 13.2\% \times (1 - 0.19) + \frac{680}{1700} \times 9.6\% \times (1 - 0.19) = 14.8\%
\]

Expected growth of economic result of liquidity strategy:

\[
ΔER_r = FCF_0 + \frac{FCF_{1+n}}{CC} = -1700 + \frac{1000}{0.148} = 5057.
\]
Cost of capital for moderate strategy of investment in liquidity:

\[
CC_m = \frac{705}{4814} \times 22.3\% + \frac{4814}{4814} \times 12.4\% \times (1 - 0.19) + \frac{705}{4814} \times 9.1\% \times (1 - 0.19) = 13.9\% ;
\]

Expected growth of economic result for that strategy:

\[
\Delta ER_m = -1919 + \frac{850}{0.19} = 4821 ;
\]

Cost of capital for flexible strategy of investment in liquidity:

\[
CC_f = \frac{845}{4112} \times 20.8\% + \frac{4112}{4112} \times 11.7\% \times (1 - 0.19) + \frac{845}{4112} \times 8.7\% \times (1 - 0.19) = 13.1\%
\]

Expected growth of economic result for flexible strategy:

\[
\Delta ER_f = -2122 + \frac{857}{0.19} = 4420.
\]

Conclusions

Depending on the non-profit organization business type, sensibility to liquidity financing method risk might vary a lot. Character of non-profit organization mission also determines the best strategy that should be chosen. The best choice is that with the adequate cost of financing and highest economic result of liquidity strategy. This depends on the structure of financing costs. The lower the financing cost the higher effectiveness of non-profit organization activity measured by the economic result of liquidity strategy. The organization choosing between various solutions in liquidity needs to decide what level of risk is acceptable for her owners and capital suppliers. It was shown in solutions presented in that paper. If the risk exposition is higher, will be preferred more safe solution. That choice results with cost of financing consequences. In this paper, we considered that relation between risk and expected benefits from the liquidity decision and its results on financing costs for the nonprofit organization and economic result of liquidity strategy.

NOTES

1. Acknowledgment. The research is financed from the Polish science budget resources in the years 2010-2012 as the research project NN1130-21139

2. According to [Brigham 30-2] even non-profit corporations that are exempt from taxation, and they have the right to issue tax-exempt debt but
individual contributions to these non-profit organizations can be deducted from taxable income by the donor, so: “non-profit businesses have access to tax-advantaged contributed capital.”

3. Because of exempt of taxation, EBIT is equal to net operating profit after taxes (NOPAT).

REFERENCES


ABSTRACT: Cash maintained in nonprofit organizations is not a source of any interests and although the close to cash assesses together with credit lines available for enterprise are connected with resigning from realization of the part of incomes or costs, firms decide to maintain some liquidity reserves. And not only has this resulted from transactional needs, but also from precaution and speculative reasons. Investment in liquid reserves resulting from speculative demand for money may be assessed by usage of capital budgeting methods like: NPV or IRR or as a call option. In the article, each of these aspects of liquidity was taken into consideration and presented from nonprofit perspective. Nonprofit liquidity value determination may often significantly contribute to the solution of working capital management problems in these organizations.

Introduction

What is the value we may attribute to liquidity for non-profit organization? Managers in non-profit organizations have a lot of important reasons for which their enterprises should possess some money resources reserves even if current interest rate is positive [Kim 1998]. The reasons may be classified into three main groups:
- the necessity of current expenses financing (transactional reason);
- fear of future cash flows uncertainty (precaution reason);
- future interest rate level uncertainty (speculative reason).

Liquidity, especially cash, understood as money resources in organization safe is not a source of any or small interests. Maintaining
liquidity reserve in the non-profit organization is a result of belief that the value of lost income on account of interest will be recompensed by the benefits for incumbents of non-profit organization [Kim 1998, Lee 1990]. The hypothetical benefits are from higher profitability that organization mission will be completed, thanks adequate liquidity level. Then organizations maintaining such reserves assume that in equilibrium conditions, marginal liquidity value is equal to the interest rate of the Treasury Bonds investments (or interest rate being a cost of short-term credit we took out to obtain liquidity. Without doubt, the statement that liquidity does not bring any benefits may be rejected at once. From such a perspective, liquidity would be treated as a “necessary evil” linked only to the costs resulting from interests lost. Another incorrect conclusion would be an assumption that present net value always equals zero. It would be a result of the statement that due to the fact that marginal liquidity value is always equal to interests lost, cash reserves size has no significance at all [Henderson 1989, p. 95; Kim 1998, Lee 1990: 540].

For organization being in possession of liquid reserves the marginal utility of liquidity changes. Along with the growth in amount of cash possessed, the marginal cash value decreases. So it may be noticed that for the market Treasury Bond rate or short-term credit rate, it pays to keep some money reserve only to the specific level. There is a point corresponding with the optimal (critical) liquidity level, up to which the amount of liquid assesses in the non-profit organization may be increased at a profit [Washam 1989, p.28; Henderson 1989, Lee 1990]. The term: liquidity degree (or level) is connected with the known from economic literature conception of “liquidity container”. The more liquid assesses (which may be easily convertible into known amount of money resources and sensible only to a slight value change risk), the higher is enterprise liquidity level.

After crossing this critical liquidity level, the Treasury Bonds sale or taking out a short-term debt is unprofitable for the non-profit organization. The marginal benefit from higher cash reserve is lower than the cost of interests lost [Rast 2000, Washam 1989; Henderson 1989].
Liquidity definition

Liquidity is defined in economic literature in many various ways. It is understood as an enterprise solvency i.e. ability to regulate its obligations that result from usual transactions, unexpected events or situations enabling ”bargain” purchase of goods [Henderson 1989, Lee 1990]. On the other hand, liquidity is considered as a transaction space on the financial market. It occurs when there is a ”liberty” of carrying out ”huge” sale or purchase transactions on the market, with no fear that you will not find appropriate demand or supply. Another popular definition of liquidity its description as an assesses convertibility into other assesses. In other words, liquidity is an easiness of carrying out the exchange transactions with low transaction costs.

There are important connections among these three looks on liquidity. If there appears the necessity of regulating an obligation exceeding cash reserves in enterprise possession, the possibility of repayment depends on whether it is possible to exchange assesses possessed for cash or not. If so, it will be paid off on time. At the same time, the possibility of such an exchange depends on the capacity of the non-profit organization assesses market. It means that the ability to regulate non-profit organization obligations (short-term solvency) is dependent on the capacity of the market of assesses constituting non-profit organization reserves (or more generally: its property). Financial liquidity is therefore an internal category of the non-profit organization, influenced both by the managing team and other factors occurring inside the non-profit organization and in its surroundings. The long-term liquidity is totally disregarded here [Washam 1989, Henderson 1989, Lee 1990].

We will understand non-profit organization financial liquidity as liquid assesses reserve, which may be used in order to carry out transaction without any time or financial loss resulting from normal operational activity (transactional liquidity) or because of unexpected needs (precautional liquidity) or because of attractive profit opportunities expectations (speculative liquidity) [Washam 1989, Beck 1993, Lee 1990].

The non-profit organization transactional and precautional liquidities on sufficient level enable prompt fulfillment of internal (salary payments etc.) and external creditors (suppliers payment etc.). The non-profit organization financial liquidity (operational and precautional) usually concerns operational activity and is not linked to in-
vestment activity. If it comes to enfeeblement or loss of operational and precautional liquidity in the non-profit organization, it menaces with [Scherr 1989, Washam 1989, Beck 1993]:

- lowering decision making elasticity
- deteriorating non-profit organization ability to set the organization mission
- higher foreign capital raising cost
- demobilization of donors
- worsening non-profit organization position.

In order to avoid such dangers, constant monitoring of non-profit organization financial liquidity is necessary, and then taking actions guaranteeing its economic-financial equilibrium.

**Option liquidity value**

Liquid resources resulting from the “speculative” liquidity demand may bring some benefits, but do not have to. As we can see, liquidity exceeding the daily transactions demand, provides the non-profit organization with an option to take up unexpected projects worth realization to better realization of the mission [Washam 1989, Beck 1993]. Keeping an access to liquidity that exceeds transactional needs, the non-profit organization is in possession of call option.

For example, if in the period when the non-profit organization possesses speculative liquidity sources, there appears possibility of assesses which normal long-term value amounts to 5 million Euro and at the given moment, they can be purchased for 2 million Euro, the NPV of such a “project” will come to 3 million Euro. If non-profit organization possesses the required money reserves, it will have benefit of 3 million Euro. If the non-profit organization has not the access to additional liquidity – it will lose the possibility of investment project realization together with 3 million Euro. Typical options have a value equal to the assesses value reduced by the price of realization and option price. If purchased assesses value exceeds the sum of those two quantities, speculative liquidity reserves generates profits equal to NPV of the project taken. It is about the situation while the speculative reserves are being used, i.e. when operational net cash flows is not sufficient to cover costs resulting from taking up the investment [Scherr 1989, Washam 1989, Beck 1993]. In other case, there is no profit from additional liquidity resources doming from speculative demand.
Option liquidity value is dependent on 6 factors [Beck 1993]. First of them is the present net value project value. If the potential project profitability increases, the value of project taking option will increase as well. Another factor determining liquidity value is the non-profit organization cash flow. If other factors are constant, option value will increase along with the decrease of operational cash flows level, and will fall together with those flows level increase.

It is because, along with increased operational cash flow level, the probability that the unexpected investment project cost will be covered with those flows increases too. Therefore, the probability of using additional liquidity linked to speculative demand is decreased. The third and the forth factor determining option liquidity value is the cash flows and project cost changeability.

If operational cash flows changeability increases, we are faced with lower probability of using additional speculative liquidity – and therefore the option liquidity value decreases. The probability of using additional liquidity decreases along with increase in project cost changeability. Such increase in changeability is also accompanied with the diminishing project profitability.

The other factors influencing the option liquidity value are: interest rate and the correlation between operational cash flows and costs. If interest rate increases, present project value will decrease, and then – option liquidity value will decrease as well. But correlation between operational cash flows and costs is quite different. If this correlation increases, option liquidity value will increase too. It results from the fact that the probability of using to take up the investment some operational cash flows omitting liquid speculative reserves will be decreased then [Hill 1995, Puxty 1992].

Setting the optimal liquidity level on the basis of its value

It is profitable to increase liquidity level but only to a specific optimal quantity. It results from the current market liquidity value (short-term deposit interest rate or short-term credit interest rate available for a non-profit organization). The point, to which non-profit organization liquidity level may be increased at benefits for incumbents of the non-profit organization, results from. From equalizing of market liquidity value and internal non-profit organization liquidity value (i.e. for $v_m = v_i$):
where: \( V_i(pp_{opt}) = v_m \)  \hspace{1cm} (1)

After crossing his optimal liquidity level \((pp_{opt})\) increased liquidity (e.g. by abandoning to deposit the resources and/or liquidation of existing deposits, or taking short-term debt) is uneconomic for the non-profit organization. That unprofitability among other things results from the fact that marginal utility of higher financial liquidity level is lower than the cost of lost interests benefits. This cost arises as a result of the loss of open deposit interest linked profits in case of resignation from depositing the sources or unnecessarily incurred financial costs if the enterprise uses “unnecessary” outside financing. Optimal financial liquidity level \((pp_{opt})\) being a result of comparing the market liquidity level \(v_m\), available for a non-profit organization and the internal liquidity value \(v_i(pp_{opt})\).

The following conditions are implied by these facts: carrying out investment 2., taking up the credit 3., and equilibrium 4.

- carrying out investment condition: \( v_i < v_m \)  \hspace{1cm} (2)

- taking up the credit condition: \( v_i > v_m \)  \hspace{1cm} (3)

- equilibrium condition (optimal liquidity level):
  \[ v_i = v_m \]  \hspace{1cm} (4)

where: \( v_i \) – internal financial liquidity value in the non-profit organization,
\( v_m \) – market financial liquidity value (available for the non-profit organization).

Example: X non-profit organization has a short-term credit of bank A at its disposal. \( v_m \) is the cost of this credit. If the non-profit organization management estimates that the internal liquidity value amounts to: \( v_i \), it will delay taking the credit until the internal liquidity value \( v_i \) will be higher than market value \( v_m \). When these two values become equal, enterprise financial liquidity value will
reach the optimal value. But whereas $v_i$ exceeds the $v_m$ level, the firm will demand external financing.

Current finance management begins with determining the optimal liquidity level because it guarantees the best effects [McMenamin 1999]. In order to determine his level information about internal liquidity value is needed (abort the course of the curve representing it) and non-profit organization market liquidity value must be known too.

Conclusions

Although, cash maintained in the non-profit organization is not a source of any interests and although the close to cash assesses together with credit lines available for non-profit organization are connected with resigning from realization of the part of incomes or costs, non-profit organizations could decide to maintain some liquidity reserves. Not only this results from transactional needs, but also from precautional and speculative reasons. Precautional liquidity results from a will to protect oneself against higher costs connected with impossible to predict negative economic events. It should be assessed from safeguard’s point of view. However, investment in liquid reserves resulting from speculative demand for money may be assessed by usage a call option approach. In his paper, each of the above-mentioned aspects of liquidity was taken into consideration and presented. Pondering option liquidity value six factors most influencing it were pointed out. Further analysis of the liquidity value problem would aim at finding the credible methods of its determination. The non-profit organization liquidity value determination may often significantly contribute to the solution of working capital management problems.

NOTE

1. Acknowledgment. The research is financed from the Polish science budget resources in the years 2010-2012 as the research project NN1130-21139
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ABSTRACT. One of the most important challenges of financial management is the management of capital and in particular equity capital. The major objectives are decreasing the cost of capital, determination of the optimal capital structure, definition of factors influenced on the cost of capital and as a result the search of the most advantageous sources of financing. But on the every stage of life cycle of enterprise the cost of equity capital can be different, the opportunities of attracting capital are varied and its optimal amount can also changed. Nowadays a lot of changes took place in the world economy cause of world financial crisis, as the changes on the financial markets, changes of internal and external factors influenced on the cost of capital and as a result on the methods of its management. This article devoted to the analyze of the existent approaches to management of equity capital, determination of changes in the environment conditions and factors that have impact on the cost of capital and as a result the revelation the most optimal approach to manage equity capital in the stage of crisis and post crisis period in the life cycle of enterprise.

Introduction

Equity capital is the base of the enterprise’s financial stability and its successful development. Nowadays in the consequences of world financial crisis a lot of companies find themselves on the stage of crisis and post-crisis period. Thus the optimal financial decisions are the way to go through unstable economic times and the effective equity capital management advances it.
One of the main challenges of equity capital’s management is decreasing cost of equity capital by the means of adjusting internal and external factors influencing on it for the purpose of enterprise’s development. Cost of capital determines the minimum yield investors require on invested capital. It is the payment for lost opportunities and the risk, thus one of the main parts of capital cost management is risk management especially on the stage of crisis and post-crisis with higher risk’s level.

Companies in times of instability are assailable and affected to different external and internal factors, which in turn influence on the equity capital and as a result financial decisions. Thus managing the equity capital all factors should be taken into account.

The financial crisis’ influence on an enterprise and its environment

Financial crisis that broke out in 2008 has had a big influence on the world economy. The consequences of financial crisis were across-the-board. A lot of companies were close to the bankruptcy, financial performances hardly decreased.

There are several the most important impacts of financial crisis that has marked an imprint on the management of equity capital: lower return of investment, less liquidity, reevaluation of risks, difficulty to find long-term loans and another financial resource, higher spreads, new gearing and need of state guarantee. In the most countries inflation decreased, that in turn leads to lower interest rates and as a result decreasing of cost of capital. But in some countries with tight monetary policy the refinancing rate and inflation have increased. Thus that consequent effect is ambivalent.

In order to manage equity capital effective in the crisis not only consequences have to be taken into account but also its causes and what is more it is essential to find out the lessons from them. The lack of information is one of those causes. The companies should increase transparent disclosure policy that in turn decline agency and estimation risks and as a result decrease cost of equity capital. The next problem is the ignorance of the regulator authorities. They didn’t keep up with the times in the sphere of financial innovation. Also there should be more external and internal regulating and auditing as higher auditing quality leads to lower risks and as a result decreases cost of equity capital.
Next can be noticed not truly risk’s evaluation. First of all because market was oriented on the financial service segment and companies with high leverage. Secondly the optimistic forecast of analytics. Managers have to regulate risk management process and at the same time investors should control it.

Differences between investors’ and managers’ interest play great role in the equity capital management and can be cause of the crisis. Shareholders have to control managers and stimulate them on the long-term growth of the company. Shareholder rights should be stronger because that leads to lower cost of equity capital.

But an economic crisis leads a great recession only if it blocks the provision of capital to businesses long enough to generate widespread corporate failures. So in order to rein this process, managers have to find the available resource of finance with less cost checking into account all factors that influence on it.

But there exists opinion that financial crisis hasn’t influenced on the cost of capital (Dobbs, 2009). Research shows that the long-term price of risk hasn’t increased over its historical levels and during present financial crisis the cost of capital was remarkably stable. But this research doesn’t take into account risk influence that affects on the cost of equity capital. And also it doesn’t concern to the firms that on the stage of crisis or post-crisis period in the context of life cycle of enterprise first of all because they don’t have access to new capital.

Companies have to be careful in the management of equity capital during the crisis because interest rates are low now, but in the future they can rise and if the company’s return will stay at the same low level its financial stability decrease and the company can be close to the bankruptcy.

The current economic environment has caused changes in the traditional methods of evaluation. There are some factors that have greater influence during crisis and post-crisis periods.

**Equity Capital and factors influencing on it**

Equity capital represents the investment amount of owner changed driven by business operations in the form of asset value for the purpose of acquisition of income. Equity capital can be divided into two groups: external and internal resources. Retained earnings and allocation of depreciation relate to internal sources, where the last
component is used in case of high level of owned fixed and intangible assets exploitation. However it doesn’t increase capital but reinvest it. External resource can be divided also into two groups: new capital in the form of emission of shares (IPO) or special purpose funding. As a rule that source of external financing is free cost. Firstly it can be state support in the forms of grants and subsidies and secondly in the form of assignable assets without charge.

The most important part of management of equity capital is cost estimating and its adjusting. Cost of equity capital important for financial decisions connecting with future firm’s growth and for evaluation of the firm. There are a lot of factors that have great influence on the equity capital and its cost which can be divided into two groups (Figure 1).

Figure 1. Factors influencing on the equity capital and its cost
Enterprise cannot influence on external factors and cannot manage them but at the same time using the knowledge if their impact equity capital can be effectively managed avoiding this influence or making other financial decisions. However enterprise can influence on internal factors and can manage them.

Information asymmetry is one of the main problems in the management, which leads to higher cost of equity capital. The fluctuations on the market also rise it up. Interest rate and inflation have direct relations. Macroeconomic stability is one of the most important factors that gives financial stability and stable development with low cost of equity capital and vice averse.

Firms with stronger shareholder rights have lower cost of equity capital because of ability to monitor and discipline managers that in turn reduces potential agency and estimation risks. And as a result reduce cost of equity capital. Transparent disclosure policy also decreases it. Companies with weaker shareholder rights and higher transparent disclosure policy have the similar cost of equity capital as firms with stronger shareholder rights and lower transparent disclosure policy. Also stronger corporate governance and its components lead to lower cost. The effective corporate governance solves the problem of information asymmetry between investors and managers which causes additional agency and estimation risks and as a result week investors’ protection and in turn higher cost of equity capital. Increase quality of information and as a result decrease cost of equity capital we can by independent audit committee and high auditing quality, which affects investors assessment of the future cash flows. Greater financial disclosure also reduces the cost by increasing the stock market liquidity and reducing information asymmetry. And higher financial performances of the firm also decrease cost of equity capital for example higher asset liquidity or return on equity.

Also we can define factors influencing on different components of equity capital. For example factors influencing on the cost of new capital and retained earnings: flotation cost issue and effect of taxes on the cost of equity capital. The cost of retained earnings is lower than the cost of new issue because of flotation costs issue.
Management of equity capital during recession: first step

The management of equity capital can be divided into 3 main steps. The first step is formation of equity capital from external and internal resources and optimization of its structure in consideration of availability, practicability and financial stability. Firstly we determine the essential amount of equity capital for firm’s development in order to get over the crisis. The priority source is internal financing because as usual it is cheaper than external and the firm doesn’t lose control. The rest amount is provided by external resources. But during the crisis and post-crisis period availability of different sources of financing has changed.

One of the best opportunities for the company is to find financing from special purpose funds which will be free from charge. There can be only information search expenses. Government support can be available for the big-sized companies that have substantial significance in the national economy during the crisis.

The most popular external source of financing is share emission, but the most expensive especially in the crisis because of increasing risks on the market. Also the stock prices are declining that decrease the amount of attracted capital.

If the firm’s financial stability is very low and there is no availability to other resources a firm can have recourse to private equity firms which provide equity capital to companies for their development and way out difficult times. To go out of the crisis the company has to implement innovation, to reequip the manufacture, so additional financing is required. But the firm can lose the management. But at the same time the equity private firms help not only with finance but also with strategic advice and information in its critical periods. Another advantage of private equity is existence of investors’ experience and network of contacts. During the crisis credibility of the firm can decrease and the price of its assets also decline, private equity solve this problem by its guaranties and financial support. Private equity investment as usual is used in the period of start-up. But it is very good source and for companies in the crisis and post-crisis period, cause development and future growth is only one way to survive. What is more using private equity as a financial resource the firm doesn’t have interest payment during its growth. Investors will have return on their capital only if firm have a profit.
The company can finance its development also by retained earnings. It is the top-priority source for development because the financial performances are higher and the expenses are lower. But this source can be available in the long term period. First firm have to produce, then to sell that products and only after will have the profit. But in the crisis period company have to react immediate and the financing should be available in the short-term period. So the company has to raise its profit by increasing sales by introduction of a new product (innovation), reducing costs, raising competitive advantage and increasing market segment.

Depreciation allocations are the essential source of financing modernization of production in order to develop new product or improve previous as a strategy of going out of crisis. Reinvesting of capital is the base of company’s development.

In the crisis and post-crisis period a firm optimizes structure of the resources according to availability of capital and its cost but the preferences go to the internal sources in order to keep the control.

Management of equity capital during recession: second step

Estimating the cost of equity capital is the part of equity capital management. In order to optimize structure of the equity capital it is necessary to estimate its cost according to all internal and external factors that influencing on it. During the crisis one of the main aspects in the cost estimation is liquidity: the higher liquidity leads to lower capital.

To estimate cost of equity capital two main parameters are defined: risk free parameter and market risk premium. The last one can be defined from expectations of investors and experts’ recommendations, historical data and expected return, which is forward looking market premium. But historical data can be used only for financial markets with long history and not for emergency markets. What is more because of changes on the financial markets it is complicated to estimate market risk premium because of uncertainty so the risk is increasing and as a result cost of equity capital.

Risk free element can be defined from government bonds annual returns in long-term period. Government bond yields that show risk free parameter of estimating cost of equity capital are low nowadays and that in turn decrease it. The broad stock market level has declined and the expected equity risk premium as parameter of
estimation cost of equity capital has increased, which shows investors’ expected return on a diversified portfolio of common stocks.

In order to estimate cost of equity capital three components are considered: current stock price, current dividend and expected growth rate. But it is difficult to estimate the last one even in the good economic times, but during the crisis historical data or investors’ expectations can’t be used. But on the other hand recommendations of experts or forecasts are very risky too, so the cost of equity capital increases during instability.

With use of risk premium reports managers check the yields of public companies and take this information into account to estimate real cost of equity capital. And after estimation there is necessary to check the reasonability and effectiveness of this financial decision. After estimating the cost of equity capital is necessary to correct it according to additional risks.

Management of equity capital during recession: third step

As cost of equity capital is the risk adjusted return the investors require on invested the third step of capital equity management is risk management. During the crisis risks escalates. Figure 2 shows types of risks that have to be adjusted during the crisis in order to decrease cost of capital and provide growth of the company.

![Figure 2. Risks influencing on the equity capital during crisis and post-crisis periods](image-url)
Liquidity risk divides into two parts: assets and investment liquidity risks. Asset liquidity risk determines by the ability to close out assets in time and investment liquidity risk determines by ability to finance on maturity. Thus the company faces the lack of cash that leads to losing of financial stability that in turn reflects to the availability of financial sources and theirs cost. Operational risk connects with inappropriate management of the firm that leads to the financial loss. It attaches to inadequate internal processes, human resources and systems. Market risk connected with losses in consequence of changes in prices, exchange rates and interest rates in the financial markets. In the process of globalization and during the crisis we can take into account interrelation risk. The financial situation of suppliers, customers, retailers, financial institutions, competitors and at least government have a great influence on firm’s stability thus in the crisis and post-crisis period the cosignatories can have negative influence on the company. Agency and estimation risks can be caused by information asymmetry or weak shareholders’ right and investors’ protection. Those kinds of risk have greater influence on the cost of equity capital. There is direct dependence between agency and estimations risks and the cost of equity capital. The gold rule of risk management: higher risk leads to higher cost.

Conclusion

The method to estimate cost of equity capital managers have to choose carefully, to consider all factors that have influence on the cost of equity capital and take into account all elements of equity capital. In order to choose optimal method manager have to consider firm’s performances as current and quick ratio, net working capital, total assets turnover ratio and working capital turnover ratio, net profit margin, return on equity and financial leverage ratio, structure of financial resources, corporate governance and quality of auditing information, macroeconomics factors as fiscal policy and economic stability and other external and internal factors.

On the stage of crisis and post-crisis there are some preferences concerning the financial decisions: liquidity preferences (choose resources of financing by the in liquidity), corporate governance preferences (investors’ protection, shareholder rights, financial dis-
closure and auditing quality) and risk preferences (adjust all types of risk before they cause financial failures).

The equity capital is more risky than debt capital thus during crisis and post-crisis periods the management and estimation the equity capital are more important for right financial decisions and the growth of the company.

REFERENCES


METHOD OF DETERMINING WARNING SIGNALS BASED ON A COMPANY’S FINANCIAL CYCLE OF LIFE USING LOGISTIC AND LOG-LOGISTIC FUNCTION

RAFAŁ SIEDLECKI
rafal.siedlecki@ue.wroc.pl
Wrocław University of Economics

ABSTRACT. The article proposes the determining the enterprise cycle of life and the model of forecasting the financial difficulties. To determine the trajectory of company development, including the phases of enterprise cycle of life logistic and log-logistic functions have been selected, as they are not only useful in economy, but also turned out to be useful in case of enterprise. The choice of these functions, based on the logistic growth law is the result of financial parameters observation and research. It turned out that the functions approximate the enterprise development curve well, though accurate assigning the analytical form of function describing the enterprise cycle of life, likewise assigning the trend function is a difficult task, due to lack of the universal methods of determining it.

Financial warning signals in a company

Warning signals
The aim of warning forecast is to signal “early enough” unfavorable changes in selected business activity areas, described by time series. Warning forecast is, by nature, a long-term forecast; its characteristic feature is the fact that it does not give values of forecasted variables but only warning against the possibility of unfavorable changes occurrence.

Warning forecasting is forecasting of the transactor’s business activity decrease. In macroeconomic scale it is forecast of economic decrease. It can also concern a branch or an enterprise. On one hand, the enterprises should be recipients of such forecasts, especially
when they are preparing strategic targets of their activity. At the same time they should thoroughly assess the economic rates.

The remaining decrease of the rates, which should grow and increase of the ones that should go down is called unfavorable economic situation (NSG)\(^1\). The unfavorable economic situation can be described as disturbance of a desirable course of company development. The role of warning forecast is to signal, early enough, the possibilities of unfavorable economic situation occurrence.

The warning forecast is constructed for any time series, whose correct fig. is increasing trend\(^2\). In practice, it rarely happens that economic quantities, describing economic activity constantly increase, the growth period is followed by stable or decrease period. The warning forecasting task is to forecast occurrence in series the phase of decreasing values. This is why the warning forecast is defined as follows\(^3\):

“Warning forecast is the formulated assumption based on the information given by time series, that in next moment \(T_0\) the state of the analyzed economic phenomenon will be lower than in \(T_0 - 1\) moment.

Warning forecast formulated in \(T = n\) moment is true, when time series terms meet the condition:

\[
y^{*}_{T_0} - y_{T_0 - 1} < 0 \quad T_0 > n
\]

where \(y^{*}_{T_0}\) - future real series value”.

The truth of warning forecast should be formed not on the basis of raw time series burdened with random errors, but on the basis of smoothing function. The choice of the correct smoothing function \(f(T)\) has significant meaning in warning forecast. In such case the condition of the truth of warning forecast is:

\[
f(T_0) - f(T_0 - 1) < 0
\]

Inequalities (1) and (2) are the basic determination of the truth of warning forecast. Warning forecast is de facto quality forecast.

\(T_0\) moment is called a warning forecast horizon. Too short warning forecast horizon causes its low usability, because there is not enough time for repair process performance.

In practice, analysis and warning forecast usually are not based on one time series, but on whole series bundle, describing a selected fragment of examined phenomenon.
Let’s assume that in $t_0$ moment (usually the last moment where the data has been obtained i.e. $T_0=n$ is adapted), a selected series bundle is analyzed, then it can turn out that:
1) all series show decrease of value,
2) all series show increase of value,
3) part of series shows decrease of value.

None of the cases mentioned determine the trend of the analyzed series, if, however, the cases are brought to smoothing function examination, then:
- In first case warning is delayed, it concerns also corresponding part of series.
- Non-trivial, from early warning point of view, is the case where the series show a increasing tendency, though you can notice unfavorable economic situation (NSG) in the nearest future.
- In third case we can talk about so called local (if it concerns a selected line of activity) or spread (if it concerns whole economic system) unfavorable economic situation, other do not react yet to troubles occurring in an examined economic system (enterprise, branch). In practice, a synthetic meter, which is a kind of signaling device for unfavorable economic situation, is determined for a selected bundle of series. Ratio condition models assessment acts as such meters (e.g. popular Altman’s models, or synthetic stock exchange indexes etc.).

**Warning signals determination criteria**

In micro scale, the horizon of warning forecast, which is the beginning of unfavorable company situation is the change of sign of second differences of trend function of selected series – signaling devices.

A sign sequent of its first differences can be created for any function in $[1,n]$ period. In a similar way a sign sequent of $f(t)$ function second differences can be created. Let „+” means positive (non-negative) and ‘-‘ means negative first (or second) difference of such $f(t)$ function. Warning occurs when in a smoothing function’s growth, its second differences show the change of sign form ‘+’ into ‘-‘, warning disappears when the differences change the sign from ‘-‘ into ‘+’.

Fig. 1 shows time series and first and second differences sign sequent for Ford assets values. Warning is permanent in time interval, starting from the point of inflection, via maximum to minimal point.
of smoothing function. A very rough analysis of the graph allows thinking that in the nearest future decreasing growth of the series will be maintained. A warning signal was emitted from $t=6$ moment even though series trend was still rising.

In fig. 1 we can see that the fall of rate of growth (seen in the aspect of a life of a company cycle) can occur in the case when the graph enters the mature phase. It does not always indicate unfavorable company situation. However each transition into a mature phase should be considered as a slight warning signal.

Fig. 1. Sign sequences for time series for Ford Co.

![Sign sequences for time series for Ford Co.](image)

Source: Own study

In warning forecasting, just like in classical forecasting, different methods and techniques of emitting warning signals can be applied.

**Method of warning signals tracing in a company based on strategic bands**

**General remarks**

Warning signals tracing, using financial cycle of company life should include: selection of suitable financial data, suitable functions for its forecast and variation and stability of increment analysis.

One of the most important tasks in this case is financial data selection and matching of a suitable function. The selection depends mainly on a given company branch, the period for which warning signals are supposed to be generated, and on subjective appraisal of a person analyzing those signals.
One of the ways of financial warning signal analysis, based on life of a company cycle, is increment stability and variation of selected financial parameter analysis. Based on the analysis two kinds of warning signals can be determined:
- change of growth rate in accordance with the assumed scenario, informing about approaching moment of company transition from one cycle phase into another,
- decreases or increases exceeding the trend (logistic or log-logistic) function deviation, traced by strategic bands.

Strategic bands are the intervals determining the assumed development trajectory deviation, determining the following phases of a company life cycle. The analysis is rather widespread in testing the quality of products (TQM), where so called control cards are used, or in financial markets in technical analysis (e.g. Bollinger’s or percentage band). Popular econometric and statistic methods, such as e.g. interval estimation and interval forecast or export methods, which can be used to determine variation intervals of examined financial parameters, can be used to determine the strategic bands. The strategic bands in this article have been determined for selected, described companies. Interval forecasting has been used to strategic band construction.

It means:
- $\hat{Y}_t$ point forecast based on $n$ data number has been determined,
- reliability of forecast ($\alpha$) has been assumed and coefficient $u$ connected with it has been determined,
- $s^2_e$ remainder variance and a priori $s^2_{pt}$ forecast error have been determined,
- forecast interval has been determined:

$$P\left\{\hat{Y}_t - us_{pt} < Y_t < \hat{Y}_t + us_{pt}\right\} = \alpha,$$

where

$$s_{pt} = \sqrt{\left[\frac{(t - \bar{t})^2}{\sum_{j=1}^{n}(t_j - \bar{t})^2} + \frac{1}{n} + 1\right]s^2_e}.$$
Revenue for annual periods and cumulated value of EVA (annual data) index, which should reflect change rate of a company value have been used to present strategic bands in that point. The value has been determined for polish companies (now it does not exist, after financial distress was taken over.) Prokom S.A. growth trajectories in form of logistic or log-logistic functions have been determined for the company. Due to limited availability of the data the matching and annual data analysis have been carried out for the following years: 1994–2003, determining trajectory based on 1994–2000 data,

Figures 2-3 show the forming of selected financial parameters, log-logistic function estimating, and first and second differences informing about change of rate. Change of growth rate analysis based on logistic function has been presented in an attachment.

Table 1. Logistic and log-logistic function parameters

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<th>Log-logistic function</th>
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</table>

Fig. 2. Change of growth rate analysis for Prokom SA based on revenue in 1992-2003

Source: Own study.
Prokom companies, which, in a tested period, signal the transition to another growth (mature) phase, the sign of transition is the change of II difference sign from positive to negative. It concerns also revenue and $EVA$. For Prokom company, as we can notice, 1999 year was the moment of change of rate, signaled by both financial parameters (see figures 2, 3).

The strategic bands for the companies described above and selected financial parameters such as the value of revenue and $EVA$ cumulated index have been constructed using the value of determined log-logistic function as point forecast. External limits, for reliability level $\alpha = 0.95$, have been determined for all companies. Exceeding the limits generates strong warning signal. There have been also determined internal limits, for $\alpha = 0.8$, exceeding the limits generates weak warning signal.

As the analysis shows, in a forecasting period, weak or strong warning signals were generated for all companies.

In case of Prokom the revenue exceeded the lower external limit in 2001. In the same year, a strong warning signal was generated by $EVA$ index. According to the analysts the company has been decreasing its market value since 2003 (see fig. 4 and 5).

As we can see from the analysis made selected financial parameters are very useful in company financial appraisal. They should be used by managing board of the companies in strategic planning of a company development.
The idea of strategic bands, presented in the article, based on Prokom S.A. analysis can be expanded not only with the annual data, useful in strategic (long-term) planning, but also with quarterly and monthly data. It results from the fact that financial warning signal analysis in current company management, based on the annual data seems to be not very useful, in such case quarterly and monthly results, which are monitored in companies.
NOTES


2. To make it easier we assume that the economic values which should determine fall (destimulant) can be transferred into stimulant with the use of certain methods. So, growing time series is an abstraction expressing desired course of an economic phenomenon.


5. See Siedlecki R. “Metoda wyznaczania finansowych sygnałów ostrzegawczych w cyklu życia przedsiębiorstwa.”

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IMPACT OF STOCK SPLITS ON LIQUIDITY

TOMASZ SŁOŃSKI
tomasz.slonski@ue.wroc.pl
Wrocław University of Economics

JÓZEF RUDNICKI
jozef.rudnicki@gmail.com
Wrocław University of Economics

ABSTRACT. In this paper the event analysis is applied to measure the impact of stock splits on companies’ liquidity. Although it is difficult to find relationship between stock splits and trading volume for particular companies, the results are statistically valid for the whole sample of companies. In this case the stock split could be a vehicle for increasing company’s liquidity and reducing investor’s investment risk.

Introduction

In the current decade companies listed on the Warsaw Stock Exchange decided to split the shares. A stock split results in the nominal value of equity being diminished while the number of shares increases. The transaction of the stock split does not alter the percentage stake held by particular shareholders. One of the rationales staying behind such a step of the company’s management is the desire to step up liquidity of stocks in the free float.

H. Mendelshon and Y. Amihud (Mendelshon, Amihud 2000, pp. 223–249) found that an increase in the turnover of stocks arises in either of two ways: (1) as an increase in accessibility for a greater number of investors, i.e. the marketability of the securities augments and through (2) an increase in the information available to investors on the future performance of the company.

The liquidity of stocks can be measured through counting the number of shares in free float, defining the size of daily turnover of
stocks and bid/ask spread in the order spreadsheet. Numerous research studies report that the expected rate of return is negatively correlated with the aforementioned measures of liquidity. As a consequence, one may infer that an increase in liquidity of shares constitutes a relatively simple mean to scale down the cost of equity compared with e.g. a shift in the risk profile of business activity run.

Many authors view the liquidity premium as being directly connected to the small stock effect.\(^1\)In the classic Fama–French model (Fama, French, 1995, p. 131–155) the difference between the rate of return achieved by small–and large–cap stocks has to reflect the impact of a relatively slight liquidity. It can be related to the fact that investment risk of small–caps may ensue from a different way of the organization of small–caps market. The company size is correlated with the spread between the bid and ask offer in the order spreadsheet [see Ibbotson, Kaplan, Peterson 1997, p. 105], what may influence the speed how the information is incorporated in the stock price and by the same token on a positive autocorrelation of monthly rates of return [Mech 1993, 307–344]. Small stock effect perceived from the perspective of a low liquidity may be also supported by the fact that not all the shares can be listed in the same time. Though in the case of small stocks a lack of liquidity may be especially evident there exists a group of authors who recommend analyzing relatively modest liquidity regardless of the above mentioned effect.

Authors of the article analyze the impact of stock splits on a subsequent liquidity. They do not consider the day of the announcement of the operation. Instead, they scrutinize consciously the day of the stock split with the purpose of proving the thesis that a stock split implies an increase in the stock liquidity.

**Review Studies on Stock Liquidity and Resulting Conclusions**

E.F. Fama, L. Fisher, M. Jensen and I.R. Roll (Fama, Fisher, Jensen, Roll 1969, p. 1–21) pioneered with their article on stock splits the field of stock liquidity. Their conclusions have been disproved due to inappropriately fashioned sample of considered companies. Nevertheless, in the title one may find the suggestions that underlined the effect of the information being conveyed through a stock split. According to the interpretation assumed in the article stock splits signal a growth in expected cash flows (indicating greater dividend) as well an opportunity to sustain them at a higher level.
Subsequent studies on the impact of stock splits on the rate of return conducted by M. Grinblat, R. Masulisoraz S. Titman [Grinblat, Masulis, Titman 1984, p. 461–490] took into account the moment of an announcement of the intent to perform a stock split as well as the day of such an operation itself. Investors realized statistically significant rate of return at the level of 3.44% that resulted from the announcement of an intent to accomplish a stock split. The authors reasoned the figure as a signal of an expected growth in dividend. For the entire sample of 1 360 stocks they found statistically significant rate of return on the next day after the split was conducted.

In the research studies on the effect of stock splits publicized in the 90s of the prior century there has been reported a positive rate of return at the level of 7% in the year after the stock split [Dharan, Ikenberry 1995, p. 1547–1574; Ikenberry, Rankine, Stice 1996, p. 357–377]. A verification of the results obtained would have refuted the hypothesis of average market efficiency. E.F. Fama attempted to explain above average rate of return realized by the investors in the year following the stock split [Fama 1998, p. 283–306]. He found that the research studies considered focus on the return on investment in stocks as if they were purchased and held by an investor in the time horizon being analyzed. The rate of return calculated in such a manner is benchmarked to a return realized from the stocks with no assumption of buy–and–hold strategy. E.F. Fama recommended to compare the rates of return using a ratio based on cumulative rates of return, not the differences in realized rates of return.

One may interpret stock splits as an attempt to obtain optima price range that enables to increase the turnover of stocks. Although the statement is presented in a number of different publications conclusions drawn by T.E. Copelanda do not seem to support it [Copeland 1979, s. 115–141]. He proved that the liquidity declined after a stock split. Moreover, the turnover of stocks decreases as well. Additionally, standard deviation of rates of return after a stock split rises by approximately 30% [Ohlson, Penman 1985, s. 251–266]. It implies that the effect of the stock split can be costly to the firm, i.e. an increase in the cost of equity.
Method and Sample

The studies for the purpose of the article have been performed for three time intervals. The first one was day zero, i.e. the authors examined the changes in trading volume on the first trading session after the stock split has been conducted with distinction between individual stocks as well as treating them as a whole sample. Finally, the authors considered the behavior of trading volume of the entire sample of analyzed companies as a result of a stock split within a defined time interval, i.e. within the range \([-40; +40]\) what should be understood as the period from the 40th day before the stock split until the 40th day after it including the day zero.

The analysis of 64 transactions stitched up since 1992 until 2010 by companies listed on the Warsaw Stock Exchange accomplished using event study methodology within which there can be distinguished three constituents, i.e. the Mean Adjusted Return Method, the Market Model Method, and the Market Adjusted Return Method.

Mean adjusted return method

The \textit{ex ante} expected return on a security is constant with respect to time but it can vary with respect to securities. This model is consistent with the assumptions of CAPM and it also posits systematic risk and stationary investment opportunity set for investors. The first step is to select the \textit{clean period}.\(^3\) Afterwards there should be calculated the average daily return of this period for a specific company. The expected return for a firm for each day equals the mean daily return achieved in the clean period by a company, e.g. for a clean period \([-241; -40]\):

\[
R_{\alpha} = \frac{1}{200} \sum_{t=-240}^{-44} R_{t}.
\]

and the excess return gained on a day from the event window is equal to:

\[
\tau_{it} = R_{it} - R_{\alpha}
\]
Market model method

This method is most commonly used due to the fact that it factors into the mean returns and the risk that accompanies the market. At the very beginning of the estimation procedure within this model there should be selected a clean period and then there is performed regression for each day in the period. The equation of the market model is:

\[ \hat{r}_{it} = \alpha_i + \beta_i R_{mt} + \epsilon_{it} \]

where: \( \hat{r}_{it} \) – the expected return on a security \( i \) at the moment \( t \), \( \alpha_i \) – the mean return over the period not explained by the market, \( \beta_i \) – the sensitivity of a company \( i \) to the market, \( R_{mt} \) – the return on a market index on day \( t \), \( \epsilon_{it} \) – the statistical error for which the following holds \( \sum \epsilon_{it} = 0 \).

The statistical errors \( \epsilon_{it} \) should sum up to zero in the clean period. As a result of the regression there are estimated the parameters \( \alpha_i \) and \( \beta_i \). The predicted return for \( i \) company on the \( t \) day within the event period is equal to:

\[ \hat{r}_{jt} = R_{it} - \beta_j R_{mt} \]

\( R_{mt} \) – the return on a market index for the actual day in the event period.

Market adjusted return method

It can be deemed as the simplest method among the three considered by the author. The underlying assumption is that the ex ante expected return on a security is constant both with respect to other securities and time. This model is consistent with the assumptions of CAPM with \( \beta_i = 1 \) for all companies where as \( \alpha_i = 0 \). The expected return for \( i \) company at the moment \( t \) in the event period is:

\[ \hat{r}_{it} = R_{mt} \]

and the excess return gained on a day from the event window is equal to:

\[ \tau_{it} = R_{it} - R_{mt} \]

where: \( R_{mt} \) – the return on a market index for the actual day in the event period.
Test statistics used to calculation of statistical significance of event returns

To check with a certain level of confidence whether the excess returns (residuals) differ significantly from zero there can be tapped the statistic which tests the null hypothesis that the 1–day residual for a given firm equals zero; if one makes an assumption that the returns for that firm are independently and identically normally distributed then one can say that:

\[ \frac{\tau_i - \bar{\tau}}{\widehat{\sigma}_i} \]

can be described by means of a \( t \)–distribution where:
- \( \tau_i \) – the residual for \( i \) company at the moment \( t \),
- \( \bar{\tau} \)–the evaluated standard deviation of the residuals for \( i \) company utilizing data from the estimation interval:

\[
\frac{1}{\sqrt{199}} \sum_{i=1}^{199} (\tau_i - \bar{\tau})^2
\]

with 199 degrees of freedom.

When there are more than 30 degrees of freedom then the \( t \)–statistic has a standard normal distribution. The procedure of rendering the results of this test is: the null hypothesis can be declined only when the ratio \( \frac{\tau_i - \bar{\tau}}{\widehat{\sigma}_i} \) is greater than the critical value what means that the 1–day residual at the significance level of 5% differs from zero.

The procedure of testing the null hypothesis stated above can be extended onto a group of companies. The 1–day abnormal return averaged over firms is defined as:

\[ \bar{\Delta R}_t = \frac{1}{N} \sum_{i=1}^{N} \tau_i \]

and consecutively the extended form of \( \frac{\tau_i - \bar{\Delta R}}{\widehat{\sigma}(\bar{\Delta R})} \) ratio is:

\[
t = \frac{\frac{1}{N} \sum_{i=1}^{N} \tau_i - \bar{\Delta R}}{\sqrt{\frac{1}{199} \sum_{i=1}^{199} (\Delta R_i - \bar{\Delta R})^2}}
\]

where:

\[ \widehat{\sigma}(\bar{\Delta R}) = \sqrt{\frac{1}{199} \sum_{i=1}^{199} (\Delta R_i - \bar{\Delta R})^2} \]

is the standard deviation of the entire sample (the same for each day in the event period as a consequence of usage of the same estimation period for a sample ensuing from independent and identically distributed abnormal returns) and:

\[ \bar{\Delta R} = \frac{1}{199} \sum_{i=1}^{199} (\Delta R_i) \]
The formula for the event window $[-40;+40]$ is as follows:

$$t = \frac{\text{CAR}}{\text{S(CAR)}} = \frac{\sum_{t=-40}^{+40} \text{AR}}{\sum_{t=-40}^{+40} \text{S(CAR)}}$$

whereas: $\text{CAR}$ – sum of cumulated mean rates of return within the interval of $[-40;+40]$.

The studies encompassed 64 transactions of stock splits accomplished from 1992 until 2010.

The research omitted the stock splits for which the data was not accessible or not meeting the assumptions formulated at the very onset.

**Fig. 1. Average residuals of the volume for three methods employed to the sample**

![Graph showing average residuals of the volume for three methods](image)

Source: own study.

**Results**

The major conclusions can be divided into three parts taken into account time horizon considered. And so, for *day zero* for particular transactions there was observed no statistical evidence on the impact of stock split on a subsequent change in trading volume. Similarly, for *day zero* for the whole sample there can be not declined the null hypothesis of zero residual. In turn, for the sample analyzed within the time interval of $[-40; +40]$ the test statistic, for 1% statistical significance, exceeded the critical value. Hence, one can infer that stock split contributed to an increase in the liquidity of the sample of
64 transactions. The aforementioned conclusion relates to all three methods deployed, and so to the Mean Adjusted Return Method and the Market Adjusted Return Method what can be perceived as a favorable argument for the significance of the studies performed.

The authors of the analysis of the impact of stock splits on liquidity of companies listed on the Warsaw Stock Exchange found that such a transaction impacted positively on the liquidity embodied by the trading volume within the time period of \([-40; +40]\) including \textit{day zero}. Nevertheless, the issue of indicating the factors that determine the growth in trading volume goes beyond the framework of the studies.

Furthermore, one may also consider other measures of liquidity, e.g. \textit{bid–ask spread} or \textit{free foot} what implies further analysis. The authors reported that during the studies there occurred outliers whose occurrence inflated the results obtained. The extreme values can influence the analysis significantly. Nonetheless, this issue also requires further studies.

**NOTES**

1. Small stock effect alludes to achieving by small caps higher rates of return rather than those attained by larger companies by capitalization. Pioneering research studies on the small stock effect and the way of incorporation of such an effect in the CAPM.

2. The sample analyzed encompasses also the stocks of companies that did not disclose any announcements of pending stock splits three days before the transaction was concluded nor did they pay out any dividend in the period of three years preceding the announcement.

3. Clean period – the period spanning days on which there was revealed no information having any liaisons with the event. Clean period can encompass the period before or after an event but never or a combination of them two but never the event period.

**REFERENCES**


ABSTRACT: What is nationalization? Nowadays, the concept of nationalization has become so controversial and debated thus many of us depart from the true meaning of the term, preferring to remove from it a concept associated with economic crisis, the financial collapsed site and a decline overall financial system. In fact, nationalization is a natural economic cycle, a primary way - if you can call it this way - to redress an economic crisis and to save one of the most vital branches of the economy - the bank branch. This paper proposes an analysis of the concept of nationalization, focusing on the nationalization of banks, as major step in the process of economic crisis.

The process of nationalization of banks in United States

2 years ago few people had heard of the credit market crisis, but now the term entered the lexicon of normal. Having its origin in the irrational expansion of the U.S. mortgage market, unexpected finan-
cial crisis has evolved over the past two years, resulting in spectacular failures, causing millions of unemployed and affecting all sectors.

The solution to the financial crisis that could bring real economic recovery would be "temporary nationalization" of American banks by the U.S. Government. This is a proposal advanced by a famous professor of economics at New York Universities, Nouriel Roubini, and an interview with The Wall Street Journal.

Roubini Obama advised the Swedish model of the '90s, when several banks owned by state, were put in order, then resold to private owners. The idea that the government would trillion out of his pocket to try to save financial institutions and to throw more money unnecessarily and is not attractive because the cost is much higher tax. Instead of being perceived as a Bolshevik idea of nationalization would be something pragmatic. The current administration continues to believe strongly that private banking is the correct solution.

In an attempt to restore confidence in financial markets and lending activity, the U.S. Treasury said in October 2008 that will buy up to 250 billion shares and values preferential savings and loans. The program, which the Treasury says it is voluntary, will be open to financial institutions of all sizes to apply for assistance before November 2008. Investment in each institution will be limited to $ 25 billion or 3 percent of risk weighted assets.

No names, appointment or numbers, the U.S. government said that nine large financial institutions have agreed to participate in the capital purchase program for a total of $ 125 billion in investments. Reports, however, indicates that some companies had to be strong-armed into business.


Government said that any company that chooses to participate would also have to comply with the Treasury Department for Corporate Governance and Executive Compensation. These rules include measures to take back benefits and executive compensation
when appropriate and to ensure that nobody can go home with a golden parachute while taxpayers are at risk.

This is nationalization, much of the financial system. They now have the authority and power to nationalize the system to ensure that the system remains intact. American Bankers Association and it expressed support for emergency response. But Chairman and CEO Edward Jingling said, "this is not a program. An ABA spokesman said the Treasury cash infusion plan is a good tool to have, but a great majority of financial institutions is not necessarily because they are well capitalized."

Meanwhile, Treasury said that it is developing a third program to provide direct assistance to companies and that the terms of this assistance will be determined on a case by case.

In chronological order from the U.S. market following events occurred on the impact on the economy and hence on the banking sector:

- April 2007 - New Century Financial, an American company specializing in subprime loans, goes bankrupt and fired half the staff.
- July 2007 - Investment bank Bear Stearns announced that investors would receive less money than they invested in two hedge funds managed by the bank.
- August 17, 2007 - The Federal Reserve (Fed) cut its lending rate those commercial banks by 0.5% to 5.75%.
- September 18, 2007 - the Fed cut benchmark interest rate by 0.5% to 4.75%
- October 30, 2007 - Merrill Lynch Investment Bank chief resigns after the company announced a 7.9 billion U.S. dollars exposure in the subprime lending market.
- January 22, 2008 - The Fed cut the reference rate with 0.75% to 3.5%, this being the most significant transaction of its kind in the past 25 years.
- July 14, 2008 – Indy Mac Bancorp Mortgage Bank, the fifth U.S. bank, based in California, and has ceased to request the arbitrator U.S. banking market, which occurred after panic withdrawals by storage led to the third largest bank failure in U.S. history. after the bankruptcy of Continental Illinois National Bank & Trust Bank Code First Republic Bank Corp. in 1984 and 1988.
September 7, 2008 - mortgage lenders Fannie Mae and Freddie Mac - which hold or guarantee half the mortgages granted in the U.S. market - are rescued by the U.S. government.

September 10, 2008 - Lehman Brothers Bank announced losses of 3.9 billion U.S. dollars in the three months completed on August 31.

September 15, 2008 - After several unsuccessful attempts to find a buyer, Lehman Brothers goes bankrupt, becoming the largest U.S. bank collapsed. Merrill Lynch agrees to be acquired by Bank of America for 50 billion dollars. Fed announces a rescue package worth $ 85 billion for AIG. Company receives a loan in exchange for 80% of shares.

September 25, 2008 - Washington Mutual, which had assets of 370 billion dollars, is bought by JPMorgan Chase.

September 28, 2008 - Members of U.S. legislators to reach agreement on the financial system rescue plan initiated by the Treasury $ 700 billion worth.

September 29, 2008 - Wachovia is bought by rival Citigroup. House of Representatives rejected the rescue plan worth 700 billion dollars. This operation puts new questions about the ability of banks to overcome the crisis. Dow Jones tumbles 7%

October 3, 2008 - House of Representatives adopted plan worth 700 billion $. Treasury prepared to support the financial system.

October 14, 2008 - Administration in Washington revealed de-
tails of an action through which injected 250 billion dollars in various banks.

October 15, 2008 - U.S. data on retail sales sector shows a decrease of 1.2%, highest in last three years. Dow Jones lost 733 points or 7.87% - the biggest daily decline in percentage terms since October 26, 1987.

October 30, 2008 - The Fed reduced its reference rate from 1.5% to 1%.

November 23, 2008 - The U.S. government announced an in-
jection of liquidity carrying value of $ 20 billion in banking giant Citigroup after the company's shares fell by 60%.

November 25, 2008 - U.S. announces it will inject 800 billion dollars to stabilize the economy.

December 11, 2008 - Bank of America announces the dismissal of over 35,000 employees over the next three years after taking over Merrill Lynch.
- December 16, 2008 - The Fed cut the reference rate to a range between 0 and 0.25% - its lowest level ever recorded.
- January 16, 2009 - The U.S. government still give Bank of America $ 20 billion.

Crucial question remains: Will manage to finish bank nationalization financial crisis?

Some experts believe that the crisis may end if he is allowed the government to take control. The opposition argues that the real problem lies with U.S. banks in their stock too vast toxic assets. In their nationalization would not help anything, only if the government would create a mega fond or a bad bank "assets to absorb the problems and remove them from the market.

In conclusion, we can say that U.S. authorities have counted about all the possibilities to save the banking system. The problem is that America's economy and industry is not at all small. Banks are world class and the consequences that befall them immediately felt globally. Such a financial shock takes time to fix. Unfortunately the economy rebounds at a speed less than that of the fallen. Solutions exist, and capital as an economic recovery looming horizon throughout the western Atlantic Ocean.

The process of nationalization of banks in Romania

Concerning nationalization in Romania, it stands by the law of 1948. At that time it held the most important events of this nature.

One of the cases of nationalization in the context of this law is the bank BRD. History of the banks begins in 1923 when the Society established the National Industrial Credit as a public institution. State held 20% of capital, National Bank 30%, the rest being held by individuals, including a group of former executives of Marmorosch Blank & Co.

After World War II, the nationalization law of 1948, the National Society of Industrial Loan is nationalized, becoming Bank Investment Loan.

In 1957, after reorganizing the financial system, Bank of Credit Investment in Romania to get a monopoly on the medium and long term financing to all industries except agriculture and food industry, and takes the name of Investment Bank. During this period, most of the funding from World Bank is run by investment bank.
In 1990, which enjoyed a monopoly of specialized banks in their area is suppressed. Romanian Bank for Development set up as commercial bank in the form of company stock, and take over the assets and liabilities Investment Bank, received a general operating permit.

In 1998 sales contract is signed - purchase of shares Société Générale and State Property Fund, the Romanian State in charge of holdings, contract by which SG subscribe a capital increase of 20% and buy a stake which it afford to become owner of 51% of the expanded capital of BRD.

As the reverse operation, privatization and bankruptcy cases known in Romanian history and remain the bank Bancorex Bank-coop.

Romanian Foreign Trade Bank was established as a bank specializing in transactions with foreign countries, drawn from the Foreign Relations Department National Bank of Romania Socialist Republic. Have a high degree of independence, which has developed its lucrative operations, particularly foreign exchange operations. He contributed to the establishment of joint banks with Romanian capital participation:
- Banque Franco-Roumaine, founded in Paris in 1971 with Credit Lyonnais and Banque Nationale de Paris;
- Anglo-Romanian Bank Ltd., based in London, with Barclays and Manufacturers Hanover Trust;
- Misr Romanian Bank, headquartered in Cairo, together with Banque Misr;
- Frankfurt Dubai Bank, together with major German banks;
- Banca Italo Romena with Italian banks.

By 1990 the monopoly operations in foreign exchange receipts and payments. On December 28 was established BRCE (Romanian Bank for Foreign Trade) in company shares and on December 31, 1990, NLR BRCE operating authorization granted as a commercial bank. In 1995 its BRCE name is replaced with "Bancorex" for marketing reasons. In 1996 it had about 60% of Romania's foreign trade operations and was very active in energy imports.

In the year 1997 it had a network of 38 branches, 17 agencies, an offshore branch in Nicosia and two offices in New York and Moscow. Capital amounted to 93.17 billion lei. Its shareholders were: SPF 62 266% SIF 27.61% 8.915% companies, individuals 1.202%.
Bancorex was the center of a strong political and financial scandal caused by faulty policies and bank loans based on political criteria. There was the so-called "robbing" the bank. Irregularities were ever more. Since 1997 has tried cleaning Bancorex by political decision of the President of the country, which resulted in prosecution and conviction of the bank president.

In 1999, following international pressure, the bank wound up bankrupt. Bad loans have been transferred to Banking portfolio Assets Authority (AVAB), an institution created for this purpose. Restructured bank merged by absorption with the Romanian Commercial Bank.

Regarding Bankcoop, this was a little different. This was a private bank established with domestic capital, with the main business of the cooperative and supporting SMEs. Bankcoop was a hope to revitalize these areas. Bankcoop went bankrupt in 2000.

The table below highlights the bankruptcy of the Romanian banking system:

In today's economic crisis, the Romanian government would not nationalize banks.

Government of Romania wants foreign banks to receive further funding lines from parent companies and do not intend to take action at these institutions in exchange for support measures, a procedure that would require nationalization, Prime Minister Emil Boc said.

"The government does not want the nationalization of banks; this is not the right direction. The government will have but very serious analysis and leadership NBR banks in Romania, as committed funding lines are maintained. Our desire is that banks participating in the privatization process in Romania and have the obligation to respect means the Romanian state and maintain them. I believe that we can find common solutions, government-NBR-banks, so that lines of funding are maintained," said Emil Boc, Prime Minister of Romania, to launch the report of analysis and synthesis of the Romanian Academic Society forecast "Romania in 2009, economic crisis and the rule of law, responding to a question on the state takeover of shares in banks in exchange for funding lines, the model applied some EU countries."

He said that there were already scheduled a series of meetings this week and next week for talks on the topic.
The Prime Minister also said that after the budget talks, there will be held "a very serious issue" with National Bank for linking government policies with those of CB.

"Without the existence of a set of mutually supportive measures that the Government and National Bank, we will not take the best decisions. I already had preliminary discussions with National Bank and they will continue in the next period. We note also recommendation on the capitalization of banks, a recommendation that I took it into account. We want to assure a business that, by what followed, by the capitalization of banks, is only a first step to give further financial resources economy focusing on what the report says, guarantee mechanisms and counter-guarantee, which may be a solution for business\(^4\).

**Conclusion**

- Nationalization is the act of taking over an industry or just certain assets owned by a state government or a government.
- The concept of nationalization has evolved considerably over time. If his first phase (19th century) was regarded as a way to enrich the state and make it stronger acquiring as many assets and properties in recent years has become a concept associated with collapse’s private sector and hence the economic and financial crisis.
- Nationalization is often associated with controlled economy and hence a concept which opposes the idea of democracy and free market economy.
- The solution to the financial crisis that could bring real economic recovery would be "temporary nationalization" of American banks by the U.S. Government. This is a proposal advanced by a famous professor of economics at New York University, Nouriel Roubini, an interview with The Wall Street Journal.
- As regards nationalization in Romania, it stands by the law of 1948.\(\)\(\) At that time held the most important events of this nature.

**NOTES**

1. Nouril Roubini, February 2009
2. Robert Gibbs, White House spokesman, February 2009
3. Quote from Mark Zandi, chief economist at Moody's Economy.com, October 2008

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ABSTRACT. State transformations of financial relations are based on the creation of a new culture and stereotypes with the aim to have a more efficient management system of financial resources. Over the past six years there has been a substantial change in financial relations in Lithuania and throughout the world. Global and local changes in the economy, membership in the EU, tax reform, human factors, innovations and other factors had a crucial impact on it. The research paper analyzes transformations of financial relations, i.e. transformations of taxes, state income, expenditure and borrowing. The tax reform, dynamics of state income and expenditure, the growth of public debt are analyzed in order to reveal transformations of financial relations that occurred in the country. Moreover, the reasons that determined the occurrence of the transformation are generalized.

Introduction

Financial functions reflect the forms of occurrence of financial resources and their significance to the community and national economy. Generally, there are three major financial functions mentioned in the economic literature: the function of formation, usage and control. When talking about public finances, however, two functions are usually highlighted: the function of allocation and control. The allocation function is associated with the expression of the value of GNI and its allocation to the funds. The control function is related to...
the objective usage of the funds formed. Functionally, the stability is maintained in the period of economic growth and depression, too. Only the relations of the process participants are transformed, which are regulated by the newly issued laws. When we refer to public finances and financial relations the processes that are connected with the formation and usage of different monetary funds should be concerned. The process participants are all participants of an economic sector: households, enterprises, a state and a foreign sector. Lithuania is a unitary state that is why the largest monetary fund is State budget. The research paper analyzes the transformations of financial relations in the public sector over the last six years (2004-2009). Moreover, it seeks to analyze the factors that determined the current situation when the public debt grew because of the decrease of population and tax income to State budget.

The aim of the article is to evaluate the transformations of financial relations in the context of management of state finances. The object of the article is financial relations of the state.

The methods of the article are the systematic analysis of literature, statistic date analysis, comparison and generalization. The paper is organized as follows. In the next section the definitions are presented and the scientific attitude to the transformations of financial relations is construed. The second section introduces the data and methodology the analysis is based on. The third section presents the empirical analysis and discusses the results. The article ends with the conclusions.

**Factors Determining the Transformations of Financial Relations of the State**

The economic theory presents the cycles of economy during which the relations of economy participants and their functions necessarily change. The economic depression of the years 2008-2009 is associated with the recession, sometimes it is identified with the economic crisis. The economic theory determines the factors that can condition the economic depression, however, the significance of these factors and the extent of their impact depend on the economic situation of different states before the depression. Lithuania has already been in the EU for six years and the transformations of financial relations in the public sector are partly determined by international coordination of institutions and global market processes that
occur in the whole world. The scientific literature excludes the factors that determine the economic stability in the country: stock prices in the market, slowdown of investment processes, the level of unemployment and inflation, public debt, changes of social payments, budget deficit that occurs because of reduced tax income. The reduction of stock prices conditions the decrease of investment to the securities, too. Moreover, the growth of unemployment level determines the drop in the production scope. Therefore, the consumption decreases and the level of prices drops. The decrease of tax income is a condition for the growth of the budget deficit because the significance of social payments becomes especially important in the period of economic depression. As the number of unemployed people increases, the number of people who need social payments grows, too. All these processes have impact on the policy of public finances and on the decisions made by leading people. The underlying causes of these differences are disparate historical traditions connected with the market economy and the unequal preparation of societies to exist both in the free market conditions and in a diversified political, social and economic situation. The causes of these differences can be explained by transformations of financial relations. It brings new aspects of the transformation to our attention. The results of the transformation depend on the extent to which new rules dominate in society. If the formal rules do correspond to the informal ones, a tendency appears for them to consolidate, which leads to a reduction of costs related to the establishment and maintenance of the system concerning the observance of the rules of the social game. Cultural peculiarities have influence on the transformations of financial relations, too. Culture consists of patterns, explicit and implicit of and for behavior acquired and transmitted by symbols, constituting the distinctive achievement of human groups, including their embodiment in artifacts; the essential core of culture consists of traditional (i.e. historically derived and selected) ideas and especially their attached values; culture systems may, on the one hand, be considered as products of action, on the other hand as conditioning elements of future action. In addition to the afore-mentioned factors determining the transformations of financial relations the political motive can be mentioned as well when state obligations enormously grow before the elections.

The transformations of financial relations are based on economic and financial regulation of the state. “Regulation” may be defined as
a phenomenon that seeks to provide a sustained and focused approach to modify the behavior of the subjects of regulation, so that compliance may be secured according to the standards and goals in such regulation\textsuperscript{6}. Wats R. study compares intergovernmental financial relations in eleven countries where he discovered that financial relations in the countries are formed by the government. Different tax system, collection of income to state budget and its usage, capacity of implementation of state obligations are formed according to the level of centralization and decentralization\textsuperscript{7}. Public tax capacity depends on many factors the most important of which is the efficiency of state tax system. The efficiency of state tax system can be evaluated according to the scope of the collected taxes and administrative expenditure when collecting taxes. These are the main criteria that allow us to evaluate the potential taxation basis of state subjects and costs of tax system mechanism in operation. While analyzing the transformations of the German finance system it was agreed that this should be a slow and systematic process because any unexpected changes are treated negatively here and hardly accepted by the community\textsuperscript{9}. As a result of this, the tax reforms in the period of economic depression might not give an expected result. It is thought that it is possible to avoid the economic depression both by applying economic instruments and regulating the market of real estate\textsuperscript{10}, systematically integrating new financial instruments when investing to public pension funds\textsuperscript{11}.

\textbf{Data and methodology}
Statistical data of the years 2004-2009 of Lithuania are used in the article including: data of tax income, public expenditure and public debt. Tax income is analyzed according to what kind of the result was planned and what a factual result is; the burden of taxation is assessed. As the majority of tax reforms are connected with the change of tax tariffs, the share of tax income in the whole structure of tax income is analyzed, too. Public debt indicators reflect the current economic situation of the state and allow us to make a premise about changes of tax tariffs in the future. Lithuania’s statistical information is collected from State Tax Inspectorate, Ministry of Finance and Statistics Lithuania. It was referred to the prognoses of experts in economics when generalizing and making insights.
Empirical findings

Table 1 presents the information about the collection of tax income in Lithuania in the years 2004-2009. Tax income is the main Lithuania’s income to State budget; thus, possible national expenditure and implementation of obligations depend on it. Annual growth of tax income was observed from the beginning of the period until the period when the economic depression started. In 2009 a marked decrease of tax income was noticed as compared with 2008 (26.2%). Tax income was on the biggest increase in 2006 when the economy was in the stage of overheating. At that time more income was collected than it was planned. The burden of taxation was growing during all the period analyzed. In the economic theory the American professor A. Lafer proved that tax income would not be necessarily larger after the increase of tax tariffs. In 2008 in Lithuania the tax system was reformed changing the tax tariffs. Direct tax tariffs were reduced while indirect tax tariffs were increased. Value added tax relief was withdrawn for less profitable business activities. From 2009 personal income tax decreased from 24% up to 15%. However, this does not mean a substantial decrease of the burden of taxation for employed people because an additional contribution of 6% of the income derived from work should be paid for health insurance (the employer pays 3%). Realistically, the people have to pay 21% of their income derived from work. Profit tax was increased from 15% up to 20% from the 1st January 2009. Advance profit tax was eliminated for most small and medium-sized enterprises. It is planned to reduce profit tax by 5% from 1st January 2010. Frequent changes of tax tariffs in Lithuania’s tax system show instability that exists in the tax system and a permanent demand to adjust the collection of tax income.
Table 1. Collection of Tax Income in the Years 2004-2009, Lithuania

<table>
<thead>
<tr>
<th>Tax income</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan, thousand EUR</td>
<td>2733003.2</td>
<td>2955297.1</td>
<td>3620926.7</td>
<td>4305431.3</td>
<td>5456904.1</td>
<td>3755465.8</td>
</tr>
<tr>
<td>Fact, thousand EUR</td>
<td>2707859</td>
<td>3158974.5</td>
<td>3838996.1</td>
<td>4537065.1</td>
<td>5212236.5</td>
<td>3844929</td>
</tr>
<tr>
<td>Change %</td>
<td>-</td>
<td>16.6</td>
<td>21.5</td>
<td>18.2</td>
<td>14.9</td>
<td>-26.2</td>
</tr>
<tr>
<td>Plan implementation %</td>
<td>99.08</td>
<td>106.89</td>
<td>106.02</td>
<td>105.38</td>
<td>95.52</td>
<td>102.4</td>
</tr>
<tr>
<td>Burden of taxation, %</td>
<td>28.25</td>
<td>29.13</td>
<td>30.57</td>
<td>31.15</td>
<td>32.41</td>
<td>35.33</td>
</tr>
</tbody>
</table>

Source: State Tax Inspectorate Ministry of Finance of the Republic of Lithuania.

Each tax adjustment has to have a strong and reasoned basis that should be formed according to classical principals of taxation. While reforming the tax system it is advisable to retain balance between the principle of justice, political economy and the financial principle. In 2009 in Lithuania the tax reforms were more oriented to the financial principle as a complicated situation of the enterprises was ignored at the time of depression. The growth of the burden of taxation illustrates A. Lafer’s statement that Lithuania’s burden of taxation was too big in 2009. Therefore, the share of tax income decreased.

Table 2 presents the data about the share of collected tax income in the whole structure of tax income. The tax reform was being implemented by two political governments. For this reason the reform before the elections and after them can be distinguished. The government was changing in the autumn of 2008 and hasty decisions concerning the reformation of the tax system were made. Personal income tax, that was gradually being reduced from the year 2006, was increased again in 2009. Therefore, tax income from personal tax income decreased only by 0.3% in 2009 as compared with 2008. Although the profit tax was increased by 5%, the tax income from this contribution was decreasing in 2009 because many small and medium-sized enterprises went bankrupt. Business started to flounder from the burden of taxation. Increased value added tax and excise tariffs enormously increased the burden of taxation of Lithuania’s enterprises in 2009 (35.33% of income). It is obvious that the political motive was very important at that time with the hope to win in
the new elections and it was not prepared for the forthcoming economic depression.

Table 2. Share of Collected Tax in the Whole Structure of Tax Income, 2004-2009, Lithuania

<table>
<thead>
<tr>
<th>Taxes</th>
<th>Tax share in all taxes (fact), %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2004</td>
</tr>
<tr>
<td>Personal income tax</td>
<td>17.28</td>
</tr>
<tr>
<td>Profit tax</td>
<td>12.51</td>
</tr>
<tr>
<td>Value added tax</td>
<td>42.07</td>
</tr>
<tr>
<td>Excises</td>
<td>19.89</td>
</tr>
<tr>
<td>Other taxes</td>
<td>8.25</td>
</tr>
<tr>
<td>Total, %</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: based on data from Statistics Lithuania

Table 3 gives the information about income and expenditure of State budget. State budget income of Lithuania was growing until the year 2008, however, in 2007 apparent slowdown of growth rate by 10.4% was observed. That was a signal for the government to begin changes in the strategy of fiscal policy and to start implementing tax reforms. However, unpopular decisions were put aside for the future because of the forthcoming elections. In 2007 state expenditure was decreased only by 3.6%. Thus state budget deficit was growing further. The government had to borrow in order to settle the running payments. It is forecasted that state budget deficit will grow further in 2010.

Table 3. Dynamics of Lithuania's State Budget Income, Expenditure, Deficit in 2004-2009, Billion EUR

<table>
<thead>
<tr>
<th>Budget clauses</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td>3.42</td>
<td>4.1</td>
<td>4.7</td>
<td>4.9</td>
<td>6.6</td>
<td>6</td>
</tr>
<tr>
<td>Change %</td>
<td>-</td>
<td>19.9</td>
<td>14.6</td>
<td>4.2</td>
<td>34.7</td>
<td>-9.1</td>
</tr>
<tr>
<td>Expenditure</td>
<td>3.7</td>
<td>4.3</td>
<td>5.2</td>
<td>6.1</td>
<td>7.1</td>
<td>7.1</td>
</tr>
<tr>
<td>Change %</td>
<td>-</td>
<td>16.2</td>
<td>20.9</td>
<td>17.3</td>
<td>16.4</td>
<td>0.0</td>
</tr>
<tr>
<td>Deficit</td>
<td>-0.28</td>
<td>-0.2</td>
<td>-0.5</td>
<td>-1.2</td>
<td>-0.5</td>
<td>-1.1</td>
</tr>
</tbody>
</table>

Source: Ministry of Finance of the Republic of Lithuania.
Table 4. Dynamics of Public Debt of Lithuania in 2000-2008

<table>
<thead>
<tr>
<th>Indicator/year</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt, million Euro</td>
<td>3523.3</td>
<td>3848.1</td>
<td>4330.0</td>
<td>4840</td>
<td>5036.2</td>
<td>7856.5</td>
</tr>
<tr>
<td>Percent of GDP</td>
<td>19.4</td>
<td>18.4</td>
<td>18.0</td>
<td>16.9</td>
<td>15.6</td>
<td>29.3</td>
</tr>
<tr>
<td>Population of Lithuania, thousand</td>
<td>3445.9</td>
<td>3425.3</td>
<td>3403.3</td>
<td>3384.9</td>
<td>3366.4</td>
<td>3349.9</td>
</tr>
<tr>
<td>Debt for 1 resident, thousand Euro</td>
<td>1022.5</td>
<td>1123.4</td>
<td>1272.3</td>
<td>1429.9</td>
<td>1496.0</td>
<td>2345.3</td>
</tr>
</tbody>
</table>

Source: Statistics Lithuania14.

Table 4 reveals the dynamics of public debt of Lithuania. Although the public debt does not exceed the criteria provided in the Treaty of Maastricht, it is clear that the public debt enormously increased in 2009 because of economic depression and decrease of tax income. The growth rate of debt is 56% as compared with 2008. Thus, the application of instruments of restrictive fiscal policy is necessary. The possibilities of the government to save the country from the deep economic depression is a long-lasting process, the decisions taken concerning taxes have to conform to the possibilities of enterprises to pay taxes. According to the forecast of experts in economics and statistic data of the country it has to be claimed that the economic recession in Lithuania will not end that fast. The experts of International Monetary Fund (2.0%), The Ministry of Finance (1.6%) and Central Bank (0.5%) forecast that the economy of Lithuania will grow in 2010, however, they see different growth rates. They distinguish the increasing export of the country and lower maintenance expenditure of the public sector as the main forces for the growth of economy.

Conclusions

In every country there are factors that determine the transformations of financial relations and their significance depends on a concrete situation of a country. Globalization, liberalization, cultural traditions, political motives, the ability of the government to stabilize the economy, regulation. The transformations connected with the financial relations of the state are a long and systematic process; any
sudden changes of regulation have a negative impact on the participants of the market.

The decrease of Lithuania’s tax income might be related to the belated tax system reforms, inactivity of the previous government, increase of the burden of taxation to the enterprises. The growing deficit of public budget inevitably increases the public debt transferring the increase of taxes for the future generations. Production slowdown in the country limits enterprises’ possibilities to pay taxes. At the same time the increased taxes on consumption cut the purchasing power of economic subjects.

It was not prepared for the natural economic depression during the period of economic growth. Timely implemented tax changes would have had a more efficient economic effect and the growth of public debt would not have been a marked one. The indicators of public income of the year 2007 signalled about the forthcoming economic depression, however, the political motive was stronger than an economic stability of the country at that time. The tax reform of 2009 is overdue in the country. For this reason the period of economic recession will be longer. The experts in economics forecast the economic growth in 2010, but they do not agree on the growth rates. Increase of taxes during the economic growth is less dangerous to macroeconomic indicators of the state than in the period of economic depression. Therefore, during this period it is important to pay more attention to other factors that would stimulate the economic activity: increase of state export, maintenance of the production level. Well-timed transformations of financial relations of the state are not the only one instrument that would help to avoid the economic recession, but a very important one.

NOTES

REFERENCES


THE ART OF DECIDING THROUGH COSTS

ELENA RUSE
iatan_e@yahoo.com
Spiru Haret University

LIANA ELEFTERIE
elefterieliana@yahoo.com
Spiru Haret University

ELENA ANDREEA AVRIGEANU
Economist, freelancer

ABSTRACT. Managers in order to choose a course of action collaborate with management accountants, analyzing and presenting relevant data on which base decisions can be made. Choosing an alternative implies a differentiation between relevant costs and revenues and irrelevant ones. Relevant costs expect future costs, relevant revenues expect future income which varies depending on the directions of action. Typically, managers use in the decision process the following steps:
Step 1: getting information;
Step 2: predicting future costs;
Step 3: choosing an alternative;
Step 4: implementation of the decision;
Step 5: performance evaluation to provide feedback.

Introduction

In practice and in economic theory is increasingly accepted the belief that controlling costs is the biggest way to win the global competition for supremacy. In essence, the progress of any kind must determine the achievement of economic goods (goods or services) with the lowest costs. Those communities that succeed better to reduce costs will be victorious in the fierce war for survival.

Managers always develop strategies that will later “transform” into actions. They usually use planning and control systems in order
to support the decision process in the organizations. To pick the right action way, managers follow a strict decisional model. Thus, they collaborate with the management accountings, analyzing and presenting relevant information useful for taking the best decision.

Managers use in the decision process four well known steps:

**First step:** collecting information

The first step is important in order to obtain the relevant information about historical cost but also about how to reorganize the activity.

**Second step:** predicting future costs

During the second step, the information obtained previously is used for planning the future costs.

It will be taken into account the type of costs, labor, materials, other costs. Available alternative is analyzed, supposing the activity will not be “reorganized” but also the costs of “reorganizing” due to previsions.

**Third step:** choosing the best alternative

In the choosing alternative process are being involved the concepts of costs and relevant income.

Relevant costs are the future expected costs and relevant income are future expected income.

In order to be relevant, revenues and costs must:

- occur in the future;
- be different depending on the direction of action.

By understanding the relevant costs and tie irrelevant, the decision-maker will focus only on obtaining relevant data.

In analyzing relevant costs two potential problems should be avoided:

- unfounded general assumptions like: „all variable costs are relevant and all fixed costs are irrelevant”;
- concentration laid per unit amounts and loss of sight per total.

In the decision making the opportunity cost must be included and represents the profit margin that is lost because a limited resource is not used according to optimal alternative.

This cost is included in the decision process as the best alternative way in which the organization could not use resources if they had not taken a specific decision.

**Fourth step:** decision implementation

At this stage the manager will implement the decision reached by the previous step (3).
Fifth step: performance evaluation to provide feedback

How performance is evaluated in step 5 provides feedback taking into account that all the steps retaken either fully or partially.

Concrete results are information that can help managers make better predictions or improve implementation of the decision.

Study case

The case study was conducted on a company that is marketing and maintenance of IT equipment profile.

Step 1: SC "X" Ltd. sells products and services on a contract basis and / or command therefore uses a cost-volume-profit calculation. The subject of calculation is order / contract. Cost control is calculated after finishing the products, regardless of the time it is executed by comparing production costs to number of products / services sold.

During the month the order was received on these three products: product C1 (9 pcs), C2 product (23 pcs) produced C3 (25 pieces). Calculation subject is the order of those three products.

The costs of exploitation done for reproducing those products are in Table no. 1.

During gestion period “X” produced and sold:
• Product C1: 9 pcs for unitary variable cost of 1130.09 lei;
• Product C2: 22 pcs for unitary variable cost of 377.43 lei;
• Product C3: 25 pcs for unitary variable cost of 151.93 lei.

At the end of gestion period “X” does not have unfinished / unsold production.
A very important aspect of managerial accounting is budgeting of costs and revenues at a level which is considered relevant for the management (following the costs and revenues centers structure of the company if is defined).

### Table no. 1: Operating Expenses

<table>
<thead>
<tr>
<th>Costs</th>
<th>Total</th>
<th>Variable Costs</th>
<th>Fixed costs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>C1</td>
<td>C2</td>
</tr>
<tr>
<td>Provision</td>
<td>8794.48</td>
<td>3838.84</td>
<td>3392.80</td>
</tr>
<tr>
<td>Auxiliary material</td>
<td>1413.49</td>
<td>600.50</td>
<td>514.39</td>
</tr>
<tr>
<td>Fuel (oil)</td>
<td>943.09</td>
<td>349.05</td>
<td>259.04</td>
</tr>
<tr>
<td>Spare parts</td>
<td>141.53</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not stored materials</td>
<td>640.00</td>
<td>154.30</td>
<td>210.00</td>
</tr>
<tr>
<td>Water and energy</td>
<td>2860.00</td>
<td>915.00</td>
<td>360.00</td>
</tr>
<tr>
<td>Wear inventory items</td>
<td>97.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff remuneration</td>
<td>7652.93</td>
<td>2773.66</td>
<td>2510.80</td>
</tr>
<tr>
<td>Contribution to Social Insurance</td>
<td>2295.88</td>
<td>832.10</td>
<td>753.24</td>
</tr>
<tr>
<td>Contribution to Unemployment Fund</td>
<td>382.64</td>
<td>138.68</td>
<td>125.54</td>
</tr>
<tr>
<td>Contribution to Health Fund</td>
<td>535.71</td>
<td>194.16</td>
<td>175.76</td>
</tr>
<tr>
<td>Contribution Risk and accident fund</td>
<td>229.58</td>
<td>83.21</td>
<td>75.32</td>
</tr>
<tr>
<td>Contribution to fund education</td>
<td>153.06</td>
<td>55.47</td>
<td>50.22</td>
</tr>
<tr>
<td>Employment tax books</td>
<td>57.39</td>
<td>20.80</td>
<td>18.83</td>
</tr>
<tr>
<td>Maintenance and repairs</td>
<td>2685.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Banking services and related</td>
<td>395.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other operating expenses</td>
<td>1449.30</td>
<td>215.00</td>
<td>234.85</td>
</tr>
<tr>
<td>Operating expenses for real estate depreciation</td>
<td>1298.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>32024.71</td>
<td>10170.77</td>
<td>8680.79</td>
</tr>
</tbody>
</table>
## Budget, second semester– 2010

<table>
<thead>
<tr>
<th>Product name</th>
<th>Budgeted Qty</th>
<th>Budgeted Selling Price</th>
<th>Budgeted Selling Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product 1</td>
<td>15</td>
<td>1550</td>
<td>23250</td>
</tr>
<tr>
<td>Product 2</td>
<td>30</td>
<td>580</td>
<td>17400</td>
</tr>
<tr>
<td>Services</td>
<td>30</td>
<td>290</td>
<td>8700</td>
</tr>
</tbody>
</table>

### Fix costs

<table>
<thead>
<tr>
<th></th>
<th>Realized</th>
<th>Budgeted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publicity</td>
<td>2000</td>
<td>2000</td>
</tr>
<tr>
<td>Awards</td>
<td>800</td>
<td>800</td>
</tr>
<tr>
<td>Negotiated Salary</td>
<td>4000</td>
<td>4000</td>
</tr>
<tr>
<td>(all taxes included)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other fixed costs</td>
<td>5000</td>
<td>5000</td>
</tr>
</tbody>
</table>

### Variables costs

<table>
<thead>
<tr>
<th></th>
<th>Realized</th>
<th>Budgeted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value of commodities</td>
<td>12000</td>
<td>10000</td>
</tr>
<tr>
<td>Delivery</td>
<td>1200</td>
<td>1200</td>
</tr>
<tr>
<td>Commission (all</td>
<td>9000</td>
<td>9000</td>
</tr>
<tr>
<td>taxes included)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other variables</td>
<td>1000</td>
<td>1000</td>
</tr>
<tr>
<td>costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taxes</td>
<td>5000</td>
<td>4500</td>
</tr>
</tbody>
</table>

### Budgeted

- **Turnover**: 49350
- **Total Budgeted Costs**: 37500
- **Budgeted gross result**: 11850
Step 3: Compared Analysis in Business Intelligence: Budgeted-Realized

<table>
<thead>
<tr>
<th>Describer</th>
<th>Actual</th>
<th>Buget</th>
<th>% of Buget</th>
<th>Actual vs. Buget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awards</td>
<td>8,585</td>
<td>800</td>
<td>1.073%</td>
<td></td>
</tr>
<tr>
<td>Commission (all taxes included)</td>
<td>373</td>
<td>9,000</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>34,000</td>
<td>41,990</td>
<td>0.8%</td>
<td></td>
</tr>
<tr>
<td>Delivery</td>
<td>29</td>
<td>1200</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Negotiated Salary (all taxes included)</td>
<td>2,363</td>
<td>4,000</td>
<td>59%</td>
<td></td>
</tr>
<tr>
<td>Other fixed costs</td>
<td>6,098</td>
<td>6,000</td>
<td>122%</td>
<td></td>
</tr>
<tr>
<td>Other variables costs</td>
<td>4,911</td>
<td>1,000</td>
<td>491%</td>
<td></td>
</tr>
<tr>
<td>Publicity</td>
<td>914</td>
<td>2,000</td>
<td>45%</td>
<td></td>
</tr>
<tr>
<td>Tax</td>
<td>0</td>
<td>4,500</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Value of commodities</td>
<td>8,785</td>
<td>10,000</td>
<td>0%</td>
<td></td>
</tr>
</tbody>
</table>

Step 4–5: In Study Case we used Business Intelligence Tool.

Independent by the purpose of the analysis, prediction or simulation (What If Simulation) is very important for the decident to have the appropriate decision support. It becomes easy and quickly for management to see and analyze permanently the revenues and the costs in organization, to harmonize them with the budgets, to take decisions in order to correct the evolution of revenues and costs, to analyze in real time the impact of the taken and implemented decision, to modify budgets.

Business Intelligence software solutions are the only solutions which can collect and assemble various information from various
sources for an entity, to structure the information and to offer sure, quick, real decision support and with minim costs.

Managers and employees do not need:
• Reworking
• Supplementary employees
• Take employees from their usual jobs to collect data in some templates in order to give reports to management
• To ask again what data and where from, we need this time for analyze
• To ask if the analyze will receive reflect the reality
• How long will take to receive the analysis?
• My decision is not coming too late?

How can Management escape these problems? Using the appropriate tools of collect and analyze data and using a Business Intelligence in order to take the right and in real time decisions.

REFERENCES

Used tools: Software Business Intelligence: QlikView.
Interface for analyzing and simulation on Cost-Volume–Profit Method made by Prozorov (Avrigeanu) Elena Andreea.
ABSTRACT. Financial relationships of a socioeconomic system is divided into categories depending on several factors, such as membership of participants in these financial relationships to public or private sphere, in relation to ownership, or how transfer of financial resources, defining characteristics of the transfer of value.

Financial system structure designed as a system of financial relationships

In relation of approaching the concept and conceptual meanings there take shape several versions of structuring financial systems considered at various levels of operation, primarily in the country (national).

The literature considers that the financial system, economic relations is viewed as consisting of: a) relations reflected in the state budget and local budgets, b) relations reflected in state social insurance budget, the social security budget health budgets and other actions related to social security, c) relations generated by the creation and distribution of special extrabudgetary funds; d) Bank credit relations e) Insurance and reinsurance relationships of goods, persons and liability f) establishment of relations generated by the funds available to businesses.
In another approach, it is considered that the conduct of financial resources under this scheme is achieved by a complex of categories (budget), which, in the broadest sense, refers to: transfer relations unparalleled resources and grant money; relationship lending money resources, bear interest (public credit) related transfer of funds in exchange for future consideration dependent on the production of a random event (insurance of goods, persons, civil liability) arising in the relations training cash resources available to companies and public institutions (extrabudgetary resources).

The financial system can be seen, therefore, as reflected by relations: the state budget, local budgets, social security and unemployment insurance, special funds budgets, extrabudgetary funds budgets, revenue and expenditure budgets of economic operators and other subjects, Treasury budget, budget insurance, reinsurance, budgets established by external grants or funds into domestic and external loans contracted or guaranteed to be reimbursed from public financial resources.

Financial system, considering its economic content is presented as a "set of financial relations is evident in the complex process of formation, distribution and use of monetary and financial funding. Established in tackling the financial system as a set of financial relations, are the two largest systems, namely public financial subsystem and private financial subsystem.

Public financial subsystem is all financial relations, which is, distribute and use public money funds, having in the foreground, the participants’ role public authorities administering these funds in the public interest.

Private financial subsystem comprises a set of financial relations which is, distribute and use private financial funds, with the fore as participants, entities and individuals to manage for private funds. Financial relationships developed between private operators are private financial subsystem. These relationships give rise to financial funds, public and private goals established for participants in economic life and are made with slightly different characteristics in these two spheres in relation to the manifestation of value transfer. For delimitation of the relations expressed in the form of cash (money) to define the content of private financial subsystem is required, from general to particular, a mapping of public to private sphere, in terms of economic relations, in other words the conceptual demarcation economic relations in the sphere of public economy.
Public relations in the economy takes place mainly in relation to the following public activities, benefits the public sector through understanding the services which the latter puts the community, they are produced without necessarily by state, various financial data and regulatory interventions made by the State to promote the improvement of community welfare and greater social justice. The public sector consists of all organizations in the prevailing mode of political or collective decision, whatever the political regime in that country.

These organizations appear as participants in economic relations in the form of cash related content that the whole financial system and financial relations are mainly represented by government (national, regional or local) and social security bodies in charge of organizing pension retirement, disability and health insurance, accident and unemployment. According to national accounting rules and concepts and key statistics on public expenditure and revenue, these organizations are called public enterprises.

Private financial subsystem includes establishing financial relationships, distribution and use of fund money in private property, being divided into the following subsystems: finance companies and other entities or private companies, bank credit (private), private social security and insurance of goods, persons and civil liability (private), finance households (households). In the private financial subsystem runs thus economic relations expressed in monetary form, which is, distribute and use the equity (cash resources) of economic agents (people, physical and legal) to meet their own objectives.

Financial system structure designed as a system of financial funds

System of financial funds is another way of demonstrating the financial system signifying all cash funds established, distributed and used in economy and society, between which manifest certain specific connections.

Structure of the financial funds underlying cash flows and financial conduct of any economy, but in turn, stems from the concept of monetary-financial mechanism, based on a certain monetary and financial policy.

An overview of the financial system in this sense derives from the types and ways of grouping of financial funds - money and the
The structuring of our financial system is relevant to the delimitation of: level (echelon) to which resources are acquired and distributed, as Property belonging to, title to which shall levy funds and payments from them.

Financial system structure in terms of funds raised financial resources can be expressed as in the following table:

**Table no. 1. System funds of funds in relation to different classification criteria**

<table>
<thead>
<tr>
<th>Fund of funds scheme</th>
<th>1. after the organization is created and the funds are administered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central funds (Macroeconomic, centralized)</td>
<td>be established and administered by central authorities or institutions, aimed at achieving macroeconomic or social policy objectives.</td>
</tr>
<tr>
<td>Funding level and economic environment</td>
<td>Structures are created and managed by the existing functional organizational environment;</td>
</tr>
<tr>
<td>Microeconomic level funds (Decentralized)</td>
<td>be established and administered by enterprises, institutions and economic entities and social intelligence, aiming to satisfy the needs of their operation and development;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Use of funds by financial resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relief and development funds</td>
</tr>
<tr>
<td>Consumer money</td>
</tr>
</tbody>
</table>
consumption, social security funds, certain parts of its own funds for business activities with social or material incentives to employees and the resources of public money for current consumption.

| Insurance funds | are intended mainly social insurance, insurance of goods, persons and liability, either for current consumption or investment activities. |
| Reserve funds | to the entities being set up to finance needs |

3. form of ownership is managed financial funds:

| Public financial funds | corresponding public financial system considered in terms of relationships, including all budgetary funds, but funds and public institutions |
| Private financial funds | corresponding private financial system considered in terms of relations, embodied in equity and cash funds own private entities, including public |

4. as permanent or temporary nature of the formation and utilization of financial resources:

| Funds consist of samples with final and binding | public budgetary funds, social security funds |
| Any financial funds as refundable | all loan funds, some funds from insurance |

**Financial system structure in terms of management tools and regulating financial activity at the microeconomic level**

Normal development of economic and social activities involves setting the technical ways of forecasting, forecasting and targeting economic and social activities at different levels of progress and organization of economy and society. The forecasts are used, programs
and plans, which aim essentially is to direct effort materials, labor and financial directions required to achieve certain economic and social objectives. The positive impact of using those tools is reflected in the financial plan, financial bottlenecks preventing, correcting disturbances in the conduct of monetary financial flows and increased efficiency in financial resources.

Generic form as presented in the financial instruments used to regulate financial activities is the financial scales that focus, after a certain scheme, money and financial resources that can be purchased and used at an entity level (area, district, state, nation, etc.), on the one hand, and destinations that are to be given these resources, according to the needs imposed by carrying out an activity of lesser or greater complexity and achieve the objectives, on the other hand.

Financial structure reflects a balance of work and funding sources of these resources given specific destinations. Such is the nature of the structure of income in cash form, that forms taken by the expenses reflected destination resources. The immediate goal pursued by the development of these scales is to compare the two parties, resources and destinations, and ensure their consistency, that the requirements for financial balance, with the essential precondition for ensuring fulfillment of the role of realistic balance substantiation of sources (revenue) and destinations (expenditure).

Through their content management tools and regulating financial activity offers sizing from a financial perspective, the objectives to be achieved, identifying funding sources and their destinations.

In financial practice, especially the macroeconomic and microeconomic at budgets are widely used, the overall structure of financial balances, and the role is imperative or indicative.

In the first case the provisions of the budget are the mandatory tasks respected financial implementation, distinguishing himself in these public budgets, whose provisions are mandatory (minimum levels of resources or income and reached maximum levels at the destinations, i.e. expenses). In the second case, the provisions of budgets are meant to guide decision makers in the financial plan of the volume, structure and directions of financial flows related to procurement and allocation of monetary resources or their spending. In each entity budgets reflect in financial terms, the appropriate options and financial decisions in their business and allow quantification of predicting resource needs and opportunities of purchasing their sizing expenses made, revenue collected and financial results for the
period. On this basis can make rational choices between alternatives to achieve various objectives, which requires financial planning through budgets active character, and not a passive reflection of different economic and social objectives.

The contents are predicting budget creates the potential effective management of resources and assets of each entity, including the possibility of purchasing any additional financial resources or the placing of any surplus money.

As a tool of financial management and control assigned budgets activity occurs in the following areas: use as a tool for determining the volume and structure of financial resources related to various activities, including the basis for decisions in financial terms and terms for appealing to different funding sources; exercise financial control over economic and social activities in terms of convenience and efficiency requirements in employing resources that the conditions for achieving financial balance in the various entities to correlate sound financial resource needs and resource procurement opportunities coverings.

In relation to public or private nature of activities are used, there are: public budgets and business budgets. Besides these, one can use other specific forms forecast financial nature, such as balances and forecasts.

If budgets are prepared annually, broken down into shorter periods and have an operational role or indication, balances and forecasts are developed over long periods and their content is indicative significance.

Depending on the organizational level to be compiled and used instruments governing and regulating economic activity, they distinguish in particular: management tools and business of macroeconomic adjustment - Balance financial management tools and regulating activity micro-level budgets. Financial balances are used, especially at the macroeconomic level, are designed and used for information purposes as a support basis for decisions at this level, reflecting estimates of financial resources and their destinations (public consumption, private consumption, investments, reserves, transfers to abroad). Between different types of financial balance is remarkable: the financial balance of national economy, balance of payments, balance revenues and expenditures of public money, the balance of capital formation, government financial balance.
At the microeconomic level a major direction in the field of business management is financial forecasting, considered by some writers as perhaps the most important planning activity. A financial forecasting tool to achieve enterprise budgets are expressing internal needs guidance to reach that goal in the next financial year (increased performance, the market value of the enterprise) and outlines the guidelines for achieving the purpose. In market economy, characterized by competition, companies have to provide for survival. Concern for financial forecast must be accompanied by control over budget projections and achievements of the causes of deviations, to modify, as appropriate predictions when reality requires it or, conversely, to work on the operation of productive processes, to close projected achievements. Business budgets are therefore tools of business management and financial control used by operators, here it is, most often in the form of general budget revenue and expenditure, but there are other types of budgets with appropriate domain name activity reflected.

Financial theory to synthesize many types of budgets, according to the purpose, the phenomenon to be budgeted for the period for which that budget is made, the responsibility center in question. After budgeted economic process, is distinguished: budget exploitation (production), consumer budgets activities, budget settlement activity, as the phenomena referred to are found in financial practice: financial budgets, cash budget, budgets of external financial flows, after the time under consideration consists of: annual budgets, quarterly budgets, multi-annual budget, after the magnitude of the work reflected, are reflected in practice: the budget of the entire economic activity, budgets, responsibility centers on (purchasing, sales, production departments and workshops, action social scientific research, etc.).

Quantify the revenue and expenditure budgets and cash income of the company structure formation, i.e. spending money, including the final financial results. The content is based, in financial terms, objectives or economic activities in the undertaking business, from business plan, ensuring the financial terms of useful information for decision making by the company. Making the program work properly the business plan involves defining an appropriate strategy, the indicators reflected in this budget, including ensuring financial stability. Operator level, business forecasting, management and control of financial and economic activity in the form of revenue and ex-
penditure budgets, which is provided annually, with quarterly breakdown refers to the following documents: general budget activity, budget activity production, cash budget activity, budget activity in foreign exchange receipts and payments, investment activity budget, guaranteed loans, reservations, distribution of profits. They are used for the financial comparisons for the analysis of development of the undertaking, the provisions of the current financial year are discussed in light of the previous year (achieved or preliminary).

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ABSTRACT. In accordance with the Treaty on European Union, pensions are the responsibility of Member States. However, in this policy area, European Member States share common concerns and challenges: an aging population, public finance sustainability, compatibility and modernization of pension systems. Thus the EU has been particularly active in the pension industry by establishing a legislative framework for occupational pension providers. Directive institutions for occupational retirement provisions (IDPO), adopted in 2003, provides an opportunity to establish pan-European institutions for occupational retirement provision, allowing the basic pension institutions in a country offering their services in different EU countries.

Introduction

Occupational pensions in some Member States may also be provided through life insurance contracts, which have their own sets of legislation at EU level. However, Member States may choose to treat life insurers as a retirement occupation IDPO.
According to the Treaty regarding the European Union, the pensions fall within the competence of Member States. Member States are responsible for the pension supplying. The pension's Green Paper does not take over the prerogatives of Member States in the pension area and nor the social partners role, and it does not suggest that it exists an ideal model from designing the pension system. At European Union level, national pension systems are sustained by regulations and coordinated policies in the area.

Europe is going through a transformation period. The financial crisis canceled the economic and social progress and it underlined the structural deficits of the European economy. In the meantime, the world is rapidly evolving, and the long term challenges (globalization, resources pressure, and aging) are intensifying. EU has to take care of its own future now.

Europe needs to recover. And then, it needs to maintain its position. This is the goal of the Europe strategy 2020, which proposes to create more working places and to assure better life conditions. The strategy shows that Europe is capable of assuring an intelligent, durable and inclusive growth, finding ways for providing new working places and enforcing a clear direction to our society.

Europe 2020 proposes three priorities which sustain each other:
• intelligent growth: developing an economy based on knowledge and innovation;
• durable growth: promoting a more ecological, competitive and efficient economy from the point of view of the resources utilization;
• inclusive growth: promoting an economy with a high rate of employment, which can assure social are territorial collision.

The goals of Europe 2020 regarding employment and long-term sustainability will be reached with the help of the pension reform. In addition, realizing the pension products internal market influences directly the growth potential of EU. Thus, it directly contributes to the achievement of the Europe 2020 goals.

Significant causes of poverty among retired persons are the gaps in pension adequacy. Addressing these issues can contribute towards meeting the objective of Europe 2020 regarding poverty reduction target. Policies in many areas can be used to reduce poverty among elders, which will lead to a more enhanced adequacy. There exist other goals, like fighting bottlenecks in the completion of the single market, making the internal market in financial products safer, more...
integrated and facilitating the mobility of workers and citizens across EU.

Key Challenges

Demographic Aging

The pension reform has been encouraged by the predicted challenge of the aging population and its consequences on the long-term sustainability of public finances, together with the social protection deficiencies. In the future, noticeable demographic changes will take place among the European population as a consequence of the low fertility rates, continuous increase in life expectancy and retirement of the baby-boom generation.

Demographic aging could affect also the funded pensions. The potential growth rate of the economy could be decreased by the aging societies, resulting in lower real rates. This could also affect the prices of financial assets. Because the pension fund investments are expected to generate lower returns might determine increase in the contributions and in the capital outflows to emerging markets, decrease in the retirement benefits and determine higher risk taking.

To deal with the demographic aging, the Stockholm European Council proposed in 2001 a three component strategy for managing its impact on public budgets:
• rapidly reducing debt;
• raising employment rates and productivity;
• reforming pension, health care and long term care system.

Furthermore, in 2001 Laeken European Council proposed a set of common goals for pensions, underlining the need to make the pension system adequate, sustainable and adaptable.

Changes in pension systems

Even if the Member States systems differ noticeably, over the past decades the majority has been opting for attempting to make it more sustainable. In the same time, Member States have been trying to protect adequacy and to better react to changes in labor markets. The key trends have been:
1. Increasing the active period such that similar profit would be obtained, compared with the previous period: increasing the retirement age, discouraging the early retirement, measurement on the labor market which would permit and encourage elder employees to remain in the labor market, increasing the gender equality.

2. Moving towards the multi-tiered pension system. This is the tendency taking place in the majority of the countries, but not all of the Member States can reduce the public pension share (PAYG) giving in the same time an important role to the private pension schemes, which usually have defined contribution (DC) nature.

3. Measurements for managing the adequacy gaps, for example by facilitating access to pensions for disadvantaged categories and increasing the support for those with lower pensions.

4. Gender dimension: women have a bigger share among those with atypical contracts; they earn less than men and tend to have career breaks longer than men, for childcare and different social responsibilities. Therefore, their pensions tend to be lower, but the poverty risk is higher among women, which also live longer. The question is how such solidarity can be financed.

**Impact of the financial and economic crisis**

The crisis adds up to the economical impact of the population aging upon pensions and the consequences depend on the recession's size and duration. The slowing down of the economy growth rhythm, for the “pay-as-you-go” public pension system, brings additional fiscal pressure upon the financing and contributors. The crisis demonstrated the need of equilibrium between the PAYG system and private pension funds.

The crisis effect on the retired people differs according to the modifications, which will be made to the actual pension systems. In the majority of the member States pension systems are changing, but the assurance of a guaranteed pension level and the budgetary restrictions lead to cutoffs in the public pension systems only in some of the Member States, and in others the impact was represented by smaller indexations.
Based on the theoretical replacement rates, the career breaks impact on the pension rights can be analyzed. PAYG systems calculated on the entire lifetime are earnings-related. On long term unemployment can negatively affect the pension rights accumulated and can have a contrary effect on the individual pensions on long-term.

As a result of the crisis, some Member States decided to increase the contribution, while others introduced an increase of the retirement age (for example Greece, Spain, Ireland, Latvia, Slovenia and Romania). The task adjusting the higher contributions and the longer working period will be the responsibility of the population currently working.

In the defined-benefit (DB) systems, the accumulated benefits are related to the earnings and to the career. The investment risk is the responsibility of the scheme sponsor. And sometimes this entity is the one taking care of the longevity risk as well. There is a promise, which needs to be kept to the scheme member, the one of the defined benefit. The financial crisis determined a decrease of the value of the actives and often the financial projections regarding the investment value were not satisfied. The regulation system, at the EU level and at national level, assures that the pension’s funds administrators will take measures to protect the funds value on the long-term. The national authorities of supervision permitted to the funds administrators to have a higher flexibility than normally. For example, they were allowed to take more time to present the financial state reports and the recovery plans. The maximal period of deficit recovery has been extended.

The dialog between the social partners is often an important element in the recovery plans. The risk sharing between the members of the system and employers can be a solution to stop this fall. And these kinds of systems could be used in the future. The crisis brings up questions about the intergenerational fairness and redistribution in DB and hybrid schemes. If the scheme rules are applied with conventionality on the performance of the investment, retired persons have the chance to be more affected than those still accumulating right. If, in addition, the employee contribution were increased to re-balance the assets this would proportionately impact working members more.

In the defined contribution (DC) system, the contributors take the investment risk and they are directly affected by the investment per-
formance. Private pension’s funds lost more than 20% of their value during 2008. For those participants who will retire later, there could be enough time to fully or partially recover the actives’ value, but for those close to the retirement age the impact can be real leading to pension incomes lower than the expected ones or to the delay of the retirement.

The unemployment can affect more the accumulation of pension rights in the DC schema then in the DB systems. In the most DC systems, the unemployment contributions do not exist, while in the DB systems, often unemployment generates some rights. To resume, going towards a more private pension sector can help reduce the debts to the public finances, but it will crease new challenges and risks. Because there are variations in the way the schemes are funded during this crisis show that the differences in design, investment strategy and regulations matter. A better balance between risks, security and sustainability for pension savers and pension providers will be the key to enhance public confidence in private pensions.

Even if the Member States, in general, are responsible for the design and organization of their pension systems, some of the specific areas according to the pensions come directly under the competence of EU. Member States recognized that working together could be more efficient and that the EU level can add value.

Being a part of the same strategy, EU contributes with reciprocal regulations like the supervision, coordination and training. Best practice sharing, reviews of peers, agreeing objectives, gathering comparable statistics and indicators are some examples of these contributions. EU regulations contain social security coordination of public pensions, rules for the occupational pension funds, portability and protection of supplementary pension rights in the situation in which the employer cannot pay, as well as regulations for life assurance.

If the EU can offer helpful support to national reform, the framework of the coordination of the policy must adopt an integrated approach for reflecting the increase in the pension system complexity. Furthermore, considering the increasing economic and financial integration, regulations between the policies at the EU and the policies of other states are more and more important. For the public authorities, social partners, industry and civil society, the pension policy is a common concern, at national and EU level. Bringing together all stakeholders under a common platform for monitoring
all pension policy aspects and regulations could contribute to achieving and maintaining sustainable and safe pensions.

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OLGA DUTU

dutu-olga@yahoo.com
Spiru Haret University

ABSTRACT. Starting from Michel Foucault's assertion that the power exerted on language is one of the most important dimensions of power, we are going to present: the valences of political discourse in terms of the significance of verbal and non-verbal code; the dilemma of the “appropriate,” elitist or populist political speech against the electorate it represents; the political language as a form of explaining the world as a means of strategic action on the world; the relationship between the political discourse effectiveness and political marketing.

1. Nine years have passed since September 11th, 2001. This date signifies the most violent act of terrorism that has taken place during the post-war period. This act being another proof of the mistrustfulness in the possibilities of words to: convince, set up, or seduce.

Michel Foucault considers that the power upon the language is one of the most important dimensions of the power; it is an instrument and an emblem of the power, which tries to be acquired.

In this respect, Cicero, the great speaker of the Roman ancient times, makes an apologia of the social function of the eloquence face: “Is there anything more impressive than seeing a man standing on his own in front of an immense crowd, armed only with this faculty which, in fact, everyone got naturally, but using it as only he alone, or almost only he, is able to?… What a force is this which moderates, modifies and manipulates the people’s passions, overcomes the judges’ scruples, shakes the firmness of the Senate; what a miraculous result a single man’s voice?…” “Is there anything more precious
than not to have always at hand the weapons that allow you not only to defend yourself, but also to provoke the bad people yourself or to punish them for their attacks?".\textsuperscript{1}

The Athenian democracy and the principle of the public debate in the agora have given credit to the communication/politics junction, also imposed by the double position of the man: both social animal and symbolic animal, according to Aristotle’s vision. At present, political communication has become a privileged, interdisciplinary field in which semiologists, anthropologists, rhetoric, linguists collaborate with political analysts, PR officers, communication counselors in order to establish, to manage, and to disseminate “the political reality”, “the political game”\textsuperscript{2}.

2. Political communication is placed at the crossroads of the political arena with the public and the communicative ones.\textsuperscript{3}

Politics springs and is fed by economic, social, cultural, religious, ethical, linguistic stakes; political activity aims at the emergence of the collective problems, the relevance of the petitions addressed to the authorities, the working out of the settlement projects, and the conflict between the project and its bringing up-to-date.

Communication is inevitably implicated into the political activity, whether it involves socialization, participation, the working out of the agenda, or it demands mobilization or negotiation.

Currently, political communication is dominated by media presentations and that is why the legitimacy of the professional and ethic competence and credibility is in competition with the media credibility, with the charisma attested by the journalists and by the PR officers.

The integration of publicity, opinion polls, and television in media-related political communication has determined important changes in the selection of political actors, in the daily management of the power, and in discourse.

The media principle of the decisive importance imposes the selection of the political actors, the presence of the “big ones,” of the leaders of the main parties, who are preferentially mediated, thus reaching the “best-seller” effect.\textsuperscript{4}

In 2010, the president Traian Băsescu and the leaders Emil Boc, Crin Antonescu, Victor Ponta, Corneliu Vadim Tudor enjoyed this prior status.

3. Opinion polls have an important role in selecting and promoting the political actors, especially in electing periods, when the
hegemonic position in the poll is doubled by the media consolidation. This is the case of the presidential candidate of the “green people” in 2009, Remus Cernea, who was somewhat ostracized by the controllers of the television networks, and therefore did not enjoy air-time, could, nonetheless, be a surprise to everyone when the parliamentary elections take place during 2012.

The opinion poll of September 2010 reflects a drastic decrease in trust for Băsescu (11%) and in the Liberal-Democratic Party (13%), as a result of the austerity measures taken, under the pressure exerted by the International Monetary Fund.

After winning the elections, the political communication aims at making permanent the positive relationship with the citizens and the spreading of the important problems of both home and international life.

Watching Traian Băsescu’s political and media evolution, from his first victory in the presidential elections (2004) with the memorable slogan “May you live well!,” until the dramatic decrease in polls and the desperate appeal to televisions such as OTV, B1, under the circumstances of the financial, economic, and social crisis, culminating, in May 2010, with assuming the salary “cuttings” with 25% and that of pensions with 15%, we can notice the effects of the similitude between the political communication and the media discourse. This similitude legitimates the ephemeral – the media aim instead of the political one, it makes punctual “stories” visible – in effect trivializing; thereby eluding the causes and the consequences of the serious problems which exist.

The political space is enclosed by mass-media and the opinion polls, avoiding the grievances, the electorate most highly interested in the living conditions, in the job and the future security.

The increase of the media pressure over the political life determines “the agenda” depending on the public opinion “barometer”, spread in accessible, seductive, memorable discourses, and ‘sound-bites’.

4. D. Wolton specifies the three risks that undermines the political communication, as a result of the fragile balance between the journalists’, the politicians’, and the public’s discourse, aiming at a certain interpretation of reality, dependent on winning the power or exerting it.

The three risks are: the risk of super-media exposure in “politics shows,” the risk of subjugating the public opinion to the repre-
sentation offered by the polls, and the gap between mass-media and the public.

5. Tele-visual political communication has become a general model and it aims at the significations of the verbal code, but also at the multitude of non-verbal symbols, the relinquishment of complex projects and argumentations, it stresses the importance of the linguistic and political legitimacy. The political leaders are forced to choose the “suitable” discourse in relation to the electorate that they represent or in relation to the contextual interlocutor: journalist, political analyst, MP; the result being either an elitist discourse in which the Parliament opponent’s syntagmas are used, or the populist discourse in front of the militants.

The discursive legitimacy is notionally and linguistically conditioned, but also para-linguistically or non-verbally; diction, timbre, gestures, clothing, posture being extremely important. The PR officer is the specialist who looks after the training and the perfection of the communicative competencies of the political actors.

6. In the era of the obvious increase of the audio-visual media exposure, the political language represents a form of world description, of its explanation as well, but also a means of strategic action upon the world.

In the well-structured political discourse, the key words name a problem, bring it to life, they gain consistency in the political space. The fall of 2010 started with the French government ‘ inducing’ Romanian and Bulgarian gypsies to return to their respective homeland; a theme for debate in France, in the European Union. The latter suggested the sanctioning of the French government for racial discrimination and for the absence of the social policy of integration of the hundreds of thousands of gypsies who travel across Europe. In president Băsescu’s discourses the duplicitous attitude towards this ethnic group evolves from “stinky Gypsy woman” – a syntagma with which he labeled an insistent lady journalist, to taking part to the big Gypsy feast at Costesti, on September 8, 2009, together with his wife, and culminating with the baptizing of a famous interloper Gypsy leader, by the president’s brother.

Romania has accepted, as a result of the negotiations with the French government, the term “voluntary country return,” to replace the gypsies’ sending away, and president Băsescu has expressed his understanding for the nomad characteristic of this population, who should be helped to acquire trailers.
7. The political performance is conditioned by multiple intellectual qualities insured by complex training for political communication as well. Inequalities of access to knowledge and language determine inequalities in getting political competence and performance, and as a consequence in the chances to exercise power.

8. The efficiency of the political discourse is conditioned by the authority of the political actor, by the enunciation ceremonial, by the impact of its reception at journalists’ and political commentators’ level, but also by observing the requirements imposed by the political marketing of North-American origin: the discourse must be short, clear, coherent, credible; the pronunciation speed between 130-150 words per minute, the limitation to the 1500-2000 words of the fundamental vocabulary of the Romanian language.

The intense media exposure of the politics influences the quality of the political message through complicity during the talk-show, but also the simplicity under the pressure of the chrono-dynamics of the video-clip, in order to reduce an extract from a TV election campaign discourse at 8 seconds, compressed and made accessible in that a way, so that it can circulate, but can also be remembered. After the opinion poll entirely unfavorable to president Băsescu, before his discourse in the Parliament of Romania about the state of economy (September 22, 2010), he answered a journalist that “he is falling in polls, but he is winning the elections”.

The reading of the parliamentary discourses of the inter-war period is a useful exercise of getting to know the Romanian world in its beneficent development, but also some eloquent orators, who have contributed to the development of the political rhetoric.

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PERSONALITY AND LEARNING STYLES

IRINA ALECU
alecuirina1@yahoo.com
„Mugurel” Kindergarten

ABSTRACT. It is no question that everyone learns differently. Did you know that your personality could reflect the way you learn? Knowing your personality and natural tendencies in mannerisms and the absorbing of information can impact your success in life. Learning styles are referred to as the characteristic ways in which a person gathers, identify and process information. If the way the material is presented corresponds to your natural learning style then learning the material becomes easier and more enjoyable. Knowing your personality type gives you a window into understanding your learning styles. According to Bokaerts (1996) a lot of theorists have tried diverging distinctions between the personality and the learning styles: adaptive and bad adaptive; functional and dysfunctional. Many authors notice that the personality styles are closely linked to the concept/self image.

Personality and success in learning (Fontana, 1995)

In this context, personality seems to be placed into a complex relationship (has a complex relationship) with other factors: the nature of the material (lesson) which is taught, the teaching methods, the study habits of the learner (the learner's study habits) and the teacher's personality. They should be sensitive to the individual personality of each child from the classroom and they should also pay attention to the relationship between personality and other variables, which influence them.
Multidimensional models of accepted personality

It is said that a model of personality with five dimensions is accepted in society (including schools): extrovert; delightful; conscientious; emotionally stable and open to experience (Costa and McCrae, 1992, apud Smith and Pellegrini, 2000).

The styles which have a great relevance upon the efficiency of learning are:
• dependence/field independence;
• reflection/impulsivity;
• focusing/scanning.

Field dependence or independence - cognitive differentiation is one of the styles which is most referred to in the educational psychology. (Slavin, 1991, Eggen and Kauchak, 1992, Hampson and Kolman, 1995, Fontana, 1995, Golup P and I, 2003)

The people which are field dependent – with a global cognitive style – tend to perceive the structures as a whole and it is difficult for them to analyze some specific aspects of the situation or the aspects of the learning structure, what is or is not relevant. The field independence ones – with a clear style – are more capable to notice the component parts of a structure.

The field dependence or independence is also influenced by the student's development level, by the formation and organization grade of the perception, by the cognitive capacity of separating the appearance of a situation. The students who are field dependent seem to be more guided through people and social relationship (than the independent ones), they are more inclined to social learning and to the study of school subjects such as History and Literature. The students and the people who are field independent tend to study Mathematics, positive sciences (Shuell, 1981, Witkin and Goodee-bough, 1981, apud Slavin R. E., 1991).

The cognitive style may be also analysed through the aspect of impulsivity and reflexivity (the time of reaction). The impulsive people have the tendency to work, to take fast decisions while the reflexive people tend to analyze everything and all these things take time. In case of a test or a written paper the impulsive people are the first ones who finish while the reflexive ones finish later. The first ones concentrate their attention upon speed, the action style being “gun blow” (hoping that one of their answers is correct). The other ones focus on the accuracy of the thing they do, from the beginning.
they have a strong desire “to be right” that is why they accept a certain ambiguity (that of saying nothing in front of the classroom, during the reflection period, they try to find the correct answer). A way to practise the reflexivity of impulsive students is the auto-instruction, they are asked to talk to themselves while they learn to adapt a continuous rhythm and they are rewarded for their progress.

*Focusing/Scanning* – being a cognitive dimension it links to the Bruner's name. The people who have the tendency of focusing when they have a problem they postpone to express a theory, until they gather information. The people with the scanning tendency express immediately a theory and they often have to think again if the theory is not good.

Concerning the learning situations the *focused people* will be late with the elaboration of the theory while the *scanned people* will immediately take a decision which can be a disadvantage especially with the oral problems. (Fontana, 1995)

Renzulli and Smith elaborated another approach of the cognitive styles, which is more accentuated from the educational point of view, considering that the variety of these styles is determined by the correspondence with a certain teaching method.

Because of these big differences concerning the learning styles, researchers tried to surprise the interaction between the aptitudes, on one hand – individual particularities and on the other hand – the adequate educational treatment. In this way some positive effects and correlations have been identified. (Wilkerson and White, 1998, Dunn and Dunn, 1989, apud Slavin, 1991)

**Educational implications of the learning styles**

There is a way which tends to adapt the whole instruction to the distinctive individual characteristics and need of different students.

Another way which is recommended is the “modelation” of these particularities (for example to ask the impulsive students to reflect, and to the reflexive students to be more impulsive). None of these solutions is realistic.

The concept of *learning styles* has two important implications for the teachers, which are expressed as recommendations:

- The necessity of varying, of changing the way of *teaching* – *learning*. Teachers who realize this thing seem to be more efficient then the other ones who teach in the same way all the time. *The*
change of the teaching style gives more chance to meet different styles of learning.

- The concept of the learning style points the fact that the students are different; it consequently helps us to be more receptive, more sensitive to the difference from their behavior. The classroom will have more chances to become a model of tolerance, which change the process of learning.

Snider presents a significant aspect related to this point of view. “People are different and it is a good practice to recognize and to adapt your self to the individual differences. It is also a good practice to present the information into a variety of modalities....” (apud Eggen and Kauchak, 1992).

Because the cognitive style can influence learning in various ways, the teacher's question is if they can be modified. Some aspects of the cognitive style appear to be learnt – there are bigger chances to interfere – while others seem to be linked to temperamental and affective factors – it is harder to change them.

The discussion about metacognition is useful in this context. It is interesting to realize how many efforts make teachers to “transmit” knowledge and abilities and students do not understand at all how to improve their own type of thinking and classification. The failure is not only linked to the unsuccessful memorization concerning the attitude and motivation but it has a link to the way they receive and understand the message and how the student can think of a meta-cognitive level.

Concerning the educational theory and practice there are few methods to help children to explore and recognize the meaning of the material they have to assimilate, to develop the way they think (Fontana, 1995) – till now all these can be contradicted only by the mediated learning theory (Feuerstein).

Numerous researchers say that the present educational system encourage and consolidate certain features and qualities of the individuals, they also consider that there are other features which are not encouraged in the learning process.

Examples of favorable features: reflexivity; field independence; intrinsic motivation; cognitive complexity; understanding of the information at a profound level; orientation on the theme.
Examples of unfavorable features: impulsiveness; field dependence; anxiety; cognitive simplicity; understanding of the surface information; fear of failure.

According to Fontana (1995) the cognitive simplicity is a negative aspect which can encourage the initiative of cognition while the student can lose time and he cannot take decision because of the cognitive complexity.

Impulsiveness can similarly be an advantage of solving the problems or learning a foreign language in the initial stage.

We cannot say that the intrinsic motivation is unfavorable to all students.

The teacher's thinking styles have a strong influence on the testing (examination) and teaching. (Strenberg, 1994, apud Bokaerts, 1996)

Schools and teachers have different ideologies, which are reflected in the student's personality, in different school curricula and books and in extracurricula activities. A discrepancy between the teacher's and student's styles can affect the process of learning.

The teacher's thinking styles try to fit the ideology of school. In consequence, students who fit their own styles of thinking to this context are awarded with positive assessment, with better marks – it does not matter their abilities.

The style's relevance of the school education

The knowledge of the cognitive style or learning can help students who learn harder and it is useful in the process of teaching – learning, it can avoid failure in school and life. Even if this theory seems to be illusive, it deserves the adequate attention in the future research and the educational action.

These individual differences affect the rhythm and the quality of learning; it determines the choice (option) for a strategy or another one of learning, so they have a strategic value. Students must be helped to be conscious of their styles and they must be encouraged to have their own way of learning which best fits them. (Cerghit, 2002)

What can be done when there are 25 students in a classroom? The author asks himself if we can talk about of the same styles. There is a common convergent style, which fits to a lot of students, and there are diverging styles, which are strict particular, individual.
Every student will have the opportunity of learning using his own style because of the realization of some adequate teaching styles.

**A prospective profile of the learning individual style**  
(Rayner S., Riding R., 1997)

- it is fundamental, it contains primary features of the individual register (catalogue) which can reflect the cognitive style and the preference of learning;  
- it is easy to work with;  
- it is accessible;  
- it is adapted to the real world of education;  
- it is linked to a “friendly” assessment in the process of teaching-learning (for both of them teacher and student).

The cognitive style refers to a typical way where a person acquires and understands the information (the person takes decisions and solves problems).

Traditionally, the cognitive psychologists talk about three modalities concerning the acquiring of the information: visual, verbal and tactile.

Other authors like James and Galbraith (1985) show that there are seven modalities of acquiring the information such as – reading (a written text); listening (a conference, a narration); interactive (talking); visual (noticing); kinetic (doing); olfactory (smelling); tactile (touching).

The most authors talk about two distinct modalities concerning the processing of the information:

a) the synthetic modality (global) – first the processing has a global image and then it is concentrated on the details.

b) the analytical modality – the processing of the information is realized in a linear way, step by step, concentrating on the essential elements of the theme/content.

The next cognitive styles are differentiated through the two criterions such as:

a) *The methodical cognitive style* – it is characteristic for the people who acquire the useful information to solve the problems systematically after an established plan.

b) *The intuitive cognitive style* – it is characteristic for the people who rely on the free association of the information, this kind of person “feels” if the information is useful to solve the problems.
c) *The normative cognitive style* – it is characteristic for the people who process the information through the production of this one to certain standards, to certain mental scheme they already have.

d) *The receptive cognitive style* – it is characteristic for the people who are guided by details in processing the information and in solving the problems.

These people consider that the isolated facts are essential in the cognitive functioning.

Every person has his own characteristic style of thinking. It is formed by the integration in a specific manner of a lot of ways of thinking.

The personal style of thinking is the own modality of a person – the modality of approaching and solving the problems. This style is acquired through exercise and learning.

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ABSTRACT: The first step in identifying the learners and finding out what needs they are likely to have is to look at the kind of jobs they are doing. Even if the learners have not started their jobs yet, it will be possible to see what general category they are going to fit into, and thus to predict what kinds of needs they will have in the future and what will be useful to include in their course books. Being able to make some predictions about needs on the basis of the job description does not preclude the requirement for carrying out a full needs analysis. There are many people whose jobs and needs do not fit neatly into categories. The following outline is to help build up a general pattern of understanding about business and what business people do, and it will lay the foundations for needs analysis and language analysis and the selection of course components. We can draw distinctions between three very broad categories: (1) managerial, (2) technical, and (3) secretarial/clerical positions.

Job categories

Managers as learners
A large proportion of those who seek language training because of the demands of their job are managers. This is because it is mainly managers who work with international affairs and who therefore travel most and deal most with people from other countries in face-to-face situations. Also, they are near the top of the pay scale, their companies are usually more willing to spend money on training them.
**Senior managers**
Since senior managers have to meet with important people from outside the company, they will want to give the best possible impression of competence and authority and will require advanced language skills with a high degree of refinement in terms of accuracy and appropriateness.

In terms of job skills, senior managers will probably need: chairing meetings, participating in meetings, negotiating, giving formal presentations, and socializing – especially entertaining.

As they are involved with the running of the company as a whole, senior manager will want to discuss global concepts such as the principles of management, the organization of the company, decision-making procedures, long-term planning, and defining the company image. They will also probably have special areas of responsibility such as finance, human resources, or marketing.

As intelligent people, senior managers will not like to be given activities, which seem too facile, or given materials that lack credibility. They will not wish to be talked down to, as well. The approach that will work best with most senior managers is to enable them to demonstrate their expertise by giving them the opportunity to explain what happens in their company, to express their own ideas, and to discuss problems at a high conceptual level. They will want to be challenged by tasks that are demanding and require imagination. They will also want to be given feedback in the language they are using and the overall impression they are creating when they are using English.

**Middle and junior managers**
Many of the comments on senior managers apply also to middle and junior managers, who may after all be the same people at an earlier stage in their careers. There are, however, some differences.

In terms of skills, middle and junior managers will also need meetings skills but are less likely to need to chair meetings. They will need presentations skills, but they may not need to make very formal ones. They are more likely to need telephoning and reporting skills as they will probably not have support from highly qualified executive secretaries. When dealing with people from outside the company, they will probably be less formal. Other requirements will depend on the job.
Middle and junior managers’ work within a more closely defined area than senior managers: they are not concerned with the running of the company as a whole, but with a particular department or production area. They will normally deal with very practical everyday matters such as procedures for dealing with problems, budgets, targets, and staff relations.

Technical staff as learners
The problem for these people will be to communicate complex ideas, which may be hard for those outside their field to comprehend fully. They therefore need excellent communication strategies, such as: addressing the needs of the listener and choosing appropriate terminology; being aware of how much others can or cannot understand and being ready to explain things in different words; and being able to structure and organize information clearly. Unfortunately, many technical staff could not develop these strategies if they have previously worked in isolated, monolingual situations. Many have not taken much interest in language before, and may resent the new demands placed on them which they feel inadequate to fulfill.

It is simplistic to regard the needs of these learners purely in terms of vocabulary. Except at very low levels, the technical terminology is rarely a difficulty: most learners already know the technical terms regarding their jobs, and many of these terms may well be universal anyway. The training priority should be to develop confidence in speaking and interacting with others. The trainer can play a useful role in challenging the technical learner to explain ideas in a way that a non-specialist can follow.

Skills that are normally required by technical staff are:
• participating in meetings (usually informal)
• giving presentations
• describing and explaining things or giving instructions to others.

Typical language areas that will be important for technical staff are: structure, function, cause and effect, advantages and disadvantages, and problem-solving.

Secretaries and clerical workers as learners
Secretaries
Secretarial positions vary according to the level of the company at which they work. Executive secretaries act as assistants to senior managers and usually carry a lot of responsibility. Some are in frequent contact with people from outside the company, from other
countries, and are required to have advanced language skills with a high degree of refinement. Departmental secretaries may not have much need for English unless it is an export department or one which deals internationally, but they may occasionally receive telephone calls or have to write letters in English.

Secretaries have the following needs: to be accurate, to use appropriate levels of politeness, and to know conventions and formulaic language. When dealing with visitors, they are likely to be performing definable roles: welcoming, offering, hospitality, responding to requests, and perhaps describing the company. If they attend meetings, it will normally be to take minutes rather than to put forward their own ideas. If these points are borne in mind, it can be seen that they will require practice in very different kinds of activities from managerial staff and it is not recommended that groups should be formed to include both managers and secretaries.

**Clerical workers**

This is a very broad category and it may include: receptionists, telephone operators, book-keepers and accounts clerks, sales support staff, import-export staff, computer operators, and many others. Their needs for English may be quite specific and will vary according to the type of job. They will need basic language training first and foremost. They will probably also need special vocabulary - for example, for understanding computer manuals or following instructions that are written in English; or they may need accountancy or export terms. Apart from receptionists, not many will have face-to-face dealings with people from other countries.

**Departmental differences**

This section of my paper deals with some typical departments within a company and with the different concerns and training needs of the people who belong to them.

**Marketing and sales**

First, it is important to recognize the difference between marketing and sales. Marketing staff make decisions or proposals about product development based on analysis of the market and the position which they hope these products will occupy in the market (for example, high quality, low volume, niche category, or high volume, low price).
They also make decisions about marketing strategies. For example, they will be concerned with ways to promote the image of products and the image of the company as a whole.

In addition to the department manager, the department will probably consist of: product managers, who have special responsibilities for one product or one range of products; market researchers; and assistants who carry out the day-to-day administrative work of the department.

Sales staff is concerned with setting and meeting sales targets. The department manager will be looking for ways to motivate sales staff by setting realistic targets and by offering incentives to achieve higher sales. Selling methods are important, and big companies employ their own sales trainers to improve the sales techniques of their staff. To improve customer relations, the more experienced and successful sales staff may be given responsibility for certain important clients, and will then be called ‘account managers’.

Senior sales or marketing managers will be involved in strategy meetings or in inter-departmental meetings concerning the company as a whole. Sales and marketing staff may require English in order to attend training which has been organized by the parent company at an international level. The training may concern a new product which is due to be launched, or it may concern sales and marketing strategies in general. Sometimes a product launch may involve an international congress at a hotel.

Sales and marketing staff are used to dealing with a lot of different people and are usually sociable and have outgoing personalities. On training courses, they respond well to having plenty of activity and opportunity for interaction.

**Human resources**

Smaller companies will have a personnel department: in a large company, the personnel function is part of a much wider function known as human resources.

A human resources department looks at the potential of its employees for different kinds of work. Human resources staff will try to identify not just the high-flyers, but also the particular talents of junior and middle managers, technical staff, secretaries, and clerical staff. When job vacancies arise, most companies will try to fill them internally first and look to recruitment only when they need extra numbers or a talent that is lacking among existing staff. Appraising
the staff may be done by the use of psychological tests – in other words, by using psychometric tests – or by annual appraisal interviews. This work is normally carried out in the mother tongue unless there is an international work-force.

If personnel or human resources managers require English training, it is usually because they work in a multinational company and have to attend meetings with their counterparts from other countries to decide on policy. They may also need English to attend training courses abroad or international conferences.

Thus, these learners will want very broad communication skills at an advanced level, especially for listening to talks, discussing problems, and participating in meetings. Sometimes they may want to be able to introduce a consultant at the start of a training session or to chair discussions. They will want to address the issues and problems that most concern them: for example, job motivation, leadership qualities, team building, career development, and job parity.

Finance
The finance department of a big company is normally divided according to different activities and concerns. A clear line can be drawn between accounting and financial planning and control.

Accounting
The majority of finance staff will be employed to deal with day-to-day accounting. At a lowest level, clerical staff deals with payment of invoices, or with issuing of invoices for sales of the company’s products or services. Others calculate all incoming and outgoing transactions and provide information on cash flow. Accounts department have to produce financial reports monthly as well as annually, and accounts from the subsidiaries have to be sent to head office to be consolidated into the accounts of the company as a whole.

Trainers who teach English to accountants and accounts staff will require a basic knowledge of accounting procedures and accounting terms. With job-experienced learners, it is better to find out what procedures the client company uses. Written documents outlining company accounting procedures, as well as examples of accounts, can usually be obtained to help prepare for a specific course. It will be important to acquire a good Business English dictionary, or a dictionary of accounting terms.
Financial control

Financial control functions will include: short and long-term financial planning; investments, movement of capital, acquisitions or sales of assets, calculating return on investment, managing loans, and managing the company pension fund.

The people to be found in these financial control functions will be highly qualified and expert in their own field. They therefore belong more to the technical staff category than the managerial staff category, although of course some eventually become department heads or senior managers.

Production

This department is relevant in companies where there is a physical product, and a manufacturing process is involved in producing it.

There will be a great number of people who are engaged in the physical manufacture of the product. Only where there is a multinational work-force will there be any need for such workers to learn English. A typical example where English is required is within the oil industry. There is often a large number of expatriate workers in oil or gas-processing plants in the Middle East or in the Far East, and locally-employed operatives need to communicate with them to report on and solve production problems. They may also need to follow training in English. Their need will be narrow, highly focused and technical rather than business-oriented.

In most cases, however, it is only the managerial staff who is likely to require English language skills. If a company has overseas plants, managers may be sent from the parent company to oversee the production and make sure that the activities are carried out in line with company policy. Senior managers working overseas may have a lot of social obligations: they will probably be expected to attend formal functions with local dignitaries and government officials, as well as other expatriates such as embassy staff. Thus they will have a need for formal social language such as the language of entertaining.

Other functions that the production manager will be responsible for include setting and meeting of production targets, reviewing budgets and production methods, controlling quality, and improving productivity. In a multinational company, the production manager may need to attend planning meetings in which these areas are discussed. He or she will probably need to report regularly to head office, giving the latest production figures and forecasting the figures
for the coming months. Thus meeting skills and reporting skills will be important, and learners will need to be able to describe trends, forecast, compare targets with actual figures, and describe the causes and effects of problems.

Another area related to production is the field of transport and storage of goods. In the first place, raw materials needed for the process have to be brought to the manufacturing site and stored prior to use. At the other end of the process, the finished goods have to be stored and then transported to the customer, perhaps via an intermediary such as a distributor or retailer. In recent years, transport and storage has become a high-technology activity. With modern computer technology, it is possible to achieve ‘just-in-time’ delivery whereby the storage space and storage time can be limited to the absolute minimum, thus saving costs. A large company may have a logistics department or material-handling department, which deals exclusively with this activity. Purchasers will need to be familiar with the company procedures in order to negotiate favorable delivery terms. Managers will be looking for ways to update the system and streamline the process even further. All employees dealing with this area will need skills for describing process and procedure, and for making comparisons between old and new systems.

This analysis of jobs within a typical company cannot, of course, cover every possibility. We have not attempted to cover specific industries or service sectors, many of which have their own organizational features and a highly specific terminology (for example banking and insurance). However, it is intended that it should provide a framework into which a Business English teacher can fit the knowledge and experience he or she acquires on the job.

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NEW TENDENCES IN EUROPEAN HIGHER EDUCATION

RALUCA OLGUȚA PĂCURARU
raluca_pacuraru@yahoo.com
Spiru Haret University

ABSTRACT. The contemporary society is dominated by a permanent change; therefore, knowledge will become the main resource of the advanced economies. In order to succeed in this environment Europe can only maximizes the talents and capacities of all its citizens and fully engages in lifelong learning as well as in widening participation in higher education. The Bologna Process and the resulting European Higher Education Area, being unprecedented examples of regional, cross-border cooperation in higher education, have raised considerable interest in other parts of the world and made European higher education more visible on the global map.

Introduction

The advance to knowledge society is considered, in the world, as a necessary evolution to ensure the durable development in the context of „new economy”, based mainly on intense-intellectual products and activities, as well as to realize an advanced socio-human civilization.

The rapid changes happened in the society determines a new way to approach the way of thinking about the enterprise and its activity, business, structures, behavior, interpersonal relationship. The administration of resources involves the development of a new management process, to allow the development and maintenance of firm competition. Two fundamental values of the organization – personnel and information and knowledge detained by human resources – should be continuously improved according the expectations of the market, new work relationship and dynamic role of the organization.
in the society. The managers propose themselves more and more to capitalize the existing knowledge at one time, from inside or outside the organization, to solve the complex problems inside the organization, with the purpose to develop the business and maximize the economic efficiency. A natural direction where will lead the strategy of the companies wishing to develop their activity is the continuous training of the personnel. The permanent education could be the answer to the imminent changes at the level of the companies, as well as at the level of the persons wishing to perform in the type of society will follow.

The education should be perceived as an individual necessity in the effort to adapt not only to the national environment, but also to the international one. Now, you should learn to know more then previously, to be able to approach a new education stage. The education should help you to satisfy better your actual needs, to be able to create (because this intercession is better paid), to be able to navigate between occupations and functions, to feel free in the society. Comparing the previous period of time, the education could not offer anymore a qualification for the entire life, but it could sustain you in a present competition, do not guarantee you a permanent place of work, but it can place you on the way to obtain now an adequate place of work.

The Bologna Process

The Bologna Process is named after the Bologna Declaration, which was signed in the Italian city of Bologna on 19 June 1999 by ministers in charge of higher education from 29 European countries. Today, the Process unites 47 countries - all party to the European Cultural Convention.

The Bologna Process is the process of creating the European Higher Education Area (EHEA) and is based on cooperation between ministries, higher education institutions, students and staff from all the 47 countries, with the participation of international organizations.

Every two years there are Ministerial Conferences organized in order to assess the progress made within the EHEA and to decide on the new steps to be taken: Bologna 18-19 June 1999; Prague, 18-19 May 2001; Berlin, 18-19 September 2003; Bergen, 19-20 May 2005;

Bologna Follow-up Group (BFUG) oversees the process between the ministerial conferences and is composed of:
• representatives of the 47 countries belonging to the European Higher Education Area;
• European Commission as additional full member;
• eight consultative members, namely Council of Europe, UNESCO's European Center for Higher Education, European University Association, European Association of Institutions in Higher Education, European Students' Union, European Association for Quality Assurance in Higher Education, Education International Pan-European Structure, and BUSINESSEUROPE.

The Bologna Follow-up Group meets at least once every six-month, is chaired by the country holding the Presidency of the European Union and is supported by a Bologna Secretariat.

From 1 July 2010 onwards, the Bologna Process and also the Bologna Follow-up Group will be jointly chaired by the country holding the Presidency of the European Union and a non-EU country (in alphabetical order, starting with Albania).

The reforms implemented by the Bologna Process are about:
• Easily readable and comparable degrees organized in a three-cycle structure (e.g. bachelor-master-doctorate): Countries were setting up national qualifications frameworks that are compatible with the overarching framework of qualifications for the European Higher Education Area and define learning outcomes for each of the three cycles;
• Quality assurance in accordance with the Standards and Guidelines for Quality Assurance in the European Higher Education Area;
• Fair recognition of foreign degrees and other higher education qualifications in accordance with the Council of Europe/UNESCO Recognition Convention.

The overarching aim of the Bologna Process is to create a European Higher Education Area (EHEA) based on international cooperation and academic exchange that is attractive to European students and staff as well as to students and staff from other parts of the world.
The envisaged European Higher Education Area will
• facilitate mobility of students, graduates and higher education staff;
• prepare students for their future careers and for life as active citizens in democratic societies, and support their personal development;
• offer broad access to high-quality higher education, based on democratic principles and academic freedom.

The External Dimension of the EHEA

The Bologna Declaration (1999) sets out “the objective of increasing the international competitiveness of the European system of higher education” and points out the need “to ensure that the European higher education system acquires a world-wide degree of attraction”.

The reforms will have a strong impact on how European higher education relates to higher education in other parts of the world, which is why in May 2007 in London Ministers have adopted a “Strategy for the European Higher Education Area in a Global Setting”. This strategy proposes key elements, which take both competitiveness and cooperation into account, identifying guiding principles of the Bologna Process and five core policy areas:

1. Improving information on the EHEA;
2. Promoting EHEA to enhance its world-wide attractiveness and competitiveness;
3. Strengthening cooperation based on partnership;
4. Intensifying policy dialogue;
5. Furthering recognition of qualifications.

Of course the whole idea for this “Strategy for the External Dimension” is that all actors at the European, national and institutional levels need to pursue the strategy together.

Bologna work plan 2009-2012

In the Leuven/Louvain-la-Neuve Communiqué (2009), the Ministers responsible for higher education in the countries participating in the Bologna Process identified the following higher education priorities for the coming decade:

• social dimension: equitable access and completion,
• lifelong learning;
• employability;
• student-centered learning and the teaching mission of higher education;
• education, research and innovation;
• international openness;
• mobility;
• data collection;
• multidimensional transparency tools;
• funding.

As part of the 2009-2012 work plan, the Bologna Follow-up Group set up seven working groups on the following topics:
• Social Dimension;
• Qualifications Frameworks;
• International Openness;
• Mobility;
• Recognition;
• Reporting on the implementation of the Bologna Process;
• Transparency mechanisms.

An important characteristic of the Bologna Process - and key to its success - is that it also involves European Commission, Council of Europe and UNESCO-CEPES, as well as representatives of higher education institutions, students, staff, employers and quality assurance agencies.

As full member of Bologna Follow-up Group, The European Commission sets the long-term strategic objectives of EU education and training policies:
• Making lifelong learning and mobility a reality;
• Improving the quality and efficiency of education and training;
• Promoting equity, social cohesion and active citizenship;
• Enhancing creativity and innovation, including entrepreneurship, at all levels of education and training.

The European Commission’s Lifelong Learning Program enables people at all stages of their lives to take part in stimulating learning experiences, as well as helping to develop the education and training sector across Europe.

With a budget of nearly €7 billion for 2007 to 2013, the program funds a range of actions including exchanges, study visits and networking activities. Projects are intended not only for individual students and learners, but also for teachers, trainers and all others involved in education and training.
There are four sub-programs which fund projects at different levels of education and training:

- Comenius for schools;
- Erasmus for higher education;
- Leonardo da Vinci for vocational education and training;
- Grundtvig for adult education.

Conclusions

The European Higher Education Area (EHEA) was launched along with the Bologna Process' decade anniversary, in March 2010, during the Budapest-Vienna Ministerial Conference.

As the main objective of the Bologna Process since its inception in 1999, the EHEA was meant to ensure more comparable, compatible and coherent systems of higher education in Europe. During 1999-2010, all the efforts of the Bologna Process members were targeted to creating the European Higher Education Area, that became reality with the Budapest-Vienna Declaration of March, 2010. The years to come will be aimed at consolidating the EHEA.

In the Leuven/Louvain-la-Neuve Communiqué (April 2009) it is written:

"In the decade up to 2020 European higher education has a vital contribution to make in realizing a Europe of knowledge that is highly creative and innovative... Europe can only succeed in this endeavor if it maximizes the talents and capacities of all its citizens and fully engages in lifelong learning as well as in widening participation in higher education."

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GENERAL THEORETICAL PROBLEMS
CONCERNING PLAYFUL BEHAVIOR

ALEXANDRA VDOVI
alexandravdovi@yahoo.com
Spiru Haret University

ABSTRACT. Modern pedagogy, and especially the active school representatives, believes that the game should be considered as a basis for designing instructional and educational activities as a whole, because the game is the way by which the children have direct contact with the environmental complexity, the children enrich their knowledge and motion scope, get oriented, establish relations, act and react.

Introduction

In the Dictionary of Psychology (1987) U. Schiopu mentions that “the game is the fundamental activity which occurs spontaneously in early human life, and which has the same importance as the learning and work activities, having complex training functions as well.” The game is present regardless of human age, having a polyvalent character: it represents work and art, and also reality and fantasy for the child or, as E. Claparéde said (1934), "game is life itself."

References to the game can be found beginning with ancient Greek works, Aristotle and Plato, but the first researches concerning the game were conducted in the late eighteenth century and in the early nineteenth century. About the same period the first theories about the nature and the role of the game were outlined.
Role of the game in child’s psychic behavior

W.F. Froebel is one of the first supporters of the game in the child's education. He developed educational curriculum vitae having as a basic element the game and the so-called endless childhood toys: the balls, the game tray tables, the sand, the clay, etc. All these accompany children throughout their childhood. Froebel considered that the game reveals the child’s personality, thinking, and feelings. In his view, the purpose of education can be best achieved through play, because play is what makes the child understand reality.

The game has always been regarded as one of the most appropriate means of education, especially for small children, being extremely useful even within the family.

Many progressive educators of the past, studying child psychology in depth, concluded that the game is a form of free activity by which children develop their creative abilities and learn to discover their own capabilities, too.

Modern pedagogy, and especially the active school representatives, believes that the game should be considered as a basis for designing instructional and educational activities as a whole, because the game is the way by which the children have direct contact with the environmental complexity, the children enrich their knowledge and motion scope, get oriented, establish relations, act and react.

Over the years, the psychologists have explained in different ways the origin, the nature, the reasons and the function that the game plays in the child’s life and in his/her overall psychological development.

The game is the child’s form of manifestation which meets the highest level of his/her needs.

The game represents the basic type of activity of the child, because it is under its influence that his/her entire psychic activity is formed, developed, and restructured. Through the game significant changes occur, thus, the child prepares for the transition to a new stage in his/her ontogenetic development. During the game, the child acquires much and varied knowledge about the environment, this way developing the mental processes of the direct and immediate reflection of reality: perceptions, representations, memory, imagination, thinking, language, etc.

By handling different objects and materials the child develops the perceptions of size, shape, color, weight, distance, etc. On the other
hand, the actions of game of an object kind; constitute the instrument through which the analysis and the synthesis of the characteristics of the objects mentioned above are accomplished directly and immediately. The same way, through the game, the representations are stated and differentiated, because before the child plays a role, he/she represents to himself the human actions, their conduct and manifestations. Updating the representations and recombining them in the games with subjects contribute to the development of the reproductive imagination and of the creative one, too. In addition, the memory processes (exact representation, recognition, reproduction), and also the thinking operations are better performed by children with mental deficiencies by game than in other conditions. In close connection with other knowledge processes, the child’s language is also developed by game. The same as there are no games without movement or action, there are no games without verbal reactions. The game, and especially the collective one, is an important means not only of the manifestation, but also of the structuring of the socio-moral emotions and feelings. At the same time, the game contributes to the development of the voluntary behavior and of the traits of character.

The game teaches the child to set a goal, to make voluntary efforts to achieve it, to overcome the obstacles arising in the way, to follow the rules, to control their desires, to persevere in carrying out the role. The game plays a major role in the child's psychic development, but at the same time the game develops itself, becoming a more complex form of activity in the process. Due to the changes occurring in the child’s psyche, the game has some characteristic features. The game development from one psychogenetic stage to the other is not done by itself, but under the adult’s influence the child starts with simple games, in which the reproduction of the external appearance of the actions is stressed, and finally reaches complex games, in which the social relationships between people and the social human significance of the adult activity are reflected.

It should also be noted that, indeed, the game influences the child’s education and development, but it, in its turn, is also influenced by the process of training and education. Thus, if during the first years of life the child becomes familiar directly and freely with the environment through the game, later, the various games organized by the educator will put a strong influence upon his/her physical and mental development. The adult is the one who has to
continually enhance the child's playful work, by shaping the child’s ability to differentiate between right and wrong, between what is fair and what is unfair.

On the other hand, the game is also a means of recovery and creative application of the acquired knowledge, a means of verifying your own psychic, intellectual, and motion skills.

As the education process evolves to perfection, and the child develops physically and mentally, the share of the game elements in his/her activity decreases, and instead more and more educational games make way. Speaking about the educational games U. Schiopu stated that they “educate attention, the physical and intellectual abilities, perseverance, promptness, the team spirit, the spirit of order, the resolution; they shape the ethical dimensions of behavior.”

The educational games are a form of activity which solves one or more tasks by combining the teaching techniques with the game element in order to achieve these tasks. They may take different forms depending on the lesson or on the school subject. But in all types of educational games they create an intrinsic motivation, full of initiative and activism, and the children acquire knowledge and skills in a pleasant, relaxing way, without a conscious effort. Every educational game has to have an educational purpose, to include an instructive component, to combine educational elements with fun elements, to put into practice the knowledge and the skills already acquired, the spontaneity, the resourcefulness, to include surprise elements, of competition, of communication between partners, so as to lead to the emergence of complex emotional states that enhance the processes of direct and immediate reflection of reality.

For best results in teaching, the teacher ought to consider the following elements which distinguish the educational games from other ones:

1. The game content should relate to the children’s knowledge that they had acquired previously and that they should update or enhance;
2. The teaching objective should be introduced as a problem of thinking, of recognizing, of renaming, of a classification, of a reconstruction, of a riddle, etc.;
3. The rules of the game must satisfy an important function regulating the relations between children, showing them how to play, how to meet the teaching objective;
4. The game action, which includes the moments of waiting, of surprise, of guessing, of competition, etc., should make the solving the teaching objective pleasant and attractive to all students.

The playing activity is present in the structure of the teaching activity under the form of the educational or of the exercise game, but also under the form of the relaxing game that can be used during a lesson after certain moments of extreme concentration, aiming to relax and prepare in terms of energy for other moments of intellectual or physical effort. These types of exercises are extremely useful in the activities with children in primary school.

Conclusions

Playing, especially in childhood, makes a difference in the education of attention, of the will, of the physical and intellectual abilities, of some traits of character such as perseverance, promptness, fastness in decision making. Children will thus feel the freedom of action, the joy of the game itself and the motivation for an alternative activity which often bears compensation facets, ensuring the maximum development of the existing potential.

REFERENCES


